



Availability without common ground

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Abstract The dominant model of linguistic communication in current philosophy of language, semantics and formal pragmatics is centered around the idea that communication involves interlocutors coordinating with respect to a single body of information, the common ground. This body of information is understood to serve two central roles: it is the target of speech acts, and constitutes the information available to interlocutors for planning and interpreting utterances. In this paper, I provide a series of examples which show that, contra the dominant model, the information available to interlocutors cannot be modeled as common ground information. The examples involve interpreters making use of background information which cannot become common ground either because the interpreter refuses to accept it, or because the communicative situation is what Harris (2020) calls *publicity averse*. I consider and disarm a variety of responses that might be offered on behalf of the common ground view, including alternative construals of acceptance and of publicity. I demonstrate that a model of communication in which interlocutors maintain separate representations of their own and their interlocutors' information states easily accommodates these cases, taking as an example the model due to Heller and Brown-Schmidt (2023). I end the paper with the observation that my conclusions do not pose any threat to formal models of dynamic semantics/

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pragmatics, as these can be, and in some cases already are, interpreted as modelling the evolution of individual information states

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1 Introduction

The dominant model of linguistic communication in current philosophy of language, semantics and formal pragmatics is centered around the following idea: communication involves interlocutors coordinating with respect to a single body of information. This body of information has two essential roles in supporting and constraining the exchange of content via linguistic utterances. It is the target of speech acts, meaning that the function of speech acts is to modify it in specific ways; and it provides the background relative to which utterances are planned (by speakers) and interpreted (by hearers). In this second role, it constitutes the information *available* to interlocutors. Let's call this model of communication the *single body of information* (SBI) view, and refer to that body of information as the SBI.¹ Here and throughout I use the term *information* non-verbidically: what I call information need not be true or believed true by any relevant agent.

The dominant model has additional commitments. According to it, the relevant body of information (the SBI) is information that is *public* in some pre-theoretic sense. The idea of public information is given by simple examples: for example, if you and I are driving together in a car, it is public between us that we are doing so. We each know that we are driving together in a car, and it is in some sense transparent that we each have this knowledge. In standard terminology, the body of public information is called the common ground (cg). Call this more committed version of the view *SBI-cg* (or sometimes just the *common ground view*).

Common ground is understood almost universally in terms of iterated attitudes. This characterization has its origins in Lewis's definition of common knowledge and common belief (Lewis, 1969). Informally, a proposition p is common knowledge in a group G just in case each agent in G knows that p , each agent knows that all in G know that p , each agent knows that all know that p , and so on ad infinitum. However, both common knowledge and common belief are too epistemically demanding to constitute the information state which serves as the background to and target of speech acts. That's because the contents of speech acts with which this background is updated may be false (hence not knowledge) and may be known by all interlocutors to be false (hence not belief). Consequently, the standard interpretation of common ground for purposes of modeling linguistic communication is the one proposed by Stalnaker (2002), given in (1):

¹ I'm grateful to an anonymous reviewer for suggesting this hierarchical way of thinking about varieties of common ground views. That the pre-theoretic idea of common ground, or publicity, should be distinguished from a particular interpretation of common ground is also emphasized in Armstrong (forthcoming) and Lederman (2020). My terminological choices follow Armstrong.

(1) Stalnakerian Common Ground (SCG)

A proposition p is Stalnakerian Common Ground (SCG) in a group G just in case all members of G accept p , and it is common belief in G that all members of G accept p .²

Like the definitions of common knowledge/belief, this characterization is built up from a private attitude held by each participant toward a given proposition. On this definition, that attitude is *acceptance*, a weaker notion than belief. I'll have more to say about acceptance in Sect. 4.2. Going forward, I'll use the term *Stalnakerian Common Ground* (capitalized), or the abbreviation *SCG*, to refer to this usual construal of common ground, and call the view that SCG is the body of information relevant to communication the *SBI-SCG view*.

In summary, the dominant model takes linguistic communication to be well modeled by assuming a single distinguished body of information (the SBI) serving the dual roles of target of and background for speech acts, where that body of information is the SCG. A sub-thesis of this view, then, is that the SCG constitutes the information available to interlocutors for planning and interpreting their utterances. Call this the *SCG-availability thesis*. (To talk about versions of the thesis that characterize common ground differently, I'll use the term *cg-availability*.) The goal of this paper is to argue against SCG-availability, and thereby to undermine the argument for SBI-SCG. I'll argue further that when we attempt to weaken the notion of common ground in such a way as to allow it to constitute available information, the resulting body of information is not plausibly understood as the target of speech acts. This conclusion undermines the case for any version of SBI. In its stead, I will advocate for adopting a model of communication which represents the (possibly distinct) information states of each interlocutor.

Having set up SBI-SCG above, I have to immediately take a step back. Stalnaker has always been careful to distinguish between the common ground itself and each interlocutor's beliefs about the common ground. The latter become especially important when giving conditions for the felicity of linguistic moves: what is felicitous for a speaker depends on what she (reasonably) believes the common ground to be, not what the common ground actually is. When the interlocutors' beliefs about the cg differ, the context is said to be defective, and miscommunication may occur. However, Stalnaker has argued throughout (e.g., Stalnaker, 1978, 2002, 2014) that contexts tend to adjust towards non-defectiveness, and takes this to justify framing the theory in terms of a single body of information: the presumed actual common ground. The theoretical literature in linguistics typically follows Stalnaker on this.

The theoretical status of Stalnaker's common ground model is not always easy to discern. It is clearly idealized in various ways, including the assumption of non-defectiveness. Stalnaker sometimes seems to consider it an idealized, normative model of rational communication.³ However, the model has been adopted widely in

² Stalnaker (2014) introduces a modified definition using acceptance not only as the base attitude but also as the iterated attitude. Nothing in my discussion hangs on the difference between these two definitions.

³ For example, in "Assertion", Stalnaker (1999a, p. 88) introduces three principles relating to assertion, which he describes as "principles that can be defended as essential conditions of rational communication,

theoretical semantics and pragmatics, as well as in psycholinguistics. These fields have the goal of giving descriptively adequate and predictive accounts of the behavior of competent language users. Competent speakers are not necessarily normatively ideal; for example, they are not necessarily ideally rational reasoners.⁴ The typical strategy in linguistics is to develop models of competence by observations and judgments about the actual behavior of speakers. In this paper, I subject SCG-availability to this kind of evaluation, while remaining careful not to overstate its claims. Section 2.2 is an attempt to clarify what precisely SCG/cg-availability is committed to.

This paper does not aim to show that publicity of information is never relevant to people's linguistic behavior. For one thing, publicity of information provides good evidence about one's interlocutor's beliefs (or acceptances), which according to my preferred account, each agent must track. And in discourse contexts in which it is essential to avoid misunderstandings—for example, engineers making final preparations to launch a space rocket—interlocutors may attempt to ensure that all communicative assumptions are made public. But these are special cases. The theoretical model of communication should contain only those components which are essential to the phenomenon. The argument of this paper is that the common ground is not one of those components.

I remain neutral in this paper as to whether the intuitive idea of publicity is properly described by the standard iterated-attitudes characterization. The literature contains arguments that common knowledge/belief so-understood is never attainable, at least not by creatures like us (Lederman, 2017). Some theorists have rejected common belief based theories of communication just on these grounds (Sperber & Wilson, 1995; Armstrong forthcoming). Those arguments are tangential to the arguments given here. In particular, my arguments against SCG are not arguments that the Stalnakerian definition is not a suitable definition of publicity, but rather that it does not characterize available information.

The paper proceeds as follows. In Sect. 2, I discuss cg-availability in more detail. Section 2.1 surveys how cg-availability has been used in the linguistic literature. Section 2.2 explores the notion of availability itself, observing that under one natural construal, cg-availability is straightforwardly false. Hence, the cg-availability thesis forces on us a distinction between *retrievability* and *availability*, which I clarify in that section. Section 2.3 points out a first problem for SCG-availability, involving a timing problem for accommodation. Section 3 presents the central examples, explaining how they are problematic for the cg-availability thesis, and showing how they are handled in a non-SBI model. Section 4 considers a variety of responses that the cg-theorist might offer. Section 5 concludes. In that section, I briefly discuss how dynamic semantics can without difficulty be translated into a non-SBI framework.

Footnote 3 continued

as principles to which any rational agent would conform if he were engaged in a practice that fits the kind of very abstract and schematic sketch of communication that I have given.”

⁴ For the important distinction between normative correctness and competence I'm indebted to Elqayam and Evans (2011).

2 Common ground and availability: background

2.1 Sources for the cg-availability claim

Stalnaker (2014, p. 24) introduces SCG-availability like this:

If communication is to be successful, the contextual information on which the content of a speech act depends must be information that is *available* [emphasis in original] to the addressee ... so the account of context ... must distinguish a body of information that is available, or presumed to be available, as a resource for communication. The development of this point is part of what led to [the theory of] context as a body of available information: the common ground.

Stalnaker here starts out by saying something incontrovertible: that whatever is needed (from the context, or elsewhere) to interpret an utterance must be *available* to the hearer. He concludes by saying something more substantive, identifying “available information” with common ground information (understood as SCG). This is what I am calling the SCG-availability claim.

In what ways do the contents of speech acts depend on contextual information? Most straightforwardly, contextual information is needed to fix the values of context dependent expressions, of which there is a rich variety. Additionally, interpretation often requires the identification of “background information” required to identify the speaker’s full communicative intention—to calculate conversational implicatures (especially relevance implicatures), to infer coherence relations and temporal relations (Lascarides & Asher, 1993), to identify the valence of a signaled attitude, and so on. In the continuation of the passage quoted just above, Stalnaker says specifically that “the information that a context models includes all the information that is a resource for the interpretation of context-dependent expressions”, and does not allude to any other kind of information needed for interpretation. I interpret the cg-availability thesis as applying with full generality to all information required for fixing any aspect of the interpretation of a speech act, including the background assumptions needed for the calculation of conversational implicatures. I think this is warranted by the standard argument given for *why* the information used by interlocutors should be common ground. If the argument, which I review immediately below, is accepted for information that fixes the reference of indexicals, it should be accepted equally for these other types of background information.

