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# Why horizontalism

**Cameron Domenico Kirk-Giannini**[1]

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**Abstract** *Horizontalism* is the thesis that what a speaker asserts in literally and sincerely uttering an indicative sentence is some horizontal proposition of her utterance; *diagonalism* is the thesis that what a speaker asserts in literally and sincerely uttering an indicative sentence is some diagonal proposition of her utterance. Recent work on assertion has reached no clear consensus favoring either horizontalism or diagonalism. I explore a novel strategy for adjudicating between the two views by considering the advantages and disadvantages which would accrue to a linguistic community as a result of adopting different committal practices—that is, practices of associating utterances with the propositions to which speakers undertake assertoric commitments in uttering them—ultimately concluding that a horizontalist practice has important advantages over its competitors.

**Keywords** Pragmatics · Speech act theory · Assertion

## 1 Introduction

Death is an occasion for philosophical reflection. Consider:

> **[Sherlock]:** *A terrible scream—a prolonged yell of horror and anguish burst[s] out of the silence of the moor.*[1] Holmes runs towards the source of the

[1] Conan Doyle (1902, 189). Devoted fans will, I hope, excuse philosophically motivated alterations of the plot.

✉ Cameron Domenico Kirk-Giannini
camerondomenico.kirkgiannini@gmail.com

[1] Department of Philosophy, Rutgers University–Newark, 430 Conklin Hall, 175 University Avenue, Newark, NJ 07102, USA

> sound. Watson, never quite his companion's equal, trails behind. There has been foul play, both men are convinced, and the victim is either Baskerville or Selden. Reaching the scene of the incident well before Watson, Holmes discovers a body he recognizes as Selden's at the base of a cliff. "He's fallen quite a distance!", he calls over his shoulder to Watson, who has not yet come close enough to observe the body himself.

[SHERLOCK] contains two puzzles—one for the detective, and one for the philosopher. The detective's puzzle is, of course, the identity of the criminal who set his hound on Selden, causing him to plunge to his death as he fled in terror. The philosopher's puzzle, which is equally difficult though perhaps less obvious, concerns Holmes's utterance. For when Holmes utters "He's fallen quite a distance!", he does so knowing that Watson is in no position to identify the referent of the pronoun 'He' (though Watson knows it is either Selden or Baskerville). And Watson knows that Holmes knows this; in fact, it is common ground between the two that, for all Watson knows, Holmes's 'He' might refer to Baskerville and might refer to Selden. So [SHERLOCK] has the following general structure: a sentence containing a context-sensitive lexical item is uttered assertorically when it is common ground between the utterer and his interlocutor that the latter is ignorant of features of the context relevant to the determination of the semantic value of that lexical item.

What, then, is the propositional content Holmes asserts in uttering "He's fallen quite a distance!"? According to one kind of answer, to which we may pre-theoretically refer as *horizontalist*, since Holmes sees that the body is Selden's and intends in uttering 'He' to refer to Selden, he asserts the proposition *that Selden has fallen quite a distance*. According to a competing kind of answer, to which we may pre-theoretically refer as *diagonalist*, since it is common ground between Holmes and Watson that Watson is not in a position to determine which individual Holmes intends to refer to in uttering 'He', Holmes does not assert the proposition *that Selden has fallen quite a distance*; instead, he asserts something more like the proposition *that the individual to which he intends to refer has fallen quite a distance*. These are different propositions: the second, but not the first, is true in possibilities where the body on the moor which prompts Holmes's utterance is Baskerville's rather than Selden's.[2]

The question of which proposition Holmes asserts in uttering "He's fallen quite a distance!" should be distinguished from the question of which proposition the grammar of English assigns to the sentence "He's fallen quite a distance!" as uttered in the context described in [SHERLOCK]. Fixing an answer to the latter question—for example, by holding that context determines the semantic value of

[2] To say that Holmes *asserts* a given proposition is not to say that Watson *learns* that proposition from Holmes's utterance. The proposition Watson learns from Holmes's utterance may or may not be the same as the proposition Holmes asserts—I do not wish to take a stand on this issue. For those to whom assertion-talk does not come naturally, the difference between the horizontalist and diagonalist answers can to an extent be appreciated by considering the question of what Holmes *tells* Watson in [SHERLOCK], though, again, this question must be distinguished from the question of what Watson comes to believe on the basis of this telling.

'He' so that it refers to whomever the speaker has in mind while speaking—does not yet fix an answer to the former. It *may* be that Holmes asserts whatever proposition the grammar of English assigns to the sentence he utters relative to the context in which he utters it. But it may also be that what Holmes asserts is more loosely connected to the grammar of English; in what follows, I will consider a number of ways in which a looser connection might be realized.[3] For this reason, two theorists who agree about the grammar of English might nonetheless disagree about the correct answer to the philosopher's puzzle.[4]

Indeed, it may be that, as Lewis (1980) and others have argued, the grammars of natural languages do not in fact determine unique propositional contents for sentences in contexts—it may be that they determine only functions from indices to truth values. The intelligibility of this possibility renders especially vivid the point, made variously by Dummett (1991), Ninan (2010), and Rabern (2012), that a theory of the grammatical dependence of semantic content on context (a theory which belongs to the domain of semantics) is not ipso facto a theory of assertoric content (a theory which belongs to the domain of pragmatics).[5]

In the years since Stalnaker (1978) first popularized the idea that the theory of assertoric content could be developed in relative isolation from semantic theory, work on assertion has reached no clear consensus favoring either the horizontalist or the diagonalist answer to the philosopher's puzzle. Lewis (1980) is sensitive to the distinction between the two, but does not take a stand concerning which of them (if either) is correct. Rabern (2012) assumes that the horizontalist answer is correct. Stojnić (2017) extends an argument due to Soames (2002) favoring the horizontalist answer over the diagonalist. Stalnaker (1978, 2014), meanwhile, argues in favor of the diagonalist answer. His arguments are criticized by Hawthorne and Magidor (2009, 2010) and defended by Almotahari and Glick (2010).

In what follows, I present a number of arguments which bear on the debate between horizontalists and diagonalists in a novel way. It is a platitude that, in

[3] Indeed, with the exception of what in Sects. 2 and 3 I will call (Nondefective Objective Horizontalism) and (Objective Horizontalism), every way of associating utterances with assertoric contents considered below is one according to which the assertoric content of an utterance can diverge from its grammatically determined content.

[4] This is not to say that any two theorists who disagree about the correct answer to the philosopher's puzzle must agree about the grammar of English. Disagreement about the correct answer to the philosopher's puzzle could be rooted in disagreement at any of a number of levels: disagreement about the meanings of the context-insensitive lexical items which occur in Holmes's utterance, for example, or disagreement about how the context of Holmes's utterance determines the semantic value of the pronoun 'he' (that is, disagreement about the correct *metasemantics* for deictic pronouns in English—see footnote 10 below). The point I wish to register is simply that two theorists might disagree about the correct answer to the philosopher's puzzle solely in virtue of disagreeing about the correct theory of assertion; that is, that agreement about grammar (construed so as to incorporate both semantics and metasemantics) does not suffice for agreement about the correct answer to the philosopher's puzzle. This more modest claim is all I need to motivate the discussion which follows. Thanks to an anonymous referee for pressing me to clarify this point.

[5] Thanks to an anonymous referee for pressing me to clarify this point.

asserting a proposition, one thereby undertakes a commitment to its truth.[6] My strategy, then, is to hold fixed the idea that the assertoric content of an utterance is the content to which a speaker undertakes a commitment in producing that utterance, considering the horizontalist and diagonalist answers to the philosopher's puzzle in terms of the communal practices of undertaking assertoric commitments which they suggest. For if assertion is a device for undertaking commitments, then competing accounts of assertoric content entail competing claims about the propositions to which speakers undertake commitments by asserting.

