What is a Context?

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Abstract In this chapter, I examine a variety of criteria for context individuation, with an eye towards identifying and distinguishing various theoretical projects in semantics and pragmatics for which they would be appropriate. The discussion is organized around six possible desiderata for contexts: (1) that they metaphysically determine proposition expressed, (2) that they be non-trivial (in a sense explained in the text), (3) that they provide epistemic illumination of how hearers understand what proposition was expressed, (4) that they be (in various senses) finite, (5) that they be non-intentionally characterized, and (6) that they be context-insensitively characterized. Particular attention is directed to the conceptions of context developed by Lewis, Stalnaker, and Davidson(ians).

Keywords Context · Semantics · Pragmatics · Lewis · Stalnaker · Davidson

1 Introduction

Language users occasionally utter sentences. In attempting to explain this behavior, theorists about language often advert to various features of these occasions under the rubric: *the context of utterance*. What is a context?

Let's narrow our scope somewhat. Sentences are uttered as parts of various speech-acts, and features of the occasion may be invoked to explain what determines *which* speech-act is performed. Suppose, though, we just assume it given

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that the speech-act in question is assertion. Now, a typical instance of assertion involves (1) an utterance of a sentence with a certain standing meaning in a language, in order thereby (2) to express a proposition, and perhaps in addition (3) to communicate pragmatically some further proposition(s). Features of the occasion of utterance may be invoked in explaining facts at any of these three levels—the pre-semantic, semantic, and post-semantic, as they might be called.[1] But suppose we focus just on level (2): what determines what proposition is expressed, given the meaning of the sentence uttered. (It's clear that natural language sentences are pervasively context-sensitive in this sense: what propositions speakers express in uttering them is not determined by their meaning alone. 'The kettle is black' can be used to express a variety of propositions, depending for instance on the kettle in question, the time of utterance, whether the layer of soot matters (the speakers might be photographers composing a black-and-white still-life, or they might be kettle collectors wondering whether, beneath its sooty exterior, this is a rare *white* 1924 model XYZ), and more.) Our focus thus narrowed, how ought we to characterize and individuate contexts?

The primary point of this chapter is to argue that this is a bad question—at least until we specify what we want a notion of context *for*. Contexts are just (representations of) bundles of facts. There's no sense to inquiring into their proper individuation conditions without an idea of what questions we hope to answer in part through adverting to context. Only given an idea of the task to which they will be put can we debate what information they should encode. We thus can say what a context is only after clarifying our theoretical aims.

Our preliminary narrowing has already illustrated how context may be invoked to help explain different aspects of linguistic behavior. In what follows, we shall see that even *after* this narrowing there remains room for different notions of context, corresponding to different questions one might want answered. Since the proper characterization of context depends on one's particular explanatory ends, certain debates about context lose their point: conceptions of context are not in *competition*, if they are meant to serve different ends. Showing this is fruitful not only because it helps clarify—indeed dissolve—certain disputes, but also because, in forcing a clarification of these varying explanatory ends, it elicits a sharper delineation of the varying projects aimed at those ends.[2]

I begin by listing six *desiderata* one might want an account of context to satisfy.[3] I then turn to three accounts of context (identified with Lewis, Stalnaker,

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[1] Cf. Kaplan (1989: 575–576). The first level is "pre-semantic" in that what must be explained is *what* sentence (with what meaning) has been uttered; that sentence's semantic properties are only then put to use at the next level, where propositional content is fixed.

[2] I shall assume, or stipulate, that contexts don't shift across utterances of individual sentences. (Stanley and Williamson (1995) argue that quantifier domains, and thus contexts, shift in the utterance of such sentences as 'Everyone converted someone' (suppose we've been talking about what the evangelists did upon entering the park). But why not say instead that the context includes a sequence of domains?)

[3] I don't claim that this list is exhaustive.

and Davidson) to see how they fare. (Assessing the theoretical potential of these three conceptions of context in particular is thus a secondary aim of this chapter.) What will be crucial to note is that whether these *desiderata* ought to be accepted—whether they place legitimate constraints on an account of context—depends on what work one's notion of context is supposed to do. Without a clear conception of this, one cannot assess whether a failure to satisfy some *desideratum* should count as an *objection*. We shall see that the three conceptions of context are addressed to three different theoretical tasks, which require satisfying three different sets of *desiderata*.

2 Six *Desiderata*

The first *desideratum* is the minimal demand that the context, given the meaning of the sentence, *determine* or *fix* the proposition expressed. What was said ought to *supervene* on context plus sentence meaning. If this weren't the case, then one and the same sentence, with the same meaning, could be uttered in one and the same context, and yet express a different proposition. But then, presumably, there was some further factor that in part determined what proposition was in fact expressed. We should then include this factor—or something that determines *it*—in the context. That is, we want contexts to be (if you will) *complete* with respect to the task of determining the proposition expressed, given the meaning of the sentence uttered. I say that this is the minimal demand on contexts, because it simply amounts to a restatement of the task on which I suggested above we focus our sights.

Second, we might require that contexts not be *trivial*. Contexts are trivial if they are characterized in a way that begs the questions we want to answer. For example, a trivial way of satisfying the demand for determination is to characterize contexts in terms of *what proposition is expressed*. What proposition is expressed will of course supervene on itself, but what is wanted presumably is some characterization of propositional determination in independent terms. Perhaps it could be argued that no such account is forthcoming, at least none meeting other suitable constraints. But until such an argument is compellingly made, the explanatory aspiration embodied in the first *desideratum* will seem reasonable and worthy of pursuit. Similarly for whatever other explanatory aspirations we might have: if there is some question we want answered, we will want it answered, if possible, in a non-trivial manner.

