

Availability without Common Ground

Current semantic and pragmatic theory is heavily influenced by the model of conversation due to Stalnaker (1978, 2002, 2014 i.a.), in which common ground plays a central organizing role. Common ground is understood both as the source of information which is *available* to interlocutors and as the *target* of conversational acts. In this paper I argue against the identification of the common ground with the information available to interlocutors. The main argument comes from a series of examples where addressees necessarily use information which cannot be accommodated to the common ground in interpretation; in some of the cases, this is what is expected by the speaker. Along the way, I point out a new timing problem for accommodation, which further supports the argument. I advocate for alternative models of the sort proposed by Lascarides and Asher (2009) and Ginzburg (2012), where each agent maintains and updates a private representation of the ongoing conversation and of their interlocutors' mental states. I end the paper with the observation that current formal models of dynamic semantics/pragmatics, as well as recent non-dynamic models of local contexts, can straightforwardly be interpreted as private representations.

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1. Preliminaries

When speakers plan how to say what they want to say to their audience, they often – perhaps always – rely on their addressees being able to access particular items of extra-linguistic information.² Typically speakers make good guesses about what their addressees can access, the addressee *does* access the relevant information, and the conversational exchange proceeds smoothly. Given this, we can pose some questions about this process: What information is the speaker licensed to assume their addressee can access for use in interpretation? What information do addressees in fact utilize? We can pose these as questions about *availability*: What body or bodies of information are available to participants in a conversation to draw on in deciding how to speak or how to interpret?

There is a very well known and very widely accepted answer to this question, namely that the information available to participants in this sense is the information in the *common ground*: broadly speaking, the information which is publicly or transparently shared amongst the interlocutors. Let's call this claim the CG-availability claim. My goal in this paper is to argue that the CG-availability claim is incorrect: it is not empirically correct, and it does not correctly describe the behavior of ideal speakers/hearers. The cases I present are not simply cases where, as a matter of fact, a hearer utilizes non-CG information in interpretation; they are cases where it is in principle not possible for some information needed for interpretation to be in the CG at the relevant time. I'll argue that availability is better identified with *inferability*, and will ultimately suggest that theories of conversation must model interlocutors as representing and reasoning about each other's (private) mental states and private representations of the ongoing discourse, as proposed by others from a variety of perspectives (see e.g. Ginzburg, 2012; Harris, 2020; Lascarides & Asher, 2009).

How might we model individuals' private representations of the discourse? In the final section of the paper, I'll observe that existing theories of dynamic semantics and pragmatics

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² Some minor terminological notes: Here and throughout, I follow the standard convention of using the terms *speaker/hearer* broadly, to mean the producer and recipient of a linguistic message in any form. Also, unless otherwise specified, *hearer* means the intended hearer i.e. addressee. I also use the term *information* broadly, where it need not be purely propositional information, and also need not be true.

are all potential candidates. As I'll discuss, although some of these theories have been interpreted as modeling the evolution of the common ground, this interpretation is fully separable from the actual details of the theory. I'll argue in favor of interpreting context throughout this literature as a representation of an individual's evolving information state, noting that this interpretation resolves a tension in the treatment of accommodation that arises when contexts are interpreted as CG, and otherwise leaves dynamic theory intact.

I want to clarify one other point before starting, about the target of the argument. In discussing common ground, I will for concreteness assume Stalnaker's 2002 characterization of this notion, according to which the common ground of a group G consists of those propositions p such that all members of G accept p for the purpose of the conversation, and it is common belief in G that all members of G accept p for this purpose.³ But the point of the arguments is not that this characterization is inadequate and should be replaced by some other treatment of common ground. Rather, my target is the notion of transparently shared, or public, information. My argument, ultimately, is that information which is *not* transparently shared among interlocutors may -- in some cases must -- inform a speaker's choice of utterance, or an interpreter's reasoning about what the speaker means, and that this is not deviant or problematic. So, in referring to common ground (CG) in this paper, I am talking about this notion of public information, whatever one's preferred model of this may be. On the other hand, it is not part of my argument that there is no such thing as common ground in the sense just described (cf. Lederman, 2017); nor is it my view that interlocutors' recognition of the CG status of some information never bears on their linguistic behavior. My argument is that CG is not the right body of information around which a model of linguistic communication should be built.

With these preliminaries out of the way, I turn to a fuller introduction to the notion of availability and its identification with the CG.

2. Common ground and availability: background

Stalnaker (2014, p. 24), rehearsing some of the fundamental ideas underlying the common ground view of context, says this:

³ Stalnaker (2014) modifies this definition in two stages. In Chapter 1, Stalnaker offers as the working definition of common ground a characterization only in terms of acceptance: "a proposition is common ground between you and me if we both accept it (for the purposes of the conversation), we both accept that we both accept it, we both accept that we both accept that we both accept it, and so on." This refinement does not affect anything I say here about the CG status of content. In Ch.5, Stalnaker suggests a more significant modification of the framework involving centered worlds, a modification originally introduced in Stalnaker 2008. The considerations which motivate that change are tangential to the discussion here.

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. This is what I am calling the CG-availability claim.

It is perhaps helpful to start by identifying some of the ways in which “the content of a speech act depends” on “contextual information,” so that we know what kind of information to be looking for. Most straightforwardly, the content of a speech act may depend on information which is needed to fix the values of context dependent expressions, of which there is a rich variety. Additionally, interpretation often requires the identification of one or more pieces of ‘background information’ required to identify the speaker’s full communicative intention – to identify 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. The cases to be discussed below will focus on this kind of background information.⁴

In the chapter from which the above quotation is extracted, Stalnaker does not elaborate on why common ground is an appropriate way of modeling when such information counts as available, perhaps because the general rationale for this 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; each interlocutor needs to believe that that information is shared. And 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 extra-linguistic

⁴ 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,” but does not allude to any other kind of information needed for interpretation. Given that my arguments will revolve around required background assumptions, rather than information for resolving context dependency, am I then arguing against a stronger view than Stalnaker is committed to? I am unsure. However, the argument I sketch in the next paragraph seems to hold just as robustly for required background assumptions as for content-fixing information, so it seems plausible that the CG-availability view *would* extend to those assumptions.

information which 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.

This common ground constraint for required information is argued for explicitly by Clark and Marshall (1981), who base their arguments on applications of common ground by Lewis (1969) and Schiffer (1972). Clark and Marshall are concerned with the specific case of retrieving 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 the movie *Monkey Business*.⁵ The illustration consists of a sequence of scenarios, and begins with this one:

Scenario 1

On Wednesday morning Ann reads the early edition of the newspaper, which says that *Monkey Business* is playing that night at the Roxy. Later she sees Bob and asks, “Have you ever seen the movie showing tonight at the Roxy?”

The question is whether Ann’s use of *the movie showing tonight at the Roxy* to get Bob to understand what movie she is talking about is reasonable in this scenario. We have clear intuitions that in scenario 1, it is not. Ann knows that the movie that’s playing is MB, but she has no grounds to believe that Bob knows it. Skipping ahead to scenario 3, things get a little more interesting:

Scenario 3

On Wednesday morning, Ann and Bob read the early edition of the newspaper and discuss the fact that it says that *A Day at the Races* is showing that night at the Roxy. When the late edition arrives, Bob reads the movie section, notes that the film has been corrected to *Monkey Business*, and circles it with his red pen. Later, Ann picks up the late edition, notes the correction and recognizes Bob’s circle around it. She also realizes that Bob has no way of knowing that she has seen the late edition. Later that day, Ann sees Bob and asks, “Have you ever seen the movie showing tonight at the Roxy?”

Again, we recognize that Ann’s use of *the movie showing tonight at the Roxy* is likely to lead to miscommunication – at least, is not an effective means of guaranteeing coordination with respect to the referent. Clark and Marshall continue to elaborate the scenarios, adding on layers of *he knows that she knows that...*, but always leaving one interlocutor one layer short,

⁵⁵ This is not necessarily a question of semantic reference; the point is just whether or not it is reasonable for Ann to assume that Bob will understand her to be talking about *Monkey Business*.

never allowing them to reach common belief with respect to which movie is playing tonight at the Roxy. And our intuitions are clear throughout that the mismatch between their belief states makes Ann's use of this NP to refer to *Monkey Business* communicatively unreasonable.

The claim supported by Clark and Marshall's argument is a normative one, a claim about how ideal speakers *should* behave, assuming that they intend to speak felicitously. For the case of definite reference, Clark and Marshall suggest that speaking felicitously requires that the speaker has "good reason to believe that [the addressee] won't get the wrong referent or have to ask for clarification" (p.11-12). Generalizing, Clark and Marshall's idea is that the goal of an ideal speaker is to produce utterances that will be perfectly understood by the addressee with no need for clarification. They emphasize that this is an ideal which speakers do not necessarily always succeed in meeting or even necessarily always attempt to meet:

In ordinary speech [the speaker] may sometimes guess at what [the addressee] knows - perhaps guessing wildly - and turn out expressions of definite reference that are far from felicitous. Much of the time this may not matter because her references may be close enough to succeed anyway. And when they don't go through, [the addressee] will look puzzled, ask for clarification or show other evidence of misunderstanding, and [the speaker] can reassess what she thinks [the addressee] knows and repair her reference. Indeed, repairs of this kind appear to occur often in spontaneous speech. ... Perhaps, then, the felicitous reference is an ideal that in practice is rarely reached. Yet surely it is an ideal people strive for because they will want to avoid misunderstanding whenever possible. (p.27)

This gives us a picture in which a speaker striving for maximal clarity will do their best to restrict themselves to background assumptions which they have good reason to believe to be common ground. Speakers often don't do a good job of this, and sometimes that doesn't matter; but those cases involve a departure from the ideal.

