

Lewisian Scorekeeping and the Future

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The purpose of this paper is to draw out a little noticed, but (I think) correct and important, consequence of David Lewis's theory of how the values of contextual parameters are determined. According to Lewis (1979), these values are often determined at least in part by accommodation; to a first approximation, the idea is that contextual parameters tend to take on the values they need to have in order for our utterances to be true. The little-noticed consequence of Lewis's way of developing these ideas is that what we say is determined in part by the way the conversation unfolds after our utterance. That is, Lewisian accommodation entails a non-standard form of externalism, according to which what we say is determined not only by factors internal to us at the time of our utterance, nor even by truths about our physical or social environment at the time of utterance or by our history, but also by truths about our future—truths about times after the time of our utterance. Seeing this consequence clearly lets us refine and improve upon Lewis's account of when accommodation can occur.

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The purpose of this paper is to draw out a little noticed, but (I think) correct and important, consequence of David Lewis's theory of how the values of contextual parameters are determined. According to Lewis (1979), these values are often determined at least in part by *accommodation*; to a first approximation, the idea is that contextual parameters tend to take on the values they need to have in order for our utterances to be true. The little-noticed consequence of Lewis's way of developing these ideas is that what we say is determined in part by the way the conversation unfolds after our utterance.¹ That is, Lewisian accommo-

¹ I say "little noticed" rather than "unnoticed" because Mark Richard points out, in a discussion of Lewis, that "our conversational behavior presupposes that what transpires in a conversation at a time *t* may effect the interpretation of predicates used in contributions to the conversation completed (long) before *t*" (1995: 565)—which is very close to the view I will go on to discuss. But Richard adds an important

dation entails a non-standard form of externalism, according to which what we say is determined not only by factors internal to us at the time of our utterance, nor even by truths about our physical or social environment at the time of utterance or by our history, but also by truths about our future—truths about times after the time of our utterance. Seeing this consequence clearly lets us refine and improve upon Lewis’s account of when accommodation can occur.

Before I begin, let me lay out a few assumptions to ease the discussion to follow. I take a *context* to be an ordered sequence, with the elements of the sequence corresponding to specific context sensitive expressions; for example, the sequence might consist of an element corresponding to “I”, an element corresponding to “you”, an element corresponding to “that”, an element corresponding to “tall”, and so on.² In some cases, these elements may be the extension of the corresponding expression (e.g., the element corresponding to “I” may be an individual, the speaker), while in other cases the semantic values of the expressions may allude to these elements in some other way (e.g., we will assume that the element corresponding to “tall” is not the extension, but a degree of height—the standard that something must meet to count as “tall” in the context).

I am also going to assume that the semantic values of sentences are functions from contexts to propositions, and that these propositions serve as the content of speech acts such as assertion.³ (So, on the view I am taking for granted, semantic values are something much like Kaplan’s characters.) The idea that semantic values relate so straightforwardly to contents is controversial (Ninan 2010, Rabern 2012, Rabern and Ball forthcoming), and I am adopting it only for the sake of simplicity; nothing substantive about what I have to say would change if we adopted a different idea of what semantic values are and how they relate to content.

Since semantic facts are not brute, the values of this elements of the context will be determined by some facts about the speaker and her audience, and their environment broadly construed. Exactly which facts matter is a difficult question; this paper aims to make the case that facts about the future matter, but leaves the question of which other facts matter open. Kaplan (1989: 573–4) famously distinguishes between descriptive semantics (which aims to say what expressions mean) and metasemantics (which aims to explain why expressions have the meanings they do), and I take the question of how the elements of the context are determined to be metasemantic (perhaps in a somewhat extended sense).

complication, which (I will claim) is both unnecessary and problematic. I discuss this complication in section 2, below.

² For discussion of this sort of view of context, see Lewis (1970: 62–5), Braun (1996: 161), and Ball (2017: 108–9).

³ In this respect I am being untrue to Lewis’s own views; see his 1980.

1. *Lewis on Accommodation*

David Lewis (1979) defended a metasemantics on which a range of contextual factors relevant to determining the truth value of assertions—what he called the conversational score, which would include the elements of what we are calling the context—tends to shift (as Lewis says, “*ceteris paribus* and within limits”) so as to make assertions true. Lewis calls this metasemantic mechanism *accommodation*. Lewis motivates accommodation by appeal to a range of examples; we will focus on a subset of his cases, those involving gradable adjectives like “flat” and “hexagonal”. These adjectives are context-sensitive; what counts as “flat” in one situation (say, one in which we are building a road) will not count as “flat” in another (say, one in which we are sanding a tabletop). But what sets the standard? What determines how flat something has to be to count as “flat” in a given situation? Lewis’s view is an attempt to give a partial answer to these questions.