Third, we might require that contexts be characterized in a manner that is *epistemically illuminating*. For example, we might require that the features constituting context be among those language users actually track in understanding one another—or, at least, that they be such that they *could* in principle enable such understanding, given our cognitive capacities. This would require both that the features be epistemically accessible and that their bearing on propositional content, given sentence-meaning, be apparent (at least upon reflection) to normal speakers

of the language. Suppose what proposition is expressed on any given occasion happens to supervene on some complex microphysiological state of the speaker. Contexts comprising just this state would satisfy the determination requirement in an epistemically *un*illuminating way, since this state would neither be (in general) epistemically accessible to hearers capable of understanding what is said nor such that those hearers would or could (in general) grasp its bearing on content (even if the state *were* epistemically accessible to them).

Fourth, we might require that contexts be *finite*, that they comprise a finite number of features. (If contexts are represented as n-tuples, the requirement would thus be that n be finite.) This requirement could stem from various sources. For instance, it might arise as a constraint imposed by the form semantic theorizing might take. If our task is to *articulate* all the ways contextual features may affect propositional content, its completion might require finiteness.[4] Or a finiteness constraint might be motivated by learnability considerations.

Now, it may be noted that finiteness seems all too easy to satisfy: one can always replace an infinite sequence with a finite one that contains one object—viz., the infinite sequence itself. So, we might want rather to require that contexts be *finitely grounded*, that they comprise a finite number of features that themselves comprise a finite number of features, and so on for a finite number of levels. There are two other relevant refinements perhaps worth mentioning here. One might want to require that the number of features be not only finite, but also *fixed*, so that no change in the set of relevant utterances (e.g., in anticipation of possible changes in the language) would require the addition of contextual features. Further, one might require not only that contexts be finite, or finitely grounded, but in addition that they be *manageable*—that is, that the list of features be reasonably short. A finite, but utterly unwieldy list might be practically useless, at least for some purposes; and its lack of perspicuousness might render the account of which it is a part unilluminating.[5]

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[4] I hedge because I am simplifying. Perhaps we should allow an infinite number of contextual features so long as they are recursively specifiable—such as: the first demonstrated object, the second demonstrated object, the third demonstrated object, etc. (Suppose we are considering sentences of the form 'I'll have one of those, and one of those, and one of those,….')

[5] One might also require that each feature admit only a finite number of values. It is arguable, in fact, that such a limit follows from the requirement of epistemic illumination, given our finite cognitive capabilities. But, as will emerge below, it is also arguable that we are capable of being in an infinite number of intentional states at once. Now, if one allows features capable of countably infinite variation, it's possible to code an arbitrarily large finite number of features into a single feature. And continuous variation enables the coding of countably many—indeed, continuum-many—features into one. But note that such codings will typically not preserve epistemic illumination, since so characterized the bearing of context on content will be opaque to normal speakers. (The reduction of features by coding can still be accomplished even if the variation within a feature is finite: the single feature into which the others are coded will just have to admit as much variation as the product of the variation the multiple features allow. But again the point about the failure to preserve epistemic illumination will often apply.)

Fifth, we might require that contexts be characterized in *non-intentional* terms. Like the finiteness requirement, this constraint might have a variety of motivations. For instance, one's semantic theorizing might be intended to subserve a broader reductionist project. Intentional characterizations will be precluded if one's naturalizing strategy, for example, is to reduce the mental to the linguistic and then the linguistic to the non-intentional.[6] Or the requirement might stem from a desire to advert only to relatively *epistemically uncomplicated* contextual features—in particular, features not subject to the epistemological holism of the mental. Finally, at least in the case of certain intentional terms, the constraint may simply follow from the previously mentioned fear of triviality, as we shall see below.

The last possible *desideratum* I will mention is that the characterization of context be itself context-insensitive. The worry behind this constraint is that a theory that adverts to context-sensitively characterized contexts will itself be context-sensitive, so that what the theory itself says will vary across contexts—or, rather, there won't be any *one* theory put forward in these terms. It doesn't follow just from this that a context-sensitive characterization of context precludes a *general* theory, one that is about utterances and contexts generally. For perhaps from a distinguished context (the contribution to content of context-sensitive terms fixed by that context), a theory can be put forth that achieves this generality. But if so, then it is straightforward to supply context-*in*sensitive replacements—e.g., by stipulating, as a new technical sense for the terms, that they context-insensitively contribute to content what the terms in their non-technical sense context-sensitively contribute in the distinguished context. This *desideratum*, then, requires that this—or something equivalent—can be done.[7]

3 Three Conceptions of Context

Let me now introduce three conceptions of context found in the literature.[8] The first is due to David Lewis, the second to Robert Stalnaker. The third—perhaps not due to any one person in particular—is the notion of context required by what I consider the best version of (neo-)Davidsonian semantics. The Lewis and

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[6] Sometimes this strategy permits the reduction of *public* language to the mental, but then argues that the mental must be reduced to something with linguistic structure, a "language of thought." (See, e.g., Field 1978.) The constraint would thus apply only to any contextual features invoked at that level.

[7] Appeals to context are criticized in Hornstein (1984: 144–145) on account of the context-sensitivity of 'context.' Unfortunately, he simply claims that there is such context-sensitivity, and that semantical theories presuppose that there isn't, without exploring the conceptions of context such theories in fact deploy

[8] Again, there's no claim to exhaustiveness here.

Stalnaker conceptions of context are easily introduced. Getting the Davidsonian conception on the table will require a few words about his semantic program.

A context, for Lewis, is an ordered triple: the "location—time, place, possible world—where a sentence is said."[9] According to Stalnaker, a context is a speaker's presuppositions, "the propositions whose truth he takes for granted as part of the background of the conversation."[10] Stalnaker favors representing such a context as the set of possible worlds compatible with what is presupposed; but this is a further step, independent of the basic conception of context.

On the Davidsonian conception, a context comprises the features adverted to by a truth-theory that assigns truth-conditions for the sentences of a given language.[11] These truth-conditions are captured by "T-sentences" derivable within the theory. For context-sensitive sentences, which possess *variable* truth-conditions, such T-sentences take the following "normal form"[12]:

(u)(x)(y)… (z)[If uR(S, x, y,…, z), then {u is true iff F(x, y,…, z)}].

