Truth in Semantics

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Semantic theories for natural languages purport to describe a central aspect of the meaning of natural language sentences. In doing so, they usually employ some notion of truth. Most semanticists, even those who have no objections to invoking propositions, will define a truth-predicate that applies to sentences. Some will also employ a notion of propositional truth. Both types of semanticist face the question whether and how the semantic notion(s) of truth they are employing is (are) related to the ordinary, pre-theoretic notion(s) of truth. It seems immediately problematic to say that the semantic truth notion *is* a pre-theoretic notion. For pretheoretically, we do not seem to apply "true" to sentences. So, if the semantic truth notion is in any interesting way related to a pre-theoretic notion of truth, then the relationship is more complex. As I shall explain in Section 2, however, there are some straightforward ways of postulating an analytic link between semantic truth notions and ordinary truth.

Now, recently there have been a host of proposals to adopt a "relativistic" semantics of certain expressions, such as predicates of personal taste, epistemic modals, sentences about the contingent future, evaluative sentences generally, sentences attributing knowledge etc.[1] All these proposals involve the claim that the truth of utterances or propositions depends on an extra factor. As we shall see, the answers standard semanticists can provide to the question of the status of their semantic truth-predicate do not transfer easily to these new, relativistic theories. In Section 3, I shall make some proposals as to how relativists can deal with these

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1. For a fairly comprehensive survey see Kölbel (2008c).

challenges. There is also a separate question for relativists about the relationship between their semantic theories and standard semantics: are relativists dismissing standard semantics as radically misguided, are they promoting an incommensurable new theory? In the final section, I shall argue that this is not the case: relativists can view their proposals as simply adding to the good work standard semanticists have been doing. I shall start out in Section 1 with a brief sketch of recent relativistic semantics, explaining the ways in which it differs from standard semantics.

1. RECENT RELATIVISM

Contemporary relativists claim that the truth of some propositions varies with a novel parameter, for example, with a standard of taste, with a state of information, with interests or with a moral code. Non-relativists, by contrast, insist that the truth of a proposition at most varies with a possible world. But since there is one privileged world, the actual world, there is a good sense in which the non-relativist can say that propositional truth is absolute.

Relativists are motivated in their claim by a perceived lack of objectivity of some propositions. For example, it seems that when I say "That coffee is tasty," demonstrating a particular quantity of coffee, the content of my remark, and the content of the belief I thereby express, is not something that is absolutely true or false. For if it were, we would have to say that when someone else believes and says of the same quantity of coffee that it is not tasty, then one of us must have made a mistake. But it seems wrong to say this. It might be that the beliefs of each of us are unimprovable.[2] On the other hand, there clearly seems to be some standard of correctness for beliefs and sayings as to the tastiness of things—we can be right or wrong about whether the coffee is tasty: I may order a coffee because I believe it will be tasty, yet be disappointed when I try it and realize my mistake. One minimal modification that preserves all these presumed data is to say that the contents of such beliefs (but not all contents) vary in truth-value not just with a possible world, but also with a standard of taste, and that the standard of taste relevant for the assessment of any belief or saying may vary depending on the believer or speaker involved. Thus my belief that that coffee is tasty may be true with respect to the standard of taste relevant for assessing my beliefs, while your belief that the same coffee is *not* tasty may at the same time be true with respect to the standard relevant for assessing your beliefs.

Now, those who want to avoid absolutism about matters of taste are not condemned to accept the relativist's solution. An alternative solution—contextualism—builds reference to a standard of taste into the content of the remark (of the belief). The contextualist might say, for example, that fully specified, what I say (and believe) when I sincerely utter "that coffee is tasty." is that that coffee is tasty according to my own standard. This means that when you utter the words "that coffee is not tasty." you express the content that that coffee is not tasty

2. See for example Kölbel (2002, 2003, 2008b, 2008c), MacFarlane (2005b, forthcoming), Egan *et al*. (2005) for more detailed expositions of this type of argument. See also Lasersohn (2005).

according to *your* standard, thus you are not contradicting me. So there is no problem about each of the beliefs being unimprovable.

There is a debate to be had, whether the relativist's or the contextualist's solution is the better one. The contextualist is able to maintain that all contents of speech and belief—propositions—have absolute truth-values, and therefore they are in the business of representing objective reality. But this comes at the cost of having to postulate implicit aspects of contents of utterances and beliefs, which requires her to explain away a number of appearances. For example, she needs to explain away the impression we have that what I say when I utter "that coffee is tasty." is incompatible with what you say when you reply "that coffee is not tasty."—incompatible in the sense that no one person could accept both.[3] But the difficulties of contextualists are not the focus of the current essay but rather the relativist's. The relativist has the advantage of being able to say that the way sentences express propositions is uniform across objective and nonobjective areas. Thus "That coffee is tasty." and "That coffee is filtered." are on a par in terms of the way in which the words used determine the proposition expressed. Each time the property expressed by the predicate is ascribed to the quantity of coffee in question. There is a difference between the properties expressed: being filtered is an objective property, while being tasty is not. However, this is not a linguistic difference. The relativist pays for this uniformity and convenience with the hostility of those who insist, as Frege did, that propositions, the contents of thought and speech, cannot but be the sort of entity that has its truth-value absolutely.