In the passage cited, Stalnaker does not give an argument for the SCG-availability thesis, perhaps because the general argument, the *coordination argument*, is well known. To rehearse this briefly: a speaker S cannot expect a hearer H to utilize information that is private to S, information that H does not have; and H knows that S cannot plan her utterance on the basis of information that is private to H, information that S does not have. So in order for information to be available for interpretation, it must be shared by S and H. But it is not enough for the information to be shared; it must be evident to S and H that the information is

shared. As in other cases of coordination, we can build up from there to make the case that in order for a speaker *S* to be certain that her utterance will be understood by the addressee, she should construct utterances which rely only on extralinguistic information that is common ground between herself and the addressee; similarly, an addressee can be certain that she is using information that she is expected to use by the speaker only if she restricts herself to common ground information. As just noted, if this argument supports SCG-availability for information needed to fix the referents of indexicals, it also supports SCG-availability for information needed to fix other aspects of a speaker's intended meaning. So I think we are warranted in interpreting the claim broadly.

One well-known and influential application of this coordination argument appears in Clark and Marshall (1981), who build on familiar arguments from Lewis (1969) and Schiffer (1972). Clark and Marshall focus on what is involved in identifying the intended referent of a definite description. Their argument is vividly illustrated by a sequence of scenarios involving attempted reference. In their examples, the speaker, Ann, uses the NP *the movie showing tonight at the Roxy*, intending her interlocutor, Bob, to understand her to be referring to the movie *Monkey Business*. The illustration consists of a sequence of increasingly elaborate scenarios in which Ann and Bob have ever higher levels of mutual belief as to which movie is playing at the Roxy, but never achieve full common belief.⁵ Each scenario leaves one interlocutor one belief-layer short, leaving some possibility of error in interpretation. And our intuitions are clear throughout that the mismatch between their belief states makes Ann's use of *the movie showing tonight at the Roxy* communicatively unreasonable. Clark and Marshall (1981, p. 57) take their argument to show that "to make or interpret definite references people have to assess certain 'shared' knowledge", and that the relevant notion of shared knowledge here is common knowledge (or belief).⁶

While the arguments given have a normative flavor, the conclusion ultimately reached is a claim about what speakers actually do. Clark and Marshall envision speakers as always aiming to construct referential expressions that will be properly identified by the addressee. Because, in light of the normative reasoning given, this requires reliance only on common ground information, this is what speakers try to do. The authors acknowledge that felicitous reference is "an ideal that in practice is rarely reached", but continue: "Yet surely it is an ideal people strive for because they will want to avoid misunderstanding whenever possible" (Clark & Marshall, 1981, p. 27). This gives us a picture in which a speaker will do their best to restrict themselves to utterances which require only background assumptions believed to be common ground. Note how Clark and Marshall assume the direct relevance of what is (argued to be) normatively correct to theorizing about the behavior of actual speakers; this use of normative claims in empirical theory is a theme we will return to later.

⁵ Two agents have mutual belief level 1 that *p* just in case both believe that *p*. Two agents have mutual belief level *n* that *p* just in case they mutually believe that they have mutual belief level *n*-1 that *p* (Lederman 2020).

⁶ A point that Clark and Marshall neglect is that in their scenarios each agent is aware of the possibility of confusion about the intended referent. It is this, rather than the failure to achieve common belief, that explains our intuitions. Considerations of space preclude further discussion.

Clark and Marshall focus primarily on the speaker perspective, asking what information an ideal *speaker* should rely on to support her utterances. Clark and Carlson (1981) look at the problem from the *hearer* perspective. Observing the broad problem faced by interpreters needing to identify the background assumptions they are to use to understand a speaker, they say:

The problem is a practical one. When a listener tries to understand what a speaker means on some occasion, it would be advantageous if the process he [*sic*] uses could limit what it retrieves from memory to some portion of the total information that could be made available. In particular, it should limit itself to the intrinsic context, that portion of the information that may be needed for the process to succeed.

Our proposal is straightforward: The intrinsic context for a listener trying to understand what a speaker means on a particular occasion is the common ground that the listener believes holds at that moment between the speaker and the listeners he or she is speaking to. (Clark & Carlson, 1981, p. 67)

They understand this process in psychological terms:

[W]hen a listener tries to understand what a speaker means, the process he goes through can limit memory access to information that is common ground between the speaker and his addressees.⁷ At the very least, it must distinguish between information that is and is not part of the common ground, because otherwise in certain situations it will systematically misinterpret conventions, direct and indirect speech acts, definite reference, and contextual expressions. So the comprehension process must keep track of common ground, and its performance will be optimal if it limits its access to that common ground. (Clark & Carlson, 1981, p. 76)

Here, the cg-availability thesis is presented as a (possibly partial) solution to the search problem that arises for hearers.

In the formal semantics/pragmatics literature, the common ground view is simultaneously widely assumed at a high level and largely ignored in the development of specific accounts. There is broad (but not universal) acceptance of the thesis that discourse is well-modeled in terms of a single body of information (SBI), and this body of information is often called the common ground. Stalnaker is widely cited as the source of this idea, but common ground is often described in weaker terms: “the set of propositions treated as if true by all interlocutors” (Roberts, 2018); “that set of propositions that have been agreed upon by all participants in *c* at *t*, together with the propositions that represent the shared background knowledge of the discourse participants” (Farkas & Bruce, 2010, p. 86); “shared assumptions” of the interlocutors (Schlenker, 2010, p. 381).⁸ I think it is fair

⁷ Clark and Carlson here seem to assume that any information to be used in interpretation by a hearer must already be in the hearer’s memory. That’s not correct; sometimes, a listener must infer new information. Clark is clearly aware of this; see his work on bridging (Clark 1977).

⁸ In contrast, see Murray and Starr (2021) as a recent example of theorists adopting SCG as their model of common ground.

to say that in general, linguistic theory has not concerned itself with how exactly public information should be defined or whether particular proposals are consistent with a given understanding of publicity, nor has the issue of availability been of particular concern. The prominent exception to this is the use of cg-theory in modeling presupposition. In cg-based theories of presupposition, the public nature of cg has an explanatory role, and the details of how presupposition and presupposition accommodation work are often spelled out carefully in terms that follow Stalnaker. The staunchest defense of cg-availability as an empirically adequate theory of presupposition is given by von Stechow (2008). I suspect that the default tendency in the (dynamic) semantic theory to identify contexts with common ground (in some sense) is due to the fact that this theory is ultimately rooted in Stalnaker's treatment of presupposition. Be that as it may, I have chosen for my central counterexamples to SBI-SCG cases that involve the retrieval of a type of presupposition. If cg-availability fails for presuppositional assumptions, that undermines the residual appeal of SBI-cg in formal semantics. A modest but central goal of the current paper is to convince theorists in linguistics that the bodies of information that are assumed in dynamic theories are not well interpreted as representations of common ground.

2.2 Availability vs. retrievability

The previous section laid out the standard argument for cg-availability, but the notion of availability itself still needs clarification. In particular, we need to distinguish between a *descriptive* notion that I will call *retrievability* (this term borrowed from Roberts, 2003, *inter alia*), and a *normative* notion. It turns out that cg-availability is clearly false if availability is construed in the first sense, forcing on the cg-theorist the adoption of a normative construal. The retrievability/availability distinction becomes apparent in cases of accommodation, and most clearly in cases where inference is required to identify what needs to be accommodated. I therefore use a case of what has been called *contextual presupposition*: a background implication necessary for deriving a conversational implicature (Kadmon, 2001; Simons, 2013; Thomason, 1990).⁹

The characters in our example are Leslie, Micah and Ned, three relatively new acquaintances. One day, Micah suggests to Leslie that they get lunch together; Leslie agrees. Then they have the following exchange:

- (2) Leslie: Let's see if Ned wants to come too.
 Micah: It's Ramadan.

In saying *It's Ramadan*, Micah intends to implicate that Ned will not want to come to lunch, and perhaps further that it would be inappropriate to invite him. In order to recognize this implicature, Leslie would need, first, to have some basic information about Ramadan: at least that, during Ramadan, those who observe it don't eat in the

⁹ For current purposes, it's not essential whether we agree to classify this as a presupposition or not. All that matters is that we agree with respect to the example that the proposition I below call *NR* functions as a premise in the implicit argument that explains the relevance of Micah's utterance.

daytime. Additionally, Leslie must identify the assumption that Ned observes Ramadan (which henceforward I'll abbreviate as NR). Hence, if it is now Ramadan, then they should not invite Ned to lunch.

Let's assume that Leslie is informed about Ramadan, but didn't previously know that it is currently Ramadan. We'll fix further that Leslie had no prior beliefs about whether Ned observes Ramadan (NR). It's not hard to imagine that Leslie, hearing Micah's utterance, will recognize that Micah intends her to posit NR, because this is a proposition which, if assumed, would render Micah's otherwise apparently irrelevant comment relevant to the conversation. So (to use standard terminology), she accommodates NR and interprets the utterance relative to it. In SBI-SCG, accommodation is usually described as something that the *hearer* does: she "updates the SCG" with the new information NR. But of course no individual can act directly on the SCG. What the hearer really does is update her *beliefs* about the SCG to reflect that the SCG entails NR. And to be reasonable in doing this, she must change her beliefs (or at least acceptances) not only about NR, but about Micah's beliefs about her beliefs, and hers about Micah's beliefs. If everyone's beliefs change in exactly the right way, then in fact the SCG *will* come to entail NR (Stalnaker, 2002, pp. 709–711). According to SCG-availability, NR becomes available to Leslie (and to Micah) only once it is has become SCG.