(In something closer to English: For any utterance of a sentence S and any contextual features x, y,…, and z, if those features obtain on the occasion of utterance (and meet whatever other relevant constraints there might be), the utterance is true if and only if x, y,…, and z satisfy F.) The features constituting a context would be the values of variables x, y,…, and z. For example, consider the context-sensitivity arising from the variable reference of 'it' in 'It's green' (ignore other sources of context-sensitivity). Its T-sentence would be:

(u)(x)If u is an utterance of 'It's green' in which 'it' refers to x, then (u is true iff x is green).

The T-sentence requires that contexts be at least individuated according to *what object is referred to by* 'it' *on that occasion*. The T-theory as a whole commits one to individuating contexts according to whatever features are thus adverted to within it.[13]

How well do these three conceptions of context fare in satisfying the various *desiderata* listed above?[14]

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[9] Lewis (1980: 79). As we will see, Lewis advocated a different conception of context in earlier work. Lewis' later notion of context should not be confused with what he calls an index, which basically provides a circumstance of evaluation.

[10] Stalnaker (1978: 84).

[11] See, e.g., Davidson (1967).

[12] Such conditionalized T-sentences are found in Burge (1974). I follow Higginbotham (1988) in speaking of normal forms here. Context-sensitivity and truth-theoretic accounts of semantic competence are further discussed in Gross (1998/2001: Chap. III)

[13] We needn't say that, since different features may appear in the T-sentences for different sentences, these sentences require different conceptions of context; for we may conglomerate these features into one conception of context and consider some of them suppressed for simplicity's sake when they are irrelevant.

[14] Begging the reader's indulgence, I won't discuss the six *desiderata* in the order presented above, but will rather let expository convenience determine the order in each case.

(a) *Lewis*

Lewis' conception of context as location clearly satisfies *desiderata* 1, 2, 4, and 5. What proposition is expressed certainly supervenes on the utterance's having occurred at that place, time, and world[15]; these three features are clearly non-trivial—at least so far as content-determination goes—in that they don't invoke what requires explanation; they are finite in number, finitely grounded, presumably fixed, and, being only three, manageable; and they are obviously non-intentional.

Whether *desideratum* 6 is satisfied—whether such contexts can be context-insensitively characterized—is, however, not so obvious. There are two issues here. First, specifications of place and time are context-sensitive as to their relevant *extent*: how extensive are the place and time that in part constitute the speaker's location? I won't dwell on this, however; perhaps a reasonable stipulation will settle the matter. Second, it is unclear whether we can context-insensitively refer to an arbitrary world. Location in space–time does not pose this problem, since we may avail ourselves of a coordinate system (dubbed with a name—once an origin, orientation, and unit magnitude are stipulated[16]). But context-insensitively picking out a location in the space of possible worlds is not so easy. We may provide *our* world the context-insensitive name '@,' and likewise take care of some others we have first context-sensitively picked out. But we seem to lack the means to refer context-insensitively to an arbitrary world.[17]

But is this a problem? Lewis has, after all, context-insensitively characterized *what contexts are* (supposing the first concern addressed): they are places, times, and worlds.[18] This suffices to individuate contexts, even if we lack the means context-insensitively to refer to arbitrary contexts. This second problem, then, is really only a problem if there is some reason Lewis need be committed to our having such an ability. We thus see that there is a distinction to be drawn between context-insensitively characterizing what contexts are and context-insensitively characterizing (arbitrary) particular contexts in a manner sufficient to single them out. Identifying what suffices to determine propositional content (given sentence-meaning) requires only the first. Even if your aspirations include articulating a theory that enables the context-insensitive specification, for an arbitrary utterance in a context, of the proposition it would express, this in fact would suffice. Articulating the *theory* doesn't require the ability to refer context-insensitively to arbitrary contexts: it doesn't even require the ability to refer to arbitrary contexts *simpliciter* (whether context-sensitively, or context-*in*sensitively).

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[15] Indeed, what sentence is uttered with what meaning supervenes on the utterance's Lewisian location as well!

[16] Of course, there would be no bar to employing context-sensitive terms in thus fixing the name's referent.

[17] There are more worlds than we could name, in any case.

[18] There are indeed questions about how *worlds* are individuated. (Lewis himself takes up the matter in his (Lewis 1986: 69–81).) But, arguably, providing an answer in this case—unlike in the case of a place and a time's *extent*—requires not a stipulation as to the use of a context-sensitive term, but rather a clarification of the individuation criteria with which a context-*in*sensitive expression—viz., 'possible world'—is associated.

However, if you lack this ability, you'll only be in a position to *apply* the theory to utterances entered in contexts to which you could refer.

The failure of Lewis' conception of context to satisfy *desideratum* 3—the requirement that contexts be epistemically illuminating—is more obvious. Lewisian location is certainly knowable (minimally, we can demonstratively identify our current spatial, temporal, and modal whereabouts). But from the fact that P supervenes on Q, it doesn't follow that finite agents, who as it happens can recognize that Q, can thereby learn that P. And indeed knowledge of these features, combined with knowledge of what sentence was uttered with what meaning, does not in general enable normal competent speakers to recover propositional content. Knowing that 'I love you,' for instance, was uttered in our world at precisely noon on January 12, 1879 in room 17 of the Dakota off Central Park obviously does not enable me to know what proposition was expressed.[19] Lewis' conception of context, though it may help answer questions requiring only the *determination* of propositional content, seems ill-suited to addressing how speakers succeed in *understanding* what is said.[20]

But is this a *criticism* of Lewis? Not if addressing how speakers succeed in understanding what is said just isn't his aim—or at least not his aim in advancing this conception of context. So what is his aim? Lewis tells us that his advancing this conception of context subserves his attempt to provide "part of a systematic restatement of our common knowledge about our practices of linguistic communication [… that] assign[s] semantic values that *determine* which sentences are true in which contexts."[21] Providing that part that covers our *understanding* of what others say is simply not the task he sets himself here. Indeed, in other work, he seems to hold that at least part of this task requires something like Stalnaker's conception of context.[22]

(b) *Stalnaker*

Let's turn then to Stalnaker's conception of context as the set of propositions the speaker presupposes to be mutual among participants in the conversation. The first point to note is that for Stalnakerian contexts generally to satisfy *desideratum* 1—for them to determine propositional content, given sentence-meaning—it is arguable that an assumption of normality must be made. A context is normal—or, as Stalnaker puts it, "non-defective"—when the speaker's presuppositions are in fact the same as her audience's.[23] When the context is defective, it *can* be that it is rather the hearer's presupposition set that determines the proposition expressed—at least this is a defensible position in some cases.[24] The most likely such cases are

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[19] That it might conceivably suffice for some super-intelligent being with extraordinary powers is neither here nor there.