But it is not only others' dogmatic insistence on the absoluteness of propositional truth that creates problems for a relativist. There are also some tricky questions about the nature of the truth-predicate the relativist is using when she says that it is not an absolute matter whether a proposition is true. In order to be able to see what these questions are, I will first need to provide a sketch of the relativist's semantic theory.

Let us start with semantics as it is standardly pursued. In a standard semantics for a context-sensitive language (such as Kaplan 1977), each sentence of the language is assigned a *character*, which is a function from possible contexts of utterance to contents. Contents in turn are also functions: they are functions from *circumstances of evaluation* to truth-values. Standardly, the circumstances of evaluation are now thought of merely as possible worlds, though Kaplan himself thought of circumstances as involving several parameters including a world and a time. Formally, these assignments can be expressed by a definition of a notion of sentential truth ("Truth^S") relating sentences to contexts of utterance and circumstances of evaluation. Thus the semantics will entail for each sentence *s* a theorem of the form "For all contexts of utterance *c*, and all worlds *w*: True^S(*s*, *c*, *w*) iff *p*." To give a concrete example, the theorem for "I am hungry". might read: "For all contexts *c* and worlds *w*: True^S("I am hungry", *c*, *w*) iff the speaker of *c* is in the extension of "hungry" with respect to the time of *c* and the world of *c*."

The relativist basically thinks that in addition to a possible world, the truth of a sentence in context (or of a content) depends on a further factor. Let's stick to

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3. See Kölbel (2007) for some suggestions as to how the contextualist might do this.

our example of a relativist about taste, who thinks that some propositions vary in their truth-value with a standard of taste. This relativist's semantics will therefore involve a slightly different notion of a circumstance of evaluation according to which a circumstance of evaluation is an ordered pair consisting of a possible world and a standard of taste. Thus theorems would have the form: "For all contexts c, worlds w and standards of taste t: $\text{True}^\text{S}(s, c, \langle w, t \rangle)$ iff p." A particular theorem might look like this: "For all contexts c, worlds w, and standards of taste t: True^S("that coffee is tasty.", c, $\langle w, t \rangle$) iff the coffee demonstrated in c is in the extension of "tasty" at w and with respect to t."

Superficially, the adicity of the relativist's sentential truth-predicate "True^S" has not changed, because it still relates a sentence with a context and a circumstance. However, this is merely superficial. For one of the relata is now an ordered pair with two independently varying elements, one of which has been newly introduced, the other being one of the standard relata. We could—equivalently—have introduced the standard of taste parameter as an extra argument place of the sentential truth-predicate, so that formally the predicate becomes four-place.[4] Whatever the formal articulation of the relativizing move (whether or not the adicity of the sentential truth-predicate is formally increased) we end up with a substantially different notion. For the relativist's new notion allows a form of variation that the old one does not allow, namely variation in truth-value with a standard of taste. This variation is independent of the other factors on which sentential truth depends in standard semantics. Thus, the relativist's truth-predicate in effect expresses a relation that has greater adicity than the relation expressed by the standard semanticist's truth-predicate.

2. STANDARD SEMANTICS AND ORDINARY TRUTH

Before we worry about the relation expressed by the relativist's sentential truth-predicate, let us first consider the relation expressed by the sentential truth-predicate in standard semantics. What should a semanticist generally say about the status of the notion of sentential truth she is employing in her semantic theories, and about the relationship between this notion and any pre-theoretic notions of truth? A direct identification of the semanticist's sentential truth with pre-theoretic truth is clearly not available. The semantic notion differs from any pre-theoretic notion in several fundamental respects: first, it concerns sentences, while ordinarily truth seems to be attributed to what people say or believe, that is, to contents or propositions. Secondly, the semantic notion is at least two-place (or if we count the world-parameter as increasing the adicity: three-place) and relates a sentence with a context (and a world). No ordinary notion seems to have this form: we seem to be attributing truth directly to what people say or believe.