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. (p.67)

Clark and Carlson here are concerned with the actual psychological process of interpretation, but their arguments are rational rather than empirical. Echoing arguments given in Clark and Marshall, they review the centrality of common ground in the work cited by Lewis and Schiffer, as well as Clark and Marshall's arguments for the role of common ground in definite reference. They take this weight of evidence to support a very general conclusion:

[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. 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. (p.76)

The conclusion, then, is that ideal speakers will construct utterances so that the extra-linguistic information that addressees need to retrieve to correctly interpret those utterances is limited to (what the speaker believes to be) information that is common ground between speaker and listeners; ideal listeners will limit themselves to accessing information in memory that (they believe to be) common ground. Speakers and hearers may not always achieve this ideal; but when they don't, we might expect that their success in communicating will be concomitantly degraded.

This Clarkian conclusion is codified in the Stalnakerian theory of conversation and context with which we began: context (as per Clark and Carlson) is identified with the common ground; and this body of information constitutes the information available to interlocutors. Ideal speakers/hearers aim to draw only on this information in planning and interpreting utterances.

My argument against this claim begins in section 3, with a discussion of accommodation and availability. There are already familiar discussions about purported cases of availability of non-CG information, where it is observed that speakers may presuppose some information knowing it not to be CG prior to their utterance, but expecting it to be so once their utterance has been understood. (Note that here, by saying that a speaker presupposes *p* in making an utterance, I mean only that the speaker expects the hearer to utilize *p* in deriving the speaker's full communicative intention, but that this is not encoded in the compositional semantics of the sentence(s) uttered.) These cases are brought under the umbrella of the CG-availability theory by invoking *accommodation*, which is supposed to resolve the challenge.

Looking in detail at a case of accommodation brings to light an equivocation in the notion of availability, and also a *timing problem* with the standard accommodation story.

In section 4, I'll run through three different types of cases which illustrate much more straightforwardly that it is often *necessary* for interpreters to rely on information that is not CG, and that under certain circumstances it is communicatively appropriate for speakers to expect hearers to do so. The first case I'll consider is the case of mistaken presuppositions; then I'll look at cases borrowed from Harris (2020) of what he calls *publicity-averse* communication situations; and finally I'll look at the phenomenon of *insinuation*, as discussed by Camp (2018 and forthcoming). I end section 4 with an example involving pronominal reference, before finally returning to the *Monkey Business* case in order to diagnose the feature which has made it such a convincing argument in favor of CG-availability.

3. Accommodation as a window into availability

The familiar phenomenon of accommodation turns out to provide a clear way of distinguishing two different things we might be talking about when we talk about available information. But also, careful consideration of accommodation reveals a *timing* problem that has not previously been noted, and that further highlights the distinction I note.

For the discussion, I present an example involving what has been dubbed *contextual presupposition*: a background implication necessary for deriving a conversational implicature (see (Kadmon, 2001; Simons, 2013; Thomason, 1990)⁶. I'm going to set up the example in some detail. The characters in our example are Leslie, Micah and Ned, three relatively new work acquaintances. They have all recently joined the same company and have been hanging out, sometimes all together and sometimes in pairs, so they're aware that they don't all know all of the same things about each other. Today, the three have been in a meeting together. While Ned is wrapping things up in the meeting room, Leslie and Micah walk out together. Micah suggests going for lunch; Leslie agrees. Then they have the following exchange which I'll call "Ramadan."

1. 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.

⁶ 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.

What would Leslie need to know or accept in order to identify this implicature? First, she must assume that Micah intends to speak relevantly, hence that there should be some way to connect his superficially random comment to her suggestion to invite Ned to lunch. Next, she'd need to have some basic information about Ramadan: at least, that during Ramadan, those who observe it don't eat in the daytime. Finally, Leslie must accept the premise that it is Ned's practice to observe Ramadan. Hence, if it is now Ramadan, then Ned wouldn't want to come to lunch, and it would perhaps be inappropriate to invite him. This establishes that the premise that it is Ned's practice to observe Ramadan – which going forward I will abbreviate to NR – is a required background assumption for the derivation of the intended implicature. By CG-availability, then, for Micah to speak appropriately, and for Leslie to appropriately utilize NR in interpretation, NR should be CG when it is so used.

Now let's fix some assumptions about the case. 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 it is Ned's practice to observe Ramadan, so NR was not CG prior to Micah's utterance. However, let's assume that Leslie is able to infer that this *is* the background assumption required to make what Micah said relevant. On standard accounts, then, NR needs to be accommodated into the common ground.

There are two key sources for the notion of accommodation: Stalnaker (1974) and Lewis (1979a). The two understand accommodation in subtly but importantly different ways; discussions of accommodation in linguistics typically follow Lewis.⁷ I want to consider what the accommodation story looks like in both variants, beginning with a Lewis-style version. (This presentation is based on von Stechow (2008)). According to this account, Leslie, reasoning about Micah's utterance, infers that he is treating NR as CG, on the assumption that Leslie will recognize that he is doing so and will be willing to accept NR and to believe that this is CG. If Leslie does so accept and believe, then NR does become CG, and so now is available for use in interpretation.

With respect to this version of the accommodation story, observe that it requires ordinary speakers to (implicitly) believe the CG-availability thesis. How so? Well, we need to explain why Leslie should infer that Micah is treating NR as CG, rather than simply inferring that Micah is treating NR as *true*, and anticipating that she will also treat it as true. To support this inference, Leslie would have to believe (at least implicitly) that Micah would be speaking felicitously only if NR were to be CG (at the relevant point in interpretation). So, on this story, CG-availability is part of speaker knowledge.

There is a different way to tell the accommodation story which avoids this commitment; Stalnaker tells the story this way in his 2002 paper. According to this account, there is no

⁷ Stalnaker described accommodation before Lewis named it; Stalnaker later adopted Lewis's terminology, but not his view. The difference between the views is discussed in (Simons, 2013).

actual *felicity requirement* that requires NR to be CG. Rather what happens is this: Micah, in making his utterance, treats NR as true. It's transparent that he is doing so, meaning that he knows he is doing so, Leslie knows he is doing so, each knows that the other knows, etc. So now it's CG that Micah is treating NR in this way. Leslie, recognizing all of this, comes to accept NR herself, and believes that Micah recognizes that she accepts NR. As this is equally transparent, NR indeed becomes CG. And now it is available for felicitous use in interpretation.

But a crucial issue that arises here is when that *now* just mentioned actually occurs in relation to the interpretation process. Here is the issue: Micah is not licensed to believe that NR is CG until Leslie indicates in some way that she understands Micah's utterance and finds it felicitous. 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 (see also Clark & Schaeffer (1989), Clark (1996)). Typically, a hearer will only respond with some positive signal of understanding once they have grasped fully what the speaker has said, including how it fits into the conversation. In the Ramadan case, Leslie needs to retrieve NR in order recognize this, and to be in a position to signal understanding of Micah's utterance. Hence, NR must be available to Leslie before it is CG.⁸ Availability is what makes accommodation possible, not vice versa.⁹

Once we look at accommodation like this, we see that it allows us to distinguish two notions of availability, characterized below:

Two notions of availability

- Practical availability (retrievability): Information is *practically available* to an addressee after utterance U just in case U, together with the addressee's other

⁸ 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.

⁹ 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." While Roberts does not use this language, she clearly has in mind that content to be accommodated must *first* be available.

beliefs, enables her to recognize that that the speaker is assuming that information for the purposes of the utterance.

- Ideal availability: Information is *ideally available* to an interpreter if it is part of the information that ideal speakers/hearers *should* expect one another to rely on in interpretation, assuming a goal of successful communication.

The CG-availability thesis entails a distinction between practical availability and ideal availability. One way to characterize my arguments in the remainder of the paper is that ideal availability just *is* practical availability (retrievability), and in particular that the more stringent requirement that only CG information is ideally available cannot be a correct model because it excludes a variety of types of linguistic exchanges.

As a final note, recall Clark and Carlson's hope that delimiting context would help to solve the practical search problem of interpretation. In effect, they seem to consider that the conversational CG is an adequate model of practical availability. As a practical "solution," though, invoking CG is not much help if it is first up to the hearer to infer what the CG is supposed to be relative to which interpretation is to take place (Cf. Sperber & Wilson 1986). The fact of accommodation undermines the appeal to CG as a way of limiting the search space.