[20] Thus Stalnaker (1998: 15), referring to Montague (1968) and Lewis (1970, 1980), comments that "nothing was explicitly said in the theory about the epistemic status of such a context."

[21] Lewis (1980: 79) (emphasis added).

[22] See Lewis (1979).

[23] Stalnaker (1978: 85).

[24] But only in some cases. The point is not that the hearer's presuppositions are what matter in *all* defective contexts. This is the point of the qualifier 'generally' above.

ones in which the hearer's presuppositions are very reasonable, but some of the speaker's are not. For instance, if Tommy and Suzy are playing with Suzy's marbles, and Tommy declares "All the red ones are mine," it is unclear that the fact that he has in mind rather the marbles he left at home should suffice to render them the domain of discourse relevant to the assessment of the proposition expressed (perhaps as opposed to the proposition he *meant*).[25] It is unreasonable of Tommy to expect Suzy to share the relevant background beliefs in this case; Suzy's most likely assumption—that he is falsely claiming ownership of the perceptually salient red marbles, the ones before them that they've been playing with for the past hour—is much more reasonable. Perhaps one should conclude in such cases rather that it is in some sense indeterminate what proposition was expressed.[26] Then there would be no objection to maintaining that Stalnakerian context determines propositional content (given sentence-meaning), since cases in which there's no (determinate) proposition expressed at all would just be irrelevant to the claim. But if one is willing to allow that propositional content can in some cases be determined by what the *hearer* presupposes, then the claim holds only if normality is assumed.[27]

To satisfy the second constraint—that the context be non-trivial—the speaker's presuppositions must not include the proposition that she is asserting that P, since among what wants explaining is that (the hearer can grasp that) this is the case. Of course, the speaker *believes* that this is what she is doing, but normally she can't expect the *hearer* to believe this prior to his grasping what the speaker says.[28] Once the assertion is made, it can indeed be reasonably expected that the speaker's having asserted that P will be mutually presupposed. This will typically be among the *effects* on context the speaker intends her speech act to have. But this just means that the speaker's having asserted that P will be conversationally available as background for *further* assertions. There seems no reason, then, to doubt the non-triviality of Stalnakerian contexts.

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[25] I borrow the example from Gauker (1997).

[26] Gauker (1997: 28–29) argues against this possibility, claiming that if the utterance expresses no determinate proposition, then the process by which they can clear up their confusion, which seems to take the would-be claim as its basis, is rendered unintelligible. This argument, however, is unconvincing. There's plenty of content around for the process to utilize, even if the utterance itself fails to express a proposition—e.g., the content of the intentions with which he spoke and of the beliefs he had about what was presupposed.

[27] Alternatively, one might hold that what determines propositional content (given sentence-meaning) is the set of *reasonable* presuppositions. In normal contexts, this just will be the *speaker's* presuppositions.

[28] There are indeed cases in which the hearer may also (correctly) believe that the speaker will assert, and then is asserting, that P—she might know her conversational partner all too well. But then her excellent prediction will call for some other explanation. What's more, from the fact that the speaker and hearer both *believe* something, it doesn't follow that they presuppose it to be mutual. Agreement in belief does not yet amount to common knowledge. There indeed can be cases in which there *is* common knowledge that the speaker is expressing the proposition that P (e.g., in some cases of expressing gratitude or anger, or in prayer), but I would consider these, not cases of assertion proper, but of acknowledgment. Cf. Matthews (1980).

Now, in adverting to a speaker's presuppositions, one obviously violates the non-intentionality constraint—or, rather, what follows is that this conception of context is not suited for projects that motivate this *desideratum*. This is not to say that Stalnakerian contexts can't be deployed by someone with naturalistic ambitions, but only that one's strategy must be of the appropriate sort: Stalnaker himself advocates an approach that would explain linguistic intentionality in terms of mental intentionality, and then the latter in terms of a broadly speaking causal story.[29] This involvement with the mental, however, may well *limit* the epistemic illumination forthcoming from an approach that utilizes such contexts. Before examining this, it will be useful to discuss *desideratum* 4—the finiteness constraint.

Stalnakerian contexts are trivially finite; for they comprise a single feature—viz., *what the speaker presupposes*. Here is a case where it's more interesting to ask instead whether the context is *finitely grounded*. The proper answer to this question is clouded by questions concerning the proper analyses of tacit belief and common knowledge.[30] I certainly act as if I believe that I am under 10 ft tall. Do I tacitly *believe* it? What about my being under 11, 12 ft tall, etc.? If I do tacitly believe all these things, don't I also tacitly believe that you believe them, and that you believe that I believe them? So, aren't they among my presuppositions? If so, then presupposition sets need not be finitely grounded. And even if I don't have all those tacit beliefs (nor all those presuppositions) about my height, consider some arbitrary P that I *do* presuppose on some occasion of utterance—for instance, that I am speaking. Well, if it's a presupposition, then you presuppose it also. And *that* we both presuppose it will also be included among what we take for granted. So, we'll each presuppose that we each presuppose it, etc. The mutuality built into presupposition can seem to ensure an indefinite iteration of presuppositions. So, if this proves correct, we must again conclude that presupposition sets are not finitely grounded.

These brief remarks are intended merely to mark the issue, not to convince.[31] At the very least, however, it would seem that the number of propositions in a

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[29] See Stalnaker (1984: chap. I).

