Abstract This article describes and advocates ‘mindless’ contextualism, a view that casts semantic rules in a wider, more externalist theoretical role than is customary. On this view we ought to posit semantic rules not only to explain interpretation, but also to explain communication directly. The article argues that sometimes we can explain communication without interpretation, because sometimes utterances can semantically encode unintended constituents—i.e., constituents of semantic content that are unknown as such to their speakers. This occurs when the speakers are situated in environments that partly take over the coordination normally achieved through interpretation. To support mindless contextualism, the article introduces a range of cases involving a seminomadic community called the Sundial Tribe. Here is one such case in outline: The members of the Sundial Tribe travel eastward and westward; they tell the time only by sundials; and thus they never become aware that the same hours come at different times in different places. Yet they can still communicate truthfully about hours of day by saying such things as, ‘We dine at 7 everywhere we go,’ or, ‘It was noon when we met, and now it is noon again.’

1 Introduction

During the past one decade or two, linguists and philosophers have grown increasingly interested in contextualist and relativist approaches to natural language semantics. At stake in this debate is not only semantic theory itself, but also its implications for fields such as metaethics or epistemology. Perhaps most centrally, at stake is whether truth is relative. I will join the contextualism–relativism debate and I will defend the view that truth is not relative but monadic.¹

Let us first review what is at issue. Suppose that Elise utters this sentence type:

¹I borrow this useful phrase from Cappelen and Hawthorne (2009).
That trumpet looks great!

We can illustrate on this case the relevant views.—Note, however, that not every relativist (or contextualist) needs to be relativist (or contextualist) about the trumpet case (1). Moreover, the terms ‘contextualism’ and ‘relativism’ are used in several senses in the literature (of which an excellent overview is Stojanovic 2008). Many authors would label as ‘contextualism’ views that I classify as moderate relativism; in this article, however, I will always refer by ‘contextualism’ and ‘relativism’ to the views outlined in what follows.

There are, let us assume, no objective standards for good-looking trumpets. If so, then Elise has not completely determined the truth conditions of her utterance by the sentence type she has uttered; aside from this sentence type, we also need one or another context-dependent subjective standard for good-looking trumpets. Contextualists maintain that Elise’s utterance encodes such a standard semantically. What this means is that, according to contextualism, when we apply the conventional, compositional semantic mapping rules of the English language to Elise’s words taken in context, we obtain from these mapping rules a good-looking-trumpet standard operative in the context in which Elise is speaking.

Among the many contemporary contextualists are Herman Cappelen and John Hawthorne (2009) as well as Keith DeRose (2009) and Jason Stanley (e.g., in Stanley 2000 and in Stanley and Szabó 2000*).

Relativists disagree that Elise’s utterance encodes semantically a standard for good-looking trumpets. Instead, relativists maintain that the utterance encodes a semantic content neutral between standards, a semantic content neither simply true nor simply false, but only true or false relative to particular standards:

\[(\text{Relativism}) \text{ Semantic contents are not true or false } simpliciter, \text{ but only true or false from particular perspectives. A semantic content is true from a perspective iff it correctly represents reality as seen from that perspective.}\]

Along with François Recanati let us distinguish between moderate and radical relativism (2007:37–41). We have just seen what the two have in common. Here is where they differ: Moderate relativism maintains that even though (1)’s semantic content has only relative truth, the utterance (1) does have non-relative, monadic truth. This is because moderate relativism takes (1) to determine pragmatically the semantically indeterminate standard.

Among moderate relativists belong authors such as Recanati himself (2007; 2010), John Perry (1986), David Lewis (1980), and David Kaplan (1989). Moderate relativists posit what we may call parasemantic truth factors, e.g., circumstances of evaluation (Kaplan), indices (Lewis), or topic situations (Perry, Recanati). Such parasemantic factors are not encoded by conventional signs mapped to reality by semantic rules. Instead, they are determined pragmatically in the context of utterance. In these terms, moderate relativists maintain that an utterance is true simpliciter iff its semantic content is true relative to its parasemantic factors.

\(^2\)Zoltán Szabó, however, is not a contextualist in general, although he does side with contextualism on most particular issues (pc).
Unlike its moderate counterpart, radical relativism maintains that not just semantic contents, but utterances themselves are true only relatively. According to radical relativism, whether (1) is true depends ‘on whom we ask.’ That is, in turn, because the parasemantic factors depend on whom we ask. Thus if the trumpet looks great by Elise’s standards but not by Fred’s, then radical relativism will maintain that Elise’s utterance is true for Elise and false for Fred.


The view that I will defend is that truth is not relative, but monadic. Not only is utterance truth monadic—pace radical relativism—but so is semantic-content truth—pace moderate relativism. According to relativism, utterances’ truth conditions are determined by two elements: by the utterances’ semantic contents, and by their parasemantic factors. I maintain, however, that truth conditions do not depend on parasemantic factors. In other words, I accept contextualism understood thus:

(Contextualism) Every utterance’s truth conditions are determined entirely by that utterance’s semantic content.

Let me clarify the above in two ways; first, let me explain what I mean by ‘truth conditions,’ and then, what I mean by ‘semantic content.’

By truth conditions I mean, following Cappelen and Hawthorne (2009), the conditions that the utterance imposes on reality; I do not mean, e.g., conditions on times, places, or agents. If I meant the latter then I would be, in effect, indistinguishable from a relativist. Indeed, it seems to be precisely this that makes one a non-relativist: the view that truth depends not on the perspective from which reality is represented, but only on reality itself.

So much, for now, about truth conditions. By an utterance’s semantic content I refer, quite straightforwardly, to the result we get when we pass the utterance’s simplest meaningful constituents through the language’s semantic mapping rules, and then feed the mapping rules’ outputs to the language’s compositional rules. Semantic content, thus understood, is determined entirely by convention; in particular, it is not affected by what Recanati calls modulation or by other such free pragmatic processes (2010).

(This is not to say that semantic content is not affected by pragmatics and by context—why, indeed, would I then call the view contextualist? Content does depend on context; what I am saying, instead, is that content depends on context only in semantically conventional ways. Such conventional ways include, in particular, the resolution of indexicals and demonstratives, and thus they include aspects of pragmatics.3)

Finally, I will often say such things as,⌜x⌟ is encoded semantically by the utterance u.⌟ What I mean by this is that x is a constituent of u’s semantic content as defined above.

Among the reasons that motivate relativism, there are two that I find particularly profound and troublesome. Both of them have to do with the role of semantic theorizing in understanding

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3On a technical sidenote, when semantic conventions are applied to sentence types and to their contexts (including speaker intentions), such conventions determine the assignment functions under which we are to evaluate the sentence types.
human cognition. Let us refer to them as the problems of semantic naivety and of Perryan simplicity.

The problem of semantic naivety⁴ was pointed out by Stephen Schiffer in 1996 in response to Keith DeRose (1995): If semantic contents are as context-dependent as contextualists seem to say, then ordinary but competent English speakers and hearers seem to be unaware of this. But if competent speakers and hearers are unaware of all the context dependence, then it is hard to see how semantic contents could be as context-dependent as contextualists have it.

Perryan simplicity, in turn, is a phenomenon posited by John Perry in 1986 (pp. 148–151) and convincingly supported by Recanati (2007:67–69). Here is what the phenomenon consists in: We seem to possess a simple, primitive ability to think about aspects of our environment without mentally representing them. For instance, as Perry illustrates, we sometimes seem to think that it is raining, without thinking (explicitly) that it is raining where we are. At such times our thoughts are true iff it is raining where we are, hence our thoughts ‘concern’ locations they do not psychosemantically articulate. Moreover, according to Perry, when we verbalize these thoughts we express semantic contents that do not articulate the locations either, semantic contents whose truth is location-relative.⁵

As I explained, I find these two motivations for relativism fairly troublesome prima facie. I do believe, however, that we can motivate an attitude toward semantic theory that allows us to save truth from relativity. To this end I will employ a family of cases I describe in Section 2—the Sundial cases. I will argue a) that relativism cannot explain these cases, although similar phenomena can easily occur in natural language; b) that contextualism can nevertheless handle these cases; and c) that once we have a contextualist treatment of the Sundial cases, we can give a general contextualist solution to semantic naivety and to Perryan simplicity.

