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## Perspectives on Possibilities: Contextualism, Relativism, or What?

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### ABSTRACT

Epistemic possibilities are relative to bodies of information, or *perspectives*. To claim that something is epistemically possible is typically to claim that it is possible relative one's own current perspective. We generally do this by using *bare*, unqualified epistemic possibility (EP) sentences, ones that don't mention our perspective. The fact that epistemic possibilities are relative to perspectives suggests that these bare EP sentences fall short of fully expressing propositions, contrary to what both *contextualists* and *relativists* take for granted. Although they rightly reject *propositional invariantism*, the implausible view that a bare EP sentence expresses the same classical (absolutely true or absolutely false) proposition in any context, they maintain that a change in perspective shifts either the sentence's propositional content (to a proposition involving a different perspective) or its truth-value (the same perspectively neutral proposition now evaluated from a different perspective). I deny that the semantic contents of bare EP sentences shift at all. But I also deny that these contents have truth-values. Rather, according to the *radical invariantism* I defend, these contents are not full-fledged propositions but merely *propositional radicals*. Only explicitly *relativized* EP sentences manage fully to express propositions, and these perspective-involving propositions are the only EP propositions there are. Nevertheless, bare EP sentences are perfectly capable of being *used* to assert EP propositions, because utterances of them implicitly allude to the relevant perspective. Various problem cases challenge radical invariantism to explain pragmatically which perspective is read into the utterance of a given bare EP sentence. Unlike contextualism and relativism, it can do this without having to resort to any semantic bells and whistles.

## Perspectives on Possibilities: Contextualism, Relativism, or What?

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There are many kinds of possibility: logical, metaphysical, nomological, physical, biological, technological, political – and epistemic. The focus here will be on epistemic possibilities and mainly on how we talk about them.<sup>1</sup>

Epistemic possibilities typically arise whenever we ask a *wh*-question, such as “Where is it?” or “Whodunit?” They arise, for example, when one searches for misplaced glasses or when a detective tries to solve a murder case. Ideally, the different answers that come to mind exhaust the relevant epistemic possibilities. They also arise when, in contemplating a course of action, we consider the risks involved. That’s why people carry an umbrella, buy auto insurance, or get a colonoscopy. Finally, they arise in connection with knowledge claims. We think we know something (or are tempted to draw a certain conclusion or to assert something), but then a counterpossibility occurs to us and we think again. Or someone else claims to know something and we object by way of raising a counterpossibility, something that if it obtained would directly contradict the claim in question or at least weigh against it.

Epistemic possibilities are relative, not absolute. They are relative to bodies of information, or *perspectives*. This perspective relativity gives rise to some interesting puzzles, about the language of epistemic possibility as well as epistemic possibility itself.<sup>2</sup> Our main question will be how to handle this relativity, especially in connection with sentences that do not make this relativity explicit. Compare these two sentences:

- (1) Richard Branson might go to the moon by 2015.
- (2) As far as Elton John knows, Richard Branson might go to the moon by 2015.

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<sup>1</sup> Note that this is not the sort of epistemic possibility that philosophers contrast with metaphysical possibility when they discuss identity statements. In that special, technical sense, something is epistemically possible, for example that Hesperus is distinct from Phosphorus, if its negation is not knowable *a priori*.

<sup>2</sup> Perhaps not just epistemic possibility but other sorts of possibility are relative too. If so, then what distinguishes the different sorts is what the possibility is relative to. For example, whereas epistemic possibilities are relative to bodies of information, nomological possibilities are relative to sets of states of affairs and scientific laws. Accordingly, it might be argued that modal terms are not systematically ambiguous but semantically neutral as between different sorts of modality. What a given use is relativized to would determine which sort of modality is involved.

Let's call (1), which mentions no perspective, a *bare* EP sentence, in contrast to the *relativized* (2), which contains the phrase 'so far as Elton John knows'.<sup>3</sup> There are various other constructions that can be used to relativize an EP sentence, such as 'given what Elton John knows', 'relative to the information available to Elton John', and simply 'for Elton John'. Obviously, bare EP sentences lack something that relativized ones have – a mention of a perspective. This suggests to me that because epistemic possibility is perspective-relative, the semantic contents of bare EP sentences lack something as well.