[30] The literature is large, but see, e.g., Lycan (1986) on tacit belief, and Smith (1982) on common knowledge.

[31] Perhaps I believe that, for all n > 10, I am under n feet tall. But do I believe each instance? Note that there are finite numbers so large that there exist no numerals referring to them in any physically realizable numeration scheme. (Suppose x is such a number. You might think you could refer to x exploiting a base x numeration scheme, according to which '10' names x. But the world is *ex hypothesi* is "too small" to contain tokens of all the distinct types needed to name the numbers between 0 and x. So such a scheme couldn't be introduced.) It would likewise seem that I am only capable of grasping so many iterations of presupposition. But, on the other hand, perhaps tacit belief (and presupposition) doesn't require that I be capable of *occurrently* entertaining those thoughts (or that they satisfy the constraints imposed by being represented in a Language of Thought). Two further questions. Does mutuality really ensure—or require—an indefinite iteration of presuppositions? And, even if one concedes for the reasons advanced in the text that Stalnakerian contexts are not finitely grounded, should this infinity be thought truly *bothersome*, given that both examples involve recursively characterizable totalities? (Cf. my comment above on multiple demonstrations.)

presupposition set could be enormously large.[32] Does this threaten *unmanageability*? That depends on what work the theory employing this notion of context is supposed to do. Let's return to the question of epistemic illumination to see one way this worry could be pressed.

Stalnakerian contexts certainly satisfy the conditions necessary for being epistemically illuminating. It is obvious that the attitudes adverted to are epistemically accessible, and that their bearing on propositional content is apparent to actual speakers. If explaining our ability to understand one another is among our goals, it is clear that presupposition sets to this extent fit the bill in a way that Lewisian locations can't. But why might this conception of context limit the epistemic illumination approaches employing it may provide? Well, suppose we wanted some sense of *how* hearers, on the basis of their knowledge of sentence-meaning and context, (could reasonably) form a belief as to the proposition expressed. A standard thought is to try to articulate rules that could take one from sentence-meaning and context to propositions.[33] But now the worry is that too much has been included in our contexts to make this feasible. Sure, not *all* the speaker's attitudes are there—but still the presupposition set can seem to comprise such a large, unwieldy, holistically intertwined body of information as to render the task intractable. "He's crazy," my conversational partner says. Among the presuppositions of the context are that we have been talking about her husband, that her child is visually salient, that her husband is visually salient, that she is pointing at her child, that a dog just barked, that she is gesturing vaguely with her head over her shoulder, etc. What rule will take me from this mess of facts (and many more) to the conclusion—obvious to anyone minimally competent and present—that, in uttering 'He's crazy,' she referred to her dog (who, by barking, had interrupted her story about her equally crazy husband) while she simultaneously indicated to her husband, by pointing to her child, that he should keep an eye on the baby? Now, merely pointing out the complexity of our cognitive abilities in this fashion of course does not constitute an argument that such rules could not be articulated. But it at least serves to indicate that constructing such a

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[32] One might try to keep the numbers down by considering only the presuppositions *relevant* to understanding the particular assertion in question. But this threatens to run one afoul of the triviality constraint, if there exists no way of identifying which presuppositions are relevant without adverting to the proposition expressed. And if there *does* exist some way, then it would seem explanatorily preferable to construct a notion of context on *that* basis.

[33] I speak of rules, instead of functions, because we might want more than functions in the set-theoretic sense—i.e., sets of n-tuples. This need not be simply because, as theorists engaged in explanatory projects, we seek illumination, not just correlation, and thus prefer correlations that somehow pattern the data. The motivation might be rather, or further, that language use—the *explanandum* in question—is conscious rational activity, one that requires those who engage in it to address reasonable demands for justification. We might thus require that our representations of the relation between input and output "organize" the chart in a manner that articulates how actual speakers grasp this relation. Part of what theorists want here to comprehend, after all, is how speakers comprehend each other.—As perhaps goes without saying, however, I'm broaching issues that can't be adequately addressed in a brief note.

theory would require something approaching a complete theory of rational psychology. We needn't place bets here on *that* project. Suffice it to say that *if* attempts to codify "general intelligence" are subject to in principle limits, then it seems that semantic projects that utilize Stalnakerian contexts could be as well. Semantics pursued in this fashion would then be *as* hard as pragmatics.

Of course, the proper response might be that this constitutes no *objection* to Stalnakerian contexts. It merely provides a reason not to employ such contexts in *that* explanatory project.[34]—Assuming, that is, that such a project can be carried out at all: there's even less reason to object if it can't. If it can, however, or if we at least possess no grounds at present for thinking it can't, then what conception of context *ought* one employ? A possible moral to draw from our examination of *Lewisian* contexts is that there's no avoiding intentionally characterized contextual features if one aims at the sort of epistemic illumination described above. But now we see that a profligate adversion to mental states threatens intractability. The Davidsonian conception can be viewed as an attempt to find a middle ground suitable to the project of articulating semantic rules. It adverts to intentionally characterized contextual features, but attempts to let in only those directly relevant to the calculation of propositional content. What features of context must be tracked in order to calculate the semantically relevant contextual features *themselves* is a question, according to this view, that semanticists needn't address.[35] The larger questions of rational psychology can thus be left to one side, if this approach is correct. Before turning to this conception of context, however, it remains briefly to remark upon the context-sensitivity of Stalnakerian contexts.

Again, we must distinguish the question of context-insensitively characterizing what contexts are from that of context-insensitively characterizing particular contexts. Regarding the former, there is, first, the vagueness, and consequent context-sensitivity, of 'presupposes;' and, second, the arguably context-sensitive individuation conditions for propositions, the objects of the speakers' presuppositions—i.e., the context-sensitivity of 'same proposition as.' Regarding the latter, there is further the question of whether the contents of others' attitudes can even in principle be context-insensitively characterized. Many accounts of attitude ascription posit context-sensitivity of one sort or another that could not be easily removed.[36] In addition, it is arguable that there are some essentially indexical

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[34] I should note explicitly that this is *not* the project Stalnaker himself intends his conception of context to subserve. Stalnaker's discussions of the role of context in language use typically attempt:

> to describe the structure of discourse in a way that abstracts away from the details about the mechanisms and devices that particular languages may provide for doing what is done in discourse… to get clear about what language is for—what it is supposed to do. (Stalnaker 1998: 4).