More specifically, I will argue that we ought to amplify the theoretical role we give to semantic rules. At present we use semantic rules only as far as they can explain interpretation psychologically. For instance, when we explain why people can understand the sentence ‘The book is on the table,’ we say that people know the semantic rule that ‘book’ means book. As I will argue, however, this is too internalistic; we ought to assign to semantic rules a ‘wider,’ more externalist theoretical role—that is, we ought to use semantic rules to explain not just interpretation, but communication as such. To explain communication we ought to push semantics beyond interpretation and überhaupt beyond internal, cognitive processes. This way we can make room for semantic rules unknown to competent speakers, i. e., we can make room for semantic naivety.

Furthermore, I will use the Sundial cases to show that Perryan simplicity can occur not only in the traditional cases canvassed by Perry and Recanati, but also in more complex cases where relativism is no longer plausible. Hence I will argue that Perryan simplicity militates not for relativism, but rather for a new kind of contextualism.

From these thoughts will emerge a view that I call mindless contextualism—‘mindless’ in the sense that semantic rules do not always require mental interpretation. According to mind-

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⁴Also referred to in the literature as semantic blindness or semantic ignorance.
⁵At the place cited, Recanati makes a similar point about times.
less contextualism, utterances can semantically encode unintended constituents, i.e., semantic-content constituents that are, as such, unknown to competent speakers. I will formalize mindless contextualism as a contribution to contemporary natural language semantics in Section 4, where I introduce the Functional Composition rule. In Section 6, I will finalize the view by filling the last gap with the aid of Ruth Millikan’s relative reflexive signs.

Notice that mindless contextualism is distinct from the view that I call contextualism on page 3. Here is how the two are related. Logically, mindless contextualism is compatible with relativism, because it is logically possible for utterances to encode semantically some unintended constituents, and yet to leave other matters up to parasemantic truth factors. Dialectically, however, mindless contextualism supports contextualism simpliciter. If mindless contextualism is true, i.e., if utterances can encode unintended constituents, then contextualism simpliciter can use unintended constituents to embrace and to explain semantic naivety and Perryan simplicity, and thus to defend itself against two of the most powerful motivations for truth relativism.

2 The Sundial Cases

In his classic 1986, John Perry contemplates a scenario in which “the Z-landers become nomads, slowly migrating westward” (p. 147). While Perry uses this picture another way, let us take it as the starting point for a family of cases that we will use to develop our view.

2.1 The Sundial Tribe and Natural Timezones

The members of the seminomadic Sundial tribe travel eastward and westward; they tell the time only by sundials; and thus they never become aware that the same hours come at different times in different places. Take, then, these words said by Zee to Zed at a place they call Heether:

(2) It was noon when we met and now it is noon again.

The two have met at a place they call Theether, 5° east of Heether. Notice that noon comes sooner at Theether than at Heether; still, it was noon at Theether when they met and it is noon at Heether when Zee utters her words. Hence Zee speaks the truth and Zed understands though neither quite knows why.

Sundial people always dine at local 7. Take, then, Zed’s words:

(3) We dine at 7 everywhere we go.

Notice how Zed truthfully generalizes over natural timezones; but Zee and Zed are unaware that hours depend on places, hence they don’t understand why he speaks the truth.

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6By ‘natural timezones’ I refer not to contemporary international standard timezones, but simply to longitudes.
2.2 The Sundial Tribe and the Adjective ‘tall’

Generation after generation, Sundial people have been growing taller. But as they have no means to measure people’s height, all they can do is tell that younger people are taller on average than older ones. And this they think is entirely because older people are shrinking with age. Hence Sundial people are unaware that they have been growing taller as the generations went by.

Take now Zee’s utterance:

(4) Although I was tall when I was young, I’m not tall anymore.

When Zee was young she was tall compared to average Sundial people of the time; nowadays, however, she isn’t tall compared to contemporary tribe members. Hence she speaks the truth, but doesn’t know why.

Furthermore, take this utterance of Zed’s:

(5) Successful basketball players have usually been tall ever since the game was invented.

Fifty years ago, 6’ tall Sundial people (1.828 m) still counted as tall for basketball players. Today, however, basketball players don’t count as tall anymore unless they are at least 6’ 8” (2.032 m). Although Zed is no more aware of this than anyone else in the tribe, he still speaks the truth if successful basketball players have usually been tall by the standards of their times.

2.3 The Sundial Tribe and Predicates of Taste

In 1988 Daniel Dennett discusses several cases in which people’s tastes change over time. Dennett is writing about phenomenal consciousness; but let us use this thought to think of a Sundial case involving standards of taste.

For simplicity, we will assume that all Sundial people share the same tastes at any given time. Over the years, however, their shared tastes are changing slowly and imperceptibly, and unbeknownst to them, their present tastes differ considerably from those of a decade ago.

Take now Zee’s utterance:

(6) We found good olives at Heether ten years ago, but now they aren’t good.

Even if the olives at Heether were identical to those of ten years earlier, Zee would still speak the truth: ten years earlier the olives were good by the standards operative then, today they fail to be good by the standards operative now.

Consider, moreover, how Zed generalizes:

(7) I have always made oil only from the best olives.

Zed, indeed, has always picked the olives best by the standards of the time, hence he is saying the truth. Nevertheless he is unaware that the truth of his utterance depends not on one taste standard, but on several.
3 Mindless Contextualism

3.1 Embracing Semantic Naivety

Let us distinguish two senses in which we can talk about semantic naivety. Semantic naivety strictly construed occurs when competent speakers are unaware of certain aspects of their utterances’ semantic contents; broadly construed, semantic naivety occurs when competent speakers are unaware of certain aspects of their utterances’ truth conditions.

Here is why we distinguish the two kinds of naivety. Recall that according to relativism, semantic contents do not completely determine utterances’ truth conditions. Rather, relativist semantic contents take different truth values relative to different parasemantic truth factors (indices, situations, or circumstances). If so, then speakers could merely be unaware of the parasemantic factors, or they could also be (partially) unaware of the semantic contents themselves. In the former case we have semantic naivety construed broadly, and in the latter, strictly.

Notice, now, that we can learn from our Sundial cases at least this: that we should accept semantic naivety construed broadly. Competent speakers can be oblivious to certain aspects of their utterances’ truth conditions, yet still say the truth and communicate successfully. Sundial people are oblivious to natural timezones, to changing thresholds for tallness, or to changing standards of taste, yet they systematically issue true utterances, whose truth can depend on any of these elements. This constitutes a proof of possibility for communicating successfully and truthfully under conditions of semantic naivety (broadly construed).

When I say that Sundial people can communicate successfully, what this means is that their goals are furthered by their language the same as ours are furthered by English. If Zed and Zee decide to take different routes from Heether to Theether and to meet there on Tuesday at 7:30 at the farmer’s market, then they can follow the plan even though unaware of the context-dependence of ‘7:30.’ The Heether–Theether timezone difference cancels out with the difference between what sundials show at Heether and what they show at Theether, and thus Zee and Zed don’t need to track either difference to achieve their goals.

Before I argue in Subsection 3.3 for semantic naivety construed strictly, let me forestall a worry.