The recent debate on their semantics has overlooked relativized EP sentences. Its almost exclusive focus on bare EP sentences, hence failure to compare them to their relativized counterparts, has confined the debate to a forced choice between two needlessly elaborate views, *Contextualism* and *Relativism*, which both impute dubious semantic roles to context. Implicitly accepting the grammar-school dictum that every sentence expresses a complete thought, proponents of both views take for granted that bare EP sentences semantically express propositions.<sup>4</sup> Rather than defend this assumption, they rely on intuitions about truth-values of utterances of such sentences. And, because these truth-values seem to vary (even with all the facts fixed) depending on the context in which the utterance is made or considered, contextualists and relativists both reject *Propositional Invariantism* and maintain instead that bare EP sentences are context-sensitive. They disagree on just how: contextualists think that their semantic contents shift, and relativists think that their contents, though fixed, can still shift in truth-value.

I will propose a simple, alternative view, one that has been overlooked because it abandons the assumption that bare EP sentences express propositions in the first place. According to *Radical Invariantism*, as I call it, bare EP sentences are not context-sensitive in either of the ways claimed by contextualists and relativists. Rather, these sentences are *propositionally incomplete*: their invariant semantic contents are not full-fledged propositions but merely *propositional radicals*, which lack a constituent needed

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<sup>3</sup> Interestingly, replacing this phrase with 'for all Elton John knows' makes 'might' redundant. Even with 'will' in place of 'might', the sentence 'For all Elton John knows, Richard Branson will go to the moon by 2015' expresses epistemic possibility.

<sup>4</sup> From now on, I will usually use 'express' rather than 'semantically express' when talking about sentences (as opposed to speakers). I think 'semantically express' is redundant in that case, but I will occasionally use it anyway, just for emphasis. I call what a sentence expresses its *semantic content*, but note that sentences containing indexicals can have different semantic contents (express different things) in different contexts.

for being true or false. By distinguishing propositional incompleteness from context sensitivity, Radical Invariantism does not have to resort to semantic bells and whistles, as both Contextualism and Relativism do. It does not need to lavish special powers on context or introduce propositions with special semantic properties.

Radical Invariantism agrees with Contextualism that there are only classical EP propositions, ones that are absolutely true or absolutely false, but it denies that bare EP sentences manage to express them, even in context. And it agrees with Relativism that bare EP sentences do not express different EP propositions in different contexts, but only because it denies that they express propositions at all. What relativists think of as relative propositions are really, depending on whether we are considering objects of thought or semantic contents of bare EP sentences, either underspecified classical propositions or propositional radicals. Radical Invariantism says that bare EP sentences leave a certain semantic slack.

It is a separate question how speakers who use and encounter these sentences manage to pick up the slack. Although Contextualism and Relativism both offer insights about the statements we make in using the language of epistemic possibility, accounting for the contents of such statements and our evaluations of them as true or false is a job that goes well beyond accounting for the semantics of the sentences themselves.<sup>5</sup> The intuitions about truth-values on which contextualists and relativists base their semantics of bare EP sentences are responsive not to the semantic contents of these sentences but to the propositions we have in mind or those that come to mind when we use or hear these sentences. Epistemic possibilities are perspective-relative, but bare EP sentences do not mention or otherwise advert to perspectives, not even implicitly. So, I claim, these sentences lack truth-values, even relative to contexts. Even so, what a speaker means when using a bare EP sentence can and generally does involve a perspective, one that he could have mentioned explicitly if he had needed to, by using a relativized rather than a bare EP sentence. This suggests that there is nothing special about the semantic contents of bare EP sentences but something lacking in them.

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<sup>5</sup> Putting an excessive burden on the semantics leads inevitably to great complications, as illustrated by the ingenious and highly sophisticated theories recently developed by Tamina Stephenson (2007) and by Seth Yalcin (2007).