[35] It is possible that Stalnaker (1984: 40) loses track of this point.

[36] See Richard (1997) for a survey.

contents expressible only using context-sensitive means.[37] In any case, as we have seen, the violation of finite groundability (or at least manageability) would seem to leave us unable in at least some cases to characterize *exhaustively* a Stalnakerian context, whether context-insensitively or not.

(c) *Davidson(ians)*

The Davidsonian conception of context, recall, is that required by a truth-theory for a language: it comprises the parameters to which the theory must advert in specifying the variable truth-conditions of context-sensitive sentences. The determination and epistemic illumination constraints—*desiderata* 1 and 3, respectively—will clearly be satisfied *if* such a theory can be constructed. First, given such a theory, we may take the relevant T-sentence to provide—or at least to be determined by—the uttered sentence's meaning. Then, if one plugs in the relevant contextual features, the biconditional's right-hand side will yield what was said.[38] Second, a successful theory will advert to epistemically accessible contextual features whose bearing on propositional content is explicitly exhibited in the T-sentence, which would thus seem better to fit the above ideal of a semantical rule. *Whether* such a theory can indeed be constructed for an actual human language is, however, a large question. We'll touch on some possible problems below, and elsewhere I discuss some more.[39]

Now, as is apparent from my earlier example, Davidsonian contexts may include intentionally characterized features: recall the feature *what the speaker referred to in uttering 'it'* invoked in providing a T-sentence for 'It's green.'[40] (So, again, this conception of context is not available if one is pursuing certain reductionist strategies.) Two worries might arise here. First, it may be worried that the threat of triviality looms. While there's no reason to think that the contextual features adverted to will include *what proposition is expressed*, we see that other arguably semantic phenomena *will* be invoked, as *reference* just was in our example. The worry, note, doesn't so much concern the invocation of intentionality *per se*, as the invocation of a certain *sort* of intentionality, specifically a kind

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[37] See Perry (1979) for discussion.

[38] I pass over such complications as the Foster Problem. See Foster (1976).

[39] See Gross (1998/2001: Chaps. III and IV).

[40] The claim that Davidsonian semantics *can't* invoke intentionally characterized contextual features crops us in one form or another surprisingly often. (See, e.g., Stalnaker 1984: 40). Sometimes the motivation seems to be one of those that will be discussed in the text: naturalistic restrictions, a fear of triviality, or a fear of epistemic entanglement in the holism of the mental. But other times, the motivation is much more inchoate. It's worth noting, however, that no one questions the appropriateness of *who the speaker is* as a contextual feature (how else can one specify truth-conditions for sentences containing the first-person pronoun?)—and yet it's obviously intentionally characterized (parrots, message machines, and perhaps foreign-language interpreters *qua* interpreters are not *speaking* in the relevant sense—they lack the proper intentions). Well, perhaps it's not always obvious what's obvious (at least, until it's pointed out that it is) if even Stalnaker (1984: 40) can list *who the speaker is* as a paradigm example of a *non*-intentionally characterized contextual feature.

of *linguistic* phenomenon. Once again, the proper response is to clarify what questions Davidsonian context is supposed to help answer. It is certainly interesting to ask, for instance, what determines a speaker's reference on a particular occasion of utterance of a context-sensitive referring expression (and what enables hearers to grasp the reference). But that the Davidsonian approach doesn't answer *that* question won't constitute an objection if it doesn't *aspire* to answering it. Of course, there *would* be room for objecting if it begs off answering too many questions (or doesn't take on enough), or if it separates questions that seem to go together explanatorily. But this doesn't seem to be the case. In fact, the Davidsonian approach effects a natural division between our standing knowledge of language and the occasional knowledge we must in addition bring to bear in order to understand particular utterances. The truth-theory aims only to capture the former (which does, however, involve specifying what *role* one's occasional knowledge—whatever it is—plays on particular occasions). Tackling the latter can then be reasonably left for pragmatics to handle, to the extent that it can.

This division of labor also provides an answer to the second worry. Above I said that Davidsonian context can be understood as aiming for a middle ground between the non-intentional Lewisian locations and the profligately intentional Stalnakerian presupposition sets. The second worry, then, is whether such a middle ground can in fact be found—whether, in particular, Davidsonian contexts can avoid entanglement in the holism of the mental. Now we see how this indeed *is* possible. For Davidsonian contexts need advert only to those intentionally characterized features that need be directly plugged into the theory's variables. Their values, in other words, can be simply taken as *given*, as far as the truth-theory is concerned: *what* fixes those values in the first place becomes irrelevant.

Although not all of the speaker's presuppositions need be invoked on this conception of context, still there might remain the worry that the number of intentionally—and indeed non-intentionally—characterized contextual features required might prove quite large. Let's turn, then, to *desideratum* 4—the finiteness constraint.

I begin by recalling some well-known pre-history. Lewis, in his early paper "General Semantics,"[41] specified eight contextual features ("a list," he later noted, "that was long for its day"[42]) and, wondering whether more were needed, discussed others one might add.[43] Cresswell replied to the "agonies of conscience" he saw Lewis enduring "in trying to decide whether [he had] taken account of enough," by suggesting, with the support of one example, that "it is impossible to lay down in advance what sort of thing is going to count as a context

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[41] Lewis (1970: 195).

[42] Lewis (1980: 87).