When I speak of the communal practice of undertaking assertoric commitments associated with a particular theory of assertoric content, I mean the systematic way in which speakers in a community would take one another to have undertaken assertoric commitments to particular propositions if the theory of assertoric content in question correctly described that community. Thus the communal practice of undertaking assertoric commitments associated with the horizontalist answer to the philosopher's puzzle has Holmes undertaking a commitment to the proposition *that Selden has fallen quite a distance* when he asserts in [SHERLOCK], while the communal practice of undertaking assertoric commitments associated with the diagonalist answer has him undertaking a commitment to the proposition *that the individual to which he intends to refer has fallen quite a distance*. The idea is that a theory of assertoric content, though statable simply as a rule for associating propositions with utterances, makes predictions about certain aspects of the the behavior of communities of speakers. In light of this connection, I will move freely in what follows between talking about theories of assertion as rules for associating propositions with utterances and talking about them in terms of the committal practices communities would enact if they were governed by those rules.[7]

If certain possible committal practices offer a linguistic community advantages as compared to others, this gives us some reason to expect that existing linguistic communities implement those practices. So, if it can be shown that a horizontalist committal practice offers advantages over a diagonalist one, we have some reason to expect that the horizontalist answer to the philosopher's puzzle is correct. Matters are complicated by the fact that, once one embarks on the project of assessing the advantages and disadvantages of possible committal practices, it quickly emerges that the menu of options is rather more extensive than my preliminary exposition of the philosopher's puzzle in terms of the horizontalist and diagonalist answers suggests. Nevertheless, I will attempt to show that a committal practice which

[6] It is sometimes suggested that this is not a platitude, and that Stalnaker rejects the view that assertion is a committal speech act, on the grounds that he occasionally theorizes about non-committal speech acts, such as hypothetical reasoning and plan formation, along with assertion. Though the Stalnakerian framework is useful for modeling these other speech acts, and though Stalnaker himself seldom writes about commitment, it is a misreading of Stalnaker to attribute this view to him. He makes this clear in a number of places. For example: "I should emphasize that I am not claiming that one can *define* assertion in terms of a context-change rule, since that rule will govern speech acts that fall under a more generic concept. A full characterization of what an assertion is would also involve norms and commitments." (2014, 89).

[7] Thanks to an anonymous referee for pressing me to clarify this point.

corresponds to the horizontalist answer has important advantages over its competitors.

## 2 Committal practices introduced

To solve the philosopher's puzzle is to identify the content of Holmes's assertion in [SHERLOCK]. I have proposed that one strategy for doing this is to assess the relative merits of the various committal practices a linguistic community might adopt. Before such comparisons can be made, however, we must have a more detailed understanding of what a committal practice is, as well as of the space of possible committal practices. The purpose of this section is to introduce the theoretical notions required to define various committal practices, as well as to present four simple practices, three of which will then be generalized in the next section.

As I will understand them, committal practices are ways of associating a *grammar* with a *social practice of asserting*.

A grammar—for our purposes, a function from sentence/context/world triples to truth values—is a useful thing.[8] For suppose a linguistic community has settled on a grammar. Because every utterance is an utterance of a particular sentence in a particular extralinguistic context, a grammar determines a function from utterances to the propositions (functions from possible worlds to truth values) they grammatically determine.[9] This means that members of the community can exploit shared information about their grammar and about relevant features of the extralinguistic contexts in which utterances are produced to raise to salience certain propositions which would otherwise have been extremely difficult to coordinate on doxastically.[10]

A social practice of asserting—of producing an utterance in order to undertake a certain kind of commitment to the truth of a proposition—is a useful thing. For suppose a linguistic community has adopted such a practice. Then interlocutors can

[8] I thus set aside for the sake of simplicity proposals, like that of Lewis (1980), on which the grammar of language is a function from ordered $n$-tuples (with $n$ greater than 3) to truth values. Everything I say in what follows is compatible with such proposals, except that the procedures for recovering the horizontal and superdiagonal propositions of an utterance given below must be revised to account for the additional complexity of the underlying grammar.

[9] There is a small literature concerning cases in which the passage from utterance to extralinguistic context is unusual, as in the so-called "answering machine paradox" [see, for example, Sidelle (1991) and Predelli (1998)]. We need not be overly concerned about such cases in what follows, however, since it is a criterion of adequacy for any theory of them that it show how, in everyday cases like the ones at issue here, we can move from a given utterance to the context in which it was produced.

[10] How exactly does a context determine which proposition is grammatically associated with a given sentence? Borrowing terminology from King (2014), let us refer to this question as the question of the *metasemantics* of context sensitivity. Though in what follows I will sometimes write as if I take for granted an intentionalist metasemantics according to which the propositions grammatically associated with sentences containing demonstratives and deictic pronouns are determined by the referential intentions (and perhaps also gestures) of the speakers who utter them, this is an issue on which I do not wish to take a stand. Because they concern assertoric content rather than semantics, my arguments in what follows are compatible with any plausible metasemantics for context-sensitive vocabulary. Thanks to an anonymous referee for pressing me to clarify this point.

do more than merely raise to salience certain propositions: they can *describe* the world to one another.

A complete account of a social practice of asserting must consist of (at least) two parts: first, a specification of the speech acts available to participants in the practice for undertaking assertoric commitments to various propositions; second, a description of the normative status of being assertorically committed to the truth of a proposition. The general shape of the first of these parts is familiar: the acts in question are sincere utterances of sentences in the indicative mood. The work of a committal practice is to pair such sincere utterances with the propositions to which speakers commit themselves by performing them. Any interesting committal practice will be such that the proposition associated with an utterance is systematically related to the sentence uttered, the context in which the utterance is produced, and the grammar the community has adopted; what distinguishes various practices is what they take this systematic relation to be, and whether any additional factors are relevant.[11]

About the normative status of being assertorically committed to the truth of a proposition, I hope I will be excused for saying little. A satisfying account of such a normative status would characterize the conditions under which one who assumes it is deserving of praise and blame, and might also show how its existence is grounded in facts about what speakers collectively believe and intend, or about how they are disposed to reward and punish one another. Answering these questions is beyond the scope of my discussion here. For my purposes in what follows, it will suffice to point out that the status of being committed to the truth of a proposition in the manner peculiar to assertion is not the same as the status of being responsible for having intentionally produced belief in that proposition in some audience. I understand this as a descriptive claim; I will shortly present my reasons for endorsing it. It is worth pointing out, however, that there is a corresponding theoretical question: the question of what it is in virtue of which the two levels of commitment differ. Answering this question would require giving a metaphysical account not only of the normative status of being assertorically committed to the truth of a proposition but also of the normative status of being responsible for having intentionally produced belief in a proposition. Again, though this is an interesting question, it is beyond the scope of my discussion here to answer it. Let us turn now to the descriptive question of whether assertoric commitment outstrips mere responsibility for having produced a belief.[12]

To see that the kind of commitment associated with assertion goes beyond the kind of commitment associated with mere intentional communication, consider the intuitive contrast between cases in which a speaker deliberately asserts a false proposition and cases in which she merely intentionally communicates the same

[11] In what follows I will assume, along with most others who have written on assertion, that an utterance is associated with at most one assertoric content. For an alternative picture, according to which assertion must be modeled as a relation between utterances and contents rather than as a function from utterances to contents, see Soames (2005).

[12] Thanks to an anonymous referee for pressing me to distinguish between this descriptive claim and the corresponding theoretical question.

proposition. If I yawn and thereby deliberately produce in you a false belief that I am tired, I am perhaps deserving of blame. But if I *testify* to you that I am tired, in addition to whatever blame I deserve for intentionally communicating a falsehood, I am also blameworthy for lying, speaking falsely, and so forth. Similarly, if I praise a candidate's handwriting and thereby deliberately produce in you a false belief that he or she lacks philosophical promise, I am deserving of blame. But if I actually *testify* to you that the candidate lacks philosophical promise, in addition to whatever blame I deserve for intentionally communicating this falsehood, I am also blameworthy for defaming the candidate. With greater commitment comes greater liability to punishment: as a moral and linguistic community, we respond to defamation with much more serious censure than we do to the implication or insinuation of false and harmful propositions, and, more generally, to lying with much more serious censure than to merely misleading. Correspondingly, the availability to speakers of certain defense strategies in the face of criticism (e.g. "Don't accuse me of lying—I never *claimed* that *p*; at most I suggested it!") tracks the difference in seriousness between genuine assertoric commitment and mere intentional communication.[13,14]

A linguistic community which has settled on a grammar and wishes to institute a social practice of asserting is faced with an important decision. For, while we may assume that members of the community are certain about which grammar they have settled on, they will often *not* be certain about the features of particular contexts of utterance to which their grammar is sensitive. Moreover, this uncertainly will often be obvious to all interlocutors in a conversation: it will often be *common ground* that certain interlocutors are uncertain about relevant features of the context in which an utterance is produced.[15]

In such cases, a speaker's utterance at a given world is associated with multiple salient propositions. One is the proposition the grammar assigns to the utterance when we feed it the sentence uttered and the context in which it was uttered at the world in question. Let us call this the *horizontal proposition* of the utterance.[16] Another is the proposition we get by feeding the grammar the sentence uttered and then: for each world at which the utterance exists, feeding in that world and the

[13] See Sect. 6 for an application of this observation.