One might worry that adopting practical availability as the only constraint on what can be assumed in conversation is theoretically uninteresting, because too permissive. However, practical availability makes a useful 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 retrieve two pieces of information: she needs to know at least roughly what Ramadan is, and she needs the information that Ned observes Ramadan. As we've noted, given familiarity with Ramadan and given Ned'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. So indeed, if Micah doesn't expect Leslie to already have this information, his utterance would be conversationally inappropriate.

4. Interpretation without Common Ground

In this section, I'm going to run through a sequence of types of scenario in which interpretation, by necessity, involves hearers utilizing non-CG information to interpret the speaker, or a speaker assuming that hearers will do this. The cases have much in common with cases presented in Harris 2020, as part of an extended argument that the essential aim

of speech acts is not to propose or trigger update of a publicly available context such as the common ground, but rather to effect change in the private mental states of hearers.

4.1. *Error*

Consider this modified version of the Ramadan case from the previous section, repeated here:

[Context: Leslie and Micah have just decided to go to lunch together]

Leslie: Let's see if Ned wants to come too.

Micah: It's Ramadan.

In the modified version, Micah believes *incorrectly* that Ned is observing Ramadan (but is right that it is currently Ramadan). Leslie *knows* that Ned is not observing Ramadan, because she happened to have breakfast with him that very morning. Let's assume also that it's plausible that Ned might be observing Ramadan; perhaps he has mentioned to both of them his family's practice of doing so. In this context, when Micah says *It's Ramadan*, Leslie will plausibly recognize that Micah believes NR (because, as before, it's only if he believes this that his utterance is a coherent response to her suggestion), and will understand that Micah is implicating that they should not invite Ned to lunch. But in this case, Leslie won't be willing to let NR stand as a conversational assumption. She knows it is incorrect, and doesn't want Ned to be left out of the lunch arrangements. She presumably will respond by saying something like *Yes, but Ned isn't observing Ramadan*. Hence, it seems reasonable to say that Leslie does not accept NR at any point. Hence, NR is not CG nor is it something Leslie ever believes to be CG. Yet it is still practically available to her for inferring Micah's speaker meaning. This case thus demonstrates both that information can be practically available without being CG; and also that the transparent use of some information as a background assumption does not guarantee that that information becomes CG subsequently.

One response the CG-availability theorist might make is this: What Leslie actually needs to infer is merely that Micah *believes* that NR. Micah believes this, and believes that Leslie will recognize it after interpreting the utterance, so that proposition *does* become CG and it's really from this that Leslie infers Micah's speaker meaning.

But we can demonstrate that this *isn't* enough. Suppose Leslie responds, as suggested, by saying that Ned is not observing Ramadan. Micah stoutly refuses to believe this. So now it is CG between them that Micah believes NR, and that Micah intended his utterance to serve as an answer to Leslie's question on the basis of this belief. Nonetheless it will be clear that something has gone wrong with Micah's conversational contribution. So it *can't* be the case that Leslie's inferring that Micah believes NR is all that is required for the conversational exchange to be fully successful.

Another move open to the CG-availability theorist is simply to double down on the CG status of NR. Suppose one adopts Stalnaker's view of CG, based on acceptance. The theorist might argue that in fact, although Leslie never *believes* NR, she does, momentarily, accept it for the purposes of interpreting Micah's utterance. To accept, in Stalnaker's sense, is distinct from believing. One can accept a proposition (say, for the purpose of argument) even while denying it. So, perhaps we have to say that Leslie *does*, in this weak sense, accept NR for the purposes of calculating Micah's speaker meaning, and as that's what Micah anticipated, then NR *is* CG at the relevant moment. This is a tempting move for the theorist, but I think it has multiple unwanted consequences that I want to spell out.

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 mutually manifest amongst interlocutors that they are all entertaining a proposition, that proposition counts as CG. This has consequences for both the model of assertion as CG update and the model of presupposition and presupposition accommodation. Let's take these in turn, assertion first. Contemporary CG theorists generally accept the idea that an assertion of *p* is a proposal to update the CG with *p* by making it mutually manifest to all participants that all participants accept *p*. If we allow that merely entertaining or accessing a proposition counts as acceptance, then as long as the interlocutors expect to be understood, CG update seems unavoidable. Suppose A and B are looking out of the window on a sunny, clearly rain-less 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, so if entertaining *p* suffices for accepting *p*, then at that moment *p* is CG and so, in fact, the act of assertion has succeeded. But CG theorists generally seem to want the success of an assertion to involve something more substantial, in particular, a willingness to continue to treat *p* as CG for the continuation of the conversation.¹⁰

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 (and possibly even recognizes intended implicatures from this assertion). If we took this to mean that the required presupposition in fact *is* CG at the crucial point, then we would lose the standard characterization of presupposition failure in the CG-availability theory. The presupposition would be accommodated at the moment that the hearer recognized it as

¹⁰ I am not arguing here that the result is not a plausible account of assertion, only that I think this result is not consistent with how CG theorists generally do in fact talk about assertion.

needed. Rejection of a presupposition would become, on this picture, removal of an already accepted presupposition.

So it seems the CG theorist really must distinguish between *recognition* of what is presupposed and its acceptance. In the case of Micah's mistaken assumption of NR, and indeed in any cases where a speaker presupposes something which the hearer rejects, acceptance does not occur, but interpretation – identification of the speaker's meaning – often occurs nonetheless. This shows us that propositions are available to the hearer just in case the hearer has the resources to recognize what is required. We'll see this same generalization supported by the examples in the sections that follow.

4.2. *Publicity-averse communication*

Harris (2020) discusses a variety of cases of what he calls *publicity-averse communication*. Broadly speaking, these are all cases in which the speaker/writer, for one reason or another, cannot be certain that the addressee will receive the message. Where the addressee does receive and understand the message, Harris argues, the essential aim of the associated speech act is accomplished, although common ground update is not possible. Where interpretation of the utterance requires drawing on some background information, or where the interpretation of one utterance is supposed to provide the context for the interpretation of a following utterance, these scenarios provide further evidence that what is available for interpretation is not restricted to the common ground.

Harris's first illustration is modeled on the co-ordinated attack problem.¹¹ We envisage two generals camped on hills on either side of a valley in which their common enemy is encamped. They need to communicate in order to coordinate their attack. Unfortunately, their only means of communication is to send a messenger down through the valley, and there is a high chance of the messenger being intercepted by the enemy forces. Hence, neither general can ever be certain of a message being received, and so the content of their messages can never achieve CG status. As well as arguing from this example that communication does not require CG update, Harris also uses this scenario to demonstrate that the interpretation of an anaphoric pronoun does not require that the introduction of the antecedent be CG. Suppose that General A sends General B a message, not knowing whether it will be received:

2. General A: My troops are coming down with cholera. What should I do?

General B receives the message, and sends a reply, similarly uncertain as to whether it will arrive:

¹¹ See Harris fn.14 for references to discussions of this case.

3. General B: You should tell them to stop eating and drinking near the latrines.

Amazingly, General B's message gets through too. It is unproblematic for General A to interpret the pronoun *them* as referring to his troops, even though it is not CG between the two generals that General A has set up a reference to her troops for General B to respond to.¹²

We can further elaborate the case: The generals continue (hopelessly, it turns out) to attempt to coordinate. General A wants to let General B know that the proposed attack will have to be delayed to allow her troops to recover. But she realizes belatedly that she should not take the chance of letting a message about her troops' poor health fall into the hands of the enemy. So she simply sends the following message back to General B:

4. General A: It takes at least 2 weeks to fully recover from cholera.

Yet again the messenger is successful. General B receives the message. We have every reason to assume that General B will recognize the connection of this new message to the previous one he received, and will infer that General A intends to implicate that she cannot launch an attack for another 2 weeks. The content of message 2. above is thus available to General B for use in interpreting General A's final message, even though that content is not CG.

Harris begins with this, as he notes, somewhat artificial example, but then discusses a number of instances of perfectly ordinary situations which have the same or similar structure. One such situation arises when you send an email to a recipient who you know does not reliably read their email. The recipient can, and is rationally licensed to, use the information at the beginning of the email as context for the remainder of the email, despite the fact that this information has not entered the CG between the two of you, as you do not know that the recipient is reading your email. This extends to many other cases of communication in writing. Here is another publicity-averse situation: 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.¹³ 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 CG 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 between Micah and Leslie about Ned, but neither Micah nor Leslie notice that she does. Olive is just as able as Leslie to

¹² When General A receives B's reply, A has evidence that her original message was received, so now knows that B believes that A has set up a reference to her troops. But as B does not know whether A will receive his response, B does not know (believe, accept) that A believes that B believes etc.

¹³ Harris gives a slightly different version of the inattentive student example in the paper; he suggested this modification to me in conversation.

infer (or recall) NR and to use this information to interpret Micah's utterance, and she seems rationally licensed to do so.