Sentential truth is a theoretical concept which, even though it is not identical to any pre-theoretic concept, nevertheless is meant to have clear analytic links to

4. John MacFarlane (e.g., 2003, 2005a, 2005b, 2008b), for example, treats the semantic truth-predicate as having argument places for a sentence, a context of use, a circumstance of evaluation and a *context of assessment*.

pre-theoretical concepts. It is these links that underpin the impression that it is not a coincidence that the semanticist's notion should be expressed by the word "truth," and that in some sense the semanticist is indeed talking about truth as we know it pre-theoretically. There are a number of ways in which such links can be construed. Let me outline three fairly obvious ones.

First, those semanticists who are comfortable with propositions can use the sentential truth-predicate to define the *content* or *proposition* expressed by a sentence in a context. If we think of propositions as sets of possible worlds, this is simple:

(1) The proposition expressed by a sentence s in a context $c =$ the set of possible worlds w such that $True^S(s, c, w)$.

If our pre-theoretical concept of truth applies to the contents of belief and speech in an intuitive sense, then all we need to do is to claim that the contents of belief and speech *are* propositions in the sense of sets of possible worlds. A proposition is $True^P$ at a world just if that world is a member of it. So we have an obvious reductive principle that links "$True^S$" with pre-theoretic truth:

(P) What would be said by a sentence s, were it to be uttered in a context c, is true just if $True^S(s, c, @)$.[5]

Secondly, the same reduction is available to those who do not wish to identify propositions with sets of possible worlds, such as those who think of propositions as structured entities. In this case, propositions are too finely individuated to comply with (1). Nevertheless, champions of structured propositions can accept something weaker as a constraint on the proposition expressed by a sentence in a context:

(2) The proposition expressed by a sentence s in a context c is $True^P$ at a world w just if $True^S(s, c, w)$.

Again, if the proponent of structured propositions identifies the intuitive contents of speech with propositions as constrained in (2), then the same reductive principle (P) is available to her.

Thirdly, those who are not comfortable with propositions (or with their role in semantics) will have to pursue a slightly different strategy. These theorists will presumably deny that the ordinary truth notion is applicable to contents of speech or propositions (unless they want to push an error theory about ordinary truth). When it seems like someone is applying truth to a content (as in "What he said is true.") the truth-bearer is in fact an utterance event. On this view, there is a

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5. I am writing "true" in lower case without superscript in order to indicate that this is meant to be the ordinary truth-predicate. It is worth mentioning that I am simplifying somewhat by just assuming that contexts, as they are employed in a semantic theory, are the sort of thing "in" which a sentence can be uttered.

pre-theoretic notion of utterance truth which is linked to Truth^S. An utterance of a sentence is true just if the sentence is True^S at the actual world at the context of the utterance:

(P*) An utterance of a sentence s in a context c is true just if True$^S(s, c, @)$.

Principles like (P) and (P*), often implicitly, give content to natural language semanticists' sentential truth-predicate and thereby give content to semantic theories that model natural languages.[6] Both principles are meant to apply to declarative sentences only. However, they could be extended to the semantics of languages that contain non-declaratives—these can, for example, be treated as transformations from declaratives. Still, (P) and (P*) are at best extreme idealizations. In the case of (P), the most problematic aspect of this idealization is that it is assumed that there is a clear pre-theoretic sense in which utterances have unique contents, contents we pre-theoretically assess for truth, and contents that can be identified with propositions.[7] This is problematic because natural language utterances often have multiple and diverse contents that all play a communicative role and can be assessed for truth. There is no clear pre-theoretic system for privileging a unique, literal content as the primary bearer of pre-theoretic truth.

To give just one example, when Clinton famously uttered "I did not have sexual relations with that woman.", was he speaking the truth? If we assume the *Webster's* definition of "sexual relations" (as Clinton may well have done), thus ignoring the possibility of ambiguity, then there are at least two candidate contents to this utterance, namely that Clinton did not perform *coitus* with Lewinsky and that he did not engage in any sexual activities with her. The latter is false, the former true. Or consider an ironical utterance "Clinton did not have sexual relations with that woman." Again, what is the content here? It is hard to see how a decision as to *the* content of such utterances can be made that is not motivated by theoretical considerations.

This is in effect Grice's strategy (1975). Grice makes no bones about the theoretical nature of his distinction between what is said and what is implicated (1975, 24–26). The way he draws the distinction is clearly guided by theoretical considerations. This is clear from the principle that what is said is close to the conventional meaning of the words used. It is even more clear from the way Grice draws a line between what is said and *conventional* implicatures, for here it can only be theoretical elegance or convenience that motivates the particular dividing line he draws. There are, of course, alternatives to Grice's way of distinguishing the semantic content from other pre-theoretically accessible contents. Recent debates

6. For example, Kaplan (1977), Lewis (1975, 1980).

7. Cappelen and Lepore (1997, 2005) have done much to expose this simplification, and to show that natural language semantics cannot be founded on an intuitive notion of what is said in an utterance. However, their own solution (introduction of minimal contents) seems to throw the baby out with the bathwater, for there does not seem to be any pre-theoretic grounding for the minimal contents of utterances, let alone pre-theoretic judgments about their truth.

on the notion of "what is said" (see, e.g., Carston 2002, Saul 2002, Bach 2001, Recanati 2004, Wilson and Sperber 2001) concern this very issue.