[14] Note that the claim that the commitment involved in genuine assertion goes beyond the commitment involved in mere intentional communication is consistent with attempts to analyze assertion at least partly in terms of intentional communication. In the Gricean tradition, for example, what a speaker means in performing a communicative act is defined partly in terms of what she thereby intends to communicate, and what a speaker says in producing an utterance (which for our purposes we may understand to be equivalent to what she asserts) is defined partly in terms of what she means in producing that utterance. This sort of view can be reconciled with the intuitive attractiveness of holding that speakers are more strongly committed to what they assert than to what they (for example) conversationally implicate as long as we think that the extra conditions which must be met for a proposition to be said rather than merely meant can be relevant to the level of commitment a speaker undertakes in putting it forward.

[15] I will understand the common ground of a conversation at a time to be the set of propositions all interlocutors take for granted for the purposes of the conversation at that time.

[16] More precisely, if $G$ is the grammar, $s$ is the sentence uttered, and $c_w$ is the context in which it is uttered in $w$, the horizontal proposition of the utterance at $w$ is the set of worlds $w'$ such that $G(\langle s, c_w, w' \rangle) = 1$.

context in which the utterance is produced at that world, and collecting up the worlds at which the result of this process is the True. Let us call this the *superdiagonal proposition* of the utterance.[17,18] A third is the intersection of the superdiagonal proposition with the *context set* of the conversation—that is, the set of worlds which are taken by all interlocutors to be live possibilities for the purposes of the conversation (equivalently, the set of worlds at which every proposition in the common ground is true). Let us call this the *contextual diagonal proposition* of the utterance. The decision our imagined linguistic community must make is whether, in such circumstances, to hold speakers primarily responsible for the truth of the horizontal propositions, the superdiagonal propositions, or the contextual diagonal propositions expressed by their utterances. In other words, the decision our linguistic community must make is between:

**(Nondefective Objective Horizontalism)** For all conversations $c$, utterances $u$, speakers $s$, and worlds $w$: If $c$ is nondefective at $w$,[19] and if $s$ assertively utters $u$ in $c$ at $w$, then the object of $s$'s assertoric commitment in uttering $u$ is the horizontal proposition expressed by $u$ at $w$.

**(Nondefective Superdiagonalism)** For all conversations $c$, utterances $u$, speakers $s$, and worlds $w$: If $c$ is nondefective at $w$, and if $s$ assertively utters $u$ in $c$ at $w$, then the object of $s$'s assertoric commitment in uttering $u$ is the superdiagonal proposition expressed by $u$.

**(Nondefective Contextual Diagonalism)** For all conversations $c$, utterances $u$, speakers $s$, and worlds $w$: If $c$ is nondefective at $w$, and if $s$ assertively utters $u$ in $c$ at $w$, then the object of $s$'s assertoric commitment in uttering $u$ is intersection of the superdiagonal proposition expressed by $u$ and the context set of $c$ at $w$.

If we allow that the context set of a conversation at a world may fail to include that world, the possibility arises that it could be common ground at a world $w$ that an utterance expresses a horizontal proposition which it does not in fact express at $w$. Thus we should also acknowledge the coherence of a further committal practice:

**(Nondefective Subjective Horizontalism)** For all conversations $c$, utterances $u$, speakers $s$, and worlds $w$: If $c$ is nondefective at $w$, and if $s$ assertively utters

[17] More precisely, if $f$ is the function which maps each utterance/world pair $\langle u, w\rangle$ to the context $c_w$ in which $u$ is uttered at $w$, then the superdiagonal proposition of an utterance $u$ of a sentence $s$ is the set of worlds $w$ such that $G(\langle s, f(\langle u, w\rangle), w\rangle) = 1$.

[18] The truth-values of the superdiagonal proposition of an utterance at different worlds are always calculated with reference to the grammar $G$ actually in use by the community. A distinct proposition, which we may call the *hyperdiagonal*, is definable by feeding each world, sentence, and utterance context into the grammar in use by the community in which the utterance is produced at that world. The superdiagonal and hyperdiagonal propositions of an utterance $u$ at a world $w$ may differ in truth-value at worlds where that utterance is produced in a community with a grammar distinct from the grammar of the community in which it is produced at $w$. Nevertheless, since the distinction between the superdiagonal proposition of an utterance and its hyperdiagonal proposition does not affect the plausibility of any of the arguments in what follows, I will suppress it for the purposes of this article.

[19] A conversation is *nondefective* at a world iff at that world all interlocutors take the same propositions for granted for the purposes of the conversation.

> *u* in *c* at *w*, and if there is a unique proposition *p* such that it is common ground at *w* that *p* is the horizontal proposition expressed by *u*, then *p* is the object of *s*'s assertoric commitment in uttering *u* at *w*.[20]

Except in special cases, (Nondefective Objective Horizontalism) and (Nondefective Superdiagonalism) will assign different assertoric contents to a given utterance.[21] Similarly, unless the common ground of the conversation in which an utterance occurs is empty (so that its context set is the set of all worlds), (Nondefective Contextual Diagonalism) and (Nondefective Superdiagonalism) will generally assign different assertoric contents to a given utterance. Analogous remarks apply to (Nondefective Subjective Horizontalism) vis-à-vis our three other committal practices.

Nevertheless, when a true proposition characterizing the horizontal proposition expressed by an utterance is part of the common ground of the conversation in which that utterance occurs—so that, for example, it is both true and presupposed that when the speaker utters 'He is from Argentina', her 'He' refers to Smith—all four of the committal practices described above agree on which worlds in the context set of the conversation are compatible with the utterance's assertoric content. For this reason, we must distinguish between the question of which proposition a committal practice pairs with a given utterance, on the one hand, and the question of how that committal practice predicts the content of the utterance in question would change the context set if accepted, on the other. My arguments in what follows aim to show that communities can have reason to favor one committal practice over another even though, under certain circumstances, both answer this second question in the same way.[22]

[20] If, following Lewis (1975), we think of a community as having coordinated on a grammar just in case it obeys a convention of truthfulness and trust in the deliverances of that grammar, then we must regard facts about whether sentences are taken to express truths in contexts at worlds as explanatorily prior to facts about the grammars of communities. In that case, it may seem to make little sense to assume that a community has coordinated on a grammar and then ask how members of that community use that grammar to assign assertoric contents to utterances.

But one can maintain that something like conventions of truthfulness and trust suffice to determine the grammar of a community without conceding the incoherence of questions about committal practices. Suppose, for example, that the grammar on which a community has coordinated is determined by the linguistic behavior of its members in a restricted class of situations where the common ground between interlocutors is minimal and there is no ignorance about the contexts in which utterances are produced. While it would then arguably be incoherent to suppose that the community adopts a committal practice which conflicts in some sense with its linguistic behavior in this class of situations, we can coherently imagine that it might adopt various committal practices which differ with respect to assertions taking place in less ideal situations. Indeed, this is exactly where most of the committal practices discussed here do differ. Thanks to John Hawthorne for pressing this objection.

[21] Special cases include, for example, utterances of sentences like 'That is non-self-identical', which express necessary falsehoods however the context sensitivity of their lexical items is resolved.

[22] Thanks to an anonymous referee for pressing me to clarify this point.