In the first three sections, I will distinguish propositions about epistemic possibilities from epistemic possibilities themselves, contrast different conceptions of the relativity of epistemic possibility, and make some observations about the language of epistemic possibility. In the next three sections, I clarify the differences between the three approaches to be discussed, illustrate the basic kinds of problem cases that have motivated Contextualism and Relativism, and then present some less familiar problem cases. I will explain how, and how well, each approach handles each case. In the next two sections I will identify some general difficulties first for Relativism and then for Contextualism, ones that go beyond their trouble handling specific cases. Finally, I will identify and respond to the best objections to Radical Invariantism that I can think of.

### **1. Epistemic Possibilities and EP Propositions**

Just as a chair cannot be comfortable without being comfortable for someone, so a state of affairs cannot be epistemically possible without being epistemically possible for someone.<sup>6</sup> Being epistemically possible is a relation, and being epistemically possible for someone is a relational property of a state of affairs, just as being comfortable to someone is a relational property of a piece of furniture or an article of clothing. We might say that a state of affairs is epistemically possible for someone at a time if it is not ruled out by the information available to that person at that time.<sup>7</sup> A person's current body of information, or perspective, determines which states of affairs are epistemically possible for him at the time. So we can think of a state of affairs as possible either relative to a person at a time or relative to a perspective. In some cases the relevant perspective is not a particular person's but that of a group.

Importantly, something can be epistemically possible for someone at a time even if the person does not believe that it is (you can mistakenly believe that your knowledge rules out something that it does not). And a person can believe that something is epistemically possible for them even if it is not (you can overlook a relevant part of what you know). *Being* epistemically possible *for* someone is distinct from *seeming* epistemically possible *to* someone.

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<sup>6</sup> As I am using 'state of affairs', some states of affairs obtain, and some do not.

<sup>7</sup> There are different ways of construing this, as we will see in section 2.

An epistemic possibility is one thing; an epistemic possibility proposition is another. Epistemic possibilities are states of affairs, not propositions. States of affairs either obtain or do not obtain, and some states of affairs, whether or not they do obtain, are epistemically possible – relative to a perspective. Different propositions can ascribe possibility to the same state of affairs, but relative to different perspectives. A state of affairs can be possible relative to one perspective while not being possible relative to another. So, for example, if you don't know that my cat is gray, that my cat is black would be possible for you but not for me. And if you saw my cat, that my cat is black would go from being possible to not being possible for you.

This case suggests that when one goes from accepting to rejecting an epistemic possibility, typically one does so relative to a different perspective. When Hillary Clinton no longer deemed it possible that there were WMDs in Iraq in 2003, she judged this relative to the information she had later, not relative to the more limited information she had earlier. Indeed, she could still believe that this was possible relative to the information she had earlier. In general, however, as information accumulates it is of little interest to us what was formerly possible, that is, possible relative to the information we formerly had. Normally what matters is what is possible relative to the information we have now, which tends to be greater than what we had before. When focusing on what is possible relative to our current information, we generally do not make this relativity explicit, not just in talking about the possibility but even in thinking about it.

This last observation points to one obvious difference between using a bare EP sentence such as (1) rather than a relativized one like (2):

- (1) Richard Branson might go to the moon by 2015.
- (2) As far as Elton John knows, Richard Branson might go to the moon by 2015.

Common to both sentences is what we might call the *core proposition*, here the proposition that Richard Branson will go to the moon by 2015. It represents the state of affairs of Branson going to the moon by 2015, whose possibility both (1) and (2) can be used to assert. But whereas (2) can be used only to assert this possibility relative to Elton John's perspective, (1) can be used to assert it relative to anyone's perspective. Normally, but as we will see not always, this is (or includes) the speaker's perspective. That and

related facts about sentences like (1) has led some to suggest that context somehow “determines” or “provides” the relevant relativization.

This suggestion is supported by the thought that a sentence like (1), or an utterance of it, can be true relative to one perspective and false relative to another. For example, so this thought goes, (1) could be true relative to what John knows now and false relative to what he knows in 2014 when, let’s suppose, Branson announces that he has abandoned his lunar ambitions. It could even be false right now, relative to Branson’s perspective, say if he has long since given up on ever going to the moon. Does this mean that (1) semantically expresses different propositions (in these different contexts), each true or false absolutely, or just a single proposition, but one can be true or false from different perspectives? Or does it fall short of expressing any proposition at all?