Thus, sentential truth, as it is employed in semantic theories, can be viewed, with some good will, as a theoretical concept that is used to explicate a refined version of pre-theoretic propositional truth. Proponents of (P*) will have to refine any pre-theoretic notion of utterance truth in a similar fashion.

3. RELATIVIST SEMANTICS AND ORDINARY TRUTH

The situation is more complex for the relativist. At first sight, the problem seems to have the same shape: sentential Truth^S seems to be a four-place relation relating a sentence with a context, a world and a standard of taste, while ordinary truth is a one-place property of speech (and belief) contents. However, a reduction of ordinary truth via a principle in the style of (P) to Truth^S is not available to the relativist. Let me explain why.

As we saw, the strategy of the standard semanticist (proposition-friendly version) is to say that an utterance of a sentence in a context expresses a proposition, namely a proposition that is True^P at exactly those possible worlds for which the sentence at the context and the actual world receives the value True^S. Ordinary truth could then in turn be seen as Truth^P at the actual world. Thus, the one-place property of ordinary truth is analyzed as the one-place complex property resulting from saturating the world-variable of Truth^P with the actual world.

The relativist can follow the standard semanticist in saying that sentences express propositions at contexts. However, according to the relativist, Truth^P is not a two-place relation but a three-place one, for according to the relativist, a proposition can vary in truth-value not only from possible world to possible world but also from one standard of taste to another. The corresponding move for the relativist would therefore be to saturate both the world variable and the standard of taste variable in the three-place relation of Truth^P, thus obtaining a relational one-place property with which ordinary propositional truth can be identified. This, however, does not seem to be possible.

Suppose first, that the relativist identifies ordinary propositional truth with Truth^P at the actual world and at a particular standard of taste, which we may call "the privileged standard":

(R1) What is said by an utterance of a sentence s in a context c is true iff $\text{True}^S(s, c, \langle @, \text{the privileged standard}\rangle)$.

This is clearly not acceptable to the relativist. For if ordinary truth follows some privileged standard then the relativization to standards does nothing to help with the perceived lack of objectivity of matters of taste, and specifically with alleged cases of faultless disagreement (see Section 1 above).

There are other ways to define an n-place relation in terms of an $n + 1$-place relation. Let us compare an example. We could use the two-place predicate "x loves y" to define at least the following one-place predicates: "the King of Spain loves y," "x loves the king of Spain," "There is an x such that x loves y," "There is a y such

that x loves y," "x loves x's mother." (Thus defining respectively the properties of being loved by the King of Spain, loving the King of Spain, being loved by someone, loving someone and finally the property of loving one's mother.) The relativist has similar options in trying to reduce ordinary truth to Truth^P (or Truth^S). However, none of them is viable. For example, if the relativist were to quantify over the standard of taste variable—truth^P with respect to some/all standards and the actual world—the problem would again be that our apparent cases of faultless disagreement will never be faultless.

It may appear more promising to say that each utterance context determines a unique standard of taste (say, the standard of taste *of* the speaker of the context), and to identify ordinary truth of what is said by an utterance of s in c with the Truth^S of s at c, at @ and with respect to the standard of taste determined by c (thus mimicking the property of loving one's mother):

> (R2) What is said by an utterance of a sentence s in a context c is true iff True$^S(s, c, \langle$@, the standard determined by $c\rangle)$.

This would allow the relativist semanticist to maintain that sometimes an utterance of "That coffee is tasty." and a reply "That coffee is not tasty." are both without fault in the sense that both may be True^S with respect to the standards respectively determined by the contexts in question. However, the semanticist would now be forced to say that both what was said by the first utterance is true, namely that that coffee is tasty, *and* that what was said by the reply is also true, namely that that coffee is not tasty. But how can it be true both that the coffee is tasty and that it is not? Assuming merely disquotational properties of ordinary truth, this would commit the relativist semanticist to an outright contradiction.

If the ordinary truth-predicate could be treated as implicitly two-place, that is, as implicitly expressing a relation between speech contents and standards of taste, this might present a chance to identify the relation of Truth^P at the actual world with it. However, this would seem to go against the spirit of relativism: one of the perceived advantages of relativism over contextualist rivals is that the relativist does not need to postulate hidden argument places in predicates of personal taste and other candidates for relativist treatment. So making this sort of maneuver in the metalanguage would be unattractive.