## 3 Six practices

For reasons which will become clear in the next section, the fact that the committal practices introduced so far are defined only when the conversation is nondefective is undesirable. Setting aside this idealization, then, our imagined linguistic community must choose between a larger family of possibilities. First, there is a generalization of (Nondefective Objective Horizontalism):

> **(Objective Horizontalism)** For all utterances *u*, speakers *s*, and worlds *w*: If *s* assertively utters *u* at *w*, then the object of *s*'s assertoric commitment in uttering *u* is the horizontal proposition expressed by *u* at *w*.

Second, there are two generalizations of (Nondefective Subjective Horizontalism):

> **(Speaker-centered Horizontalism)** For all utterances *u*, speakers *s*, and worlds *w*: If *s* assertively utters *u* at *w*, and if there is a unique proposition *p* such that *s* takes for granted for the purposes of the conversation at *w* that *p* is the horizontal proposition expressed by *u*, then *p* is the object of *s*'s assertoric commitment in uttering *u*.
>
> **(Audience-centered Horizontalism)** For all conversations *c*, utterances *u*, speakers *s*, and worlds *w*: If *s* assertively utters *u* in *c* at *w*, and if there is a unique proposition *p* such that every member of *c* other than *s* takes for granted for the purposes of the conversation at *w* that *p* is the horizontal proposition expressed by *u*, then *p* is the object of *s*'s assertoric commitment in uttering *u*.

Then there is the corresponding generalization of (Nondefective Superdiagonalism):

> **(Superdiagonalism)** For all utterances *u*, speakers *s*, and worlds *w*: If *s* assertively utters *u* at *w*, then the object of *s*'s assertoric commitment in uttering *u* is the superdiagonal proposition expressed by *u*.

Since in normal cases it will be transparent what the superdiagonal proposition expressed by an utterance is, the speaker- and audience-centered versions of superdiagonalism are not of sufficient interest to merit independent consideration.[23] Finally, there are two generalizations of (Nondefective Contextual Diagonalism):

> **(Speaker-centered Contextual Diagonalism)** For all conversations *c*, utterances *u*, speakers *s*, and worlds *w*: If *s* assertively utters *u* in *c* at *w*, then the object of *s*'s assertoric commitment in uttering *u* is the intersection of

[23] Of course, in cases where there is ignorance about what property is denoted by a predicate, or about the Kaplanian character of a context-sensitive expression, there will be uncertainty about which superdiagonal proposition is expressed. For example, an utterance of 'ophthalmologists are eye doctors' in English expresses a necessarily true superdiagonal but a contingent hyperdiagonal. So there is some reason to distinguish between speaker- and audience-centered versions superdiagonalism. Nevertheless, since we have assumed that interlocutors have coordinated on a grammar, and since the speaker- and audience-centered versions of (Superdiagonalism) are subject to many of the same criticisms as (Superdiagonalism), I omit further discussion of them in what follows.

the superdiagonal proposition expressed by *u* with what, at *w*, *s* takes the context set of *c* to be.

**(Audience-centered Contextual Diagonalism)** For all conversations *c*, utterances *u*, speakers *s*, and worlds *w*: If *s* assertively utters *u* in *c* at *w*, and if there is a unique set of worlds *p* such that every member of *c* other than *s* takes for granted for the purposes of the conversation at *w* that *p* is the context set of *c*, then the object of *s*'s assertoric commitment in uttering *u* is the intersection of the superdiagonal proposition expressed by *u* with *p*.

Because there is no objective fact of the matter about the context set of a conversation when it is defective, there are only speaker- and audience-centered versions of contextual diagonalism.

Each of the six labeled propositions just introduced describes a committal practice on which a linguistic community could conceivably coordinate. They do not, of course, jointly exhaust the theoretically possible committal practices a community could adopt. Speakers could, for example, undertake commitments to the horizontal propositions of their utterances at arbitrary worlds outside the context set, or to any of the various diagonal propositions of their utterances (that is, the propositions which agree with the superdiagonal over the context set at the world of utterance but potentially diverge from it elsewhere). But they do capture what I take to be the most theoretically appealing options.[24] In what follows, I argue that (Objective Horizontalism) has distinctive advantages over its competitors. In particular, I argue that the committal practice described by (Objective Horizontalism) is *general* and *useful*, and that it can naturally be extended into a practice governing the use of optative constructions.

## 4 Generality

A practice of holding speakers accountable for the contents of their utterances is *general* to the extent that it issues verdicts about a variety of cases—that is, to the extent that the rule which characterizes that practice assigns assertoric contents to a wide variety of utterances. One such practice is *strictly less* general than another just in case the latter (1) issues verdicts about every case about which the former issues verdicts, and (2) issues verdicts about some cases about which the former does not issue verdicts. Similarly, one committal practice is *loosely less* general than another

[24] It may seem that I have neglected to mention two important further options: first, that a speaker is committed to the conjunction of the propositions *newly entailed* by the context set when it is updated with the superdiagonal proposition of her utterance; second, that a speaker's assertoric commitment is determined by some disjunctive rule (for example, Stalnaker's (1978) proposal that one asserts the horizontal proposition of one's utterance in some circumstances and a diagonal proposition in others). The first of these options is, however, illusory. Given that the conjunction of the superdiagonal and the context set will itself be newly entailed by the context set after updating, and given that it is the strongest such proposition, what seems at first to be a further option is in reality equivalent to (Nondefective Contextual Diagonalism). The possibility of a disjunctive committal practice with be discussed in Sect. 9 below.

just in case the latter issues verdicts about a wider range of practically significant cases than the former.

Committal practices which assume a nondefective conversation are less general than the others we have considered so far, since the rules which characterize them do not assign assertoric contents to utterances produced in defective conversations. In particular, (Nondefective Objective Horizontalism) and (Nondefective Superdiagonalism) are strictly less general than (Objective Horizontalism) and (Superdiagonalism), respectively, and (Nondefective Contextual Diagonalism) is strictly less general than its speaker- and audience-centered generalizations. (Nondefective Objective Horizontalism) is also loosely less general than (Speaker-centered Horizontalism) and (Audience-centered Horizontalism), in so far as cases in which a conversation is defective are considerably more common than cases in which there is uncertainty across the context set about which horizontal proposition is expressed by an utterance.

Similarly, audience-centered committal practices are strictly less general than (Objective Horizontalism) and (Superdiagonalism), as well as loosely less general than speaker-centered practices, in so far as cases where the audience consists of two or more individuals who take different propositions for granted for the purposes of the conversation are considerably more common than cases in which a speaker's own presuppositions fail to determine a unique horizontal proposition for her utterance or context set for her conversation.

(Speaker-centered Horizontalism) fails to be general, in so far as there may not be a unique possible-worlds proposition which the speaker takes to be the horizontal proposition of her utterance. If, for example, a speaker has formed the mistaken belief that Diana, Princess of Wales and Catherine, Duchess of Cambridge are one and the same, and if this speaker points at Catherine and exclaims "She's a national treasure!", then there is no unique possible-worlds proposition which she takes to be the horizontal proposition of her utterance: instead, there are two equally good candidates between which she fails to distinguish.[25]

(Speaker-centered Contextual Diagonalism) may be subject to the same kind of difficulty, since a speaker who is, for example, struck by lightning, and who forgets the recent history of an ongoing conversation in which she is participating, may suspend judgment about the common ground of that conversation. But intuitions about such cases are mixed: perhaps such a speaker takes for granted after the lightning strike that the common ground consists of whatever propositions she still takes for granted, given that these can be expected to also be taken for granted by her interlocutors. Since I do not wish to take sides in this debate, I will simply assume that (Speaker-centered Contextual Diagonalism) fares better with respect to generality than (Speaker-centered Horizontalism).

[25] I do not wish to deny that (in some sense) the speaker in this case takes the possible-worlds proposition that Catherine is a national treasure to be the horizontal proposition of her utterance; my point is that she does not take this proposition */rather than the proposition that Diana is a national treasure/* to be the horizontal proposition of her utterance, because she does not distinguish between the two propositions. Thanks to John Hawthorne and Jeff King for helpful discussion of this case.

## 5 Utility I: non-eliminativity and unintentional liability

Assertion is an indispensable part of inquiry. At the same time, assertoric commitment is a serious business, and interlocutors are rational to avoid undertaking commitments for which they may later be censured. One way for a committal practice to fail to be useful, then, is for it to associate propositional contents with utterances in such a way as systematically to discourage interlocutors from asserting. In this section, I will consider two versions of this kind of problem.