Notice now the sequence of (cognitive) events involved in accommodation. *First* Leslie identifies NR as a background assumption that renders Micah's utterance relevant. To recognize that NR renders the utterance relevant, she must also have inferred Micah's intended implicature. She does all of this *before* she can become certain that NR is required for interpretation, hence before she accepts NR and (perhaps) the implicature, thereby allowing NR to become SCG. What this shows is that in order for accommodation to occur, the hearer must first be able to *retrieve* whatever proposition is required to make the speaker's utterance appropriate.¹⁰ The retrieving must happen before the proposition can become SCG; and this holds for any construal of cg which requires each agent to at least accept a proposition in order for it to be cg. Moreover, the hearer must also be able to identify consequences of using the retrieved proposition in interpretation prior to accepting it, in order to determine whether this is plausibly the intended background assumption. The same must be true for any case of accommodation.

Now, it would be quite natural to understand "available information", as invoked in the Stalnaker quote above, as information that a hearer is able to retrieve and to reason with in order to interpret an utterance. If a speaker intends the hearer to use some proposition *p* in interpretation, the listener needs to be able to get their (mental) hands on that proposition. But as is clear from the example, cases of accommodation are precisely cases in which a listener must retrieve a *non*-common ground proposition. An agent's search for supporting background information *cannot* be limited to the SCG, otherwise there could be no such thing as

¹⁰ Cf. Roberts (2003, p. 303), who gives the following as the first condition on presupposition accommodation: "what the hearer is to accommodate is easily inferable, by virtue of its salience and relevance to the immediate context." Here, Roberts is noting that what is to be accommodated must be retrieved before it can be accommodated.

accommodation! Hence, if SCG-availability is understood as a thesis about retrievability, it is clearly false. It is also clear that SCG cannot solve the practical problem that Clark and Carlson are concerned with: the memory search cannot be restricted to (what is believed to be) common ground.

Retrievability is, moreover, a useful concept, making a helpful distinction between two types of information even in our Ramadan case. Recall that in order to see the relevance of Micah's utterance, Leslie needs to have two pieces of information: she needs to know at least roughly what Ramadan is, and she needs the information that Ned observes Ramadan. Given familiarity with Ramadan and given Micah's utterance, Leslie can infer the information about Ned. However, if she doesn't have the information about Ramadan, nothing in the conversational situation will enable her to infer it. This is the kind of information that someone has to tell you. Micah's utterance makes NR retrievable, but not information about Ramadan. So indeed, if Micah doesn't expect Leslie to already have this information, his utterance would be conversationally inappropriate. This might seem like a hint that what's really at issue in whether or not it's reasonable for a speaker to assume some background information in making their utterance is whether or not (they believe that) it is retrievable for the hearer.

The notion of retrievability I'm exploring here is closely related to the Relevance Theory notion of what is *manifest* to an agent (Sperber & Wilson, 1995, 2015). As they use the term, "a proposition is manifest to an individual at a given time to the extent that he is likely to some positive degree to entertain it and accept it as true" (Sperber & Wilson, 2015, p. 134). Manifestness comes in degrees, and is dependent "on the mind-brain state of the individual during that time, but also the environment of the individual and the information it provides him with via perception and communication" (p. 134). As we'll see later, the restriction of what is manifest to what the individual might accept as true distinguishes it from retrievability as I understand that term. But for now, this could be adopted as a working definition.

Where does this leave us? We have reason to think that retrievability is the notion really at issue in determining felicity of use of background information, and it is clear that SCG, and presumably cg generally, cannot be a good model of retrievable information. This might seem to be enough to demonstrate that cg-availability is incorrect.

There is another way to understand the thesis, however. It can be understood, with a little nuance, as a normative constraint on what information speakers and hearers should properly retrieve and use. A speaker should expect her hearers to retrieve only information that she can expect will become SCG in the course of interpretation; Stalnaker does assume precisely this constraint. A hearer, in turn, should retrieve and use only information that he believes could become SCG. This, I think, is what advocates of SCG-availability are actually committed to. In the examples in Sect. 3, I demonstrate that even understood in this more restricted way, SCG-availability is incorrect. Before turning to this, I want to point out in the next section one further problem for accommodation.

2.3 A timing problem for accommodation

Stalnaker (2002) discusses accommodation in detail, carefully considering the question of timing. He's concerned here with what is required for a speaker to appropriately use a presuppositional expression. As per the discussion above, Stalnaker observes that to speak appropriately, a speaker need not believe that the common ground requirements of expressions they use are in the common ground prior to the presuppositional utterance. Rather, the speaker must believe that the relevant presupposition will enter the common ground "in time" to be available to the listener. But when is "in time"? Stalnaker says this:

[T]he timing of the relevant beliefs is a delicate matter. Exactly when must [the speaker] have the relevant beliefs ... in order to be speaking appropriately? (Since her beliefs about what [the hearer] believes will be changing as she speaks.) The relevant time is a (perhaps somewhat idealized) point after the utterance event has taken place, but before it has been accepted or rejected. (Stalnaker, 2002, p. 709 fn. 14)

The idea of this "idealized point", however, is in tension with current literature on *grounding* (Clark & Schaefer, 1989; Clark, 1996). Grounding is the moment in interpretation at which a proposition—perhaps the content of an assertion—becomes cg. In order for the content of an assertion to become cg, it must be understood by the hearer, and accepted. As misunderstandings and rejections occur, a speaker is not licensed to assume that what she says (or implicates or presupposes) will immediately become cg. As articulated by Lascarides and Asher (2009), the current consensus in the literature on grounding is that grounding occurs only when there is positive evidence for it. Typically, a hearer will only respond with some positive signal of understanding, including acceptance or rejection, once they have grasped fully what the speaker has said, including how it fits into the conversation. In the Ramadan case, Leslie must calculate Micah's implicature using NR in order to be in a position to signal acceptance or rejection of Micah's conversational contribution. Micah, though, is not licensed to believe that the background proposition is cg until receiving evidence of understanding and acceptance. So a speaker who thinks that her addressee will need to accommodate some background information is not licensed to believe that that information is common ground until *after* the utterance is accepted or rejected. Consequently, a speaker who thinks that accommodation will be required is not licensed to believe that the accommodated proposition will be common ground at the point at which the utterance that requires it is interpreted and evaluated. Previously, we saw that hearers must retrieve a required background assumption or presupposition in order to accommodate it. Now we see that the fact of accommodation cannot actually become common ground

until an utterance is accepted or rejected. Stalnaker's idealized point does not exist.¹¹

I think that this is a significant problem for the standard accommodation story, even within the idealized Stalnakerian model. The fact of accommodation also casts doubt on the validity of the coordination argument for cg-availability. In cases like Ramadan (and these are not uncommon), listeners have to use general reasoning to identify a required background assumption. The fact that this assumption, once identified, (perhaps) becomes common ground does not explain why the speaker was licensed in expecting their interlocutor to use it in the first place. To foreshadow arguments to come, a much better explanation is that the speaker believes that their interlocutor is able to carry out the necessary inference.

3 Interpreting without common ground: the examples

In this section, I present the examples which form the core of my argument. The examples fall into two categories. The first set (Sect. 3.1) are examples in which a required piece of information fails to be SCG because it is not accepted by one of the interlocutors. The initial discussion will assume a Stalnakerian notion of acceptance; in Sect. 4.2 below, I argue that there is no plausible way to weaken this notion, hence the examples undermine cg-availability generally. The second category of counterexamples (Sect. 3.2) are cases of what Harris (2020) calls *publicity averse* situations. In these cases, required information is not common ground because there are no grounds for mutual belief of shared acceptance. For these examples too, it is hard to construct an alternative notion of publicity that supports cg-availability. In Sect. 3.3, I discuss alternative models of discourse that handle these examples unproblematically. This provides a concrete alternative to the view that I argue against.

I keep the discussion of the examples fairly brief; in Sect. 4, I will discuss and reply to a variety of responses on behalf of SCG/cg-availability that might be suggested to “save” the examples.

¹¹ In a talk given in June 2021 (“Publicity and Precursive Faith”, Princeton), Harvey Lederman argued for a more general version of the problem. He put it like this (talk handout):

Whenever we come to believe that something is public, we seem committed to the claim that either this is a case of perfect match, or that the other person moved too early. But this is oddly asymmetric: if we can know in general that very often someone moves too early, shouldn't we have some confidence that we might be the ones making a mistake? If so, couldn't that undermine our justification for believing that anything is public in the first place?

Lederman raises this as a general problem for the existence of common belief; I think it has particular bite in relation to accommodation to the cg, where shifts in belief states are triggered relatively indirectly and where there is always in principle the possibility of the addressee objecting to the “suggested” accommodation.

3.1 Availability without acceptance

Example 1. “Ramadan” with error

For our first example, we are going to replay the Ramadan conversation from Sect. 2.2, repeated below as (3):

- (3) [Leslie has just accepted Micah’s invitation to go to lunch]
 Leslie: Let’s see if Ned wants to come too.
 Micah: It’s Ramadan.

As before, in saying “It’s Ramadan”, Micah intends to implicate that Ned will not want to come to lunch, and perhaps that it would be inappropriate to invite him. Earlier, I ran through a fairly standard way of explaining how Leslie would come to recognize that implicature, by recognizing that she is supposed to assume that Ned is observing Ramadan (NR). In the previous discussion, we assumed that Leslie is initially agnostic about NR, but that Micah’s utterance leads to her accept this utterance, ultimately resulting in NR becoming SCG. (Although, as per the discussion above, too late to satisfy SCG-availability.)