In the absence of any further reductive proposals (and I personally cannot see any more promising options) we have to conclude that the relativist semanticist cannot offer an analogous reduction of ordinary truth to Truth^S.

How bad is this? Does it mean that the semantic Truth^S-predicate remains somehow ungrounded? My answer will be that there is no problem, because (a) the semantic Truth^S-predicate can be otherwise grounded; and (b) because some non-coincidental links with ordinary truth remain in place. In the remainder of this section, I shall explain both points.

Let us return to principle (R2). (R2) suggests that an utterance says something true just if the proposition expressed is true with respect to the standard of taste determined by the context of utterance. To fix ideas, let us imagine that the standard of taste "determined" by a context is the utterer's standard of taste. I

showed that if truth is disquotational, this must be false. However, we can assess, and we do seem to assess, utterances or what they say in the way suggested by the right hand side of (R2). In other words, we can and do assess people's assertions and beliefs with respect to their own standards. By this criterion of assessment, if I say that the coffee is tasty, and it is tasty by my own standard (i.e., I would respond in a certain favorable way to tasting it), then I achieve success, while if you say that the coffee is tasty, and it is not tasty by your different standards, then you fail to achieve this type of success. This form of assessing what people say (and believe) is natural and important. However, as I have shown, "truth" is not (or should not be) the term we use to describe success of this sort. For "true" in the ordinary sense supports the principle that every instance of the schema "it is true that p only if p" is acceptable. However, there is no bar to recognizing this form of assessment under a different name and to link it to our theoretical notions of Truth^S and Truth^P.

The form of assessment in question is linked to competence in belief acquisition, that is, the correct application of concepts. Competence with a concept involves applying the concept only under certain conditions. In the case of some concepts, such as that of tastiness, these conditions will be sensitive to individual features of the believer, such as preferences, standards, gustatory responses. Thus, whether it is correct for some believer to judge a thing to be tasty will depend on certain individual properties of that believer, so that one and the same object may correctly be judged to be tasty by one believer while it is correctly judged not to be tasty by another, even where both have access to the same evidence. Objective concepts, such as being filtered, will not be like this: here it is an *a priori* matter that if one thinker believes the coffee to be filtered, and the other believes it not to be, then one of the two beliefs is incorrect. Correctness in this sense of beliefs can be extended to assertions, or to utterances of assertoric sentences: an assertion (or utterance of an assertoric sentence) is correct to the extent to which it is (or would be) correct for the utterer to believe the proposition asserted.

What I would like to suggest is that Truth^S can be grounded by linking it precisely to correctness in the sense discussed. The resulting explicative principle might look like this:

(R3) An utterance of a sentence s in a context c is correct iff True^S($s, c, \langle@,$ the standard determined by $c\rangle$).

This means Truth^S (and Truth^P) are not involved in any direct reduction of ordinary truth. Thus, according to the relativist, the theoretical notion of Truth^S employed in semantic theories is not grounded in our pre-theoretic notion of truth, as the standard semanticist maintains, but rather it is grounded in a different pre-theoretical notion of correctness. Is the word "True^S" a misnomer then, in that it suggests a connection with truth that does not exist? Not quite. For on most accounts of ordinary truth, correctness (the norm linked via (R3) to Truth^S) coincides largely with truth. Let me briefly show this for two types of accounts of truth, deflationary and objective accounts.

Let us first consider deflationary accounts of the ordinary concept of truth.[8] According to such accounts, it is the point of the concept of truth to yield, when applied to any proposition, another proposition that is necessarily equivalent to the original one. Similarly, the point of the ordinary truth-predicate is to provide a means for expressing such a concept, so that the truth-predicate applied to any that-clause yields a sentence that expresses a proposition equivalent to the one referred to by the that-clause.[9] If our relativist is a deflationist about truth then she will deny that the correctness of an utterance amounts to the truth of what is said by it. To see this consider nonobjective propositions, that is, propositions whose truth-value varies with an extra parameter, such as a standard of taste. Take, for example, the proposition I express when I utter the sentence "That coffee is tasty." on some occasion. In such a case, the semanticist's assessment as to truth of what I said and her assessment as to the correctness of my utterance can come apart. It may be that she agrees with what I said (that that coffee is tasty) but believes that it is not the view I should have given my standards and preferences. Conversely, it could be that she disagrees with what I said but believes that I expressed the view that it is right for me to have given my standard of taste. In either of these cases, her judgment that what I said is true, and her judgment that what I said is correct will come apart. However, this will only be the case with nonobjective propositions, that is, propositions whose Truth^P-value varies with the extra parameter. For if a proposition is invariant in Truth^P-value across all standards of taste (e.g. the proposition I might express on the same occasion by "That coffee is filtered."), then judging what someone said to be true is tantamount to judging their utterance to be correct. For it will not make a difference which standard of taste we consider relevant. So it is not, according to the deflationist relativist, a complete coincidence that formal semantics should employ the word "true." For if we were working out a semantics for an objective fragment of a language, nothing would stop us from identifying the truth of what someone says in an utterance with the Truth^S of the sentence used in the context at @ and with respect to the relevant standard of taste. In other words, *in the objective range*, the correctness of an utterance, the notion linked reductively to Truth^S, coincides with the truth of what is said.