At times, the evolution of the context set of a conversation is *non-eliminative*: this occurs when the context set of a conversation at some time $t'$ is not a subset of the context set of the conversation at some earlier time $t$. Non-eliminative context-set evolution is a normal part of inquiry. Interlocutors who have been presupposing a proposition may discover that it is false and come to presuppose its negation, or they may question their grounds for presupposing it and come to presuppose neither it nor its negation. In the first kind of case, the context set after the change and the context set prior to the change are disjoint; in the second kind of case, the context set after the change is a proper superset of the context set prior to the change.

The former kind of non-eliminative evolution interacts in problematic ways with contextual diagonalism. If, for example, a community has adopted (Speaker-centered Contextual Diagonalism) as its committal practice, and if a speaker in this community has made any assertion at all, then she has undertaken a commitment to a proposition at least as strong as what she takes to be the context set of her conversation. If she and her interlocutors subsequently come to presuppose the negation of any proposition which was previously presupposed, she will have undertaken an assertoric commitment to a proposition which is false everywhere in the new context set of the conversation, and will therefore be liable to criticism for having asserted falsely. So when the context set evolves in this way, both versions of contextual diagonalism predict that *every* assertion made in the conversation before the non-eliminative update is false. A committal practice with this feature overgenerates the kind of blameworthiness which arises from asserting a falsehood: speakers can perform utterances which express true horizontal and diagonal propositions and nonetheless be liable to criticism for having asserted falsely.

Just as the problem of non-eliminative context-set evolution affects contextual diagonalism, the problem of unintentional liability affects audience-centered committal practices. For any audience-centered committal practice holds assertors hostage to the beliefs of other interlocutors. A speaker in a community which has adopted (Audience-centered Horizontalism), for example, can be held accountable for asserting a proposition she could not have reasonably believed she would assert. This will happen whenever she has the misfortune of having false but justified beliefs about what her interlocutors take for granted about her referential intentions. If Smith points to Jones and says "He is a thief," and if Jones is standing next to Johnson, then if Smith's audience mistakenly believes that he is pointing at Johnson, Smith has undertaken a commitment to the proposition that Johnson is a thief, not the proposition that Jones is a thief. Nor will it help for Smith to clarify that he intended to demonstrate Jones and justifiedly believed that this intention

would be obvious to all involved—his intention is not relevant to determining the object of his assertoric commitment. Analogous cases can be constructed involving (Audience-centered Contextual Diagonalism) and a speaker's false but justified beliefs about the context set of her conversation.

## 6 Utility II: mere intentional communication

We have seen that assertoric commitment is a different and more serious affair than the sort of commitment one undertakes when one merely intentionally communicates a proposition. This is a useful state of affairs—it allows us to maintain a fruitful distinction between asserting and speech acts like hinting, insinuating, implicating, and so forth. Speakers are able to exploit the difference between asserting and performing these less committal speech acts to a variety of ends: to get a point across politely, to maintain plausible deniability, and so forth. In order for the distinction between asserting and merely communicating to be a useful one, however, it must not turn out that all or most of the propositions a speaker is primarily interested in communicating systematically fall into the category of the merely communicated. One way for a committal practice to fail to be useful, then, is for it to classify too many propositions as merely communicated; this will occur when a committal practice pairs utterances with propositional contents which are, in an intuitive sense, *too weak*. In this section and the next, I argue that the practice described by (Superdiagonalism) fails to be useful in this way.

Suppose Smith assertively utters "He is an embezzler," that it is common ground between him and his audience that the person he is pointing to is Jones, and that the person he is pointing to is indeed Jones (call this scenario [Pronoun]). On (Superdiagonalism), Smith is assertorically committed in [Pronoun] to the proposition that whomever he is demonstrating is an embezzler; it is only because it is common ground that Smith is pointing to Jones that the proposition that Jones is an embezzler is communicated. But surely a committal practice which treats Smith's commitment to the proposition that Jones is an embezzler in [Pronoun] as no stronger than the commitment he would have incurred by getting the same proposition across by hinting or implicating is guilty of assimilating too much to the category of what is merely intentionally communicated.

The friend of (Superdiagonalism) will be quick to point out that even a proponent of (Objective Horizontalism) must seemingly acknowledge that, if I am talking to Jones, and if Smith approaches me and says "The person you are talking to is an embezzler," and if it is common ground between me and Smith that the person I am talking to is Jones (call this scenario [Definite]), then Smith is committed in some strong sense not only to the horizontal proposition of his utterance, but also to the proposition that Jones is an embezzler. Whatever this sort of commitment amounts to, the friend of (Superdiagonalism) will continue, why can't she help herself to it in explaining how speakers come to be committed to the horizontal propositions of their utterances? Why not think, that is, that [Definite] suggests that there is a form of commitment which is stronger than that associated with mere intentional

communication, and which is not limited to the propositions speakers actually assert?

Unfortunately for the friend of (Superdiagonalism), however, [Definite] cannot do the work she needs it to do. What she needs to demonstrate is that the kind of commitment Smith undertakes in [Definite] vis-a-vis the proposition that Jones is an embezzler is stronger than the commitment associated with mere intentional communication, in the sense that it does not permit speakers correctly to deny that they are liable to criticism more serious than the criticism appropriate for having intentionally communicated a falsehood. This, I argue, she cannot do.

[Definite] is, of course, a case in which Smith intentionally communicates the proposition that Jones is an embezzler. The question is what feature of [Definite] accounts for our intuition to the effect that Smith is *more* strongly committed to this proposition than he would have been had he communicated it by, for example, implicating it. In this connection, it is important to note that [Definite] specifies that the person I am talking to is in fact Jones, so that the truth of the horizontal proposition of Smith's utterance depends on the truth of the proposition that Jones is an embezzler. Given that the person I am talking to is Jones, we might say, Smith's utterance in [Definite] *de facto commits* him to the proposition that Jones is an embezzler.

To discern the contribution of this fact about de facto commitment to our intuitions concerning [Definite], it will be helpful to consider a structurally related case in which the common ground between me and Smith leaves the question of whom I am talking to wholly unresolved (call this scenario [Definite (No Presupposition)]).

In [Definite (No Presupposition)], Smith neither asserts nor intentionally communicates the proposition that Jones is an embezzler. Nevertheless, in virtue of the fact that Jones is in fact the person I am talking to, his utterance de facto commits him to the proposition that Jones is an embezzler. Notably, much of the intuitive force of the judgment that Smith is committed to this proposition in [Definite] carries over to [Definite (No Presupposition)]: given that I am talking to Jones, Smith has nailed his flag, in some sense, to the proposition that Jones is an embezzler. This suggests that our intuitions about the two cases are tracking speakers' de facto commitments.

Yet de facto commitment has little to do with the normative status of being assertorically committed to a proposition—indeed, it is not clear that it is a normative status at all. Speakers need not even be justified in believing the propositions to which they become de facto committed in asserting. Smith, for example, might have excellent justification for the descriptive proposition he asserts in [Definite (No Presupposition)] without knowing anything at all about Jones, and this is sufficient to render his assertion beyond reproach (unless, of course, it is false). Moreover, to the extent that speakers are blameworthy if the propositions to which they are de facto committed are false, this can be explained with reference to the fact that the propositions to which they are assertorically committed are also false; no independent normative status speakers bear to their de facto commitments needs to be invoked. Most tellingly, Smith can convincingly deny any sort of assertion-like commitment to the proposition that Jones is an embezzler: he can

deny that he said, claimed, or asserted it ("I would never do such a thing without having better evidence!"), and also that he intended to communicate it ("How could I have known that the truth of what I claimed would have anything to do with Jones?"). Insofar as the friend of (Superdiagonalism) is searching for a species of commitment which does not afford speakers these sorts of committal exit strategies, then, de facto commitment cannot serve her purposes.