[43] Lewis (1970: Appendix).

of use… there is no way of specifying a finite list of contextual coordinates."[44]
Lewis accepted the point:

> Contexts have countless features… the dependence of truth on context [is] surprisingly multifarious… Cresswell rightly complained… [there are] indefinitely many features of context.[45]

And it is not uncommon for those who agree simply to refer back to this exchange.[46]

But not everyone did agree. Lycan, for example, replied:

> If English speakers and hearers in fact have all the context-interpretive skills requisite to negotiating all the discoverable factors, then (however many and various these factors may be) there is some definite [sc. finite] number of them, even if as theorists we cannot say in advance what this number is. Therefore, we can be confident that the addition of members to our "indices" would come to an end at some point….[47]

And *perhaps* Lewis conceded *this* point as well in writing that "[w]e could wait for the end of linguistic inquiry, and define our indices then"—though he added that "the less patient of us may prefer another solution [viz., adverting to his locations]."[48]—Here ends my historical narrative.

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[44] Cresswell (1972: 8). The example is:

I have no pain, dear mother now,
But Oh! I am so dry;
Just fetch your Jim another quart
To wet the other eye. [Anon.]

which, he says, requires at least coordinates for the speaker, the time, and the type of previous drink.

[45] Lewis (1980: 87).

[46] This is then sometimes taken to show why we need to give up so-called indexical approaches to context and replace them with, e.g., presupposition sets. But note that Stalnaker's conception of context can itself be construed as an example of the indexical approach: for presupposition sets may be viewed as just contexts that have one index (viz., *what the speaker presupposes*). The question, that is, is not one of whether to have indices, but of what those indices should be. Note that Lewis' original approach includes presuppositions as an index. So, when one adds to a Stalnakerian context further elements—to track, say, reference across a discourse, etc. (yielding what is called a discourse structure)—you get something that again looks very much like those bad ol' index kind of contexts!

[47] Lycan (1984: 51).

[48] Lewis (1983: 230). (Though I suggest that this remark may be read as providing a possible response to Lycan, Lycan is not actually mentioned in this passage. —The Lewis remark was also published a year before Lycan's, though this of course does not entail that the one was *written* before the other.)

Now, while I won't go so far as to defend Lycan's argument,[49] I do want to defend his conclusion—or at least to suggest that no good argument has been given against it. The first point to note is just an application of the point I stressed above. Many have been overly impressed by the multifariousness of contextual features on which—to use Lewis' language—"truth sometimes depends,"[50] features that are "relevant" to the determination of extension.[51] But this language is a bit unclear. Yes, just about anything could be relevant—if what is meant, for instance, is that it could play some causal or evidentiary role either in the determination of content or in a hearer's coming to grasp what was said. But it doesn't follow that an interesting semantic theory must account for all aspects of these processes. All the Davidsonian need do is isolate those features of context that provide the truth-theory the contextual information it needs—again, however these features are themselves in turn determined. The semanticist, that is, needs to identify those features of context that, as it were, sum up the rest of the contextual situation in a manner sufficient to yield truth-conditions, given the semantic rules embodied in the truth-theory. In sum, from the infinity of possibly "relevant" contextual features, it doesn't follow that Davidsonian contexts must be infinite.

Still, one may attempt to argue, by appeal to cases, that even Davidsonian contexts must advert to an infinite number of features. But note that if a language's lexicon and syntax is finite, then the infinity would have to arise already from a single term or rule.[52] Is there reason to think the axiom for any single lexical item, for instance, would require an infinity of contextual features? Predications of 'green' might be contextually sensitive to the relevant part of the subject of predication, the color's etiology, facts about the viewing conditions, etc.[53] But could this list go on forever? Some argument would be needed to give us reason for thinking so. There is much complexity, to be sure (surprisingly, perhaps—though in retrospect maybe this is what we should have expected), but from complexity doesn't follow infinity. It is sometimes suggested, however, that there is an open-endedness to our language use, in that as new situations arise, so will new ways of deploying our existing words: mountains are high, but so are tones—and there's no end of fields to which the high/low contrast could come to be

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[49] The movement from our being able to negotiate these features to there being a finite number of them may seem a *non sequitur*, but perhaps it's instead enthymematic, tacitly presupposing elements of the "metatheory" Lycan earlier (1984: 13–18) lays out. This threatens, however, to render the argument question-begging.

[50] Lewis (1980: 79).

[51] Lewis (1983: 230).

[52] I ignore the results of indefinitely iterating the same source of context-sensitivity. Sure, in theory you could, in a single sentence, keep on referring to items via the demonstrative 'that' as long as you liked. But this could be reasonably represented as a sequence, and thus as a *single* contextual feature. This sort of infinite grounding seems harmless, since it could be recursively characterized. (And, in any case, in *practice* you *couldn't* keep on demonstrating as long as you'd like.)

[53] Cf. Gross (1998/2001: Chap. I) and the work cited therein by Travis (1981) and Szabó (1995).

applied. Similarly, there may be no end to the kinds of contextual feature that could become relevant to assessing predications of 'green.'[54] The proper response to this, however, is that semantics (or at least this chapter of it) need only be in the business of describing how our language is *now*. It needn't as well account for all the ways it might expand over time.[55] The worry might remain that, although the number of contextual features admitted on the Davidsonian conception has not been shown to be infinite, it has been shown to be quite large—and therefore perhaps *unmanageable*. But here the Davidsonian may reasonably shift the burden back: if this is to become a full-fledged objection, the demand for manageability must both be clarified and motivated. After all, as mentioned, at this late date we perhaps should not be surprised by the *complexity* of our linguistic competence.

I turn, finally, to *desideratum* 6—that contexts be context-insensitively characterized. If among the posited contextual features are propositional attitudes, then context-insensitively characterizing particular contexts will face the same obstacles encountered by Stalnakerian presupposition sets. In addition, the values of many non-intentional features would seem to resist context-insensitive characterization. Consider the sentence 'That style of play is risky.' A relevant contextual feature would seem to be the contextually relevant style of play. But unlike with times and places, we seem to lack a general context-insensitive way to identify arbitrary styles of play. Though we may be able to draw attention to aspects of the particular style, we may lack the resources to single it out in any way other than demonstratively.[56] And so we wouldn't be able to context-insensitively refer to an arbitrary context. But perhaps this needn't bother us, so long as we can context-insensitively refer to those contexts to which we have some reason to refer. And, in any case, for all that's been said, perhaps we might have no reason *not* to allow ourselves to refer to contexts using context-sensitive terms.