3.2 Naivety Is Often Surmountable

I have just argued that semantic naivety is compatible with systematically successful communication. This removes one major reason to find naivety implausible. Here, however, is another such reason. Forget Sundial language and take English. Suppose we posited semantic naivety in English about the context-dependence of predicates of personal taste. This would at first seem fairly implausible, and here is why: when asked about predicates of taste, many English speakers can be expected to volunteer a variety of proto-contextualism or proto-relativism. Hence it seems that if we posited naivety about predicates of taste then we would render many speakers naive to a degree to which they simply are not. I will argue, however, that we can avoid this mistake if we adopt a thesis of Perry’s and Recanati’s, a thesis that I will call Surmountable.
Naivety.

According to Surmountable Naivety, speakers can treat one and the same word sometimes in a semantically naive manner, and other times in a sophisticated, semantically knowledgeable way. As Perry famously puts it, “there is a little of the Z-lander in the most well-traveled of us” (1986:148). Perry maintains that English speakers will sometimes issue naive weather reports to whose location-dependence they are temporarily oblivious. These are the same speakers who will other times issue sophisticated weather reports of whose location-dependence they are quite aware. Recanati makes the same point about time-dependent utterances: It is plausible that we can issue utterances whose truth depends on the present time, even while being unaware of this time-dependence. This is because, according to Recanati, we possess a primitive mode of thought in which we abstract from the flow of time, and in which, implicitly, we think only about the present: “[t]he present tense … is more primitive and … temporally neutral. Someone can think ‘It is hot in here’ even if she has no notion of time whatsoever” (2007:70).

Along the Perry–Recanati line, I maintain that we use many context-dependent expressions in this manner. Sometimes we use them naively, other times sophisticatedly; sometimes we lose awareness of their context-dependence, other times we recover it; sometimes we succumb to naivety, only to regain our senses later on.7

The original worry, recall, is this: When challenged, many English speakers may turn out not to be semantically naive about predicates of personal taste, or about other expressions about which we may wish to posit naivety. We can now answer the worry thus: When challenged, speakers become reflective and semantically sophisticated; yet in the hustle and bustle of everyday communication, the very same speakers may still be unreflective and semantically naive.

To underline the plausibility of this answer, let us review a number of ways that sophisticated speakers can devolve to naivety.

First we have Perry’s and Recanati’s cases in which speakers are temporarily unaware that their utterances concern the local place or the present time. We can perhaps attribute these cases to simple, evolutionarily ancient cognitive mechanisms.

Then we have the times when people lose their better judgment. People can be affected, for instance, by gustatory delight. Consumed with pleasure eating lemon sorbet, they can naively proclaim, ‘This is tasty!’, and be ready to defend the judgment in argument. Or take people influenced by intoxicating beverages, who can argue over such matters as pistachios:

‘The pistachios are delicious!’
‘No, I tell you, they’re disgusting!’

Again, people can lose their judgment out of anger. Suppose that Charlotte and Dorian are normally contextualists or relativists about ethical utterances. Moreover, they normally index such utterances to the utterers’ personal ethical views. Nevertheless, in a moment of anger, they can turn naive:

Charlotte: ‘We ought to tell them they are terminally ill. They have the right to know!’

7Nevertheless, I will stop short of the relativist conclusions that Perry and Recanati themselves draw from this phenomenon.
Dorian: ‘No, that would be wrong!’

Finally, aside from impaired judgment and from simple cognitive mechanisms, I conjecture that sometimes speakers can devolve to naivety for efficiency. Take the driver and the co-driver of a race car. The co-driver instructs the driver, often saying ‘left’ or ‘right.’ As everyone else, both are normally aware that ‘left’ and ‘right’ depend on perspective. Yet during the race the two always share the same perspective, and ‘left’ and ‘right’ always refer to left and right of their own car. Hence they don’t need to worry about perspective, but more efficiently, they can treat ‘left’ and ‘right’ as if they didn’t depend on it at all.

3.3 Relativism, the Sundial Cases, and Mindless Contextualism

Let me now argue for semantic naivety construed strictly. That is, let me argue that competent speakers can be unaware not only of aspects of their utterances’ truth conditions, but also of aspects of their utterances’ semantic contents. To this end I will defend the view that I call mindless contextualism, a view on which utterances can semantically encode constituents unintended by their speakers.

To make the case for mindless contextualism I will argue, first, that relativism cannot account for the Sundial cases; in contrast, mindless contextualism can do that, as I will explain in Sections 4 and 6.

Let us examine more closely our cases. First, take (2), (4), and (6):

(2) It was noon when we met and now it is noon again.
(4) Although I was tall when I was young, I’m not tall anymore.
(6) We found good olives at Heether ten years ago, but now they aren’t good.

We can call these cases ‘double,’ because each contains two occurrences of the relevant expression, ‘noon,’ ‘tall,’ or ‘good.’ Notice that these expressions are embedded within larger compositional structures: ‘noon’ occurs in the scope of ‘and;’ ‘tall’ in the scope of ‘although;’ and ‘good’ in the scope of ‘but.’

Take, for instance, (4)’s subordinated clause, ‘I was tall when I was young.’ Notice that the truth of this clause depends unintendedly on the threshold for tallness operative when the speaker, Zee, was young. According to relativism, this is because the threshold is an unintended parasemantic factor of relative truth. According to mindless contextualism, however, it is because the threshold is an unintended constituent of the subordinated clause’s semantic content.

Notice, now, that the old threshold affects not only the truth of the subordinated clause, ‘I was tall when I was young,’ but also that of the utterance (4) itself. I can see two ways that relativists can try to explain this, but as I will argue, neither of these relativist approaches will suffice.

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8Note that I’m not taking a stance on the metaethical question itself; all I mean is that people can treat ethical predicates normally as two-place, yet sometimes, when angry, as one-place.
First, relativists can claim that the subordinated clause contributes to the utterance’s content nothing but a relative proposition, and furthermore, that this renders the utterance’s content itself a relative proposition, one which needs to be evaluated at a threshold. On this first approach, the utterance’s content would become the relative proposition that although Zee was tall (by a criterion to be specified) when she was young, she isn’t tall anymore.

Here is the problem with this solution. Notice that (4) contains not one, but two occurrences of ‘tall,’ one related to the threshold operative when Zee was young, the other to the threshold at the time of utterance. If we treat the threshold as a parasemantic factor of the utterance, then neither choice will work for both occurrences: one threshold will render false the main clause, the other the subordinated one.

At first sight, the relativist can reply that there are not one but two parasemantic thresholds, one for the global utterance, the other for the subordinated clause. The problem with this, however, is that there isn’t any pragmatic mechanism that can supply the parasemantic threshold for the subordinated clause. Parasemantic factors are determined either by the context of utterance or by the speaker’s intentions (or by both). For instance, in Perry’s Z-land case, the parasemantic location coincides with the location of the context where the utterance is made. In other cases it is not context but intention, as when I say that it is raining, meaning to talk not about the weather at my own location, but at a stadium in Germany. But neither context nor intention can supply the threshold of tallness relevant to the time when Zee was young. Not context, because the time when Zee was young is not the time at which she speaks; and not intention, because Zee is semantically naive, unaware that the threshold has been changing, hence she possesses no intentions that can distinguish the old threshold from the new. Even if she thought of the threshold descriptively as ‘the threshold,’ that would still not do it. Instead, she would need to think of it as ‘the threshold at the time t.’ As we have constructed our case, however, she doesn’t think of it that way because she doesn’t know that the time t matters.

Here, now, is the other possible relativist solution: The relativist can claim that ‘I was tall’ expresses a relative proposition that gets fed to an (intensional) sentential operator expressed by the temporal clause ‘when I was young.’ From this sentential operator we would get a truth value that we could feed to the truth-functional operator ‘although.’

There are several reasons, however, why this is implausible.