But now, suppose that Leslie knows for a fact that Ned is *not* observing Ramadan, because she saw him enjoying a coffee and croissant that morning. (Let’s assume that Micah is correct that it is now Ramadan and that Leslie accepts this.) Leslie does not want to leave Ned out of the lunch plans, and replies immediately, “But Ned isn’t fasting.” Hence it seems reasonable to say that Leslie does not accept NR at any point. Consequently, according to SCG, or any view of cg which takes acceptance as the base attitude on which cg is built, NR is not SCG (cg), nor does Leslie at any point believe that it is. Nonetheless, we can easily imagine that Leslie will still identify Micah’s communicative intention, including his intended implicature, and plausibly in just the same way as she would if she *did* accept NR.¹²

What does cg/SCG-availability predict about the case? Earlier, we observed that cg-availability, if construed as a thesis about retrievability, is evidently false, so this thesis doesn’t help at all in understanding what makes NR retrievable. We noted though that cg-availability might still be thought of as a constraint on retrievability: that listeners (normatively) should and (descriptively) do aim to retrieve only propositions that *could* become common ground. However, as Leslie knows that she does not and will not accept NR, then according to this constraint, she ought not retrieve it or at least ought to recognize that she ought not to interpret Micah’s utterance relative to it. But it seems perfectly reasonable, indeed necessary, for her to retrieve it. Hence, SCG-availability does not, after all, constrain retrievability.

An open question here is how we decide which actions of speakers/hearers count as reasonable. One criterion is to consider what a reasonable interlocutor would *expect* them to do. In this case, Micah would expect Leslie to recognize his intended implicature, even when he learns that she rejects NR. He would be unsurprised, for

¹² In Sect. 4.1, I consider the argument that Leslie might calculate the implicature on the basis of the premise that Micah believes NR. Readers who are already concerned about this are invited to read the discussion in that section now.

example, if Leslie responds in a way that clearly indicates that she has understood what he meant despite rejecting NR: *But Ned isn't fasting. It's fine to ask him.* Similarly, Leslie might later tell Ned: *You nearly missed out on this lunch. Micah thought you were fasting and said we shouldn't invite you.*¹³ Micah, again, would be unsurprised that Leslie had identified his full communicative intent despite her rejection of the required background assumption. These observations support the idea that Leslie's interpretative behavior is reasonable; it is what a competent language user is expected to do in this situation.

In summary, the example shows that as long as Leslie is able to retrieve NR as the intended background assumption, interpretation can and typically does proceed in exactly the same way whether or not Leslie is willing to treat NR as true for purposes of the conversation. Of course what Leslie does after deriving the interpretation will differ in the two cases. But the status of NR as SCG seems irrelevant to its function in interpretation. The same conclusion can be reached for any other construal of cg on which (Stalnakerian) acceptance is a minimal requirement for the base attitude for cg. In Sect. 4.2, I'll consider whether there are viable alternatives to this requirement. First, I'll offer two additional examples that pose the same kind of problem for cg/SCG-availability (failure of acceptance), but that operate in slightly different ways.

Example 2: Insidious insinuation

Camp (2018, 2022) provides an analysis of insinuation according to which the identification of insinuation proceeds in a way similar to the identification of relevance implicatures, as in the example above. Camp calls the background assumptions required for the identification of insinuation "interpretive presuppositions". These are assumptions that the speaker has in mind as the interpretative background to their utterance; assumptions that the hearer must identify in order to recognize the intended insinuated meaning and that the speaker intends the hearer to so identify. In an important subset of cases of insinuation, however, the interpretive presuppositions are assumptions that the hearer rejects; often, the speaker well knows that the hearer rejects them. Particularly clear cases involve assumptions of negative attitudes towards the addressee. For example, suppose A is a woman executive, all of whose colleagues are male. A, who is pregnant, knows that her colleagues are biased against her on the basis of her gender and has a strong suspicion that they plan to try to use her upcoming motherhood as an excuse to get her fired. In a discussion about assignment of duties in relation to a future event, A offers to take on a demanding task. In reply, B says:

- (4) Maybe you shouldn't be in charge of that, I mean you're about to have a baby and all.

Let's assume that B intends (as is plausible in the scenario) to insinuate that after having the baby, A will not be able to perform as needed for her job. The insinuation is based on background assumptions that A completely rejects about the competence of women generally, and the competence of new mothers in particular. As A does not accept these assumptions, they cannot enter SCG (as noted by Camp).

¹³ Unless Leslie is a philosopher, she will not have qualms about using *say* here.

Nonetheless, A is able to retrieve these background assumptions and to use them in deriving the insinuated meaning. The case is thus similar to the *Ramadan with error* case. The difference from the case of honest error is that the speaker *knows* that the required background assumptions are not accepted by the addressee; hence in this case, even the speaker does not believe that the interpretive assumptions are, or will be, SCG. Yet the speaker clearly intends and expects the hearer to retrieve and use these assumptions in interpretation. (In fact, the main point of insinuation in these cases may be to make the background assumptions salient.) This takes us a step beyond *Ramadan with error*. In that example, the SCG theorist might hope to get traction from the idea that Leslie identifies NR as a proposition that Micah believes is (will be) SCG in the post-utterance context (see Sect. 4.1). In cases of insidious insinuation, this is not the case, because the speaker knows that the interpreter does not accept the interpretive assumptions that they are nonetheless expected to use in interpretation. SCG-availability thus predicts that both speaker and hearer should seem to be acting unreasonably, to be producing and interpreting utterances in a way that deviates from what is expected of a competent speaker. But the production and interpretation of insidious insinuation is surely part of the pragmatic competence of speakers. So as above, this example is incompatible with cg-availability on any construal of cg that requires acceptance as the base attitude.

On the basis of these insinuation examples, Camp (2018) argues that an adequate model of discourse cannot comprise only a single body of information (the SBI view). Camp argues for roles for three distinct bodies of information in the planning and interpretation of utterances: the Stalnakerian Common Ground, the conversational record (construed as a record of each participant's public commitments),¹⁴ and mutual beliefs. I am therefore following Camp in taking insinuation to provide an argument against SBI.

Example 3: Erroneous indexical

Suppose an instructor is teaching a class which meets MWF. At the end of a particular class meeting, the instructor says to the students: "Ok, we'll continue this on Wednesday." She says this thinking that today (the speech time) is Monday. In fact, it is Wednesday. If she had realized that today was Wednesday, she would have said: "We'll continue this on Friday." If she had, on Wednesday, actually intended to say that they would continue in a week's time, she would have said "We'll continue this *next* Wednesday."

Before continuing, a note on the indexicality of *Wednesday* in this context. Such uses of day names refer to the relevant day (in this case the Wednesday) that comes before (in past tense contexts) or after (for future tense contexts) the day of speech. It is at least mildly odd to refer to a day in exactly one week by using today's day name (that is to use *on Wednesday*, on a Wednesday, to refer to the day a week ahead).¹⁵ As a hearer, I need to know where you (the speaker) are locating yourself in time in order to identify the day you are referring to by your use of a day-name.

¹⁴ Camp further distinguishes the conversational record from the conversational score.

¹⁵ It seems to be fine to do this if it's already been established that the next week is under discussion, as in: "When are we meeting next week? / On Wednesday" said on a Wednesday.

Returning to the example, let's assume that the students all know that today is actually Wednesday. But they're unlikely to misconstrue the instructor's intention. Let's assume it's unlikely that the instructor would delay continuing the activity for a week, and unlikely that she would have expressed herself this way if that is what she intended. The students know that if today *was* Monday, then the next class *would* be on Wednesday and that the instructor would be saying that they will continue the activity in the next class—an expected announcement. So they interpret the instructor relative to a context in which the speech day is Monday. That context, however, is not the SCG, due to the mismatched beliefs (acceptances) of instructor and students. As the hearers are aware of the discrepancy, they do not believe that the SCG entails that today is Monday.

This example bears very directly on the Stalnakerian model because, as noted earlier, Stalnaker (2014, p. 24) is explicit that “the information that a context models includes all the information that is a resource for the interpretation of context-dependent expressions.”¹⁶ Hence, the cg/SCG-availability claim should surely pertain to whatever information the hearer needs access to in order to interpret a simple indexical like *on Wednesday*. Views may differ as to what proposition, if any, is actually expressed in this case.¹⁷ As far as what counts as reasonable behavior of the interlocutors, both speaker and hearers are behaving reasonably. Suppose that the speaker later discovers that today is Wednesday, but that the students interpreted her as if today was Monday. This would not be surprising or seem unreasonable, but merely the kind of adjustment that hearers make when they recognize that a speaker is making an incorrect assumption.

3.2 Availability without publicity

Harris (2020) discusses a variety of cases of what he calls *publicity-averse communication*. These are all cases in which the speaker/writer, for one reason or another, cannot be certain that the addressee will receive the message. Consequently, the messages conveyed cannot be SCG, because the situation does not support the establishment of the hierarchy of beliefs about the other's beliefs that is required on the Stalnaker view. Although in all of these cases both speaker and hearer accept the relevant content, the content fails to be public in the intuitive sense of it being transparent to each agent that each of them is appropriately connected to the content—there is a true failure of publicity. Where the addressee does receive and understand the message, Harris argues, the essential aim of the associated

¹⁶ There is an ambiguity here: it's unclear whether in saying “the interpretation of context-dependent expressions”, Stalnaker is talking about interpretation as a process being carried out by a hearer and resulting in *their* interpretation of the utterance, or is rather about the hearer-independent “objective” interpretation of an indexical in a context. That is, it's unclear from this brief note whether Stalnaker thinks that the SCG is relevant only to the appropriate behavior of speakers/hearers, or thinks additionally that it is the SCG that fixes the interpretation of an indexical on some occasion of use. Stalnaker (1978, p. 90) states that it is how things are in the actual world that determines the interpretation of an indexical, and hence the proposition expressed. In that case, SCG-availability is not relevant to the question of actually fixing the propositional content of the utterance.