More interesting is the question whether we can characterize what contexts *are* context-insensitively. For if we can't, then we are blocked from context-insensitively stating the truth-conditions of the sentences of our target language. The T-sentences for context-sensitive sentences, recall, have the following form:

$(u)(x)(y)\ldots(z)[\text{If } uR(S, x, y,\ldots, z), \text{ then } \{u \text{ is true iff } F(x, y,\ldots, z)\}].$

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[54] See Ross (1981), whose discussion of many interesting examples is marred *inter alia* by a failure to mark various of the distinctions described above.

[55] This might require a more fine-grained individuation of languages than is normal in everyday speech. But that needn't affect the theory's explanatory interest. Note, by the way, that in the text I speak of ways a language (in the coarse-grained sense) *might* change over time. This is because *actual* language change is of course finite.

[56] For any given case, we may *introduce* a context-insensitive name—perhaps, 'Kasparov's style.' But if there are *many* styles, we may be unable to introduce enough names to cover them all. We also could refer to the style via the context-insensitive description 'the style displayed at such-and-such time at such-and-such location.' (Let's not worry about specifying the world.) But this description doesn't present the style in a way that enables an arbitrary speaker to grasp what style it is. (Cf. the remarks at the close of Gross (1998/2001: Chap. I) on ineliminability and content individuation.)

For example, the T-sentence capturing the variable reference of 'it' in 'It's green' would be:

(u)(x)If u is an utterance of 'It's green' in which 'it' refers to x, then (u is true iff x is green).

The T-sentence thus adverts to the contextual feature *what 'it' refers to*. If this contextual feature is itself context-sensitively characterized, then the T-sentence as a whole will be as well. But if the T-sentence is context-sensitive, it does not—considered independently of any particular context of utterance—express a proposition at all; and so, in particular, it doesn't specify the sentence's truth-conditions. The Davidsonian semanticist must therefore either allow that the content of the truth-theory itself can vary across contexts of utterance, or she must ensure that she uses only context-insensitive terms in characterizing what the relevant contextual features are. If 'refers'—or any other expression used to characterize a contextual feature—is subject itself to context-sensitivity (even if only through being subject to vagueness), then taking the latter tack will require stipulating this context-sensitivity away. Note that this requires that the individuation conditions of the objects quantified over be fixed as well.[57]

4 Conclusion

This completes my examination of these three conceptions of context. We have seen that each satisfies some of the six *desiderata*, while violating others. And in each case, we have seen as well how these violations needn't constitute an objection, so long as one is clear about what projects each conception may and may not be suited to subserve. Not clearly delineating these projects leads only to confusion. It is my hope that this examination not only helps sort out what is—or ought to be—at issue in discussions of context, but also sheds some light on the nature of these varying projects themselves.

I close by addressing one reason why some of the issues I have tried to separate are sometimes lumped together—viz., a not unreasonable desire to treat language and linguistic phenomena *uniformly*. It would seem a laudable goal to seek an explanatory framework that could accommodate *all* of the projects we have discussed. The desire for such motivates searching for a single conception of context suitable for all our linguistic needs. I have not argued that there could not be such a thing—beyond, that is, gesturing towards the possible intractability of certain areas.[58] But note that

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[57] This amounts to removing whatever context-sensitivity there may be in the 'what' of, for instance, 'what 'it' refers to.'

[58] Note that this is just as much a worry at the pre-semantic as at the post-semantic (or, pragmatic) level. This is in part because judgments at one level can affect the other. We may reject a disambiguation, for instance, on account of the untoward pragmatic implications this would force. Indeed, all three levels—the pre-semantic, semantic, and postsemantic—are holistically intertwined epistemologically speaking.

even if there *were* a single conception of context suitable in principle for all projects aimed at explaining linguistic behavior, it would not follow that adverting to such contexts would yield the most perspicuous explanation no matter the issue. For example, employing Stalnakerian contexts, and the highly complex rules they would require, would certainly shed less light on specifically what we know in knowing a particular language than would the use of Davidsonian contexts. (I'm supposing here that both approaches could pan out in principle, and that Stalnaker's would thus be suitable to a greater range of questions than the Davidsonian's.) Various specifically *semantic* facts, explicitly highlighted on the Davidsonian approach, would get lost in the complex semantic/pragmatic brew the Stalnakerian approach would yield. We would thus still have use for more than one conception of context.[59]

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[59] Throughout this chapter I focus on conceptions of context suitable for various *explanatory* purposes. Let me mention here another reason why one might advert to context, one discussed in Gross (1998/2001: Chap. V). Disagreement can arise, on some occasion of utterance, both about *what* was said, and about *whether* anything was said at all. Many context-sensitive sentences can give rise to such disputes (if the sensitivity to context be subtle enough), but my primary interest is in such disputes as may arguably arise from the use of philosophically loaded context-sensitive terms—such as (perhaps) 'exists' and 'object.' Assuming the parties to the dispute are both competent speakers of the language in question, and thus know the meaning of the words used, it is natural that they turn, in order to adjudicate the dispute, to the relevant contextual features that do (or do not, as the case may be) enable the utterance of those words on that occasion to express a proposition. Now, is there a conception of context that might suit this situation, that might provide them with a neutral way to settle their disagreement? Well, certainly Lewis' won't help. But adverting to Davidsonian contexts might just force the dispute back to the features it comprises: if two people disagree over whether an utterance of 'He's hungry' expressed a proposition, they probably disagree over whether 'he' succeeded in referring on that occasion. Finally, using Stalnakerian contexts threatens again to leave us with only general intelligence to go on; and stubborn disputants will disagree over whose intelligence should be trusted. It thus looks unlikely that there's a way of individuating contexts especially well-suited for the epistemic task of adjudicating disputes over content.

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