First, this solution conflicts with contemporary linguistic theory, according to which the temporal clause expresses not a sentential operator, but rather a modifier of the predicate. (Cappelen and Hawthorne make a similar point about other purported sentential operators in 2009:74–76.)

Second, even assuming that the clause expresses a sentential operator, notice that this operator would be temporal, i.e., it would shift the time of evaluation. What the relativist needs, instead, is an operator that shifts the threshold of tallness. It is hard to see how a temporal clause would shift the threshold of tallness. For one thing, this shift couldn’t be credited to speaker intentions, because Sundial speakers are unaware that the threshold has been changing with time. Hence the relativist would need to claim that the threshold is somehow shifted automatically, a shift that would be explained neither by speaker intentions nor by the context of use, hence a shift that would no longer look like pragmatics at all.
Finally, the deepest difficulty seems to be this. We can produce Sundial cases that have no such candidate sentential operators. Suppose that Sundial people are spread across a wide geographic area, and that they dine at local 7 everywhere. Now consider:

(8) Everybody will dine at 7 today.

In (8), there is no candidate sentential operator that could do the relativist job. ‘Today’ cannot be used to generalize over places. ‘Everybody,’ on the other hand, is not a sentential operator, but merely the subject of our sentence.

In sum, relativism would need to satisfy each of these conditions: a) to show that ordinary temporal clauses are sentential operators rather than verb-phrase modifiers; b) to find a way to move pragmatics beyond context and intention in determining parasemantic factors; and perhaps most implausibly c) to treat ordinary clause subjects—such as ‘everybody’—as sentential operators that can shift arbitrary parasemantic factors without the speaker’s knowledge.

Let us look now at what we can call the quantified cases:

(3) We dine at 7 everywhere we go.

(5) Most of the successful basketball players have been tall ever since the game was invented.

(7) I have always made oil only from the best olives.

Notice how these cases parallel the double cases. Take for instance (3). Here, we feed the content of ‘we dine at 7’ to that of ‘everywhere we go.’ Thus the key phrase ‘at 7’ occurs within a larger phrase whose content we input into a compositional rule. Hence we can conclude, for the same reasons as in the double cases, that we ought to treat ‘at 7’ not in a relativist, but in a contextualist manner.

Finally, let us look at what we can call the ‘simple’ cases, cases where we have no subordinate clauses and no quantification:

(9) It was 4 o’clock.

(10) I was tall.

(11) The lemons were tasty.

Recanati has argued (e.g. in 2007) that we can deal with such simple cases in the framework of moderate (not radical) relativism. In this framework we would maintain that (9), (10), and (11) express relative propositions; as for the respective unintended constituents, we would stipulate that they are not constituents of the semantic contents, but rather parasemantic factors. We have already argued, however, in double cases as in quantified ones, that the unintended constituents are not parasemantic, but rather constituents of the semantic contents. Notice that simple cases differ from double ones only in this: the unintended constituents are no longer

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9Alternatively, on the type-shifting view, it is the content of ‘dine at 7’ that we feed to that of ‘everywhere we go.’
embedded within complex compositional structures. But there is no discernible reason why simple cases should suffer a change in their semantic structures just because they are no longer thus embedded. Hence it seems preferable to conclude, on grounds of simplicity, that in simple cases, as in double ones, the unintended constituents are not parasemantic.

If the unintended constituents are not parasemantic, then Sundial cases cannot be explained by relativism, and the unintended constituents must be located in these utterances’ semantic contents. One may reasonably wonder, however, what such a semantic solution would look like. Let me describe this solution, the way that I see it, in Sections 4 and 6.

3.4 A Wider Theoretical Role for Semantic Rules

I have just argued that utterances can semantically encode unintended constituents. When this happens, neither the speaker nor the audience are aware of it. At first sight this seems paradoxical. The paradox, I believe, stems from our casting semantic rules in an excessively restricted theoretical role. Traditionally we have been using them very internalistically, namely, to explain interpretation psychologically. Instead, we should cast semantic rules in a wider, more externalist role—to explain communication, including even, as we have seen, communication without interpretation. When we explain communication not (entirely) through interpretation, but partly through the way the language’s speakers are situated in their environment, then we are dealing with semantic mapping rules of which the speakers are unaware.

4 Formal Development

4.1 Introduction

In the previous section I have argued that utterances can encode unintended constituents. However, I haven’t said anything yet about what these unintended constituents are, and about how they fit in the compositional structure. I left these issues, instead, for the current section, in which I will develop mindless contextualism as a contribution to contemporary formal semantics.

For this purpose let us adopt the popular framework introduced by Irene Heim and Angelika Kratzer in 1998, and let us extend the framework to accommodate unintended constituents in all of our cases—double, simple, and quantified. We will look at quantified cases in this section, and at simple and double cases in the next.

4.2 Truth Conditions

We can express the truth conditions for our quantified cases, in an ad-hoc semi-formal notation, as follows:

(12) At $p$ we dine at $[\text{ 7 at } p]$ everywhere($p$) we go.
Notice that the location variable \( p \) plays two roles: we dine at the location \( p \), and we dine at the time \( [7 \text{ at } p] \).

Consider now:

(13) Most of the successful basketball players have been tall at \( t \) by \( \theta(t) \) ever(\( t \)) since the game was invented.

Notice, again, that the time variable \( t \) plays two roles: at \( t \) the players were tall, and they were tall by the standard \( \theta(t) \) operative at the time.

Finally:

(14) I have always(\( t \)) made oil at \( t \) only from the best by \( \sigma(t) \) olives.

Here, \( \sigma(t) \) is the standard of taste operative at \( t \).

At this point one might suggest a descriptivist alternative on which the truth conditions look as follows:

(15) At \( p \) we dine at \([\text{the time when our sundial shows '7']}\) everywhere \( p \) we go.

Interestingly, in this paraphrase we do not employ the location variable \( p \) to analyze the phrase 'at 7' (at least not apparently). This, however, is an artifact of the way we set up the natural timezone case. For the descriptivist alternative to work, we should be able to give analogous descriptivist paraphrases of the 'tall' case and of the 'tasty' case. But we don't seem to be able to do that.

Furthermore, the descriptivist alternative seems to subtly presuppose that Sundial people are aware of the variability of local times. The description in (15) says, 'when our Sundial shows "7."' There is, however, no reason why Zed should explicitly represent 7 pm as the time when his own sundial shows '7,' as opposed to simply the time when sundials in general do so. (This is because Zed doesn't know that not all sundials show the same hour at the same time). At best, we can expect Zed's mental representations to leave the matter indeterminate:

(16) At \( p \) we dine at \([\text{the time when ... sundials show '7']}\) everywhere \( p \) we go.

The gap before 'sundials' must still be filled; and perhaps it is indeed filled by something to the effect of 'our.' This, however, would be a Pyrrhic victory for the descriptivist alternative: although the truth conditions would involve a description, that description itself would fill the gap with an unintended constituent.

Here, now, is what competent Sundial speakers know about the truth conditions of (12), (13), and (14).

For (12), they know that its truth depends on a time they call '7,' but they don't know that this time varies as a function of location. For (13), they know that its truth depends on a threshold for tallness, but don't know that this threshold is a function of time. Finally, for (14) they know that its truth depends on a taste standard, but they don't know that this standard, too, is a function of time.
(In more extreme cases of Perryan simplicity, the speakers could even lose awareness of the threshold $\theta$ and the standard $\sigma$. They would then express by 'tall' and 'best' the more complex predicates tall-by-$\theta$ and good-by-$\sigma$. We will assume here that we aren’t dealing with such extreme simplicity, but we could easily generalize our treatment to such cases.)

Let us now determine in full detail the truth conditions we need to derive. Take (12). For this utterance we want to derive the same truth conditions as for the explicit utterance (17):

(17) We dine at local 7 everywhere we go.