Having considered the nature of de facto commitment in [DEFINITE (NO PRESUPPOSITION)], let us return to [DEFINITE]. It might be thought that the fact that in [DEFINITE] Smith both intentionally communicates and de facto commits himself to the proposition that Jones is embezzler results in a more assertion-like commitment than would result from either factor in isolation. But it is easy to show that Smith's commitment to the proposition that Jones is an embezzler in [DEFINITE] affords him some of the same committal exit strategies we encountered in our discussion of [DEFINITE (NO PRESUPPOSITION)].

Suppose we flesh out the description of [DEFINITE] so that Smith has good evidence that Jones has a doppelgänger named Schmones, that Schmones is an embezzler, and that Jones is away on a vacation. He also knows that I have no inkling of the complexities of the situation, and will interpret his utterance as concerning Jones. Smith thus intends a common sort of linguistic trick—to assert a truth while communicating a falsehood, thereby manipulating my beliefs without actually lying. In fact, however, despite his excellent evidence, Smith is wrong, and it is Jones to whom I am talking, so that what he asserts is false. If, in such a scenario, on learning that Jones is not an embezzler, I charge Smith with having claimed otherwise, he might justifiedly reply as follows: "It is true that what I claimed turned out to be false, that the truth of what I claimed turned out to depend on the actions of Jones, and indeed that I knew that Jones was no embezzler at the time of my utterance. Nevertheless, I can hardly be said to have *claimed that Jones was an embezzler*. I had evidence of the most compelling sort that the man you were speaking to was not Jones but his doppelgänger, and that this doppelgänger was an embezzler. I confess that I intentionally led you to believe that Jones was an embezzler, and for that I perhaps deserve some recrimination, but my claim was that *the person you were talking to* was an embezzler, and nothing stronger. Indeed, I chose my words carefully so as *not* to claim that Jones was an embezzler, for I knew that proposition to be false."

The case of Smith's utterance in [DEFINITE], therefore, fails to furnish a community adopting (Superdiagonalism) with a solution to the problem of [PRONOUN]: in such a community, the genuinely assertoric commitments undertaken by speakers using context-sensitive vocabulary are exceedingly weak—weak enough that Smith, upon pointing to Jones and saying "He is an embezzler," could justifiedly protest that it was unfair to hold him responsible for having claimed that Jones was an embezzler.[26] Whereas a community which adopts (Objective

[26] Of course, even on (Objective Horizontalism), Smith could argue that he should be *excused* for having claimed that Jones was an embezzler, given that he had evidence that he was pointing at Schmones. But this is a different sort of defense: one in which Smith concedes that he has undertaken a commitment to the horizontal proposition of his utterance.

Horizontalism) can draw a useful distinction between the kind of commitment associated with the horizontal proposition of an utterance and the kind of commitment associated with propositions which are merely implicated (namely, the distinction between assertoric commitment and intentional communication), a community which adopts (Superdiagonalism) cannot: for such a community, both the horizontal proposition of an utterance and other merely implicated propositions are contents which a speaker intentionally communicates but is not otherwise committed to.[27]

## 7 Utility II: secondary commitment

Discontent with analogizing a speaker's commitment to the horizontal proposition of her utterance with the commitment involved in hinting or implicating, the friend of (Superdiagonalism) might seek to introduce a special-purpose notion of *secondary commitment*. The idea would be to associate with each assertoric utterance a set of propositions to which its speaker undertakes a commitment which, while not quite as strong as genuine assertoric commitment, is nonetheless stronger than the commitment associated with mere intentional communication.

What might a theory of secondary commitment look like? As it turns out, it is surprisingly difficult to articulate one which is compatible with (Superdiagonalism) and does not succumb to defects of the sort described in previous sections. Suppose, for example, that a speaker is secondarily committed to any propositions which come to be entailed by the context set of the conversation after it is updated with the assertoric content of her utterance (call this the *naive incremental* theory of secondary commitment). Now suppose that some third party (an Oracle, we can imagine) has told us that Jones is an embezzler if and only if Johnson is an arsonist, and this biconditional has become common ground. Then, in uttering "He is an embezzler," Smith becomes secondarily responsible not only for the proposition that Jones is an embezzler, but also for the proposition that Johnson is an arsonist.

[27] A question remains about why, in a less fanciful version of [DEFINITE] (that is, one in which there are no complexities involving Schmones), Smith's speech about claiming *that the person I was talking to is an embezzler* rather than *that Jones is an embezzler* seems less convincing. My suggestion here is that this is because we take Smith to *know* that the person I am talking to is an embezzler just in case Jones is an embezzler, and we also assume that this biconditional is in the common ground. Given these two assumptions (and a plausible closure principle for knowledge), Smith is plausibly blameless for having asserted that the person you are talking to is an embezzler if and only if he is in a position to blamelessly assert that Jones is an embezzler—he meets the evidential standard for asserting one just in case he meets the evidential standard for asserting the other, and so on. Since, given the common ground, he also communicates the same propositions regardless of what he asserts, there is a sense in which it is beside the point for him to argue that he claimed one but not the other: if he would have deserved criticism for asserting that Jones is an embezzler, he actually deserves criticism for asserting that the person I was talking to is an embezzler. This is perhaps a second sense in which Smith's commitment to the proposition that Jones is an embezzler is stronger than the commitment usually associated with hinting or implicating, though not one which will be of much comfort to the friend of (Superdiagonalism), since speakers often lack the kind of knowledge it requires, as when they are mistaken about, or suspend judgment concerning, which propositions are materially equivalent to the assertoric contents of their utterances.

The naive incremental theory of secondary commitment thus has the following undesirable feature: even if he knows that Jones is an embezzler, Smith cannot point to Jones and assertively utter "He is an embezzler" without undertaking a secondary commitment to the proposition that Johnson is an arsonist. If he does so assert, moreover, and it is false that Johnson is an arsonist, then the Oracle can at best be censured for the falsehood of his biconditional—he escapes commitment to the proposition that Johnson is an arsonist altogether. By contributing his biconditional to the common ground, the Oracle effectively raises the normative stakes for Smith: either Smith must think it rational to undertake two secondary commitments, or he must remain silent. The Oracle, in contrast, despite playing just as important a role in the introduction of the proposition that Johnson is an arsonist into the common ground, enjoys immunity from secondary commitment to it.

A naive incremental practice of secondary commitment, then, is subject to the same kind of criticism as the practices of assertoric commitment discussed in Sect. 5: it has structural features which discourage interlocutors from asserting and thereby impede inquiry. It is, moreover, subject to the additional criticism that it distributes secondary commitments among interlocutors in an essentially arbitrary way. For surely, if Smith has good evidence that Jones is an embezzler but the Oracle has no evidence for his biconditional, Smith should escape criticism entirely—whereas the naive incremental theory predicts that both Smith and the Oracle should be blamed for contributing false propositions to the common ground.

Intuitively, what has gone wrong with the naive incremental theory is that it commits Smith to a contextual entailment of the content of his assertion which arises only because of the presence in the common ground of a proposition contributed by the Oracle. Perhaps, then, we could amend the naive incremental theory of secondary commitment along the following lines. In calculating the secondary commitments associated with an assertion, we follow a two-step process. First, we remove from the common ground all propositions to which individuals other than the speaker are already assertorically or secondarily committed. Then we see which propositions are newly entailed by this weakened common ground when it is updated with the content of the speaker's assertion; these are the speaker's secondary commitments. Let us call this the *sophisticated incremental* theory of secondary commitment.

The sophisticated incremental theory of secondary commitment avoids predicting that Smith undertakes a secondary commitment to the proposition that Johnson is an arsonist, since the weakened common ground relative to which Smith's assertion is evaluated does not contain the biconditional contributed by the Oracle. Unfortunately, the problem recurs in more complex cases. For now imagine that, instead of one Oracle, we have two (let us call them 'the Oracle' and 'the Moracle'). If the Oracle asserts that if Jefferson is a forger, then Jones is an embezzler if and only if Johnson is an arsonist, and the Moracle asserts that Jefferson is a forger, then the proposition that Jones is an embezzler if and only if Johnson is an arsonist enters the common ground without being an assertoric or secondary commitment of either the Oracle or the Moracle. It follows, according to the sophisticated incremental theory, that Smith will once again become secondarily committed to the proposition that Johnson is an arsonist if he subsequently asserts that Jones is an embezzler.