¹⁷ Another thought here might be that interpreters would resort to diagonalization here. But that doesn't produce the interpretation that (I think) is most plausibly assigned.

speech act is accomplished, although a common ground update is not possible. Where interpretation of the utterance requires drawing on some background information, or where one utterance is supposed to provide the context for the interpretation of the next, these scenarios provide further evidence that what is available for interpretation is not restricted to (what is believed to be) common ground.

Many ordinary cases of communication-at-a-distance are publicity-averse. Consider a simple case: you receive a letter from a friend doing fieldwork in some remote location. The letter begins: “I don’t know when this letter will reach you, or even if it will.” This establishes that none of the letter’s content can be public, let alone SCG, between the sender and you. Nonetheless, as you read through the letter, the statements made earlier in the letter provide the background relative to which you interpret whatever is written later in the letter. Similarly, suppose your friend writes: “I normally eat my lunch with the rest of the team, but right now am eating alone as it’s Ramadan.” From this you infer the background assumption that your friend’s teammates are observing Ramadan, and hence derive the implicature that they are not eating lunch. Thus, you retrieve and use a background assumption needed to identify the relevance of some content expressed. You are well aware that this content is not public between you and the writer; but nonetheless, this is what you do as a competent reader, and this is precisely what your friend would expect you to do as you read.

This kind of example easily generalizes. It happens every time you send an email or text to a recipient without being able to know exactly when they receive or read it. Another example: you are giving a lecture to a class where one student is intentionally giving the appearance of not paying attention, but in fact is doing so.¹⁸ This student too can use what you say at the beginning of your lecture as context for what you say at the end, despite the fact that what you say is not public between the two of you.

Finally, let’s consider the case of overhearing, not discussed by Harris (because not relevant to his main point). Suppose Olive overhears the conversation in *Ramadan* between Micah and Leslie about Ned, but neither Micah nor Leslie notices that she does. As a competent overhearer (surely overhearing is something that our linguistic competence equips us to do), Olive, having retrieved NR, will use it in interpreting Micah’s utterance. Again, if Micah or Leslie later learns that Olive overheard the conversation, they will be unsurprised that she used NR in interpretation it is what is reasonable and normal for an overhearer to do.

3.3 An alternative model

The examples in Sect. 3.1 demonstrate that an interpreter can reason about a speaker’s communicative intention on the basis of premises which they do not believe or accept. They are engaging therefore in a kind of hypothetical reasoning. More specifically, I argue, they are adopting the evident perspective of the speaker,

¹⁸ Harris gives a slightly different version of the inattentive student example in the paper; he suggested this modification to me in conversation.

and reasoning within that perspective. This way of understanding the cases fits well with the model of discourse proposed by Heller and Brown-Schmidt (2023; henceforward HBS) which they call the *Multiple Perspectives Theory* (MPT).

According to MPT, each participant in a conversation maintains a representation of the discourse-relevant information of each conversational participant, including themselves. HBS call these representations *perspectives*. An agent *A*'s self-perspective is a representation of the discourse-relevant information *A* currently has, including the source of each item of information (cf. Gunlogson, 2008) and *A*'s degree of certainty about it. The representation also tracks discourse-relevant information that *A* is aware that they *lack*. (For example, *A* may know that their spouse will come home later but be aware that they do not know at what time.) For each additional participant *p*, *A* maintains a *partner-perspective*, the analog of the self-perspective but representing the information that, as far as *A* knows, that participant has.

The crucial difference between an agent's self-perspective and their partner-perspectives (their own representation of their interlocutors' information) is that no agent has direct access to what their conversational partners know, believe or accept. Sometimes, an agent can be confident about what their partners know; for example, a parent knows that their child's perspective includes information about who is in their family. But typically, agents must make inferences and guesses as to their partner's perspectives. As HBS point out, the very same cues that have been argued in the literature to provide evidence about the common ground provide evidence about a partner's perspective. Additionally, each agent can assume that salient events occurring in the immediate environment, including the linguistic events making up the recent discourse, are reflected in their partner's perspectives. As these events occur, each agent updates both their self-perspective and their partner-perspectives to reflect the information or conversational commitments conveyed by the utterance.

In addition to positing that each agent maintains representations of self and others, MPT holds that there is a cognitive process that compares these representations in an ongoing way, and that the output of this process is used in planning conversational moves. Based on a wealth of empirical evidence, HBS argue that speakers and interpreters draw on both their self-perspective and on their partner-perspectives in planning and interpreting utterances.

Now consider how *Ramadan with error* (Example 1) would work in MPT. We can assume that prior to her conversation with Micah about lunch, Leslie's representation of Micah's perspective contains no information about Ramadan or about Ned's observance of Ramadan. Even if Leslie, if asked, would think it likely that Micah knows basic information about Ramadan, she would not have found that information relevant to the current conversation prior to Micah's utterance, hence would not represent it in her model of Micah's perspective. For the same reason, this information can be assumed not part of Leslie's self-perspective prior to the utterance. (Recall that an agent's self-perspective is a model of their discourse-relevant information.) The mention of Ramadan raises to salience the information that Leslie has about this practice; this now becomes part of her self-perspective. Because Micah has mentioned Ramadan, Leslie plausibly also updates her model of

Micah's perspective to include the same information. And because Ramadan is mentioned in the context of a conversation about Ned, it is plausible that Leslie's belief that Ned does not observe Ramadan also becomes encoded in her self-perspective. All of this we can assume takes place automatically, along with the addition to Leslie's own self-perspective and to her partner-perspective of the information that it is now Ramadan.

Leslie considers this information in conjunction with the information now in her self-perspective, but it does not generate any discourse-relevant consequences. But Leslie assumes that Micah intends to respond relevantly; a plausible assumption is that from *his* perspective, the information that it is Ramadan *is* relevant. So Leslie needs to find a way to revise her model of Micah's perspective in such a way that the addition to his perspective of the fact that it is Ramadan will give rise to a discourse-relevant implication. She identifies NR as an addition to Micah's perspective that has that effect, simultaneously identifying the discourse relevant implication. She does not update her own self-perspective with NR, as she considers NR false. But because she has a representation of Micah's perspective, she can recognize that, from his perspective, he has implicated that they should not invite Ned to lunch.

Seen from the perspective of MPT, *Ramadan with error*—although it ultimately results in Leslie's rejection of Micah's implicature—does not involve any kind of failure or infelicity. Micah makes a conversational move that is straightforwardly interpretable by Leslie, using the conversational resources at her disposal, namely, her representations of her own and of Micah's perspectives, and her ability to make inferences, in particular about the latter. Adoption of MPT allows us to discard the distinction forced on us earlier by cg-availability between retrievability and availability (what a speaker/hearer is *licensed* to assume). On this theory, what is retrievable *is* what is available. The hearer is licensed to use information that is plausibly intended by the speaker to be so used; and the speaker can intend the hearer to use any assumptions that they can plausibly expect the hearer to retrieve. In our example, what makes it reasonable for Micah to assume NR in planning his utterance is that “[he] thinks (and would expect the hearer to think that the speaker thinks) that it is within the competence of the hearer to work out, or grasp intuitively, that the supposition [NR] ... is required” (Grice, 1975). I quote Grice here to emphasize that the proposal that availability should be understood in terms of the presumed inferential capacity of the listener is baked into the foundational idea of implicature.¹⁹

MPT does not deny that an agent might represent and reason with iterative attitudes to some degree. Suppose that prior to their *Ramadan* conversation, Leslie had overheard Micah telling Olive: “Leslie is so ignorant about other cultures. She doesn't even know that Ramadan is a fast.” Let's assume Micah is sincere, but mistaken. When Micah mentions Ramadan to her, Leslie will likely recall this

¹⁹ I am cheating here slightly. The quote comes from Grice's characterization of conversational implicature; the supposition that Grice refers to is the implicature itself. But as various authors have argued, the background assumptions required to identify a relevance implicature are also a type of implicature, and are well captured by Grice's characterization (Simons, 2005; Sperber and Wilson, 1995; Thomason, 1990).

comment, and include in her Micah-perspective Micah's belief that she, Leslie, does *not* believe that Ramadan is a fast. This would surely make her puzzled as to what Micah intends. Is he trying to put her on the spot, to force her to reveal her ignorance? Has he forgotten that (he believes that) she doesn't know what Ramadan is? This shows that the theory has the capacity to model reasoning with beliefs about other's beliefs, on the occasions where such beliefs are relevant to pragmatic inference. The central claim of MPT, and of this paper, is that reasoning about the common ground (which on standard accounts involves reasoning about iterated attitudes) plays no essential role in the identification of reasonable background assumptions.

The remaining Sect. 3.1 examples work similarly. The treatment of Example 3 (*Erroneous Indexical*) is analogous to Example 1, with the difference that prior to the utterance, the students' model of the instructor's perspective would have contained correct information about the day of the week, namely, that it was Wednesday. The instructor's utterance is not compatible with that view of their perspective, so leads the hearers to revise their models of the speaker. The students, who want to grasp what the instructor intends to communicate, reason about the utterance from the perspective that has been made evident and interpret the utterance as it would be understood if today was Monday. This view of the case allows theorists to maintain standard analyses of the semantics of context-dependent items, but shows that the relevant context need not be common ground information. As long as I can model your incorrect assumptions, I can use them for interpreting your utterances.