Notice that (17) does not encode unintended constituents. Instead, (17) explicitly and intendedly represents the natural timezone by the word ‘local.’

Let us derive (17)’s truth conditions in the Heim–Kratzer framework; this way we will also know what we need to derive for (12).

As usually, we will use an assignment function—$g$—to model semantic values that are not determined completely by lexical meaning. That is, by $g$ we model those aspects of an utterance’s semantic content that we cannot learn merely by understanding the syntax and consulting a perfect dictionary; such aspects include binding and context dependence. Moreover, we will associate the context-dependent ‘local’ with the index $i$ and with the variable $p_i$. Finally, we will use the function symbol $f_7$ to denote the function from places to the times that count as 7 pm at those places. To wit, $f_7$(San Francisco) = $f_7$(New York) + 3 hours. As usually, we will symbolize denotation by the operator $\text{J}$: $\text{J}[\text{we dine at local 7}] = \text{J}[\text{we dine at 7 at } p_i]$ $g(i)$, as explained, is the local place. Assuming event semantics:

$\text{[we dine at local 7]} ^ g = \exists e [\text{Dining}(e) \land \text{Agent}(e, [\text{we}] ^ g) \land \text{Location}(e, [\text{local}] ^ g) \land \text{Time}(e, [\text{at local 7}] ^ g)]$

Moreover: $\text{[everywhere we go]} ^ g = \text{[every } p_i; \text{ we go to } p_i] ^ g$

Next we apply the Predicate Abstraction rule:

Let $\alpha$ be a branching node with daughters $\beta$ and $\gamma$, where $\beta$ dominates only a numerical index $i$. [I. e., $\beta$ scopes over $\gamma$ and binds the variable $p_i$.] Then, for any variable assignment $a$, $[\alpha] ^ a = \lambda x \in D. [\gamma] ^ {a\hat x}_{\lnot x}$]. (Heim and Kratzer, 1998:186)

---

10For simplicity, we will abstract from the difference between days.
11Alternatively, we could posit that ‘local’ refers in context to a location-bound function that takes hours and returns the ‘absolute’ times that count as those hours at the respective locations. E. g., $f_7$(San Francisco)(7 pm) = $f_7$(New York)(7 pm) + 3 hours. Then, however, we would be unable to extend this treatment plausibly to unintended constituents.
12We are using restricted quantifier notation; i. e., these are equivalent: $[\forall x: P(x)] Q(x) : : \forall x (P(x) \rightarrow Q(x))$
13We are assuming Quantifier Raising. On a type-shifting approach we would get only slight differences that would not affect the point.
When we apply Predicate Abstraction to the node ‘we dine at local 7’ we obtain the function:

$$\lambda x . [\text{we dine at local 7}]^{g_{x/i}}$$,

hence given our previous derivation and since by definition $$g_{x/i}(i) = x$$:

$$\lambda x . \exists e [\text{Dining}(e) \land \text{Agent}(e, \text{Sundial people}) \land \text{Location}(e, x) \land \text{Time}(e, f_7(x))]$$

We can now finish up:

$$[\text{we dine at local 7 everywhere we go}]^g =$$

$$= [\text{everywhere we go}]^g([\text{we dine at local 7}]^g) = (\text{Predicate Abstraction})$$

$$= [\text{every } p_i: \text{we go to } p_i]^g(\lambda x . [\text{we dine at local 7}]^{g_{x/i}}) =$$

$$= [\text{every}]^g(\lambda x . \text{Sundial people go to } x)$$

$$\subseteq \{ x : \text{Sundial people go to } x \}$$

$$\subseteq \{ x : \exists e [\text{Dining}(e) \land \text{Agent}(e, \text{Sundial people}) \land \text{Location}(e, x) \land \text{Time}(e, f_7(x))] \}$$

This, then, yields our desideratum: We want to be able to derive the same truth conditions for our unintended constituents case (3) as for the explicit case (17).

**Desideratum.** Be able to derive:

$$[\text{we dine at 7 everywhere we go}]^g =$$

$$\subseteq \{ x : \exists e [\text{Dining}(e) \land \text{Agent}(e, \text{Sundial people}) \land \text{Location}(e, x) \land \text{Time}(e, f_7(x))] \}$$

### 4.3 The Functional Composition Rule

Here is what stands in the way of our desideratum: Notice that we are using, in our metalinguage, the variable $$x$$ in order to express the truth conditions we want to derive. When deriving these truth conditions for the explicit sentence (17), we obtained this variable by applying Predicate Abstraction to the index $$i$$—more specifically, we replaced the assignment $$g$$ by the assignment $$g_{x/i}$$ such that $$g_{x/i}(i) = x$$. We can no longer do so, however, in the unintended-constituent case (3). This is because (3)’s speaker is unaware that 7 pm is a function of location, and therefore the speaker does not represent the requisite location variable. This means we don’t have the variable $$p_i$$ at the relevant syntactic position, hence we can no longer apply Predicate Abstraction to the index $$i$$. We must find another way to satisfy our desideratum and to derive the right truth conditions for utterances encoding unintended constituents.

Let me make the difficulty more explicit. Here is the Logical Form for the explicit sentence (17):\(^{14}\) with occurrences of $$p$$ numbered in superscripts:

$$\text{LF for (17): } [\text{everywhere we go } p^{(1)}] ( [\text{at } p^{(2)}] \text{ we dine } [\text{at 7 at } p^{(3)}])$$

Notice that the third occurrence of $$p$$ fills a distinct role from the second, a role that can also be filled independently:

\(^{14}\)For clarity I am adopting the popular assumption that there is a Logical Form level of linguistic representation, and that Logical Form is derived by Quantifier Raising. This, however, shouldn’t get in our way; what matters is that (17) has the required variable and (3) does not.
Because of jet-lag, everywhere we go we wake up at 7 am New York time.

I.e.: Because of jet-lag, [everywhere we go \( p^{(1)} \)] ([at \( p^{(2)} \)] we wake up [at 7 am New York time]).

It is the third occurrence of \( p \) that we will focus on. Since Sundial people have never learned of such a thing as the hour relative to a place, they do not possess such a Logical Form constituent as ’7 at \( p \).’ Having never empirically acquired the concept of a natural timezone, they would need to have been born with it. But this concept has been just as useless to their ancestors as it is to present day Sundial people. Thus they wouldn’t have acquired the concept through biological adaptation, but rather in some non-adaptive manner—perhaps as a by-product of other, more adaptive, innate knowledge. That knowledge would need to include, for instance, the proposition that Earth is round and rather large, because if Earth were flat and rather small, then the Sun would stand at (practically) the same angle everywhere, and thus it would determine practically the same hour. But it is no clearer how Sundial people would come to know innately—even if only subpersonally—that Earth is round and rather large, because this still seems to make no difference to their cognitive mechanisms. Thus Sundial people are unlikely to have the third occurrence of \( p \) in the Logical Form of (3). Rather, what they seem to have is just this:

\[
\text{LF for (3): [ everywhere we go } p^{(1)} \text{ ] ([at } p^{(2)} \text{ ] we dine [at 7])}
\]

Let us therefore look into how to solve the difficulty.

First, let’s consider what ’7’ could mean in Sundial language when used as if to refer to hours. Sundial speakers believe that ’7’ refers to an absolute, location-independent hour. This, however, cannot be so, because there are no such absolute hours. Yet if we concluded that ’7’ fails to refer, then we would lose all hope to derive (3)’s truth conditions. Let us therefore conclude that ’7’ refers to a different thing than what Sundial speakers believe—that is, to an unintended constituent.