This last set of cases, frankly, seems so obvious, and so obviously inconsistent with the CG-availability claim as it has been presented here, that one is inclined to think either that the claim has been misrepresented, or that there is an obvious response to make on its behalf. Let's consider a response. These publicity-averse cases, we might say, are all in a sense defective.¹⁴ Perhaps they are defective precisely in that they are publicity-averse. In each case, the recipient of the message is aware that they are in a defective communication situation, and they therefore do the best they can under these circumstances. The best they can do is to implicitly reconstruct their situation as one of non-defective communication, and to engage in interpretation relative to what they infer *would be* common ground if, say, they were engaging in face to face communication with their interlocutor. Most straightforwardly, in ordinary face to face interaction, prior assertions (if accepted by the interlocutor) become part of the CG relative to which later assertions in the same conversation are interpreted, which explains why, in the email case and the case of the apparently-inattentive student, the interpreters recognize that they are supposed to treat early utterances as part of the context for interpretation of later ones. The message-senders know that *if* their utterances are received, then they will be interpreted *as if* in a situation of face to face conversation, and so plan their utterances accordingly. The idea is that the normative rule of CG-availability still guides interpretation even in the absence of a usable CG. It's this that ensures that e.g. the email writer doesn't expect the recipient to interpret in light of information that is entirely private to the writer, and the recipient doesn't attempt to interpret using information that is entirely private to her.

I offer three responses to this move. First, we clearly don't need to invoke CG-availability to explain the behavior I just noted. It is explained just as well by assuming that speakers have a reasonable view of what their addressees can infer, and that addressees are equally reasonable in limiting their inferences to things that the speaker could have actually intended them to infer. Second, the cases already discussed have shown that the evolution of CG, especially where inference is involved, is not always straightforward. It's not as easy as we have generally thought for the speaker to fully predict what the CG will look like after a particular utterance, especially in communicative situations where immediate grounding is unavailable. Third and finally, there is something perverse in claiming that written communication – like the communication going on as you are reading this paper – is fundamentally defective. It seems more plausible to suppose that the model of

¹⁴ Those who reject Harris's claims that these scenarios involve successful communication will have no difficulty in taking this stance.

communication based on one-on-one, face to face conversation simply doesn't generalize to the full range of linguistic interactions.

4.3. *Insinuation*

Camp (2018, forthcoming) discusses the conversational move of *insinuation*, “the communication of beliefs, requests, and other attitudes ‘off-record’, so that the speaker’s main communicative point remains unstated.” A core feature of insinuation is the difficulty of holding the speaker accountable for insinuated content, if the speaker chooses to deny that they meant it. However evident it may be to all that the speaker indeed meant what they insinuated, it may take a court of law to determine that the speaker is responsible for communicating the insinuated message (see the examples in Camp forthcoming). Camp locates the deniability of insinuation in its reliance on what she calls *interpretive presuppositions*.

The basic reason [for deniability] is that the process of identifying the implicit message *Q* on the basis of [the utterance] *U* requires appealing to interpretive presuppositions *I* that are implicit, nuanced, and local... The competence of ordinary adult speakers to discern and attune to these factors, in an intuitive, flexible way in real time, is essential to the flow of conversation; and our deployment of these interpersonal, social, and cultural competencies is so ubiquitous, fundamental, and automatic that we often fail to notice it. (Camp 2018, p.235)

What Camp here calls “interpretive presuppositions” are instances of what I referred to above as contextual presuppositions, namely, background assumptions needed in order to derive conversational implicatures or other aspects of the speaker’s meaning. They 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 which the speaker intends the hearer to so identify. Clearly, then, they are required to be available, and clearly *are* available to any hearer who identifies the insinuation.

In an important subset of cases of insinuation, however, the interpretive assumptions are assumptions that the hearer rejects, perhaps strongly objecting to them; often, the speaker well knows that the hearer rejects them. Particularly clear cases involve assumptions of negative or harmful 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:

5. 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 about the competence of women generally, and the competence of new mothers, that A completely rejects. Nonetheless, A will be fully able to identify these background assumptions and to use them in deriving the insinuated meaning. (For example, she is unlikely to mistakenly take B to be expressing concern about her work/life balance; but if A challenges B, B might nonetheless claim to have "only meant" to communicate this.) The case is thus somewhat like the cases of error discussed previously, in that the addressee can recognize the relevant background assumption and derive speaker meaning on the basis of that recognition, but, because she is not willing to accept that assumption, it does not enter the CG. The difference from the case of honest error is that the speaker *knows* that the required background assumption is not accepted by the addressee; hence even the speaker does not believe that this assumption will enter the CG. Yet the speaker clearly intends the hearer to retrieve and use this background assumption in interpretation¹⁵: the speaker takes it to be available to the hearer.

Camp provides an actual, and more complex, case of this type in her paper (p.228-9):

Consider the following exchange between President Richard Nixon and the (formidable) UPI reporter Helen Thomas at a 1973 press gaggle:

NIXON: Helen, are you still wearing slacks? Do you prefer them actually? Every time I see girls in slacks it reminds me of China.

THOMAS: Chinese women are actually moving toward Western dress.

NIXON: This is not said in an uncomplimentary way, but slacks can do something for some people and some it can't. But I think you do very well. Turn around . . . How does your husband like your wearing pants outfits?

THOMAS: He doesn't mind.

NIXON: Do they cost less than gowns?

THOMAS: No.

NIXON: Then change. [grinning, to roaring laughter]

As Camp says, throughout the exchange Nixon "clearly presupposes and enforces a set of powerful gender norms." The reference to Chinese women becomes relevant given a background assumption that Chinese women are not suitably feminine in appearance, the

¹⁵ In fact, the main point of insinuation in these cases may be to make the background assumptions salient.

question about her husband's preferences suggests a background assumption that women should seek their husband's approval for their clothing, and indeed the whole exchange presupposes that it is acceptable for men to comment publicly on the appearance of women. Undoubtedly, Thomas would have vehemently rejected these background assumptions, as Nixon undoubtedly knew (this likely being part of the reason for taunting her in this way). Yet this did not prevent Nixon from intending Thomas to retrieve his insinuated meaning, or prevent Thomas from doing so. He intended to insult her clothing choice, and succeeds in doing so.¹⁶ We thus see that in some cases of insinuation, the crucial background assumptions are not believed or accepted by the addressee, hence fail to be CG; yet they are accessed by the addressee, who is able to identify the intended insinuation.

And what about the speaker, in cases such as this? Does the *speaker* accept the interpretive presuppositions in question? Camp in fact suggests no. Specifically, she argues that as long as the speaker declines to acknowledge their intention to insinuate, the insinuated content does *not* become CG because it is not *accepted* by the speaker:

[D]eniability trades on the gap between what is actually manifest to both parties and what one or the other party is willing to acknowledge as manifest; but this is precisely the difference between mutual belief and acceptance. (p.56)

To see how this can be the case, recall that acceptance is always relative to a particular conversation. For example, if I'm planning a surprise birthday party for my daughter, then when I have planning conversations with my spouse I will accept that I am planning a party, but when having conversations with my daughter about her birthday, I will not accept this. Even if it is mutually known amongst all interlocutors that I believe *p*, I can still not-accept *p* for purposes of a conversation. For example, if everyone knows that I believe that GRE scores are bunk, but it is department policy to consider them in assessing applicants to our graduate program, I can still have a conversation about admissions in which I accept, for the purposes of the discussion, that GRE scores have value. So, theoretically speaking, there is no difficulty in positing that post-insinuation, although all parties to the conversation know that *S* has insinuated *p*, *S*'s refusal to acknowledge that insinuation keeps *p* from the conversational, acceptance-based, CG.

Now, if this is correct, it follows also that the interpretive presuppositions *I* which were required to derive the insinuation are also not accepted by the speaker, for to maintain deniability of the insinuation, the speaker has to deny acceptance of *I*. Hence in cases where the speaker refuses to acknowledge their insinuation, the required background assumptions,

¹⁶ I think there's more going on here than insinuation; there's also an exercise and display of power. But that's tangential to the current point.

which are available to the hearer and which the speaker believes to be available to the hearer, are not at any point in the conversational CG.¹⁷

4.4. Reference without Common Ground

I return now to the example discussed at starting, Clark and Marshall's *Monkey Business* example. This is a paradigm case taken to show that the successful use of referring expressions requires that the intended referent be deducible from the common ground of the interlocutors. And the less informative the referring expression, the more crucial this must be, for otherwise, how could the interlocutors successfully coordinate on the referent? Stalnaker (2014), for example, claims without discussion that felicitous use of a pronoun requires "the presupposition that there is a salient object to be the referent" (p.99); in Stalnaker's model, this means that the speaker must believe that the common ground entails that there is a salient object, and the speaker intends that object to be the referent.¹⁸ Along similar lines, Tonhauser et al. (2013) argue at length that pronouns display the *strong contextual felicity constraint* with respect to the implication that there is a referent for the pronoun. As explained by Tonhauser et al., this means that pronouns are predicted to be felicitous only if the context entails or implies the existence of a referent. Here too context is taken to be "a body of information held in common by the interlocutors," i.e. common ground.

I begin this section with an example of pronominal reference that demonstrates how reference can be successful in the absence of common ground information about the intended referent. I then return to Clark and Marshall's example, to diagnose what it is that makes their argument so convincing.