To a first approximation, Lewis’s idea is that if I say “France is hexagonal”, that tends to make it the case that “hexagonal” as I use it is correctly applied to France (i.e., the parameter of the context associated with “hexagonal” (call it $c_{\text{hexagonal}}$) is such that France is more hexagonal than $c_{\text{hexagonal}}$), and likewise, if I say “Hamburg is flat”, that tends to make it the case that “flat” as I use it correctly applies to Hamburg.⁴ He generalises these examples into the following scheme:

If at time t something is said that requires component s_n , of conversational score to have a value in the range r if what is said is to be true, or otherwise acceptable; and if s_n does not have a value in the range r just before t ; and if such-and-such further conditions hold; then at t the score-component s_n , takes some value in the range r . (Lewis 1979: 347)

Before we proceed, we should clarify Lewis’s aim in this passage. Locutions like “what is said” are often used in the literature to talk about *content*—what is asserted by an utterance. If we read “something is said” and “what is said” in the quoted passage in this way, then Lewis’s idea might be paraphrased as follows: suppose an utterance expresses a certain proposition. This proposition has particular truth conditions; and it may turn out to be true just in case the conversational score is a certain way. On this understanding of what is going on, a proposition is expressed *prior to, and independently of, accommodation*, and accommodation makes it the case that that proposition is true; or in other words, first a determinate proposition is asserted and then accommodation happens.

⁴ Lewis suggests that what is at issue in these examples is a “standard of precision”. I am updating Lewis’s treatment to be more in line with contemporary views of gradable adjectives such as Kennedy and McNally 2005. In any case, it seems clear both that there is not a single standard of precision relevant to all gradable adjectives in a context, and also that “precision” is not the right way to describe the standards relevant to many gradable adjectives. (There is no such thing as being precisely tall or precisely beautiful.)

This can't be what Lewis intended. The idea isn't that a particular content is expressed, and then the conversational score shifts so as to make that content true. (For example, suppose that contents are the sort of thing that is true or false at a world. On most views, when we are evaluating whether an assertion is true, we evaluate its content at the world in which it is made; no further element of the conversational score is relevant to this evaluation, and only in an unusual situation would we evaluate it at some other world so as to understand it as true. Of course, if I say something about the conversation—for example, that I am the speaker, or that we have adopted a strict standard for what will count as hexagonal—then there is a sense in which whether the content I assert is true depends on the conversational score. But this is a rather unusual case, and anyway it is not very plausible to think that in general the conversational score will shift to make my assertion true in this kind of case.) Rather, a better gloss on Lewis's idea is that content—what proposition is asserted—depends on the conversational score. For example, when I say, "You are a child", whether I express a proposition that is true just in case Ansel is a child or a proposition that is true just in case Magnus is a child depends on whether the element of the context associated with "you" is Ansel or Magnus.

In cases of accommodation, then, the conversational score shifts so as to make it the case that a particular, true content is expressed. For example, suppose that France is more hexagonal than c_{low} , but less hexagonal than c_{high} . Then the idea is that when I say "France is hexagonal", accommodation can make it the case that I express the proposition that France is more hexagonal than c_{low} , rather than the proposition that France is more hexagonal than c_{high} . So I take it that the schema should be read along the following lines:

If at time t an assertion is made that requires component s_n , of conversational score to have a value in the range r if it is to be the case that a true (or otherwise acceptable) proposition is asserted; and if s_n does not have a value in the range r just before t ; and if such-and-such further conditions hold; then at t the score-component s_n , takes some value in the range r .

Accommodation doesn't always work; it isn't as though I can always speak truly by saying "France is hexagonal", no matter what. The described mechanism only operates in certain circumstances—if "such-and-such further conditions" obtain. Among the "such-and-such further conditions" are that the assertion must not be contested in the conversation; as Lewis says, "at least, that is what happens if your conversational partners tacitly acquiesce" (1979: 339). If you say "France is hexagonal" and I reply, "Yes, and Italy is boot-shaped", then the parameters of the list context relevant to both of our assertions tend to adjust in such a way that our assertions come out true; but if I reply, "No, you're wrong, its borders are actually quite irregular—just look at how Brittany sticks out", then the parameters of the context will not so adjust. For now, let's take "such-and-such further conditions" to pick out the following:

Such-and-such further conditions (SSFC1) “your conversational partners tacitly acquiesce”—i.e., no one objects.

We will go on to refine SSFC1 in the next section. Before we do that, it is worth observing that even on this plain version of Lewis’s view, the “such-and-such further conditions” introduce an element of backwards determination: the parameters of the list context relevant to your utterance at *t* depend in part on your reaction to your utterance after *t*. Whether you say (truthfully) that France is hexagonal-by-low-standards, or (falsely) that France is hexagonal-by-high-standards, is not determined just by you (e.g., by your intentions, beliefs, or other attitudes, or by your dispositions); it is determined by what happens after your utterance, by whether I go along with you or object.