It is also worth pointing out that the two theories of secondary commitment just surveyed both involve the friend of (Superdiagonalism) in problems very similar to those faced by the contextual diagonalist. Since the conjunction of the propositions in the common ground with the content of a speaker's assertion is always among the propositions newly entailed by the common ground, the naive incremental theory has speakers always undertaking secondary commitments which are at least as strong as the context set. This is problematic given how commonly the context set evolves non-eliminatively. The situation is less extreme for the sophisticated incremental theory, but it still has speakers undertaking secondary commitments to, for example, the whole body of background beliefs brought to the conversation before any interlocutor has uttered anything at all.

So appealing to a notion of secondary commitment, at least in one of the forms just described, results in the overgeneration of predictions of assertoric commitment and the corresponding overgeneration of blame when things go wrong. This leaves the friend of (Superdiagonalism) in a difficult position: either stick with assertoric commitment, in which case speakers are committed to too little, or opt for secondary commitment, in which case speakers are committed to too much.[28]

## 8 Modal coherence

If the propositional contents of utterances can be associated with distinct forces (conventionally associated, for example, with distinct sentential moods), a practice of mapping utterances to propositional contents will be easier for interlocutors to use if it can be applied regardless of the mood in which a sentence is uttered. Versions of horizontalism fare better in this regard than their competitors. This is especially clear when we consider moods which require speakers to look outside the context set, such as the optative. For suppose there is a distinctive force corresponding to optative constructions, which we may call the *desirous force*. In English, the optative construction ⌜Would that $\phi$!⌝ is plausibly associated with just such a desirous force: it is used not to assert that the speaker desires that $\phi$, but rather to express this desire directly.[29] But if we adopt a plausible theory of the felicity conditions for such constructions and assume that utterances in the optative

[28] Especially committed proponents of (Superdiagonalism) may maintain that, even if what I have claimed so far is true, there must be *some* other notion of commitment which will serve their purposes. The burden is on them, however, to develop a theory of the relevant notion of commitment. In the absence of such a theory, it is difficult to resist the conclusion that a superdiagonalist committal practice struggles with respect to utility.

[29] In treating the English optative construction as a force marker, I assume that it does not interact compositionally with its prejacent to change which proposition is expressed; that is, I assume that the proposition which the grammar assigns to $\phi$ is the same as the proposition which the grammar assigns to ⌜Would that $\phi$!⌝, the difference between the two being entirely a matter of what speech act is conventionally performed by uttering them. I consider this assumption plausible. Nevertheless, even if theoretical considerations ultimately suggest that it is false, it suffices for my purposes to note, first, that there may be other languages in which optative constructions are genuine force markers in the sense described, and, second, that a community *could* introduce some construction which worked in the suggested way. The argument would then be that the introduction of such a construction would be useful

mood are mapped to propositions in the same way as utterances in the indicative mood, (Superdiagonalism) and the two forms of contextual diagonalism lead to significant problems. Suppose for illustration that $\phi$ is 'He is here'. I will consider two theories of the felicity conditions for an utterance of ⌜Would that $\phi$!⌝ and show that both make unintuitive predictions.

First, consider the theory that ⌜Would that $\phi$!⌝ is felicitous for a speaker just in case (i) it is common ground that the assertoric content of $\phi$ is false, and (ii) all of the best possible worlds (according to that speaker) are worlds where the assertoric content of $\phi$ is true.[30] Then, if $\phi$ is 'He is here' and (Superdiagonalism) is true, we predict that 'Would that he were here!' is felicitous just in case (i) it is common ground that the person the speaker has in mind is not at the location in which the utterance is produced, and (ii) all of the best possible worlds according to the speaker are worlds in which the person she has in mind when producing the utterance is at the location in which the utterance is produced. But for most natural preference orderings on worlds, this account will yield the unappealing consequence that it is *almost never* appropriate for speakers to utter the optative construction under consideration. Suppose Devin loves Kevin more than any other and loathes Evan. Neither Kevin nor Evan is present. If the conversation turns to Kevin, and Devin exclaims "Would that he were here!" intending to refer to Kevin, then her utterance is felicitous, according to our first theory, just in case (i) it is presupposed that the superdiagonal proposition of 'He is here' is false, and (ii) all of the best worlds according to Devin are ones in which the superdiagonal proposition of 'He is here' is true. The first of these conditions is satisfied because, we may imagine, it is common ground that Devin intends to refer to Kevin and that Kevin is not present. But the second condition is not plausibly satisfied because, although the worlds which are subjectively best for Devin are all ones in which Kevin is present, they are not all ones in which the superdiagonal proposition of 'He is here' is true: witness the world where 'He' refers to Evan and Evan is not near Devin.[31] So Devin's utterance of "Would that he were here!" comes out as inappropriate despite her intention to refer to Kevin and sincere desire for his proximity.

Second, consider the theory that ⌜Would that $\phi$!⌝ is felicitous for a speaker just in case (i) it is common ground that the assertoric content of $\phi$ is false, and (ii) the assertoric content of $\phi$ exceeds some threshold of desirability according to the speaker. We can either take the relevant level of desirability to be context-invariant, for example by requiring that the expected utility of the assertoric content of $\phi$

Footnote 29 continued
only for a community with a horizontalist committal practice, and that it is an advantage for a committal practice to be easily extensible in this way.

[30] What if, according to the speaker, every world is such that there is a world which is better than it? Then instead of speaking of "all of the best possible worlds," we can require that every world $w$ be such that (i) there is a better world $w'$ at which the assertoric content of $\phi$ is true, and (ii) every world better than $w'$ is such that the assertoric content of $\phi$ is true. (Cf. Kratzer 2012, 40.)

[31] There is a question about whether all the worlds which are subjectively best for Devin are ones at which she utters "He is here"; if not, then the relevant superdiagonal proposition will fail to be defined over the set of best worlds, yielding once again the prediction that sentences of the form ⌜Would that $\phi$!⌝ may *almost never* be produced felicitously.

exceeds the expected utility of the assertoric content of $\ulcorner\neg\phi\urcorner$ when calculated using something like the speaker's Bayesian ur-priors, or, following Grosz (2012), we can take it to be contextually determined. Either way, if (Superdiagonalism) is true, the felicity of an utterance of "Would that he were here!" will depend not only on the utility of various possible scenarios in which he is here, but also on the utility of various possible scenarios in which the speaker has a different individual in mind and that individual is here. Thus if the speaker intends to refer to Kevin in uttering "Would that he were here!", then even if she assigns great utility to the worlds in which Kevin is nearby, her utterance may nonetheless be infelicitous because she assigns great disutility to certain worlds in which the referent of 'He' is Evan and Evan is nearby. It is difficult to see what purpose would be served by a grammaticalized optative construction if this were its meaning.

In addition to the problems just mentioned, both theories, when combined with (Superdiagonalism), have the unfortunate consequence that the referential intentions of a speaker who utters $\ulcorner$Would that $\phi!\urcorner$ contribute only to its presuppositional profile and not to its at-issue content. Thus all utterances of "Would that he were here!" express a positive attitude toward the *same* superdiagonal proposition. Whatever benefits accrue to a linguistic community when it incorporates indexicals into its language, (Superdiagonalism) thus ensures that those benefits are not available when it comes to optative constructions.[32]

The problems faced by contextual diagonalism when it comes to modal coherence are even more severe. For, according to contextual diagonalism, the only worlds where the assertoric content of an utterance is true are worlds in what the relevant individual or individuals take to be the context set. But, on either theory of the semantics of $\ulcorner$Would that $\phi!\urcorner$, a speaker may felicitously employ that construction only if it is presupposed that the assertoric content of $\phi$ is false—that is, only if there are no worlds in the context set at which the assertoric content of $\phi$ is true. So, on the first semantics of $\ulcorner$Would that $\phi!\urcorner$, as long as the set of best possible worlds is nonempty, utterances of $\ulcorner$Would that $\phi!\urcorner$ will be infelicitous. For each best world will either be outside the context set, or it will be inside the context set. The nature of contextual diagonalism ensures that the assertoric content of $\phi$ is false at all worlds in the former category. With respect to the latter category, either the assertoric content of $\phi$ is true at some best worlds in the context set, in which case the presupposition that the assertoric content of $\phi$ is false is not satisfied, and the utterance will fail condition (i) for felicitous production, or the assertoric content of $\phi$ is false at all best worlds in the context set, in which case the utterance will fail condition (ii) for felicitous production.