Whatever the answer to that, different speakers can use (1) to express their belief that Richard Branson might go to the moon by 2015. This does not settle the question whether, even if they differ in perspective, they count as expressing belief in the same EP proposition. So let us distinguish *believing an epistemic possibility proposition* from *accepting an epistemic possibility*. We can say that one accepts a certain epistemic possibility if, relative to one’s perspective at the time, one believes that the state of affairs in question is epistemically possible. This allows that one can go from accepting to rejecting a certain epistemic possibility without going from believing to disbelieving some one epistemic possibility proposition. By the same token, it allows that two people can in some sense disagree about a certain epistemic possibility even if there is no particular epistemic possibility proposition that one believes and the other disbelieves.

## **2. The Perspective Relativity of Epistemic Possibilities**

In everyday conversation we raise, examine, dispute, and ultimately accept or reject epistemic possibilities. The same thing happens in more formal situations, such as investigations, trials, and debates. Some possibilities are left open – they’re “live” possibilities – and some are eliminated or closed. Some are summarily dismissed, some are just overlooked, and some are looked into. Epistemic possibilities come in degrees – we describe them variously as likely, strong, good, significant, realistic, reasonable, moderate, slight, insignificant, remote, idle, and far-fetched. It is not obvious that these reduce to degrees of probability, subjective or otherwise.

These simple observations raise many interesting epistemological questions, both descriptive and normative, but I will not be addressing such questions. Trying to pin down what epistemic possibilities are is hard enough. I have loosely described an epistemic possibility as a state of affairs that is compatible with available information, but what counts as information, to whom must it be available, what counts as being available, and what counts as being compatible with the information? A little reflection suggests that these questions do not have clear, determinate answers.

First of all, what counts as information? Must be it knowledge, or can it be something weaker, such as evidence or even just a set of (firm) beliefs? We do not have to answer. Instead, we can distinguish *evidential* and *doxastic* possibility from strictly *epistemic* possibility.<sup>8</sup> When people use terms like ‘maybe’, ‘might’, ‘perhaps’, and ‘possibly’, they probably do not have any such distinction in mind.<sup>9</sup> Even so, for the sake of discussion let’s assume that the relevant kind of body of information is a body of knowledge and pretend that when people use such terms what they have in mind literally is *epistemic* possibility. Although I will not try to justify this, much (but not all) of what I’ll say about how we talk about epistemic possibility will apply just as well to evidential and to doxastic possibility, insofar as we ordinarily distinguish these.<sup>10</sup>

Assuming the relevant sort of information is knowledge, we can say that to be (epistemically) possible a state of affairs must be compatible with a certain body of knowledge. But whose body of knowledge? One’s own, someone else’s, a group’s, a discipline’s, all of humanity’s? It seems to me that these are all perfectly good answers. Epistemic possibility is relative. We can pick any body of knowledge – individual, collective, past, present, or future, or even hypothetical, and say that a given state of affairs is compatible with it, hence epistemically possible relative to it. In particular, a

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<sup>8</sup> The distinction between evidential and epistemic possibility obviously presupposes that evidence is not limited to knowledge. This conflicts with Tim Williamson’s well known but controversial “E = K” doctrine (2000: ch. 9).

<sup>9</sup> I suspect that this may explain, in least in part, the variability and shiftiness of people’s intuitions about the truth-values of statements made using bare EP sentences.