Here is the example. Imagine in carefree, covid-free days, you are at a large-ish gathering in a large room, with people coming and going. You are standing talking with a group of friends with your back to the door. One of the people you are talking to, who has a view over your shoulder, suddenly leans forward and says quietly, "Look who *he* just came in with." So, what do you do now? I think you do this: You turn around (discreetly) and scan the area near the door for some pair of people, at least one of whom (A) can appropriately be referred to by *he*, who is with another person (B), such that the fact that A and B are together is plausibly

¹⁷ As noted, this conclusion is dependent on adopting a view of CG based on acceptance. Camp acknowledges that it becomes common *belief* amongs the interlocutors that the speaker has insinuated *p* relying on background assumptions *I*. But it is quite clear for reasons independent of my arguments in this paper that a view of CG as common belief cannot form the basis of an account of communication.

¹⁸ Or perhaps, if we allow the common ground to include a domain as well as a set of worlds, requires the speaker to believe that one member of the domain is salient.

of interest to both you and your interlocutor. If you identify such a pair, you'll identify that person as the intended referent.

Some might be inclined to describe this situation in terms of salience: One might think that what makes it possible for the speaker to use *he* to refer to A in this scenario is that she knows that the individual in question will be salient to you, the hearer, once you turn around and look behind you, which you are prompted to do by her utterance. So, although it is not CG that A is the maximally salient individual in the scene at the time of utterance, it *will be* by the time you actually interpret the utterance (by assigning a referent to *he*). And it is only because the speaker can reasonably expect the salience of the referent to become CG when you look in that direction that she can reasonably speak as she does.¹⁹

But we can counter this by stipulating that A by himself isn't interesting enough or salient enough just to be referred to independently: that if the speaker had said, "Oh, it's *him*," nothing about A would make him obviously the intended referent. In the imagined scenario, it's only because of the interesting pairing of A and B that A becomes salient. But the hearer has to find the pair and pick the one which is the referent of *he* to find out who the salient person is. Salience *follows* fixing of the referent, rather than preceding it.²⁰

There may seem to be an obvious objection to the example, namely, that for this conversation to work, speaker and hearer must have a good deal of background information in common – they need a rich common ground! They have to know enough about each other's beliefs and interests to know that they will both find the pairing of person A and person B interesting, and interesting in the same way, and so on. But then again, as long as the hearer is able to make reasonable inferences about, for example, what the speaker would find interesting, they may be in a position of simultaneously inferring those interests and identifying the intended referent. Of course, if there is crucial information which is *not* inferrable by the hearer – analagous to knowing about Ramadan in the Ramadan example – then communication *will* fail. This is just to say that there *is* a substantive distinction to make between information that is practically available to the addressee and information that is

¹⁹ This imagined response echoes Stalnaker's discussion of the interpretation of the first person pronoun: as he puts it, the use of the pronoun requires that it is CG who the speaker of the utterance is; the speaker knows that this will only become CG after they have begun speaking.

²⁰ The simplest version of this case is one in which A is appropriately referred to by *he*, and B is not. Then the hearer can easily go from identifying the relevant interesting pair, to identifying the referent of *he*. What if *both* individuals are appropriately referred to by *he*? Now it seems like the referent will get fixed by the hearer identifying which individual the speaker is most likely to want to talk about. For example, if Javier has just walked in with his new boyfriend Yosi after a very public break up with his former partner, and Javier but not Yosi is someone in the interlocutor's social circle, then the speaker is much more likely to be interested in who Javier is with than in who Yosi is with. This idea that referent identification involves recognition of the speaker's current goals and interests is explored experimentally in Clark, Schreuder and Buttrick 1983.

not. Available information is information the hearer can infer, and can infer to be relevant for interpretation; unavailable information is what cannot be inferred.

The example just discussed has a type of commonality with the many cases discussed in the literature on coherence and anaphora. This literature argues that anaphora resolution is sometimes a consequence of the expectation of coherence; the anaphor is resolved to whatever antecedent is suggested by the most plausible coherence relation (see i.a. Hobbs (1979), Kehler et al. (2008), (Asher & Lascarides, 2003)). Winograd's (1972) well known example is the canonical illustration of this: *The city council refused the demonstrators a permit because they feared/advocated violence.*²¹ As Hobbs (1979) puts it, "[the speaker] can leave many entities unmentioned or minimally described [because]...the listener can use the coherence assumption to recover the entities" (p.78). In the case of our deictic example, coherence doesn't help, but the assumption of relevance does.

In both kinds of case, the speaker relies, not on common belief about salience (or even contextual presence) of an entity, but on the hearer's ability to infer the intended reference. To make this inference, the hearer uses all of the information at her disposal, in particular the content of the utterance predicate, which is what the speaker will be saying about this referent, once identified. In my example, there is no point *prior* to the identification of the referent at which the intended referent has some status (of maximal salience or such like) which is in the common ground. This example illustrates that even for the case of fixing the reference of a deictic pronoun, availability of the referent does not require common ground status of any particular information about that referent. It requires, rather, that the hearer has the capacity to draw inferences about the likely beliefs and interests of the speaker.

Well and good. If this is right, then what is going on in the Clark and Marshall *Monkey Business* illustration? Their case makes such a convincing argument that it requires some response. What is the special feature that makes the absence of CG status problematic in their cases? To answer this, let me first review the distinction between available and non-available information that I made earlier. Available information is information that the addressee can infer to be required for the interpretation of some utterance. I noted earlier that in the Ramadan example, not all of the information that Leslie needs in order to identify Micah's intended meaning is the same in this respect. Given information about what Ramadan is, Micah's utterance makes the proposition that Ned observes Ramadan available to Leslie. But

²¹ For any readers not familiar with the example: the point is that the plausible reference of the pronoun switches when the verb in the second clause is switched from *feared* (*they*=city council) to *advocated* (*they*=demonstrators). In this case, the connective *because* fixes the coherence relation as explanation; then, given world knowledge about city councils, demonstrators, and preferences regarding violence, the verb switch requires a reference switch in order for the second clause to constitute a plausible explanation.

if Leslie was not familiar with Ramadan, Micah's utterance would not make this information available; it is not inferrable in the conversational situation.

I reiterate this point here because I want to make a distinction between the first scenario in Clark & Marshall's sequence, and those that follow. Recall scenario 1:

Scenario 1

On Wednesday morning Ann reads the early edition of the newspaper, which says that *Monkey Business* is playing that night at the Roxy. Later she sees Bob and asks, "Have you ever seen the movie showing tonight at the Roxy?"

The question we are to ask is whether it is reasonable for Ann to use the NP *the movie showing tonight at the Roxy* to refer to *Monkey Business*. In my experience, students to whom I pose this question generally say no, for the reason given above: Ann knows what movie is playing, but she has no reason to believe that Bob knows it. This information has the same feature regarding availability as information about Ramadan in the example above: this isn't something that Bob can infer. Bob can know what movie is playing at the Roxy only if someone tells him, or he reads about it, etc. In the terminology used in this paper, the problem in Scenario 1 is that the information that Bob needs in order to interpret Ann's utterance as intended is *practically unavailable*.

Now let's move to Clark and Marshall's scenario 3:²²

Scenario 3

On Wednesday morning, Ann and Bob read the early edition of the newspaper and discuss the fact that it says that *A Day at the Races* is showing that night at the Roxy. When the late edition arrives, Bob reads the movie section, notes that the film has been corrected to *Monkey Business*, and circles it with his red pen. Later, Ann picks up the late edition, notes the correction and recognizes Bob's circle around it. She also realizes that Bob has no way of knowing that she has seen the late edition. Later that day, Ann sees Bob and asks, "Have you ever seen the movie showing at the Roxy tonight?"

Of course we recognize the problem, but now it's a *different* problem from before. Both Ann and Bob have the information that *Monkey Business* is the movie playing at the Roxy, but crucially Bob doesn't know what Ann knows -- this is precisely the point. However, this is

²² I skip their scenario 2 because it is another case of fairly straightforward lack of information: *On Wednesday morning Ann and Bob read the early edition of the newspaper and discuss the fact that it says that A Day at the Races is showing that night at the Roxy. Later, after Bob has left, Ann gets the late edition, which prints a correction, which is that it is Monkey Business that is actually showing that night. Later, Ann sees Bob and asks, "Have you ever seen the movie showing at the Roxy tonight?"*

not simply a case where there is a *lack* of information. I would argue that what makes our intuitions about this case so robust is that the scenario includes *incorrect* information. Specifically, Bob has reason to believe that Ann has an *incorrect* belief about what movie is playing at the Roxy. Moreover, he knows that there is no way for her to correct that belief on the basis of any other information in the context; like knowing what Ramadan is, to know what movie is playing at the Roxy, one has to be informed by a knowledgeable source.