[32] Indeed, this observation follows from the more general point that, on (Superdiagonalism), the assertoric content of an utterance is sensitive only to the sentence uttered and not to the extralinguistic context in which it is uttered: an utterance of a given sentence always counts as assertion of the same proposition, regardless of context. This is not to say that (Superdiagonalism) is incompatible with grammatical context sensitivity—the total pattern of the dependence of grammatical content on extralinguistic context is what determines the superdiagonal proposition associated with a given utterance, so that metasemantic differences in the underlying grammar correspond to the assignment of different superdiagonal propositions to utterances.

Similarly, on the second semantics for ⌜Would that $\phi$!⌝, either the assertoric content of $\phi$ will be true at some worlds inside the context set, in which case the presupposition that it is false will not be satisfied, or it will be false throughout the context set, in which case, given the nature of contextual diagonalism, it must be false at all possible worlds; in other words, it must be the contradictory proposition. Even granting that the contradictory proposition can exceed the relevant threshold of desirability, we get the unpalatable consequence that most intuitively acceptable instances of ⌜Would that $\phi$!⌝ are infelicitous.

## 9 Partiality

The committal practices discussed so far have the following feature in common: the contents they assign to assertoric utterances determine *total* functions from the set of worlds where those utterances exist to the set of truth values.[33] There are possible committal practices, however, which are not helpfully modeled using contents which determine total functions of this sort. For example, we can imagine:

> **(Nondefective Partial Diagonalism)** For all conversations $c$, utterances $u$, speakers $s$, and worlds $w$: If $c$ is nondefective at $w$, and if $s$ assertively utters $u$ in $c$ at $w$, then the object of $s$'s assertoric commitment in uttering $u$ is the partial function from worlds to truth-values which agrees with the superdiagonal proposition expressed by $u$ over the context set of $c$ in $w$ and is undefined elsewhere.

(Nondefective Partial Diagonalism) differs from (Superdiagonalism) in that, according to the former but not the latter, a speaker undertakes no commitment concerning the truth of the superdiagonal proposition of her utterance at worlds outside the context set of her conversation. (Nondefective Partial Diagonalism) resembles a position defended by Stalnaker (2014):

> ...the definition I have given for the diagonal proposition (the assertoric content) determines only a partial proposition: as specified so far, the function from possible worlds to truth-values is defined only relative to the domain of possible worlds in the context set. (Stalnaker 2014, 221)

(Nondefective Partial Diagonalism) arguably fares better than (Superdiagonalism) with respect to considerations of utility. If Smith utters 'He is an embezzler' in a conversation the context set of which determines that 'He' refers to Jones, (Nondefective Partial Diagonalism) does not erroneously predict that Smith is primarily committed to the proposition that whomever he has in mind is an embezzler—at least, not *as opposed to* the proposition that Jones is an embezzler, since these two propositions are true at the same worlds in the context set, and Smith's commitment is undefined elsewhere.

[33] This is not to say that they assign contents to all utterances at all worlds where those utterances exist—we saw in Sect. 4 that this is not the case.

(Nondefective Partial Diagonalism) is, however, problematic as a possible committal practice. Like the other nondefective views discussed above, it needs to be generalized so as to be either speaker-centered or audience-centered. Since its audience-centered generalization fails to be general in much that same way as (Audience-centered Contextual Diagonalism), we may restrict our attention to its speaker-centered generalization:

> **(Speaker-centered Partial Diagonalism)** For all conversations $c$, utterances $u$, speakers $s$, and worlds $w$: If $s$ assertively utters $u$ in $c$ at $w$, then the object of $s$'s assertoric commitment in uttering $u$ is the partial function from worlds to truth-values which agrees with the superdiagonal proposition expressed by $u$ over what, at $w$, $s$ takes the context set of $c$ to be, and which is undefined elsewhere.

Even (Speaker-centered Partial Diagonalism) is problematic, however. For in cases of non-eliminative context-set evolution where interlocutors who have been presupposing a proposition discover that it is false and come to presuppose its negation, (Speaker-centered Partial Diagonalism) liberates speakers from all prior assertoric commitments. Even when speakers merely cease to presuppose a proposition without presupposing its negation, since the context set after the change is a proper superset of the context set prior to the change, speakers have undefined assertoric commitments at some worlds in the context set.

Stalnaker is aware of this problem. A natural solution would, of course, be to fall back on (Superdiagonalism). The solution Stalnaker proposes, however, is to allow the assertoric content of utterances to be "extended" outside the context set in cases where "the context (the common ground)... provide[s] a natural extension" (Stalnaker 2014, 221). Stalnaker provides no systematic theory of the circumstances under which this will be the case or the ways in which these circumstances determine extensions, but the cases he offers as examples suggest that extension is possible if and only if it is common ground that an utterance expresses a particular horizontal proposition, in which case its assertoric content is identified with this horizontal proposition. Stalnaker's proposal (modified to reflect the preferability of speaker-centered views) thus amounts to:

> **(Stalnakerian Disjunctivism)** For all conversations $c$, utterances $u$, speakers $s$, and worlds $w$: If $s$ assertively utters $u$ in $c$ at $w$, then the object of $s$'s assertoric commitment in uttering $u$ is the partial function from worlds to truth-values which agrees with the superdiagonal proposition expressed by $u$ over what, at $w$, $s$ takes the context set of $c$ to be for the purposes of the conversation, and which is undefined elsewhere, unless there is a unique proposition $p$ such that it is common ground in $c$ at $w$ that $p$ is the horizontal proposition expressed by $u$, in which case the object of $s$'s assertoric commitment is $p$.[34]

[34] John Hawthorne points out that it seems in spirit of (Stalnakerian Disjunctivism) to allow for a certain kind of extension even when there fails to be a unique proposition which it is common ground is the horizontal proposition expressed by an utterance. For example, an utterance of a conjunction could be such that both conjuncts contain context-sensitive expressions, but it is common ground that the expression in the first conjunct takes a certain value, whereas the value taken by the expression in the

(Stalnakerian Disjunctivism) goes some way toward solving the problem of non-eliminative evolution of the context set, but it does not go far enough. Suppose Smith points at a man and assertively utters "He is an embezzler." Suppose also that it is common ground that the man in question is either Jones or Johnson. Then there is no proposition $p$ such that it is presupposed that $p$ is the horizontal proposition of Smith's utterance, and he asserts the partial diagonal proposition of his utterance. But now if we discover that we have been presupposing some trivial falsehood—that Pluto is a planet, say—and the context set evolves non-eliminatively, Smith will be entirely free from assertoric commitments. Given the commonness of uncertainty about the horizontal propositions expressed by utterances containing context-sensitive vocabulary, the possibility of Stalnakerian extension to a non-partial content will go unrealized too often for (Stalnakerian Disjunctivism) to describe a useful committal practice.

## 10 Conclusion

Our exploration of the considerations favoring various committal practices has revealed a frontrunner: (Objective Horizontalism). Considerations of generality tell against practices which assign contents to utterances only when the conversation is nondefective, as well as against audience-centered practices and, to a lesser extent, certain speaker-centered practices. The problem of non-eliminative context-set evolution affects contextual diagonalism as well as Stalnaker's partial committal practices. Unintentional liability is a further problem for audience-centered practices. (Superdiagonalism), meanwhile, struggles with overly weak assertoric commitments and the problem of modal coherence. (Objective Horizontalism) thus emerges as the least problematic, and correspondingly most useful, committal practice. This result gives us some reason to expect that we ourselves have adopted a horizontalist practice, thus adding some weight to the case against the diagonalist answer to the philosopher's puzzle.

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Footnote 34 continued
second differs across the context set. In such a case, it seems in the spirit of (Stalnakerian Disjunctivism) to say that the assertoric content of the utterance is defined at worlds outside the context set, and that it is at least as strong as the first conjunct. We may, however, safely ignore this complication in what follows.

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