It is now only natural to suggest that this unintended constituent is nothing but our familiar \( f_{\text{7}} \), the function from locations to the times that count there as 7 pm. And indeed, this is just what I will propose. But before we can say that ’7’ refers to \( f_{\text{7}} \) in (3) just as it does in (17), we must explain how this works. This is because, as we have just seen, in (3) we don’t have a location variable to serve as an argument to \( f_{\text{7}} \). Hence we will need to leave \( f_{\text{7}} \) unevaluated. But then, \( f_{\text{7}} \) is not suited as an input to any of the Heim–Kratzer rules: not to Functional Application, because it has neither an argument nor a sister whose argument it can become; not to Predicate Modification, because it modifies no predicate, nor is it modified; and not to Predicate Abstraction, because it lacks the requisite variable \( p_{i} \).\(^{15}\)

Instead, we must extend formal semantics to allow for functions such as \( f_{\text{7}} \), functions that aren’t provided with arguments in the object language. To this end let us introduce the Functional Composition rule. Intuitively speaking, we will use this rule to push \( f_{\text{7}} \) and similar

\(^{15}\)As for Intensional Functional Application, that would only become relevant if we entertained relative propositions, which I have argued in 3.3 we shouldn’t do.
argument-less functions upwards in the compositional hierarchy, until we reach a level where an argument-less function is just what is needed. From there we can then proceed with regular formal semantics as usual.

(Functional Composition) If $\alpha$ has the daughters $\beta$ and $\gamma$ and if $\beta$ is of the type $\langle \theta, \tau \rangle$, whereas $\gamma$ is of the corresponding type $\langle \theta, \tau \rangle$, then $\llbracket \alpha \rrbracket = \llbracket \gamma \rrbracket \circ \llbracket \beta \rrbracket$.

Notice that $\beta$ returns values of type $\theta$, while $\gamma$ takes $\theta$-type arguments. The symbol $\circ$ has the usual acceptation, i.e., for any two functions $f : D_f \rightarrow D_g$ and $g : D_g \rightarrow D_h$, $g \circ f$ is the function such that $\forall x \in D_f, (g \circ f)(x) = g(f(x))$.

Here is how Functional Composition does the job. Recall that if we could use Predicate Abstraction we would obtain a function, namely:

$$[\alpha] = \lambda x \in D . [\gamma]^{x/f_7}$$

But we can also obtain a function from Functional Composition! In our particular case, $f_7$ is a function that returns times. Hence if $f_7$ has a sister function $g$ that takes times, then we can apply Functional Composition to $f_7$ and $g$ and derive as a value for their mother node the function $g \circ f_7$.

Before we do so, here is a brief reminder: If $f$ is a two-place function $f(x, y)$, then to ‘Curry’ $f$ is to determine a one-place function $f_{cy}$ such that

$$\forall x \ y (f_{cy}(x) = g_x \text{ such that } \forall y g_x(y) = f(x, y))$$

hence:

$$\forall x \forall y f(x, y) = f_{cy}(x)(y)$$

It is common practice in formal semantics to Curry functions; this is to keep the trees binary.

Here, now, is the semantic value of the node ‘we dine at 7’ as yielded by Functional Composition:

$$[\text{we dine at 7}]^8 = \exists e \ [\text{Dining}(e) \land \text{Agent}_{cy}(e)(\text{Sundial people}) \land \text{Location}_{cy}(e)(g(i)) \land \text{Time}_{cy}(e) \circ f_7]$$

Notice that we are not applying the function $\text{Time}_{cy}(e)$ to $f_7$; rather, we are composing the two and deriving a further function. To evaluate this new function we feed a location $y$ to $f_7$; from $f_7$ we get a time that we feed to $\text{Time}_{cy}(e)$; and finally from $\text{Time}_{cy}(e)$ we get a truth value that we feed to the conjunction operator to derive this result:

$$(18) \ \exists e \ [\text{Dining}(e) \land \text{Agent}_{cy}(e)(\text{Sundial people}) \land \text{Location}_{cy}(e)(g(i)) \land \text{Time}_{cy}(e) (f_7(y))]$$

In this formula, notice, we have two slots for locations: $y$ and $g(i)$. Nevertheless, we are bound to fill both slots with the same location—the location of the Sundial people at dinnertime. Notice, now, that $g(i)$ is a regular function whose argument is a regular variable—$i$. As usually, we will deal with this function by Predicate Abstraction. On the other hand, the metalanguage

$^{16}$Or to ‘Schönfinkel’ $f$. 

17
variable \( y \) does not correspond to any variable in the object language; \( y \) is the kind of missing argument for which we have introduced Functional Composition. To reflect this, we will update Predicate Abstraction (Heim and Kratzer, 1998:186) to accommodate the possibility of Functional Composition:

Let \( \alpha \) be a branching node with daughters \( \beta \) and \( \gamma \), where \( \beta \) dominates only a numerical index \( i \) (i.e., \( \beta \) scopes over \( \gamma \) and binds the variable \( p_i \)). Then:

a) if \( [\gamma] \) is an argument-less function, then for any variable assignment \( a \),

\[
[\alpha]^a = \lambda x \in D. \left( [\gamma]^{a_x/i} \right)(x),
\]

b) otherwise for any variable assignment \( a \),

\[
[\alpha]^a = \lambda x \in D. [\gamma]^{a_x/i}.
\]

We can now apply Predicate Abstraction to the variable \( i \) in (18) and derive:

\[
[\text{we dine at } 7]^g = \lambda x. \exists e \left[ \text{Dining}(e) \land \text{Agent}_{cy}(e)(\text{Sundial people}) \land \text{Location}_{cy}(e)(x) \land \text{Time}_{cy}(e) \circ f_7 \right](x)
\]

From here we can finally derive our desired truth conditions:

\[
[\text{we dine at 7 everywhere we go}]^g = [\text{everywhere we go}]^g([\text{we dine at } 7]^g) = \\
[\text{every}]^g(\lambda x . \text{Sundial people go to } x)([\text{we dine at } 7]^g) = \\
[\text{every}]^g(\lambda x . \text{Sundial people go to } x) = \\
\{ x : \text{Sundial people go to } x \} \subseteq \\
\{ x : \exists e \left[ \text{Dining}(e) \land \text{Agent}_{cy}(e)(\text{Sundial people}) \land \text{Location}_{cy}(e)(x) \land \text{Time}_{cy}(e) \circ f_7 \right] (x) = \\
\}
\]

4.4 An Answer to the Binding Argument

In 2000 Jason Stanley introduced an impressive and very influential argument against unarticulated constituents, the well-known Binding Argument. Unarticulated constituents are para-sematic, and as I explained in the introduction, I am not defending them myself. Nevertheless, it turns out that we can now answer the Binding Argument, and thus—incidentally—do a service to relativism.

Before I explain, let us recapitulate the argument. Consider:

(19) Every time John lights a cigarette, it rains. (Stanley, 2000:415)

We can read this sentence thus: Every time John lights a cigarette, it rains at the place where John lights the cigarette. Now if this place were a para-sematic factor made salient by context, then the place would be unable to vary as a function of time as it does on our reading. Hence Stanley concludes a) that the place is represented syntactically by a covert, phonologically empty function symbol, and b) that the time is represented syntactically by a covert variable that provides an argument to the place function.

When I first read the argument I was rather convinced by the inference to b, but now I am in doubt. Here is why. Consider our case (3) (with the subordinated clause fronted to mirror the binding argument):
Everywhere we go, we dine at 7.

If we accepted the Binding Argument, we would need to conclude that there is in the Logical Form of (3) a covert bound variable \( p \) with three occurrences:

\[
\text{[ everywhere we go } p^{(1)} ] \, (\text{[ at } p^{(2)} \text{ we dine } \text{[ at } f_r(p^{(3)})])
\]

We have seen, however, that is is quite implausible for Sundial people to represent the third occurrence of \( p \) syntactically. Moreover, we have seen how to solve the case with the Functional Composition rule, and therefore without the third occurrence.