2. *Extending and Improving Lewis’s Account*

We should not expect an exhaustive specification of the conditions under which accommodation will take place. Even a fully developed principle along the lines Lewis sketches will only be true *ceteris paribus*; metasemantics is complicated, and we should expect that there may be exceptional cases where factors outside the scope of any given model intervene. (Who knows what will happen to the conversational score when the Martian mind-control rays strike, or the LSD kicks in?) So we should not expect to be able to draw out the further conditions in full detail.

Despite this, it is clear that we can do better than Lewis’s suggestion; the matter is not as simple as (SSFC1) suggests, because it is not settled by an interlocutor’s first reaction. To see this, consider the difference between the continuation of Castorp and Settembrini’s disagreement in (1) and (2):

- (1) *Castorp*: Hamburg is flat.
Settembrini: It is not; it has many small hills!
Castorp: Ah, I see your point. I thought that Hamburg was flat, but I was wrong.
- (2) *Castorp*: Hamburg is flat.
Settembrini: It is not; it has many small hills!
Castorp: Look, of course it has some small hills. But that doesn’t really matter—there are lots of reasons to think it is flat. Bicycling is easy there, etc.
Settembrini: Aha, point taken! I was mistaken: Hamburg is flat after all.

In (1), Castorp accepts Settembrini’s correction. In this kind of case, I submit, it is very natural to see Castorp’s initial assertion as incorrect and Settembrini’s response as correct; after all, this is the considered judgment of all the parties to the dispute. In (2), on the other hand, Castorp rejects Settembrini’s correction, continues to defend his initial assertion, and it is Settembrini who concedes. In this kind of case, it is

very natural to see Castorp's initial assertion as correct and Settembrini's response as incorrect; again, this is what Castorp and Settembrini themselves come to judge.

Now the judgment we have just given about (1) fits well with (SSFC1). (Castorp's utterance is not accommodated—the context does not adjust so as to make him express a truth—and this fact would be explained given (SSFC1) by the fact that Settembrini objects). But the judgment we have given about (2) does not. In (2), Settembrini objects and Castorp's assertion is ultimately accommodated nonetheless—the context does adjust so as to make Castorp express a truth, despite Settembrini's objection. So whether an assertion plays a list-fixing role is determined not only by interlocutors' first responses, but by their considered judgment—by the resolution of the debate:

Such-and-such further conditions 2 (SSFC2) Your conversational partners acquiesce—tacitly or explicitly, immediately or after discussion (i.e., the considered judgment of all parties to the conversation is that you were right).

Integrating (SSFC2) into an explicit account will yield something like the following:

The Extended Lewisian Model If at time t an assertion is made that requires component s_n of conversational score to have a value in the range r if it is to be the case that a true (or otherwise acceptable) content is asserted; and if s_n does not have a value in the range r just before t ; then: (i) if the considered judgment of the parties to the conversation is that the assertion is true; then at t s_n takes some value in the range r ; but (ii) if the considered judgment of the parties to the conversation is that the assertion was not true then then at t s_n takes some value outside the range r .

These considerations also help us see what is wrong with the suggestion (made by Mark Richard) that in cases of accommodation, we need to look at two distinct contexts: “there is every reason to say that in the sort of case we are considering, the utterance occurs in at least two contexts. For it occurs within the context established by [the speaker's] utterance at the time he makes it (we might call this the utterance's local context), and it occurs within the global context determined by the conversation taken as a whole” (1995: 566). I would argue on the contrary that the “local context” has no role substantial role to play in the story. Perhaps the clearest way to see this is by considering the metasemantics of the local context. Exactly what fixes the values of the elements of the local context? One natural proposal would be the speaker's intentions; it is unclear what other options there might be. If that is correct, then relative to the local context, Castorp asserts a truth—he is under no illusions about the topography of Hamburg, and intends to use “flat” in such a way that Hamburg counts as “flat”. Settembrini is in a position to know this; so this proposition cannot be what his objection is addressing when he says, “You're wrong”. (It is not as though he accepts Castorp's utterance as true and decides to object anyway; no, he thinks that Castorp is wrong, speaking falsely, and is

going to try to show it.) But this leaves no work for the local context to do: it is not what the audience understands, not what is addressed even by the first response. I therefore maintain that Richard's multiplication of contexts does no work beyond that which is done by the Extended Lewisian Model, and that it should be rejected.