Secondly, consider objective theories of truth, such as standard correspondence theories. A relativist semanticist who believes that ordinary truth is objective will have to say that nonobjective propositions are not apt for evaluation as true or false, that is, that there are truth-value gaps. On this view, truth will coincide with correctness in the objective range, for if it is correct with respect to one standard of taste to believe an objective proposition, then it is correct with respect to all standards. Thus again, it is no accident that semanticists have chosen the word "true," for as long as we consider an objective fragment of a language, there is a

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8. My own view is that there are two ordinary notions of truth that we regularly employ, and that the predicate "true" is ambiguous between a deflationary and an objective-substantial reading. See Kölbel (2008a) for a detailed exposition of this view.
9. See Horwich (1998) for one exposition of such an account.

straightforward link, in the style of (P) above, between Truth^S (and Truth^P) and truth.[10]

In summary, relativistic semantics, just like the standard semantics it hopes to complement or succeed, employs a sentential notion of Truth^S. This notion expresses a relation sentences bear to contexts, possible worlds and standards of taste (or whatever else the extra parameter may be in each case). It may also employ a commensurate notion of propositional Truth^P, which relates (relativistic) propositions to possible worlds and standards of taste (or whatever else the additional parameter may be in each case). Unlike standard semanticists, relativists should not postulate a straightforward reductive principle that explicates truth in the ordinary sense in terms of Truth^S or Truth^P. Rather, the relativist should instead ground the semantic truth-predicates "True^S" and "True^P" by linking them to a different, individualized, notion of correctness. However, this does not mean that there is no connection at all between ordinary truth and the semantic notions of Truth^S and Truth^P. Rather, the grounding links exploited by the standard semanticist continue to hold as long as we restrict ourselves to objective propositions only. Thus there remains a sense in which the relativist's semantic Truth^S-predicate can be properly called a "truth-predicate," and in which the relativist's semantics can be properly called "truth-conditional."[11]

4. ISSUES OF COMMENSURABILITY

There is one related issue I would finally like to discuss. This concerns the relationship between the relativist's semantic notions of sentential Truth^S and propositional Truth^P on the one hand, and the standard semanticist's on the other. Let's introduce new labels to distinguish relativistic and standard notions: "Truth^{S4}" for the relativist's four-place sentential truth notion and "Truth^{S3}" for the standard theorist's three-place sentential truth notion. Similarly "Truth^{P3}" for the relativist's three-place propositional notion of truth and "Truth^{P2}" for the standard theorist's two-place propositional notion of truth. The question I want to address, then, is whether standard semantics and relativistic semantics can in any way be seen as addressing the same topic, that is, whether, when the relativist is specifying conditions for the Truth^{S4} of some sentence, she can be seen as disagreeing or agreeing with the standard semanticist, who is specifying the conditions for the Truth^{S3} of the sentence. If there can be no agreement or disagreement, then we may have to conclude that relativistic and standard semantics are incommensurable, and that there is no good sense in which they address the same questions. In that case, the relativist will have to claim that standard semantics is in some sense *radically* mistaken, in that it

10. My considerations here have concerned the ordinary notion of truth employed by the semanticist herself, that is, expressed by a meta-language truth-predicate. The same accounts can naturally also be applied to a truth-predicate that is part of the object-language, that is, the language the semanticist is describing. One can also introduce an object-language counterpart to the metalinguistic "correct" that I have been discussing.

11. There is of course another sense in which the relativist's theory is properly truth-conditional: it continues to exploit the characteristic truth-conditional formal means of explaining the compositional structure of natural languages.

employs an empty concept of Truth^{S3} to which nothing in reality corresponds. I shall be arguing that the relativist need not view standard semantics in this way. Rather, the relativist should view standard semantics as a special case of the more general relativistic semantics. I shall make my case by considering two other cases of potential incommensurability and comparing them to the case at hand.