Assume, now, that (19) has the following Logical Form, which lacks the third occurrence of the time variable:

\[
\text{[ every time } t^{(1)} \text{ John lights a cigarette } \] (\text{ it rains at } t^{(2)} \text{ at } f_{\text{john}})
\]

Notice the function \( f_{\text{john}} \), which maps times to John’s locations at those times. This function does not receive any argument in the object language. However, we can now derive the truth conditions the same way as we have done in the previous section:

\[
\begin{align*}
&\text{[every time John lights a cigarette, it rains] }^8 = \\
= &\text{[every]}^8(\lambda t . \text{John lights a cigarette at } t)(\text{[it rains]}^8) = \\
= &\text{[every]}^8(\lambda t . \text{John lights a cigarette at } t) \\
&\lambda t . \exists e \ [\text{Raining}(e) \land \text{Time}_{cy}(e)(t) \land \text{Place}_{cy}(e) \circ f_{\text{john}}(t)]
\end{align*}
\]

As we see, the Binding Argument doesn’t seem to prove the existence of covert bound variables in sentences such as (19).

5 The Crossover Argument for Mindless Contextualism

In 2005, Peter Lasersohn considers an argument for contextualism about personal-taste predicates, an argument that he rejects because of the absence of crossover effects. I will argue, however, that we can co-opt the argument rejected by Lasersohn, and that we can use precisely the absence of crossover effects to strengthen the case for mindless contextualism.

The argument that Lasersohn replies to stems from an anonymous referee:

As an anonymous referee points out, sentence (L41)\(^{17}\) seems to allow a reading in which each person has a hobby which is fun for him or her, not just a reading in which each person has a hobby which the speaker regards as fun.

\[
\text{[L41] Everybody has a hobby which is fun. (Lasersohn, 2005:681)}
\]

Here is what the referee is arguing. We can read (L41) thus:

(20) Everybody(\( x \)) has a hobby which is fun for \( x \).

\(^{17}\)To prevent confusion, I am prefixing the letter ‘L’ to the original numbers of Lasersohn’s examples.
This means, according to the referee, that the predicate ‘fun’ must take two arguments: a) the subject that is fun, and b) the judge for whom the subject is fun. Hence the referee seems to suggest that we can approximate the syntax of (L41) thus:

\[(21) \forall x(\text{Person}(x) \supset \exists y(\text{Hobby}(y, x) \land \text{Fun}(y, x)))\]

This argument, note, is quite similar—perhaps identical—to Stanley’s binding argument. On the relativist view advocated by Lasersohn, a sentence such as ‘Jogging is fun’ expresses a relative proposition, a proposition true or false only relative to one personal fun-standard or another. Yet if the referee is right that ‘fun’ takes a judge argument represented syntactically—in our case by the variable \(x\)—then this leaves no room for truth relativity, because this judge argument will already fix the fun-standard on which the sentence’s truth depends.

Lasersohn counters the referee’s argument by attacking its conclusion, namely, the conclusion that (L41) contains a covert, phonologically empty pronoun bound by ‘everybody’ (i.e., our variable \(x\)). Here is why Lasersohn objects to this conclusion:

… this supposed pronoun does not seem to give rise to crossover effects: Sentence [L42b] does not seem any more resistant than [L42a] to a reading equivalent to “For which \(x\) did the fact that the ride wasn’t fun for \(x\) upset \(x\)?”; but [L43b] does seem to resist such a reading (in contrast to [L43a], which does not):

[L42] a. Who was upset that the ride wasn’t fun?
   b. Whom did the fact that the ride wasn’t fun upset?

[L43] a. Who was upset that the ride wasn’t fun for him?
   b. Whom did the fact that the ride wasn’t fun for him upset?

(Lasersohn, 2005:681)

Let us make Lasersohn’s objection more explicit. As we see in (L43a/b), the pronoun ‘him’ seems to resist the movement of the relative pronoun ‘whom.’ We can see this when we look at how questions (L43a) and (L43b) are formed:

Manuel was upset that the ride wasn’t fun for him.

Manuel \(\lambda y (y \text{ was upset that the ride wasn’t fun for } y)\).

\(\rightarrow\) L43a: Who \(\lambda x (x \lambda y (y \text{ was upset that the ride wasn’t fun for } y))\)?

The fact that the ride wasn’t fun for him upset Manuel.

\(\lambda y (\text{the fact that the ride wasn’t fun for } y)\) upset Manuel.

\(\rightarrow\) L43b: Whom \(\lambda x (\lambda y (\text{did the fact that the ride wasn’t fun for } y) \text{ upset } x)\) ?

To form question (L43a), the relative ‘who’ doesn’t need to cross over ‘for him’; to form (L43b), however, the relative does need to do so, and that is why it is hard to hear (L43b) as good English.

Here now is why Lasersohn objects to the referee: If the adjective ‘fun’ did take, as the referee suggests, a covert pronoun as a syntactic argument in (L42b), then that covert pronoun
would create crossover effects, and (L42b) would be just as dubious as (L43b). That, however, is not the case; on the contrary, (L42b) is rather natural.

As Lasersohn casts the dilemma, we must choose either a) to accept the referee’s premise that we can read (L41) as in (20), and with it the referee’s conclusion that (L41) contains a covert bound pronoun, or b) to accept Lasersohn’s own crossover argument, and thus—presumably—to accept relativism.

There is, nevertheless, a third way out. We can accept Lasersohn’s crossover argument and therefore deny the referee’s syntactic conclusion that (L41) contains a covert pronoun. At the same time, however, we can still save the referee’s semantic premise (20). Although (L41) contains no covert pronoun, (L41) nevertheless has the same truth conditions as it would have if it did contain such a pronoun. Lasersohn, and relativists in general, cannot explain these truth conditions; mindless contextualism, however, can do so, by applying the Functional Composition rule, along with the updated version of Predicate Abstraction from page 18.

6 Beyond Words

According to mindless contextualism, utterances can semantically encode unintended constituents. In the previous section I have argued for one way this can happen—namely, words such as ‘7’ can represent constituents distinct from what competent speakers take them to represent. In this section I will argue for a second way: unintended constituents can be represented not only by words, but also by non-linguistic entities.

I explained in Subsection 3.3 why I think we should be contextualists about all of our cases, quantified, double, and simple:

- Quantified: I have always made oil only from the best olives. (7)
- Double: We found good olives at Heether ten years ago but now they aren’t good. (6)
- Simple: The lemons were tasty. (11)

In Section 4, furthermore, I showed how to be contextualists about quantified cases. This has involved two ideas:

- (Functionalization) When speakers are semantically naive about a word such as ‘noon,’ ‘tall,’ or ‘tasty,’ they mistakenly believe this word to refer to an entity of a given type \( \tau \). The word, however, refers unintendedly to a function whose values are of type \( \tau \). E.g., Sundial speakers mistakenly believe ‘noon’ to refer to a time; instead, it refers to the function \( f_{\text{noon}} \) from places to the times that count as noon at those places.

- (Functional Composition) Functions that are unintended constituents can be plugged into the compositional mechanism by the Functional Composition rule.

Let us now consider how to treat simple and double cases. First, we will have to retain Functionalization. If ‘noon’ refers to \( f_{\text{noon}} \) in quantified cases, then it must do the same in simple and in double cases; anything else would be ad hoc.