Example 2 (*Insidious Insinuation*) is particularly straightforward in MPT. In this case, the hearer (the woman executive) already has a representation of the speaker's perspective which (correctly) attributes to him various sexist attitudes. Those attitudes provide the background to the hearer's reasoning about the speaker's utterance and what he takes its implications to be. As the speaker has reason to believe that the hearer is aware of his attitudes, he can expect her to recognize the implications he intends without herself accepting the background beliefs which support those implications.

Cases of publicity averse communication are similarly straightforward on this model. If you receive a letter from a friend, you will construct a representation of that friend's perspective, modeling your current beliefs about their information state, and updating that perspective, and perhaps your own, as you read and acquire information. As MPT provides no special role for common ground, its absence in cases of publicity aversion is unproblematic.

MPT has antecedents in the theoretical linguistics literature. Gunlogson (2003, 2008), Lascarides and Asher (2009), and Farkas and Bruce (2010) all propose discourse models that include representations of each individual interlocutors' discourse commitments.²⁰ Gunlogson's model is prompted by exploration of

²⁰ Of the prior models, that of Lascarides and Asher is the closest to MPT. That model is framed in a version of Segmented Discourse Representation Theory (SDRT; Asher and Lascarides 2003). It is not hard to envision a refinement of MPT in which perspectives include not only general information but also an evolving SDRT representation of the current discourse commitments of each speaker. In early presentations of their model, HBS proposed something along these lines. For another closely related model, see Ginzburg (2012).

the felicity conditions on question forms; Lascarides and Asher (2009) and Farkas and Bruce (2010) are interested in the phenomena of agreement and disagreement. Asking and answering questions, agreeing and disagreeing, are core aspects of communication, and as these theorists argue, can only be modeled and theorized about in a framework that represents differences in information states.²¹ (HBS, too, use question asking/answering in their arguments for MPT.) Hence, to describe how these communicative acts work, theorists must look beyond SBI for a model of communication.

4 Responses and replies

In this section, I consider four kinds of responses that the cg-theorist might offer to my examples. The first two specifically relate to the non-acceptance cases, the second two are more general responses.

4.1 Response to non-acceptance cases: speaker beliefs are SCG

I have suggested that in the non-acceptance cases in Sect. 3.1, interpreters reason about a speaker's intention by adopting the speaker's perspective. According to that story, interpreters learn about the speaker's perspective by reasoning about what would make it reasonable for them to say what they have said. It is public, in the strong SCG sense, that they have said what they have said. And it is plausibly public that the hearer has the reasoning abilities that they have. This suggests a common ground solution to the problem raised in the examples.²² Surely (the response goes) while the contents of the background beliefs (that Ned is observing Ramadan, or that it's Monday) are not SCG, the utterances cause it to be SCG *that the speaker has the beliefs*. Interpreters reason, not on the basis of the contents simpliciter, but on the basis of the SCG information that the speaker has the relevant beliefs. Hence, speakers and interpreters utilize only SCG information, as per SCG-availability.

I cannot say that I have a knock-down argument against this position, but I have two related arguments that I think undermine its appeal as compared to the position described in Sect. 3.3. The first argument pertains to the difference between inferences supported by first order propositions and inferences supported by propositions about beliefs. Implicatures are generally of the first sort. To elaborate: when a speaker asserts that p , this does (typically) provide evidence that she

²¹ All of these models, including MPT, can be considered SBI models in the attenuated sense that we can define a discourse model or context as a structured entity containing each of the relevant representations. Lascarides and Asher (2009), for example, posit a structure they call a Dialogue Segmented Discourse Representation Structure (DSDRS), consisting of a set of discourse representations, each corresponding to the discourse commitments of a particular interlocutor. Each interlocutor is modeled as maintaining their own representation of the DSDRS. So each interlocutor in a somewhat trivial sense utilizes only one body of information—the entire DSDRS—in interpretation. However, what's critical for a model to count as non-SBI is that the represented perspectives or commitments are taken to function independently in processes of planning or interpretation. This is the assumption in both MPT and in Lascarides and Asher's model.

²² Thanks to the anonymous handling editor for pushing me to address this point.

believes that p ; but it is generally held that asserting that p is not merely an expression of belief. One asserts the content of the utterance. Similarly for implicature: when a speaker implicates that p , she indicates that she believes that p , but what she implicates is p itself, and not merely that she believes it. So the premises on the basis of which the interpreter infers the implicature must be first order propositions, not merely propositions about belief. To see this, consider the two arguments below:

- | | |
|---|--|
| a.i. It is now Ramadan. | a.ii. It is now Ramadan. |
| b.i. Ned observes Ramadan. | b.ii. Micah believes that Ned observes Ramadan. |
| c.i. Therefore Ned will not eat during the day today | c.ii. Therefore Micah believes that Ned will not eat during the day today. |
| d.i. Therefore we should not invite Ned to lunch. ²³ | d.ii. Therefore Micah believes that we should not invite Ned to lunch. |

If we want to allow that Micah successfully implicates d.i., then we need to allow that Leslie reasoned from b.i., not b.ii. One way to model *that* reasoning is as reasoning from the perspective of the speaker. As suggested above, Leslie revises her model of Micah's perspective to include the proposition that Ned observes Ramadan, and can reason from within this perspective to the conclusion d.i., as shown. Assuming that Micah intends her to recognize this reasoning, she recognizes that he intends to communicate the conclusion d.i.²⁴

If this point holds, then a stronger point follows. Let's consider how Micah's utterance enables Leslie to learn that Micah believes NR. First, she recognizes that Micah intends to convey something indirectly, because what he says is otherwise irrelevant to her suggestion. She assumes that there is some proposition she is supposed to retrieve that, in combination with what is asserted, would generate a relevant implication. We've just observed that that implication must be the first order proposition NR. Leslie recognizes that if NR *were* part of Micah's perspective, then his perspective would support a relevant conclusion. It is on this basis that she comes to believe that Micah believes NR. So the reasoning on the basis of NR (within Micah's perspective) precedes the conclusion that Micah believes NR. Hence, it becomes SCG between Leslie and Micah that Micah believes NR *because* Leslie was first able to retrieve NR and to deduce that the addition of NR to Micah's perspective would render his utterance relevant. In other words, NR must be available to Leslie in order for her to infer that Micah believes NR. To then insist that Leslie calculates the implicature on the basis of the proposition that Micah believes NR seems rather perverse, as she must already have reasoned from NR itself in order to identify this as the background belief supporting Micah's statement. The argument here is similar in structure to the earlier argument that

²³ There are additional premises here about desiring to avoid offence or awkwardness, which I leave implicit.

²⁴ As noted above, it may be that Micah believes that Leslie shares, or will accept, his belief that Ned is observing Ramadan, and hence can reason within her own conversational perspective. The insinuation example below shows that sometimes speakers specifically intend hearers to reason from their (the speaker's) perspective.

retrievability must be distinguished from some normative notion of availability, because before a proposition can become cg/SCG, it must be retrieved and considered.

4.2 Public after all? Weakening the private attitude

We distinguished at the outset between a pre-theoretic notion of common ground, or publicity—an informal, intuitive notion—and SCG, the particular interpretation of common ground proposed by Stalnaker and the view most generally accepted within linguistics and philosophy of language. One way to “save” SBI-cg from the counterexamples I’ve proposed is to find an alternative way of defining publicity. In this section, I’ll consider the possibility of weakening SCG by weakening the notion of acceptance. I want to highlight two points to bear in mind as we consider these alternatives. First, recall that cg-availability is a sub-thesis of SBI-cg theory, according to which there is a single body of information which is both the target of speech acts and the source of available information. So a redefinition of common ground that seems to work as a characterization of availability needs to also work as a plausible construct for the target of speech acts. Second, recall the coordination argument briefly reviewed in Sect. 2.1, which provides the motivation for taking common ground to be the source of available information. I take it that only a definition which supports this argument is a reasonable substitute for SCG.

In the examples in Sect. 3.1, interpreters reason about what a speaker means by hypothetical reasoning involving a premise that they themselves do not believe and are not willing to treat as true. At least in our ordinary way of talking, they do not accept these premises. Stalnaker (1984, p. 79) characterizes acceptance as “a generic propositional attitude concept with such notions as presupposing, presuming, postulating, positing, assuming and supposing as well as believing falling under it”, but emphasizes that it is a technical term; the definition is not intended as an analysis of “common usage” (p. 77). So the cg-theorist is free to revise the notion so as to encompass whatever relation holds between the interpreters and the relevant propositions in our examples. I will argue that the resulting notion of acceptance will be too weak to do the work that it is supposed to do elsewhere in the cg-based model.

Let’s focus on the *Ramadan* example. The SCG-theorist might argue that in this case, although Leslie never *believes* NR, she does, momentarily, accept it for the purposes of interpreting Micah’s utterance, although subsequently, she rejects it. This moment of accepting-for-purposes-of-interpreting suffices to make NR SCG.

The proposal makes the notion of acceptance about as thin as it could be; to merely entertain a proposition, to hold it in mind, is to accept it. So if it is common belief amongst interlocutors that they are all entertaining a proposition, that proposition counts as SCG. This has consequences for both the model of assertion as SCG update and the model of presupposition and presupposition accommodation. Let’s take these in turn. Contemporary SCG theorists generally accept the idea that an assertion of p is a proposal to update the SCG with p . Assertion is successful if the SCG is so updated. If we allow that merely entertaining or accessing a proposition counts as acceptance, then as long as a speaker is understood, SCG

update seems unavoidable. Suppose A and B are looking out of a window on a sunny, clearly rainless day. A says *It's raining*. B hears and understands, and for a moment ponders how to reject this obviously false claim. In that pause, A and B are both entertaining the proposition that it's raining, and it is common belief between them that they are. If entertaining p suffices for accepting p , then at that moment p is SCG and the act of assertion has succeeded. But SCG theorists generally want the success of an assertion to involve something more substantial, in particular, a willingness to continue to treat p as accepted for the continuation of the conversation.