<sup>10</sup> One point made earlier applies to all three: something can be possible (epistemically, evidentially, or doxastically, as the case may be) for you even if you do not believe that it is (with doxastic possibility this is true only up to a point, for if a person believes that something is not doxastically possible for him, then it is not – by virtue of that very belief). You could be mistaken about what your knowledge (evidence, belief set) is or about what it rules out. Similarly, something could fail to be epistemically (evidentially, doxastically) possible for you even if you think it is. What you know (what evidence you have, what you believe) might exclude more than you think it does. So something can *be* impossible *for* you even if it *seems* possible *to* you, and vice versa.

given state of affairs can be possible relative to (that is, compatible with) what I know but not relative to what you know. Something that is possible relative to what I know today might not be possible relative to what I know tomorrow. Something could be possible relative to what you and I know but not relative to what an expert knows. For an omniscient being nothing is merely epistemically possible: the only epistemic possibilities there are those that actually obtain. Since we are far from omniscient, there is much that is epistemically possible for each of us that does not in fact obtain. However, if we consider collective bodies of knowledge, information considered pooled even if not actually shared (available to everyone in a group even if it is not fully possessed by anyone), there will be things that are epistemically possible for us individually that are not epistemically possible for us collectively.

Then there is the question of what counts as having information and what counts as its being available. Must it be accessible to memory? Is it enough, even if we do not possess it, that the information at least be readily available, say after a little googling? Does it even have to be *readily* available?<sup>11</sup> As I see it, there is no determinate answer to these questions, and there doesn't need to be. Since epistemic possibility is perspective-relative, that is, relative to a body of information, the real question in any given case is which body of information is the relevant one (relevance is itself a relative matter).

Finally, what counts as being compatible with a body of knowledge? Being logically consistent with what is known? That seems much too weak, since it would lead to an odd kind of skepticism, according to which, even though we know a lot, our knowledge rules out far fewer possibilities than we think. Less demanding conceptions of ruling out do not require logical incompatibility – ruling out (closing off, eliminating) a possibility can be construed in various ways, and in various degrees. One interesting question, which I will not take up, is whether, in the case of two people with the same relevant knowledge, something can be epistemically possible for one but not for the other (because of different inferential powers or propensities?).

There are many interesting epistemological issues lurking behind the questions just raised, and I am not going address them here, much less try to settle them. I will just

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<sup>11</sup> Questions of these sorts are discussed in Hacking 1967, Teller 1972, DeRose 1991, and Egan, Hawthorne, and Weatherson 2005.

continue to say that epistemic possibilities, whatever they are exactly and whatever their relationship is to what is known, are relative to perspectives or, equivalently, to persons or groups with particular perspectives. A state of affairs is epistemically possible for a person (or a group) if it is compatible with their perspective, with the information available to them. Something can be epistemically possible relative to one perspective and not to another, and nothing is epistemically possible except relative to a perspective. In this respect, being epistemically possible is like being obvious, being surprising, and being puzzling: nothing can be obvious, surprising, or puzzling *simpliciter*.

### 3. Perspectives and Bare Epistemic Possibility Sentences

Various expressions can be used to express epistemic possibility, such as the modals ‘might’, ‘could’, and ‘may’ and the adverbs ‘possibly’, ‘perhaps’ and ‘maybe’.<sup>12</sup> We can also use locutions like ‘it is possible that’, ‘for all I know’, and ‘there’s a chance that’.<sup>13</sup> Most of our examples will use ‘might’. Even though epistemic possibilities are relative to perspectives, in asserting a possibility we generally do not need to make the perspective explicit, usually because it is our own. Generally we can (and do) use bare, unqualified EP sentences instead. But sometimes we have to make explicit what the relevant perspective is and use a sentence like one of these:

- (3) As far as Jack knows, Jill might still be on the hill.
- (4) According to Jill’s preliminary diagnosis, Jack might have a concussion.
- (5) Given the information currently available to the local authorities, the fire might have been caused by lightning.

Making the perspective explicit is necessary whenever it would not otherwise be evident to our audience what perspective is the relevant one. In assertively uttering sentences like (3) - (5) we do not commit ourselves one way or the other about the relevant possibility, that is, from our own perspective. We are asserting the possibility relative to another

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<sup>12</sup> ‘Perhaps’ and ‘maybe’ are special cases (for this reason I will not discuss them in this paper). For one thing, not only can they be used to express epistemic possibility they can also be used to indicate that one is suggesting the core proposition – or just guessing. They are then being used as *utterance modifiers*, to comment on the act the utterance rather than to modify its content. For a discussion of utterance modifiers and a taxonomy of them, see Bach 1999: 356-60.