Let us first consider the classic question of the incommensurability between Newton's mechanics and Einstein's relativity theory. A good point of comparison are the respective notions of simultaneity: Newton employs a two-place notion of simultaneity, so that it is an absolute matter whether two events are simultaneous, whereas in Einstein's theory, the simultaneity of two events depends on a further factor, namely on a frame of reference. How does Einstein's three-place notion of simultaneity^3 relate to Newton's two-place notion of simultaneity^2? According to one view, Newton's notion was empty, because there just is no two-place relationship of simultaneity^2. Thus Einstein needed to make a radically new start, introducing a new three-place notion of simultaneity^3 that does correspond to a relation that has real instances.

Here is an alternative view: what Einstein discovered when he discovered the three-place relation of simultaneity^3 was a *generalization* of Newton's notion of simultaneity^2. Thus, he discovered that mostly, when Newton was speaking about the simultaneity^2 of two events, what he meant was that these events were simultaneous^3 with respect to *this* frame of reference. In other words, Newton's *simple* two-place notion was discovered by Einstein to be in fact a *complex* or *derived* two-place notion. There may well have been isolated cases where Newton was inadvertently employing simultaneity^2 when in fact he should have used the more differentiated notion of simultaneity^3. In those cases, Newton was simply in error about simultaneity^3 with respect to this frame (= simultaneity^2).

Now, I understand that the problem with the alternative view, as nice as it seems, is that Newton's notion of simultaneity^2 cannot be interpreted as simultaneity^3 with respect to some particular frame of reference. The reason for this is that Newton claimed that absolute time flows equably and without relation to anything external, which suggests that there is no more than one legitimate function that gives the temporal relations between events. Thus, Newton at least implicitly assumed simultaneity to be a simple two-place relation. Thus, so the objection goes, it would be a historical distortion to interpret Newton's claims regarding simultaneity^2 to be claims regarding Einstein's simultaneity^3-with-respect-to-this-frame-of-reference.

Moreover, it might be argued that the commensurability view outlined above illegitimately plays down those instances where Newton's employment of simultaneity^2 can only be interpreted as simultaneity^3-with-respect-to-this-frame-of-reference at the cost of attributing error to Newton. For these cases are not isolated uses. For example, I understand that Newton and contemporaries entertained the possibility of gravity traveling infinitely fast, and that there could be arbitrarily high velocities, possibilities that would be incoherent under an interpretation of simultaneity^2 as simultaneity^3-with-respect-to-this-frame-of-reference.[12]

Given that the commensurable interpretation would generate these incoherencies we would need a good reason to say that Newton *had* the concept of simultaneity[3]-with-respect-to-this-frame-of-reference but was quite radically mistaken about it, rather than that he had the empty concept of simultaneity[2], and was at least conceptually right. What would be the reason for saying that Newton did somehow latch onto simultaneity[3]-with-respect-to-this-frame-of-reference given that this hypothesis renders him incoherent?

This is not the place (or the author) to decide the classic issue concerning the transition from Newton to Einstein. However, I believe it is instructive to compare this case with one that is much closer to the one here under consideration. Consider the transition between an extensional semantic theory for a language and an intensional one that results from adding some intensional operators to the original language and correspondingly expanding the semantics. Let us say that the extensional semantic theory describes extensional language L1, which for simplicity we can assume to be context-insensitive. The extensional semantics thus defines a one-place sentential truth-predicate "True^{S1}." The intensional semantic theory describes a language L2 that results from adding the operators "Necessarily" and "Possibly" to L1. Now, the addition of the intensional operators will require a change in the semantics for all the L1 expressions in L2, which follows the following model. When the intensional semantics has a clause of the following form:

(C) For all α, Π: if α is a singular term and Π is a predicate, then 'Π(α)' is True^{S1} if and only if the referent of α is a member of the extension of Π.[13]

then the extensional semantics will have a corresponding clause of this form

(C*) For all α, Π, *w*: if α is a singular term and Π is a predicate and *w* is a possible world, then 'Π(α)' is True^{S2} at *w* if and only if the referent of α is a member of the extension of Π in *w*.

The only other change in the extensional semantics will be the addition of clauses for the intensional operators:

(Nec) For all α, *w*, *w**: if α is a sentence and *w* is a possible world, then 'N(α)' is True^{S2} at *w* if and only if α is True^{S2} at all possible worlds *w** accessible from *w*.

(Pos) For all α, *w*: if α is a sentence and *w* is a possible world, then 'P(α)' is True^{S2} at *w* if and only if α is True^{S2} at some possible world *w** accessible from *w*.

Now, what should we say about the relationship between the intensional and the extensional theory? One line of reasoning would lead us to say that despite a certain structural similarity, the two theories are describing completely disjoint

13. Single quotes are used as corner quotes here.

phenomena. The expressions that are "shared" between L1 and L2 are merely shared in the sense that they are phonetically similar. They are nevertheless different expressions, because their semantic properties are described in incommensurable ways using the predicates "True^{S1}" in the extensional case and "True^{S2}" in the intensional case.