Now let's consider the case of presupposition accommodation. Suppose for example that a speaker says "Yasmin doesn't know that Deshaun was late" to an addressee who believes that Deshaun was *not* late, and is not willing to accept it for purposes of the conversation. We would normally describe this as a case of presupposition failure, a case where a required presupposition cannot be accommodated. Yet there must be a point at which the addressee recognizes what the speaker is presupposing and hence what the speaker intends to assert; this merely repeats my earlier point that retrieval precedes accommodation. If we took this to mean that the required presupposition in fact *is* SCG at the moment that it is retrieved, then we would lose the standard characterization of presupposition failure in the SCG-availability theory. The presupposition would be accommodated at the moment that the hearer recognized it as needed. Rejection of a presupposition would become, on this picture, removal of an already accepted presupposition. The shift to this weaker notion of acceptance thus doesn't come for free, but requires consequential adjustments to other aspects of SBI-SCG theory.

A reviewer suggests an alternative strategy for "saving" the publicity of NR in the overhearing case (and presumably generally in the error cases). They suggest a notion of publicity that is satisfied by the fact that "the information relevant to the extraction of NR was put in a publicly accessible location—everyone in the vicinity had access to that information and was thus able to get to NR." One way to understand this suggestion is that we should treat as public everything that is retrievable by any hearer.²⁵ That certainly solves the availability problem; as I've already argued, retrievability is really what is at issue in determining what can be used in interpretation. But adopting the set of retrievable propositions as the SBI will lead to the same problems for SBI as we have just discussed: it undermines the distinctions between successful and unsuccessful assertion and between presupposition success and failure as these are understood in SBI. A speaker who says *It's raining* on a clear sunny day certainly makes this proposition retrievable to all hearers. But hopefully, the speaker does not make a successful assertion. A theorist might choose to adopt retrievability as their theory of availability, on the grounds that this can be justified as public, and then adopt an alternative account of assertion and other speech acts. The resulting theory would not be an SBI theory. Hence, the revised account of publicity doesn't save cg-availability as part of the SBI-cg

²⁵ Making this adequately precise would take some work. Which hearers count? Hearers with the same background information as the speaker? Fully informed hearers? Hearers who are ideal reasoners? Note that to follow the reviewer's suggestion, we can't limit hearers to the conversational participants, as this was proposed as a solution for the overhearing case.

theory, which is the target of the critique.²⁶ The problem here is very general: if we make the SBI inclusive enough to model availability, we make it *too* inclusive for a model of assertoric success.

Let's try one more move. The non-acceptance examples of Sect. 3.1 might be seen simply as adding to the evidence that a model of discourse needs to track the distinct discourse commitments of speakers, as in the Table Model of Farkas and Bruce (2010). The Table Model contains a representation of each interlocutor's Commitment Set, as well as of the set of commitments that have been agreed upon.²⁷ However, Farkas and Bruce also assume that the entire structure is public. So for example in *Ramadan with error*, they might say that NR enters Micah's Commitment Set, and it is public that it does so. In this sense (according to the story), NR is public, by virtue of being (publicly) represented as part of the Commitment Set of an interlocutor. This story is only minimally different from the MPT account I laid out earlier; the crucial addition is the assumption of publicity of the entire model. The central question here is whether the publicity of the entire structure has any essential explanatory role. Harris's publicity-averse cases argue against this conclusion.²⁸

4.3 The defectiveness defense

An anonymous reviewer suggests the following response to my arguments, on behalf of CG-theorists:

The common ground [model] is intended as a theory of non-defective, paradigmatic conversation... The fan of common ground should then say that the [Ramadan with error] example is defective or nonparadigmatic, even though the discourse here is comprehensible.

Clarifying the notion of defectiveness involved, the reviewer suggests distinguishing two notions of defectiveness:

Sometimes a discourse is defective because it will crash. Other times a discourse may be defective because it is simply outside of the "core" phenomena that the theory treats as paradigmatic, which [are] then used to extrapolate to other cases. Once we see that not all defective situations are

²⁶ The theory sketched in this paragraph is very close to the Relevance Theory (RT) view of context and context update. In RT, a proposition is manifest to an agent to the extent that she is likely to entertain it and accept it as true (see Sect. 2.2). The theory holds that the goal of assertion is to make new propositions manifest to the addressee. But as manifestness requires that the propositions might be accepted as true, the proposition that it's raining would not become manifest to the hearer in the example given.

²⁷ Farkas and Bruce's model is a type of Scoreboard model (Lewis, 1979); there are several on the market (see e.g., Roberts, 2012). These can be considered SBI models, where the SBI is a structured entity, but are not necessarily SBI-cg models. See fn. 22.

²⁸ Armstrong (forthcoming) proposes a characterization of common ground without iterative attitudes. Very roughly, his proposal is that information is common ground between agents just in case their acceptance-for-purposes-of-interaction of that information covaries, and is a result of some feature of their shared interaction.

ones in which everything is broken and that some are just cases that lie outside the (putatively) core phenomenon, then I think the result that many common situations are in this sense defective would not be a disastrous a result. Instead, the theory is a theory of (what it claims is) a core part of communication, and the idea is to provide derivative accounts of other forms of communication based on this one.

I've taken the liberty of quoting the reviewer at length because they put the point very clearly, and because I suspect (as did the reviewer) that this will resonate with many cg-theorists. Focused on the cg-availability thesis, the position would be that there are “core” or “paradigmatic” cases of (successfully) using information for interpretation and/or planning, and other cases that lie outside this core; and that cg-availability is only intended as a theory of the paradigmatic uses.

So what would count as a paradigmatic case? It seems clear that a responsible theorist cannot simply *stipulate* that the paradigmatic cases—the cases for which the theory is responsible—are those in which conversationalists draw on cg information for planning/interpreting utterances, and that any case in which they draw on non-cg information is defective. To do this is to stipulate that the cg-availability thesis is correct. We would need instead some theory-independent way of carving out a subset of core cases, and some reason for taking them to be paradigmatic or core. We might for example identify conversational uses of information in terms of the use to which information is put: information needed for fixing the reference of an indexical, information needed for identifying implicatures, information needed for choosing a suitable referential expression. These seem like reasonable ways of delimiting the scope of an inquiry into availability. I've already demonstrated that the first of these two types of use are not well-modeled by cg-availability. I see no obvious way to rule out Leslie's use of NR as a “non-core” case of conversational inference without ruling out cases that fall squarely within the apparent purview of the cg-model. A theorist who wishes to maintain the position sketched in the quote above is responsible for offering a suitable characterization of core cases (as the reviewer indeed notes in the continuation of their remarks).

But surely (comes the cry) examples like 1 (*Ramadan with error*) or 3 (*Erroneous Indexical*) are clearly instances of conversations in which something has “gone wrong.” They are cases in which speakers make mistakes about what their interlocutors accept. Surely these misalignments should be considered defective? This intuition (if it exists) can only be a consequence of long exposure to the common ground model, with its presumption of alignment of (beliefs about) context. Given MPT, this kind of misalignment is the norm, and an important part of being a competent speaker is the ability to plan and to interpret utterances in light of these misalignments. Misalignments indeed *are* an ordinary, common part of conversational situations, so it is unclear why we should prefer a model that legislates these as being beyond the scope of the core theory.

Another approach to the core/non-core distinction invokes normativity. The argument perhaps would go like this: ideal, error free communication (let's say) requires reliance on public information. A competent speaker ought to be aiming for ideal communication (Clark & Carlson, 1981). Therefore a theory of competence

should be based on common ground. Any behavior outside of the theory is noncompetent behavior, for which we need a distinct kind of theory, a theory of performance.

Several points can be made in response to this (admittedly imagined) argument. The very first premise is challenged by recent arguments that social coordination may not in fact require as much common knowledge (belief) between agents as the standard picture assumes (Lederman, 2017; Armstrong forthcoming). Indeed (as Lederman points out), in Lewis's account of convention, coordination based on salience is presupposed in the development of some cases of convention (Lewis, 1969, pp. 36–42). But perhaps more important to call out is the slide from theories of the normatively ideal to theories of competence (again, see Elqayam and Evans 2011). Competent speakers in fact operate in the far-from-ideal world. For those of us interested in a descriptively and explanatorily adequate model of the behavior of these speakers, restriction to a model of an imaginary class of ideal agents is unsatisfying.

4.4 The “as if cg” response

The final response I consider is a continuation of the response suggested above. Suppose a theorist is unpersuaded by the argument just given (Sect. 4.3), and maintains the view that SBI-SCG/cg should be construed as a theory of a core part of communication (whatever part is actually correctly modeled by this theory). The theorist might then argue that the theory can still be used to model cases that fall outside the core by supposing that in these cases, participants behave as they would behave if they were in a position to share a common ground with their interlocutor and if all presuppositions and assertions of each speaker were in fact in the common ground.²⁹ This is perhaps most appealing as a way to address the publicity-averse cases, and I'll discuss it in relation to them.

There are two ways to understand this response; I'll reply to each in turn. One thought is that this is a useful strategy for the theorist. Lacking an account for cases like the publicity-averse cases, she can nonetheless use the “as if cg” strategy to predict behavior, perhaps finding interest in points at which observed behavior deviates from what is predicted. Understood in this way, the “as if cg” approach does not claim to be a model of how agents *actually* succeed in communicating successfully in the absence of publicity.