3. *Justification of the Extended Lewisian Model*

The Extended Lewisian Model makes good sense of the contrast between examples like (1) and examples like (2). That is interesting, but may seem a small benefit given that the view appeals to a mechanism that some may feel is extremely counterintuitive. Does the idea have anything else to recommend it?

A number of theorists have claimed that in at least some cases of dispute such as (1) and (2), at least part of what is at issue is how we should talk (see e.g. Plunkett and Sundell 2013). These theorists point out that we may in some sense agree on the facts about the topography of Hamburg—we may have the topographical map before us—and may still enter into disputes like (1) and (2). In this case, it looks like we cannot be disputing about a matter of fact. Plausibly, part of what Castorp is trying to do is to get Settembrini to use “flat” in a particular way; and likewise, part of what Settembrini is trying to do is to get Castorp to use “flat” in a particular way.

This observation is clearly compatible with the Extended Lewisian Model: if Settembrini can convince Castorp, this will play a role in making it the case that Castorp used “flat” with a particular meaning, and it seems safe to assume that this in turn will play a role in shaping his future uses (and similarly if Castorp can convince Settembrini). But there is a further datum to be made sense of: the parties to the dispute give arguments in the attempt to convince each other, and these arguments often do not bear in a straightforward way on the use of words. For example, consider Settembrini's contention that Hamburg is not flat because it has small hills, or Castorp's contention that Hamburg is flat because bicycling is easy there. These are sensible contributions to the conversation, contributions that might make us adopt particular views about the topography of Hamburg. But, except in some special cases (e.g., where are undertaking a bicycling holiday and have implicitly agreed that all and only places suitable for bicycling are to be called “flat”), they do not seem like good reasons to use the word “flat” in a particular way. There must be more to the story.

The most straightforward way to make sense of conversations like (1) and (2) is that the parties to these conversations are giving arguments, trying to provide (at least pro tanto) reasons to believe some conclusion; and that at least in many cases these are *good* arguments. Now, of course it isn't that we want every argument anyone ever gives to be a good argument. We sometimes make mistakes; in many cases, these may go by undetected, but in others we will look back on our

own arguments and find them wanting—for example, as we imagine Settembrini doing in (2). But in many cases, we look back on our own arguments and find no fault with them. Ideally, we should want a view that vindicates our considered judgments about our arguments.

I claim that the Extended Lewisian Model does exactly that. It makes our arguments good in the following sense: to the extent that we are rational, when we look back on a dispute that has resolved, the arguments that we take to be good will in fact be good, and the arguments we take to be bad will in fact be bad. To get a sense of why this should be so, let's look more closely at the exchange that begins (1):

(3) *Castorp*: Hamburg is flat.

Settembrini: It is not; it has many small hills!

At the beginning of the conversation, Castorp intends to use “flat” in such a way that Hamburg counts as “flat”, the fact that a city has small hills is no reason (or at most a very weak reason) to think that it is not “flat”, and the fact that bicycling in a city is easy is a good reason to think that it is “flat”. Settembrini, by contrast, intends to use “flat” in such a way that the fact that a city has small hills is a good reason to think that it is not “flat”, and (hence) that Hamburg is not “flat”. Of course, given the Extended Lewisian Model, these intentions are not decisive; so we do not have enough information to say whether Settembrini's argument is a good one. If the argument continues as in (1):

(4) *Castorp*: Ah, I see your point. I thought that Hamburg was flat, but I was wrong.

Then Castorp and Settembrini will look back on Settembrini's argument as a good one; and given what “flat” means (and meant, even in Castorp's initial utterance), the argument will in fact be a good one. If, on the other hand, the argument continues as in (2):

(5) *Castorp*: Look, of course it has some small hills. But that doesn't really matter—there are lots of reasons to think it is flat. Bicycling is easy there.

Settembrini: Aha, point taken! I was mistaken: Hamburg is flat after all.

Then both parties will look back on Settembrini's argument as a bad one; and given what “flat” means (and meant all along), it will in fact be a bad one. (And similarly both parties will look back on Castorp's argument to the effect that Hamburg is flat because cycling is easy there as a good one, and so it will be.) So Backwards-Looking Meta-Contextualism vindicates exactly those arguments that the disputants take to be vindicated at the end of the dispute.

4. Conclusion

The extended Lewisian meta-semantics presented here thus does a good job of making sense of the way we argue and evaluate our own

arguments, while also vindicating the idea that many debates turn on questions of meaning. No doubt it raises further issues; but exploring these is a task for further work.⁵⁶

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⁵ See Jackman 1999, 2005 and Ball (forthcoming a, forthcoming b) for a start to this further work.

⁶ My thanks to the audience at the Dubrovnik Philosophy of Linguistics workshop in September 2017, to audiences in Oslo and Buenos Aires, to Torfinn Huvenes, and to Mark Richard.