On the other hand, however, we cannot use Functional Composition to deal with simple and with double cases. This is most apparent in simple cases. Consider (11). In this case,
'tasty' encodes the function $f_{\text{tasty}}$ from times $t$ to the predicates tasty-by-standard-$\sigma(t)$. This function, however, does not occur within a higher-level compositional structure that expects an argument-less function of time: it is not within a quantifier’s scope, not within a relative clause, etc. Instead, it seems that we should feed $f_{\text{tasty}}$ not to Functional Composition but rather to plain old Functional Application; that is, we must find a way to provide a time argument to $f_{\text{tasty}}$. Moreover, we have already concluded in Subsection 3.3 that this time argument must be encoded semantically. Hence we need to find a way to derive the time argument from the semantic rules.

As for double cases, they may seem at first quite easier. Consider, for instance, (6). It may seem that the time arguments to $f_{\text{good}}$ are supplied by the phrases ‘ten years ago,’ resp. ‘now.’ This, however, cannot be so, because these phrases already perform another semantic role: they modify the predicates. E.g., ‘ten years ago’ answers the question when the interlocutors found good olives, hence it modifies the main verb ‘found’, hence it cannot also be an argument for ‘good.’ (See also the New-Tork-time case on page 16.) In double cases, therefore, as in simple ones, we need to find a way to derive the arguments to our unintended functions from the semantic rules.

To this end I propose that we adopt a version of Ruth Millikan’s theory of reflexive signs. Before I explain how this helps, let me summarize Millikan’s theory. A reflexive sign is a sign that self-represents: “when you see the label ‘poison’ on a bottle, the bottle stands for itself. It is a reflexive sign of itself” (R. G. Millikan, 2004:147–48). According to Millikan, reflexive signs are often involved in natural language utterances. For instance, when we report the local weather our locations self-represent; when I say, ‘It’s raining,’ at a location $p$, I semantically encode the proposition that it is raining at $p$, and this is because it is at $p$ that I say these words (R. G. Millikan, 2004:151–52).

Finally, a relative reflexive sign (R. G. Millikan, 2004:53) stands not for itself but rather for something that is a function of that sign.

Let us now employ these concepts in order to solve the problem of simple and double cases. First, take the simplest of simple cases, e. g.:

(22) It is noon.

This utterance is made at a place $p$ at a time $t$, and it is true iff $t = f_{\text{noon}}(p)$. Our problem, recall, is to derive the unintended argument, $p$, from the semantic rules. In these simplest cases, however, all we need to do is to apply Millikan’s view straightforwardly and to say that the place of utterance, $p$, represents itself semantically.$^{18}$

This, however, will no longer work for slightly more complex simple cases. Take (11):

(11) The lemons were tasty.

$^{18}$As I understand Millikan’s view, reflexive signs must always be known to the speakers. This would leave no room for unintended constituents; yet there seems to be no specific reason why reflexive signs must be learned, other than prima facie plausibility, and this prima facie plausibility has already been undermined by the Sundial cases.
These words are said by Zee of the Sundial people, who is unaware that the taste standards have been changing through time; hence her word ‘tasty’ unintendedly encodes the function \( f_{\text{tasty}} \) from times \( t \) to the predicates tasty-by-standard-\( \sigma(t) \). If \( t \) is the time she talks about, then this is her utterance’s semantic content: at \( t \) the lemons were \( f_{\text{tasty}}(t) \).

Our question is how the time \( t \) comes to occur not only once, but twice—that is, how it comes to occur as an argument to \( f_{\text{tasty}} \). We can no longer reply that \( t \) self-represents, because Zee is not speaking at \( t \), but later.

To solve the riddle I propose that we embrace an extension of Millikan’s view, an extension considered but rejected by Recanati:

The situation talked about, that on which the utterances truth-value depends, need not be the situation of utterance; nor is it a direct function of the situation of utterance. (It is a function of the situation of utterance only in the trivial sense that it is the situation talked about.) (Recanati, 2007a:679)

Here is the extension I propose. Notice that Zee intends to communicate about the time \( t \). Although unaware that tastiness depends on time, she does, nevertheless, intend to say what the lemons were like at \( t \), hence she does intend to communicate about \( t \). Let us therefore allow that there are semantic rules that map communicative intentions to their objects. Thus in (11) we have two unintended constituents: one, the function \( f_{\text{tasty}} \), represented mindlessly by the word ‘tasty,’ and the other, the function’s argument \( t \), represented mindlessly by Zee’s intention to communicate about \( t \).

It is surprising, at first, that an unintended constituent can be represented by an intention. Notice, however, that the intention is not to provide the argument to \( f_{\text{tasty}} \), but merely to communicate about \( t \). Thus Zee does not intend \( t \) to occur as an argument to \( f_{\text{tasty}} \), and \( t \) is therefore unintended in that argument position:

\[
\text{At } t_{\text{intended}}, \text{ the lemons were } f_{\text{tasty}}(t_{\text{unintended}}).
\]

Because this solution is just as trivial as Recanati says, let us call it the Trivial Way.

Recanati, as we saw, prefers to reject the Trivial Way, and Millikan doesn’t seem to embrace it either (2007:689–690). Nevertheless, I believe that we can escape Recanati’s motivation for opposing the Trivial Way. Based on what he says about a similar move (2007:2), I believe that Recanati refuses the Trivial Way because he finds it unparsimonious. And indeed, at first sight it does seem unparsimonious. Here is why: On a prima facie plausible view, we can have only one good reason to posit semantic rules, and that is to explain how the brain interprets language. For instance, I understand an utterance of the sentence ‘It is warm’ partly because I apply the rule that maps the word ‘warm’ to the property of being warm. Yet consider this: Suppose I say to you, ‘It is warm,’ and suppose you understand my communicative intentions, and therefore you understand that I am talking about the Pacific Northwest. Then you already know all you need to know—you know what place I am talking about—and you don’t need to apply a semantic rule to my intentions, a rule that would do no more than return the very same place that you already know I am talking about.
I can feel the initial force of this argument. Recall, however, that I have argued in Subsection 3.4 that we should give semantic rules a wider theoretical role. We should use semantic rules not only to explain interpretation, but to explain communication in general. Furthermore, we can sometimes do the latter even without the former; case in point: unintended constituents. When unintended constituents occur, this is in virtue of semantic rules that explain communication without interpretation. Hence if we accept mindless contextualism, then the Trivial Way no longer appears unparsimonious.

7 Conclusion

According to mindless contextualism, the view advocated in this article, utterances can semantically encode constituents unintended by their competent speakers. From this platform we can plausibly uphold a thorough-going form of contextualism. We can maintain that utterances encode semantically every aspect of their truth conditions, i.e., of the conditions that reality must satisfy in order for the utterances to be true. This would leave nothing up to parasemantic truth factors such as circumstances of evaluation or topic situations—not in the radical relativist sense in which these parasemantic factors depend in part ‘on whom we ask,’ and not even in the moderate relativist sense in which they are determined by the context of utterance.

To make this thorough-going contextualism plausible, I have argued that once we accept the unintended constituents apparent in Sundial cases, we can embrace semantic naivety and we can give a contextualist treatment of Perryan simplicity. There is, however, at least one further important reason why people may be skeptical about contextualism. As Michael Glanzberg points out in 2007, many relativists are probably motivated by psychological skepticism: such relativists doubt that speakers can compute the complex semantic contents posited by contextualism. Glanzberg, who is contextualist, bites the bullet and embraces what he calls ‘indirect metasemantics:’ “context does not simply hand us a value …, nor does it hand us a uniform rule for computing the value …. Rather, a range of contextual information and computational rules must be taken into account and weighed in working out the value from context” (2007:19).

It seems, however, that we can negotiate the straits between relativism and indirect metasemantics. I sympathize with those skeptical that speakers can exhaustively compute the complex semantic values posited by contextualism. But we shouldn’t feel forced by this to adopt relativism. Rather, we should sometimes try to get the right semantic values without expecting speakers to compute them exhaustively—which is just to say, we should adopt mindless contextualism.

References


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