This description of the situation would seem appropriate given what I have said so far, even if it is perhaps in some respects unhelpful. However, let us add the following assumption to our scenario: both the extensional semantics and the intensional semantics were aimed at providing semantic accounts of fragments of the very same language L. The extensional theory made a start with fragment L1, and the intensional theory then attempted a semantics for the slightly greater fragment L2. I believe that in this case the correct view is that the intensional theorist's Truth^{S2}-predicate is a generalization of the extensional theorist's Truth^{S1}-pedicate, and that the intensional theory merely expands the extensional theory. Here is how Truth^{S2} can be seen as a generalization of Truth^{S1}: A sentence is True^{S1} just if it is True^{S2} at the actual world. If we read all the occurrences of "True^{S1}" in the extensional semantics as "True^{S2} at @," then we can see the intensional theory as merely adding extra information to the extensional theory—information about the extensions of expressions in non-actual worlds and information about the two new expressions, the operators "N" and "P." All the information given by the extensional theory is preserved in the intensional theory.

In the case of Newton, Newton's implicit commitment to the absoluteness of simultaneity prevented us from easily interpreting his uses of "simultaneous[2]" as expressing the complex property of simultaneity[3] at this frame of reference. In the case of the extensional theory no analogous commitment prevent us from taking the extensional theorist to be expressing the property of Truth^{S2} at @ when she uses "True^{S1}." Another reason against this reading of Newton was the attribution of significant error and incoherence engendered by the reading. By contrast, treating the intensional theory as a generalization of the extensional theory does not force us to attribute any errors to the extensional theorist.

What I want to suggest is that a benevolent observer will equally view the relativist semanticist's theory as a mere extension of standard semantic theories, and that Truth^{S3} at a context *c* and at a world *w* should be viewed as Truth^{S4} at *c* and at *w* with respect to some (or all) standards of taste. Such an identification will be completely unproblematic as long as the standard theory does not concern any of the expressions for which the relativist claims to need a relativistic semantics, that is, in this case predicates of personal taste *construed as they are construed by the relativist*. In this case, the relativist's theory is plausibly seen as merely adding new information to the standard semantic theory.

It may be objected that the standard semanticist's object language does contain predicates, such as "is tasty," that the relativist claims to vary in extension not just with possible worlds but also with standards of taste. There is, so the objection goes, genuine disagreement about the best semantics for these expressions, and the relativist cannot be seen as merely adding information to a standard theory, while accepting everything the standard theorist said within her own framework.

There is some truth to the claim that there is genuine disagreement concerning the disputed range of expressions (here: taste predicates) between the relativist and *some* proponents of standard semantics, namely those proponents who advocate either an absolutist view of predicates of personal taste, or those who advocate a contextualist view.[14] However, this does not prevent the relativist (or a reasonable observer) from viewing the relativist as continuing and expanding the work of standard semantics. For the relativist can simply claim that he rejects those parts of the standard semantics that concern the disputed expressions, and that she agrees with the remainder. The relativist's theory can then be seen as a mere expansion and generalization of that part of the standard semantics that she agrees with, namely the parts concerning the objective fragment of the language.

One final question remains. In the case of Newton, one problem with interpreting his notion of simultaneity^2 as simultaneity^3 with respect to some particular frame of reference was that Newton had implicit commitments that were in conflict with this. Similarly, it might be claimed that standard semanticists are committed to the absoluteness of propositional truth, so interpreting them as having had in mind a different notion would be inaccurate. I cannot at this moment draw on a comprehensive survey of what standard semanticists have claimed. However, it seems to me unlikely that we will find uniform evidence that the main protagonists of truth-conditional semantics have been taking it as an essential part of their semantic notions of truth that truth-values do not vary with standards of taste. Even in a theorist like Frege, where the commitment to the absoluteness of propositional truth is quite clear, we can find other commitments that might put pressure on the absoluteness of propositional truth, such as the view that propositions (*thoughts*) are the relata of the belief relation and other propositional attitudes. Kaplan, another important truth-conditional semanticist, who takes himself to be reconstructing a Fregean view, argues against the absoluteness of propositional truth (1977).

To conclude this section, there is no need to view the relativist's semantic project as a radical departure from the project standard semanticists have been pursuing. On the contrary, the most plausible view of relativistic semantics is as a generalization and expansion of non-relativistic semantics.[15]

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14. There was until recently very little comment by standard semanticists on the proper treatment of taste predicates, so a more realistic description of the dialectical situation would be to say that relativists and contextualists disagree on how to expand a standard semantic theory to accommodate taste predicates.

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