Version 4

On Wednesday morning Ann and Bob read the early edition of the newspaper and discuss the fact that it says that *A Day at the Races* is playing that night at the Roxy. Later, Ann sees the late edition, notes that the movie has been corrected to *Monkey Business*, and marks it with her blue pencil. Still later, as Ann watches without Bob knowing it, he picks up the late edition and sees Ann's pencil mark. That afternoon, Ann sees Bob and asks, "Have you ever seen the movie showing at the Roxy tonight?"

Now we have the following situation: Both Ann and Bob know that MB is playing at the Roxy, and each knows that the other knows. But as far as Bob knows, Ann might have an incorrect belief about whether he knows. As far as Bob knows, Ann might believe that he still believes that the movie playing tonight at the Roxy is *Day at the Races*, and so might be using the NP, taking his perspective, in order to talk about that movie. The problem again is not simply the lack of common belief, but the presence of an obvious potential *confusion*. My conclusion here is that Clark and Marshall's illustration is as convincing as it is because of two special features. First, the required background information is not contextually inferable; in scenario 1 (and in their scenario 2), Bob presumably recognizes that he needs to know what movie is playing at the Roxy in order to fully understand Ann's question, but that there is no way for him to retrieve that information. Then, in scenarios 3 and later, one interlocutor is aware that the other might have an incorrect belief about the required background information or about the beliefs of the other – and again, this belief cannot be contextually corrected.

To conclude, I want to offer an elaborated version of Scenario 1, one which I think demonstrates that as long as we exclude the possibility of incorrect information, we can have successful reference without CG status of the required background information. Suppose, then, that Ann and Bob are good friends. It is CG between them that Bob is a big fan of the Roxy, and always keeps up to date with what is playing there. Ann generally doesn't care, but it just so happens that today, she noticed that *Monkey Business* is playing at the Roxy. She'd like to go see it, knows that Bob is generally up for a trip to the Roxy, but also knows that he dislikes seeing movies he's seen before. So she calls him up and asks "Have you ever seen the movie playing at the Roxy tonight?" (As her goal is to find out if Bob will go with her to the

Roxy tonight, it makes more sense to ask the question this way than simply to ask “Have you ever seen *Monkey Business*?”)

So here is the epistemic situation. It is CG between Ann and Bob that Bob knows what movie is playing at the Roxy (because he always knows what’s playing at the Roxy). It is *not* CG that *Monkey Business* is playing at the Roxy, because Bob has no reason to think that Ann knows it. Bob might guess from her question that she does know; but also might think that she is using the definite attributively, asking if he’s seen whatever movie is playing at the Roxy. In either case, as *he* knows that *Monkey Business* is playing at the Roxy, he will consult his prior experience with that movie to answer her question. As far as he is concerned, she has asked him a question about *Monkey Business*. Hence, she has successfully referred to *Monkey Business* despite it not being CG that this is the movie playing tonight at the Roxy.

4.5. Interim conclusion

The arguments given demonstrate that CG-availability – the thesis that ideal speaker/hearers will utilize only CG information in interpretation – is incorrect. Treated as a normative rule, this would render many ordinary linguistic interactions normatively defective. The examples given so far include:

- an interpreter who relies on non-acceptable background assumptions to draw an implicature (error, malicious insinuation)
- all cases of publicity averse communication (for both speakers & hearers)
- possibly all cases of insinuation (which are not necessarily malicious or otherwise socially devious)

This conclusion eliminates one pillar of the justification for treating the CG as the central construct relative to which we understand communication. The second supporting pillar is the claim that the CG is the target of communicative acts, the body of information which interlocutors seek to update. Harris (2020) offers convincing arguments against this claim, arguing instead in favor of the Gricean view that the target of speech acts is (some aspect of) the addressee’s mental state.

With respect to availability, I similarly find Grice’s characterization of what information a speaker can expect a hearer to utilize to be compelling. Central to Grice’s account of implicature (Grice, 1975) is the requirement that “the speaker thinks (and expects the hearer to think that the speaker thinks) that it is within the competence of the hearer to work out, or grasp intuitively)” the assumptions that the speaker is making which render their utterance cooperative. The Gricean model is a model on which speakers and hearers are continually (implicitly) reasoning about one another, about their intentions and about their

ability to identify required assumptions. How interlocutors make these judgements is a question that lies outside of the scope of a normative theory of language use; but, normatively, these are judgements that speakers and hearers are required to make.

If we expand this Gricean picture into a full model of conversational context, what it seems to demand is this: Each interlocutor maintains a (partial) model of the other interlocutors, including a (possibly partial) model of the conversational interaction. There are several proposals of this sort already in the literature (Farkas & Bruce, 2010; Ginzburg, 2012; Lascarides & Asher, 2009), some of which I'll discuss in more detail below.²³ Different theorists have different views as to what an individual agent's model of her interlocutors and of the conversation must look like. I turn now to my final point, which is concerned only with how to model an individual agent's representation of the conversation. The central point is that giving up on the idea that this representation involves the common ground is largely irrelevant to the models of the dynamics of conversation currently available. Any of the existing dynamic theories on the market are possible candidates for this representation. We have no reason to throw out the dynamic semantic (or dynamic pragmatic) baby with the common ground bathwater.

5. The interpretation of context and accommodation in dynamic semantics

5.1. Contexts as Discourse Representations

The private, internalist interpretation of context is precisely that adopted in Discourse Representation Theory and its descendents. Kamp (1981) explicitly explains Discourse Representation Structures as internal and private: "Discourse representations can be regarded as the mental representations which speakers form in response to the verbal inputs they receive." (p.192, reprint). As the theory allows for accommodation, it clearly allows for the retrieval and use of information not already present in the DRS. The framework has no reason to restrict availability to the common ground; it is far more in keeping with its private interpretation of context to assume that what is available for an individual agent is determined by that agent's private mental state and resources, albeit subject to constraints imposed by the interactive nature of conversation.

Lascarides and Asher (2009) (building in particular on Asher and Lascarides (2003)) give a multi-speaker version of this interpretation of DRSs. They posit a structure which they call a DSDRS (Dialogue Segmented Discourse Representation Structure), consisting of a set of SDRSs, one for each interlocutor. Each interlocutor's SDRS represents their discourse

²³ In the psychological literature, Daphna Heller and Sarah Brown-Schmidt in joint work have recently proposed what they call The Multiple Perspectives Theory of the Role of Mental States in Communication, which has precisely this structure.

commitments. Lascarides and Asher further posit that each dialogue participant builds not only their own SDRS, but the SDRSs for all discourse participants, which differ whenever there are differences in commitments between interlocutors. (This is crucial to the model, which aims to formally model acts of agreement and disagreement.) This model therefore makes no claims to a single, shared representation. Agreement is modeled here not as common acceptance or belief, but as (presumed) shared commitments: in the model, content is taken to be *grounded*, or agreed upon, by a subset of the discourse participants if that content is entailed by the commitments encoded in the SDRS of each member of that set.²⁴

Problems pertaining to CG are thus irrelevant to work in DRT and its offshoots. No doubt, as in the Lascarides and Asher work, theorists in this framework are interested in questions of coordination and alignment between speakers, but they don't seek to accomplish this via the construct of common ground.

One well known model of presupposition in DRT is due to van der Sandt (1992). Van der Sandt treats presuppositions as anaphors which require an antecedent in the DRS. When no antecedent has been explicitly introduced, van der Sandt allows for accommodation. If we follow Kamp in construing DRS's as an individual's representations²⁵, then accommodation – the addition of material to a DRS – is a matter of a given individual determining that *their own* representation does not support the update signaled by the speaker, and hence making a modification to that representation. This poses none of the difficulties concerning timing of allowable update discussed earlier.²⁶ The timing problem is a problem about common ground update, which requires coordination among conversational participants. An individual can freely update their own private representation of the conversation at any point. Coordination will arise through the matching of representations constructed in accord with the same update rules or processes.

5.2. Context and accommodation in Context Change Semantics

²⁴ Ginzburg (2012) argues for a similar model, emphasizing the lack of alignment between the contexts of speakers and addressees: “The contexts available to the conversationalists in the aftermath of an utterance are NOT identical, as illustrated by various turn-taking puzzles. This entails a cognitive architecture in which there is no single common ground, but distinct yet coupled DGBs [Dialogue Game Boards], one per conversationalist.”

²⁵ Van der Sandt gives no indication of the intended interpretations of DRSs.

²⁶ Asher and Lascarides (1998) present a competitor account of presupposition within SDRT. In their account, presuppositions are not anaphoric, but are simply additional propositional elements associated by convention with particular atomic clauses, which must be integrated into an SDRS in the usual way, by attachment to the existing structure via rhetorical relations. Asher and Lascarides therefore argue that their account does away with the need for accommodation, because presuppositions do not, on their account, require antecedents. They do not, in that paper, consider contextual presuppositions, and would not typically integrate background information of this type into the SDRS.