Alternatively, the theorist might take the “as if cg” story as an account of how people actually reason in publicity averse scenarios. On this picture, speakers and interpreters in publicity-averse scenarios must (at least implicitly) envision what their communication would be like in (something like) a face-to-face situation. One problem with this idea is that ordinary speakers know that conversation frequently does not evolve smoothly and fully predictably: in actual face-to-face conversation, there are misunderstandings and disagreements. Even without those complications,

²⁹ A reviewer suggests that we might even define publicity on this basis: information is public just in case, had things gone “correctly”, there would have been common belief of acceptance. The discussion in the text hopefully clarifies that what it means for things to “go correctly” is not straightforward.

people in ordinary conversation look for signals of understanding and agreement before taking contents to be grounded (see discussion in Sect. 2.3), which obviously is absent in a publicity-averse situation. So the picture would have to be one in which interlocutors are required to envision the evolution of common ground in a nonrealistic, idealized situation. That makes the task of planning and interpreting publicity-averse utterances seem like it should be pretty hard. But this is not the case. Further, positing that an interpreter interprets as if she shares common ground with the sender of the message in a publicity averse scenario requires the assumption that the interpreter at least implicitly knows that she needs to construct this counterfactual representation. This seems to attribute to all of us more awareness of the internal workings of communication than seems reasonable.

5 Conclusion

This paper is a critique of the Stalnakerian claim that the SCG constitutes the information available to interlocutors in discourse. I start with the strongest target, the SCG-availability claim, as SCG is the only fully worked out model of linguistic common ground currently in the literature. However, I also explore weaker versions, considering some possible alternatives to SCG. The conclusion I reach is that the common ground, in any plausible interpretation, is not a good model of the information that interpreters can appropriately use in planning or interpreting utterances. This in turn undermines the idea that communication relies on a single body of information which is both the target for speech acts and the background relative to which they are interpreted.

I start the paper with some brush clearing, first clarifying the distinction between what is *retrievable* for a speaker/hearer, and what is *available*. Retrieval (a concept that turns out to be closely related to Sperber and Wilson's (1995) notion of manifestness) delineates the propositions (and perhaps non-propositional contents, such as individuals) that an agent is able to bring to bear on a given task of language production or interpretation. What is retrievable for an agent is (as per Sperber & Wilson) a matter of their cognitive abilities in conjunction with the utterance situation. It is self-evident that what is retrievable for an agent is neither actually nor normatively limited to the common ground, for if it were there would be no possibility of expanding the common ground. The only plausible interpretation of cg-availability, then, is as a constraint on what it is *appropriate* for a speaker to retrieve and use. I don't think anyone will be surprised at this interpretation of the cg-availability thesis, as we are used to thinking of common ground constraints as felicity constraints. But I think the distinction between the two notions has not been properly appreciated, as suggested by Clark and Carlson's (1981) attempt to resolve the search problem for interpretation by invoking common ground.

As a second brush-clearing step, I pointed out a timing problem for the standard account of accommodation in SBI-SCG. The fact that required presuppositions are very often not common ground prior to the presupposing utterance has been a thorn in the side of the common ground account of presupposition, and hence of availability generally, since its beginnings (see e.g., Stalnaker, 1999b, p. 51).

Stalnaker, and the field, have settled on the account of accommodation discussed earlier. If I am right, the standard solution doesn't work, and the longstanding problem remains.

In the remainder of the paper (Sect. 3), I provided some examples that challenge the cg-availability thesis in different ways. Section 3.1 gives examples where a hearer reasonably interprets an utterance relative to a background assumption that she does not accept, and that therefore is not SCG. In the insinuation example, the speaker knows that the hearer will not accept the required assumption, so the content doubly fails to be SCG. The most critical argument relating to these cases is in Sect. 4.2, where I argue that any way of weakening the SCG to allow the needed assumptions to count as common ground leaves us with a body of information that is not plausibly understood as the target of speech acts. So the examples are a challenge to SBI—the thesis that there is a single body of information which is both the target of, and background to, speech acts.

The examples I give in Sect. 3.2, borrowed from Harris (2020), provide a more straightforward argument against cg-availability, as they involve utterances which are not public in any standard sense between speaker/writer and interpreter. In Sect. 4.4, I argue that these cannot be accommodated within the theory by assuming an “as if” common ground. And in Sect. 4.3, I argue that we should not be satisfied with a theory that treats my examples and their ilk as beyond its scope.

What is the upshot? Regarding availability, I conclude that the relevant notion for explaining felicity of speech acts is that background information needed for interpretation be *retrievable* by the hearer. Specifically, the hearer needs to be able to inferentially construct a model of *the speaker* as assuming that information. Hearers who know that their interlocutors have mistaken information can interpret in light of that information; speakers making assumptions that are rejected by their interlocutors can force interpretation in relation to those assumptions. While in many conversational settings, required background information may turn out to be public in some sense, my central claim is that this is not an essential feature of successful communication. From this it follows that a descriptively adequate model of communication cannot be built around a single body of public information serving as both target of and background to speech acts. I have tried to detach my arguments from any particular construal of publicity/common ground, as alternatives to SCG are conceivable. No clear alternative construal has, though, emerged as a strong contender, and I think we should be leery of building a theory on the basis of vague intuitions about publicity; those intuitions may not even pick out a unified class of cases (Lederman, 2017).

The linguistic literature has identified at least two phenomena—agreement/disagreement, and question asking—which require models of discourse that represent the different information states of different interlocutors. The need to model individuals also comes up in the literature on predicates of personal taste (e. g., Kneer et al., 2017) and in the literature on epistemic modality (e.g., Roberts, 2023). The current paper adds availability as an issue that requires modeling of different perspectives. This is essentially the argument of HBS, but we approach the issue in very different ways. Additionally, the arguments of this paper question whether there is any additional role to be fulfilled by (a representation of) common

ground. Farkas and Bruce's Table Model, for example, includes representations of each speaker's Discourse Commitments but also of the common ground; cg-availability is still adopted there as a constraint on presupposition satisfaction (Farkas & Bruce, 2010, p. 86). Similarly, Camp (2018) assumes that the cluster of information states that are relevant to interpretation includes the common ground; I have shown that availability is not a justification for that. Harris (2020), from whom I borrowed my publicity averse examples, offers an extensive critique of common ground as a model of the target of speech acts; I build on that work by attacking the second pillar of common ground theory, the cg-availability thesis. If the common ground (on any plausible construal) is neither a good model of available information nor of the target of speech acts, then we are left with no obvious role for this construct in descriptively adequate theories of language behavior.

A worry might arise here. SBI seems to play a central role in much current semantic theory. In particular, SBI seems to be assumed in theories of dynamic semantics, which model meaning in terms of changes to an information state. These theories generally posit a single information state shared by interlocutors. However, for most applications of dynamic semantics, no particular interpretation of that information state is required, and in current work, none is typically given. Context Change Semantics (CCS), originating with Heim (1982, 1983), indeed has Stalnakerian foundations; Heim (1982, §3.1.4) explicitly identifies contexts with SCG. But in her seminal paper on presupposition projection, Heim (1983) provides a purely formal definition of context, with no claims as to its intended interpretation. Similarly, Heim (1992) identifies contexts merely as "states of information", a characterization echoed in Veltman (1996). Veltman's accompanying prose indeed suggests that these are construed as information states of individuals. Perhaps surprisingly, an interpretation of contexts as common ground, if ever even adopted, plays no role in the workings of context change theories. This leaves us free to interpret the posited information states as the information states of individuals, without making any change to the formal theories. (Lederman, 2017, fn. 22 makes the same observation.)

Discourse Representation Theory (DRT), originating with Kamp (1981), provides an alternative framework for dynamic semantics. Unlike CCS, DRT has from its beginnings been presented as a theory of private representations: "Discourse representations can be regarded as the mental representations which speakers form in response to the verbal inputs they receive" (Kamp, 1981, p. 192). The theory then lends itself straightforwardly to models that simultaneously represent the information states of multiple interlocutors, as in Lascarides and Asher (2009). So again, all of the resources of dynamic semantics remain at our disposal without the common ground interpretation.

There is one domain, however, in which the common ground interpretation of contexts has played a central explanatory role, and that is in theories of presupposition. Here, the standard formal accounts are typically taken to be formalizations of Stalnaker's conception. The construal of information states as common ground is given in explanation of various features of presupposition. For example, the intuition that presuppositions are "taken for granted" by the speaker is cashed out as "treated as if common ground"; the infelicity of presupposing

surprising things is explained in terms of the reluctance of hearers to update the common ground with these contents without discussion. Giving up SCG-availability as a theory of presupposition thus has significant consequences. The common ground account of presupposition is under attack from other quarters, however (Degen & Tonhauser, 2022; Roberts & Simons, 2024; Simons et al., 2010). So presupposition is not, after all, a motivation to hold on to the common ground model.

One recurring theme in my discussion has been the relationship between rational-normative theories of communication on the one hand, and empirical models of communicative/conversational competence on the other. The common ground view is grounded in normative considerations about how ideally rational speakers *should* behave. As I've noted, the normative arguments themselves are open to challenges. But independently of this, we need to ask to what extent idealized and rational-normative models can provide a basis for an empirical theory of human language behavior. The parallel question is being raised and debated in the psychological literature on theories of judgment and decision-making (Elqayam and Evans 2011; Elqayam and Over 2016). In that domain it is well known that competent agents often do not behave in the ways prescribed by formalized models of rationality: their "everyday rationality" turns out not to be identical to ideal rationality (see also Lederman, 2018). One plausible response to this is to theorize directly about everyday rationality; this in turn requires strategies for determining what should count as competent behavior. In the study of pragmatics, and communication generally, we observe the same divergence between what is, according to some arguments, ideally rational behavior, and the sensible, understandable behavior of competent speakers. While the ideal models have value and interest, they are not a substitute for empirical inquiry.

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