I turn now to the construal of context in Context Change Semantics. Heim, in her 1982 dissertation (Heim, 1982, sec. 3.1.4.), explicitly identifies contexts with the Stalnakerian CG, saying that the addition of discourse referents is intended as a refinement of Stalnaker's model. She adds that she allows herself the simplifying assumption of a non-defective context, allowing herself to talk about a single CG. But in her seminal 1983 paper (Heim, 1983), the paper which introduces the currently standard version of the context change framework, Heim says about context only that "a context is construed...as a set of propositions," later shifting to a more refined analysis of context as a set of world-assignment pairs. Stalnaker is cited in relation to the idea of constructing a context set – a single set of worlds – from the set of propositions, but this set is never identified with the common ground; in fact no interpretation of the model is offered. Similarly, in a later paper (Heim, 1992), she writes: "Contexts are here identified with states of information, which in turn are construed as sets of possible worlds." No further comments are offered as to the character of these states of information. Veltman (1996) identifies the target of update as information states, again with no specification as to whose information states these are – although the informal accompanying prose suggests simply that these are construed as information states of individuals. In any case, it is clear that an interpretation of contexts as common ground, if ever even adopted, plays no role in the workings of context change theories. If we choose to interpret contexts or information states as the information states of individuals, no change at all needs to be made in the formal theories.

Nonetheless, when explicit interpretations of dynamic contexts are given, the most common one is the common ground interpretation.²⁷ A plausible explanation for this is the centrality of presupposition in dynamic theories, combined with the deeply entrenched view that presuppositions are best modeled as constraints on the common ground.²⁸ My arguments in this paper, of course, are intended to unseat that view. While my cases all involve contextual presuppositions, it is easy to construct variants of both the error case and the publicity-averse cases with standard presupposition triggers. For publicity aversion, we simply imagine an email that says: *I'm throwing a birthday party for my mom. She doesn't **know** that*

²⁷ The most extensive defense of the CG interpretation of context in context change semantics that I know of is given by von Stechow (2008). Von Stechow's main aim in that paper is to defend the CG account of presupposition against criticisms arising from the need to invoke accommodation.

²⁸ Another source would be Karttunen (Karttunen, 1974), which is the most direct antecedent of Heim's context change semantics. Karttunen offers the following interpretation of the notion of context:

It is implicit in what I have said about satisfaction that a conversational context...specifies what can be taken for granted in making the next speech act. What this common set of background assumptions contains depends on what has been said previously and other aspects of the communicative situation... (p.190)

Given that Karttunen invokes a shared set of common background assumptions, it's natural to take him to have in mind a conversational common ground of the Stalnakerian sort. We should bear in mind, though, that this paper, while citing and influenced by Stalnaker's very earliest work on presupposition (Stalnaker, 1970, 1973), predates Stalnaker's detailed work on common ground and its various commitments.

*I am. I need you to tell her that I'm going to be at your house on Friday afternoon.*²⁹ Here, the addressee of course can use the first sentence as the basis for interpreting the second, regardless of whether the writer believes her to have already read the email. For the error case, consider this variant of the Ramadan example:

- [Conversation between Opal and Micah, with Leslie overhearing]
Opal: Let's see if Ned wants to come to lunch.
Micah (to Leslie): Apparently Opal doesn't know that Ned is observing Ramadan.

Again, the proposition that Ned is observing Ramadan is available to Leslie to interpret the *know* sentence, even in the case where Leslie does not accept that proposition and will not accommodate it to the CG.

The publicity averse case is a straightforward counterexample to the CG claim, as explained in detail in Harris's paper. But the error case looks more friendly to the CG view. The CG theorist notes that because Leslie rejects the presupposition that Ned is observing Ramadan, something does go wrong with Micah's attempted assertion. In my discussion of this case in section 4.1., I was focused only on the question of the availability of NR to Leslie; my point was that the CG-availability theory has no explanation for how Leslie can make use of this proposition in interpretation, given that she does not accept it. Now the CG-presupposition theorist might say: "I make no claims about availability in general; I'm claiming only that in order for the content of an assertion made using a presuppositional expression like *know* to achieve its canonical context update effect, the CG to be so updated must entail the relevant presupposition. In the error case, because accommodation is blocked, there is no update, as predicted."

The CG-presupposition theorist could indeed make this move, and nothing I have said counts against it. (Of course, the theorist would still have to deal with the problems posed by publicity-averse cases and by insinuation.) Making this move would explicitly de-couple the CG requirement on presupposition from the issue of availability. But the best motivating argument for understanding presuppositions as constraints on CG is itself provided by the CG-availability theory. On that theory, the CG is the pool of information that participants are licensed to draw on in planning their utterances; the CG-presupposition theory says that linguistically triggered presuppositions convey information about that pool of information. If, as I have argued, the CG is *not* the pool of available information, then what is it about linguistically encoded presuppositions that makes them subject to this special CG requirement? In particular, why should NR (the proposition that Ned is observing Ramadan) be required to be entailed by the CG when the speaker says *Opal doesn't know that Ned is observing Ramadan*, but only required to be inferable by the hearer when the speaker makes

²⁹ I use *know* as an instance of a standard presupposition trigger, supposedly requiring its complement to be CG. For reasons independent of the arguments given here, I don't consider that a correct analysis of *know*.

an utterance whose relevance depends on NR? In agreement with Stalnaker, it is far more theoretically satisfying to suppose that both types of presupposition are subject to the same conversational requirements.

Admittedly, some theorists might disagree on precisely this point. For von Stechow (2008), for example, linguistically encoded presuppositions are a distinguished class, and so from this perspective perhaps should be expected to be subject to specific types of constraint. But there is a bit of a paradox here: if the theory of linguistic presupposition is fully separated from the conversational theory from which it originated, what motivates treating presuppositions as constraints on context to begin with? My argument, then, is that the goal of modeling linguistic presupposition in a context-based framework does not provide a good reason to interpret contexts as CG. In fact, if my arguments are persuasive, we do better to interpret contexts as representations of individual information states. One theoretical advantage to this approach to context, as I've already briefly discussed, is that it simplifies the notion of accommodation. In context change semantics, accommodation is presented as a process of direct modification of the context. But if context is CG, then no process can directly modify it. Adjustments to the CG cannot be made directly by any single speaker. Speakers may change their own acceptances or beliefs; the CG changes as those beliefs go in and out of alignment. Combining the assumption that presuppositions impose hard constraints on the context with the interpretation of context as CG gives rise to the timing issue discussed in section 3. But if the context is internal and individual, then accommodation poses no problem. An individual's beliefs plausibly do change "automatically" in response to manifest events; and an individual can make choices about what she will or will not accept for the purposes of the current conversation. Thinking of accommodation simply as changes that an individual makes to their own beliefs, acceptances, or internal representations eliminates both the timing problem and the conceptual problem of how the context can be directly affected by the choices of individual agents.

Moving beyond presupposition, a more general motivation, I think, for interpreting contexts as common ground, is the assumption that contexts must be public objects; otherwise, how to account for linguistic coordination more broadly? This is a significant question that I hope to discuss in more detail in future work. But the general picture is this: Anyone who thinks that agents are in a position to make good guesses about the (conversational) common ground must also think that agents are in a position to make good guesses about their interlocutor's (conversational) information states, for the CG is determined by individual states. A strong reason that agents are in a position to make good guesses about their interlocutors' representations is that each agent is updating their representations more or less in accord with the same semantic and pragmatic rules and constraints. The assumption that information states mostly match probably gets us the notion of publicity that we need.

5.3. Some additional models

For completeness, I'm going to conclude with a brief discussion of some additional models of context from the more recent literature and their possible interpretations.

5.3.1. Roberts 1996/2012³⁰, Farkas and Bruce 2010

I discuss these two frameworks together because, although they are quite different in detail, both can be considered variants of a Lewisian scoreboard; in fact, Roberts is explicit about intending her model as such. The interpretation of Lewis's scoreboard notion is itself complicated (see Lewis (1979b, pp. 342–346)); I focus here just on the question of how these authors present their own models and on whether an interpretation as a private representation is possible.

Roberts' Scoreboard model is a multi-component structure, representing among other things the interlocutors, the conversational moves so far, the Questions Under Discussion and what Roberts calls the common ground. Constraints on the model require the common ground to entail that the Scoreboard has the structure that it actually does have at each point, that is, the Scoreboard itself is part of the common ground of the interlocutors. However, Roberts' commitments about the common ground are fairly weak: she describes it (2018, Section 2) as "the set of propositions treated as if true by all interlocutors." Her common ground is thus like that of Lascarides and Asher, reflecting what is agreed on, but not (at least not explicitly) higher levels of common acceptance or belief.³¹ Roberts also indicates in passing an assumption that each interlocutor has a private representation of the scoreboard, identifying a non-defective context as one in which these representations match (Cf. (Stalnaker, 1978)). We can therefore without difficulty interpret Roberts' scoreboard as a private representation held by each interlocutor, which includes information about (that interlocutor's view of) the shared information of the group. As Roberts' model, like that of Lewis, has no in-principle constraints on what information can be represented in the scoreboard, this model can be supplemented with, for example, representations of each interlocutor's public but non-shared commitments and information.

Farkas and Bruce (2010) are concerned with modeling responses to assertions and questions, and hence, like Lascarides and Asher (2009), are more concerned with modeling differences in commitments among speakers at a given moment. In their model, they

³⁰ Roberts' model was first presented in an OSU working papers volume in 1996, heavily revised in 1998, and published in 2012 (Roberts, 2012). Roberts has presented it in a variety of other publications with minor revisions; see especially Roberts (2018). In this discussion I draw on both the 2012 and 2018 presentations of the framework.

³¹ In conversation, Roberts has confirmed that she has no commitment to a full iterative-beliefs understanding of common ground.

distinguish between the common ground (their *cg*) and any discourse commitments (DC_x) of individual participants which have not been entered into the *cg*. Although Farkas and Bruce say that they follow Stalnaker, their description of the *cg* does not clearly reflect a commitment to iterative attitudes: “The *cg* is...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” (p.4). On the other other hand, Farkas and Bruce emphasize that they take the entire structure to be *public*, clearly differentiating between public commitments and private ones. Hence, one *could* recast the entire structure as part of a Stalnakerian CG, with the parts of the model corresponding to types of information about the current conversation reflected in the conversational CG.^{32, 33}

Could the model instead be reinterpreted as a private representation? I see no particular objection to doing so. On this interpretation, the Farkas and Bruce model comes closer to the model of Lascarides and Asher (2009): each agent maintains a representation of the propositions that have been explicitly agreed on by the interlocutors (i.e. grounded), and a representation of any conversational commitments that interlocutors have made that have not been jointly agreed on. A central component of Farkas and Bruce’s account is the “projected set,” a representation of the expected future state of the common ground. Again, reinterpretation of this as a representation of the expected future state of each individual’s private discourse representation would be theoretically harmless.

Neither Roberts nor Farkas and Bruce make any commitments regarding availability of information (although the latter are explicit in including “shared background knowledge” in the *cg*, probably for the purpose of presupposition satisfaction).³⁴ Both allow for the

³² Propositions in the Farkas and Bruce *cg* would be entailed by the Stalnakerian CG. Propositions in DC_x, for some participant *x*, would not be entailed by the CG, but the CG would entail *x*’s commitment to those propositions. Note that by their own lights, Farkas and Bruce are committed to the *cg* reflecting individual public commitments. Suppose that speaker A has committed to *p*, and speaker B has committed to *not-p*. Then A may say: *Since you’re committed to not-p but I’m committed to p, we’ll have to agree to disagree*. Farkas and Bruce assume that presuppositions must be entailed by *cg*, and as the *since* clause is (by their assumptions) presuppositional, its content must be *cg*.

³³ Interestingly, the Farkas and Bruce model under its current interpretation still suffers from a version of the timing problem for accommodation, despite its emphasis on modeling grounding. Farkas and Bruce claim that presuppositions must be satisfied in their *cg*; being entailed by the discourse commitments of the speaker does not suffice. Now suppose A says to B: *I’m throwing a party for my mother, but she doesn’t know I am*. At the point where A utters the second clause, it is at most the case that the proposition that A is throwing a party for their mother has been added to DC_A. There simply wouldn’t be an opportunity for B to interject with either agreement or disagreement between the two utterances, so this proposition shouldn’t yet be added to *cg*. In this case, individual commitment suffices to license the use of the presuppositional expression.

³⁴ Farkas and Bruce claim that presuppositions must be entailed by the *cg*; being part of the speaker’s discourse commitments does not suffice. They give only one very brief argument in favor of their position, which goes like this: Suppose A and B have disagreed about whether or not Sam is at home; A has committed to this being true and B to it being false. It would then be infelicitous for A to say *Since Sam is at home, the children are not alone*. Farkas and Bruce take this to be evidence that A’s prior public commitment to the presupposition does not suffice for it to be “satisfied” in this context. What they neglect in this argument is that, whatever one thinks

possibility of accommodation and, as already noted, Roberts recognizes the need for information that is to be accommodated to be retrievable by the hearer, where retrievability requires that the hearer, perhaps on the basis of her private information, can identify the specific information (background assumptions, intended referents, etc.) intended by the speaker for use in interpretation.

5.3.2. Schlenker on local context

Schlenker (2009, 2010) offers a new take on the notion of local context, achieving the results of dynamic semantics without positing incremental context change. Schlenker takes the global context to represent the “shared assumptions” (2010, p.381) of the interlocutors. He seems further to assume (although this is not very explicit) that this context will be updated in response to each complete speech act. So far we are in Stalnakerian territory. Schlenker makes a further assumption, diverging from Stalnaker. He assumes that expressions are always evaluated relative to the global context, in the following sense: a declarative sentence *S* is not treated as a function from *W* to some subset of *W*. Rather, it is treated as a function which, whatever else it does, maps all worlds excluded from the context set to false. Thus, an utterance of *S* in a context *C* is actually interpreted as (*c and S*), where *c* is an expression that denotes all and only the worlds in the context set. The idea here is that conjoining *S* with *c* is “innocuous” because this will make no difference to the ultimate update of *C* – the worlds excluded by the additional conjunct *c* are *already* excluded from the conversational context. This general idea is what provides the grounding for Schlenker’s notion of local context, which can be characterized like this: the local context for the interpretation of any expression *E* in a sentence *S* is the maximal information which can be innocuously conjoined with *E* without affecting the evaluation of *S* relative to the conversational context.³⁵ Schlenker further assumes, without discussion or argument, that presuppositions are required to be entailed by their local contexts.

Now we can think about what sort of thing a local context is on this account. What it definitely is *not* is a representation of the presumed common ground at some point in the interpretation of the utterance. In the informal parts of his discussion, Schlenker presents local contexts as if calculated on the fly by interpreters for their own interpretational purposes. So local contexts seem to be *private* constructs; and it is these *local* contexts, on Schlenker’s view, that are required to satisfy presuppositions. So interestingly, Schlenker

about presuppositions and their need for satisfaction, B would have to accept the presupposed content in order to accept the assertion as a whole; and as B has already rejected that content, the speech act as a whole is naturally infelicitous.

³⁵ Schlenker (2009, 2010) develops a generalization of this account allowing for both propositional and predicative local contexts; this complicates the picture of what kind of thing a local context is, that I won’t pursue further here.

seems to arrive at a position according to which presuppositions impose contextual requirements only on private contexts. Indeed, if a given presupposition *is* satisfied in the global context, then it will also be satisfied in the local contexts for expressions evaluated relative to that context. But if the presupposition is *not* globally satisfied, then accommodation would have to happen in the individual's constructed local context, and it is only when the final interpretation of the entire speech act is added in to the global context that this context comes to be updated with the presupposition.

6. Summing up

Let me review. The main goal of this paper has been to argue that common ground does not provide an adequate model of the information available to interlocutors for use in interpreting utterances. This argument most directly targets the conversational model due to Stalnaker (1978, 2002, 2014), which has been so influential in philosophy of language and in semantic and pragmatic theory in linguistics. As noted at the outset, common ground, in Stalnaker's model, serves two essential and symmetric purposes: it provides the information which is available to participants for the purpose of interpretation; and it is the information which is to be updated by the contents of utterances. I have argued against the identification of what is available with the common ground. This argument complements those given by Harris (2020), which demonstrate that common ground cannot be identified as the target of conversational update. Harris's ultimate argument is "that we would do better to understand communicative acts in the way that Grice understood them, as attempts to change addressees' private states of mind, in part by revealing one's intention to do so" (p.2731). In parallel, I have argued here that we need to understand availability in terms of what is privately inferable by interpreters to be required for current conversational needs. Because the inferences that interpreters make are (in part) inferences about speaker intentions, we needn't worry that opening up availability in this way predicts rampant inference that is insensitive to what the speaker could themselves accept or believe.

My ultimate goal in making these arguments is to nudge theorizing about linguistic interaction away from a common-ground based conception, towards a model which conceives of linguistic interaction as involving individual agents who are in a continuous process of reasoning about each other, in the way that humans routinely do. But I wanted to also point out that this shift does not require a wholesale revision of current context-based theories in linguistics, because in many cases those theories can be interpreted as theories about private information states or representations. This was the point of the discussion in section 5.

This framing in terms of public vs. private information as the basis of interpretation echoes a debate in the psycholinguistic literature, much of it centered around the famous "director

task”.³⁶ A variety of experimental results have shown an apparent sensitivity of speakers to common ground information. Some psycholinguists have taken these results to show that interlocutors form a representation of common ground, while others have argued that interlocutors are simply taking into account evidence that they have about their interlocutor’s information state – that is, they are reasoning on the basis of private information about the information state of their interlocutor.³⁷ Of particular interest in this literature are approaches that attempt to explain apparent reliance on common ground information in terms of simpler information states and psychological mechanisms. For those of us advocating a theory of conversation in which common ground (if it exists at all) plays no central role, there are still important questions to answer about how to model the coordinated and public aspects of conversational interaction. I plan to address these questions in future work.

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³⁶ The director task is a task in which two participants interact with an array of objects in which some items are hidden from one or both participants, creating a situation where there is a known discrepancy between private and shared information.

³⁷ Another question explored in the psycholinguistic literature is the extent to which participants take their interlocutor’s perspective into account at all, versus behaving “egocentrically.”

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