<sup>13</sup> This use of ‘There’s a chance that’ does not imply that epistemic possibility is reducible to probability. This idiomatic use does not mean 1 chance in 10, 1 in 1000, 1 in 1,000,000, or anything of the sort. And surely being epistemically possible is not just having a (subjective) probability greater than zero.

perspective. For example, an arsonist might utter (5) knowing full well that the core proposition is false.

When we do not make the perspective explicit, typically our own perspective is the relevant one, as in a likely utterance of (6).

(6) The front door might be unlocked.

However, our own perspective can and often does incorporate our audience's, insofar as we take for granted that their knowledge does not rule out the possibility in question. Sometimes the relevant perspective is that of a uniquely salient group of which we are a member or to which we defer, but some stage setting may be necessary for this to be understood, as in the following examples.

(7) The fire might be the result of arson.

(8) String theory might never be verified.

Suppose that the chief of the local fire department utters (7). He would intend, and could reasonably expect, to be taken as speaking from the department's perspective. And if I, having no expertise on string theory, were the speaker of (8), I could well be deferring to the perspective of the physics profession. At any rate, typical uses of bare EP sentences are, we might say, *egocentric* or at least *ego-inclusive*, depending on whether the relevant perspective is strictly one's own or incorporates a larger perspective to which one as it were subscribes. This could be a perspective one is presumed to share with one's audience or it could be the perspective of a uniquely salient larger group to whose authority on the matter one defers.

In special circumstances bare EP sentences can be used to assert that something is epistemically possible from a perspective disjoint from one's own. This is clearest when they are embedded in attitude attributions or are used to explain actions:

(9) Anne thinks that Andy might be in Anchorage.

(10) Ben called Betty because she might have Bertha's phone number.

In (9) the relevant perspective is Anne's, not the speaker's, since it is her attitude that is being reported. In (10) the relevant perspective is Ben's, because it is his action that is being explained. But when there is no such indication, as with (6) above, speakers are likely to be taking their own perspectives. The situation with 'might' is roughly

analogous to that with such terms as ‘nearby’ and ‘fun’. If I uttered (11) or (12), for example, normally I would be speaking from my own point of view.

(11) There is a gym nearby.

(12) Working out on an elliptical trainer will be fun.

In some situations, however, someone else’s perspective would be understood. If the person were speaking to sister on the phone, he would be telling her that a gym is near her, not him. And if he hated exercise, presumably he would be suggesting that working out on an elliptical trainer will be fun for her, not him.

#### **4. Contextualism, Relativism, or What?**

The relativity of epistemic possibility has led to the widespread impression that there must be something context-sensitive about bare EP sentences, presumably having to do with perspective. The debate has concerned just what shifts with context. Contextualists hold that a bare EP sentence, though not mentioning any perspective, semantically expresses a *perspective-involving* proposition and, indeed, that it can express different perspective-involving EP propositions in different contexts of use.<sup>14</sup> Relativists deny this and see a different sort of context sensitivity. They claim that a bare EP sentence expresses the same proposition (modulo any irrelevant indexicality) regardless of context. However, this is not a classical proposition, one that is true or false absolutely, independently of context. It is not the sort of proposition that is true or false depending simply on whether or not the world is as it says. Rather, the truth-value of this one proposition can shift with the context. This non-classical proposition does not contain a perspective – it is *perspectivally neutral* – but is true or false relative to a perspective.<sup>15</sup>

Contextualists and relativists both reject Propositional Invariantism, the view that a bare EP sentence expresses a classical proposition independently of context. It does not deny that epistemic possibility is relative, but it does deny that this relativity is variable. On its most natural construal, Propositional Invariantism says that a state of affairs is

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<sup>14</sup> I am using ‘perspective-involving’ on the model of ‘object-involving’ as commonly used in discussions of singular thought. On my preferred, Russellian conception of propositions as structured (with objects, properties, and relations as constituents), perspectives are constituents of perspective-involving EP propositions.

<sup>15</sup> There is a further question, on which Relativists disagree, as to whether this evaluation is tied to the context of use or, more liberally, to a context of assessment, which may be remote from the context of use. John MacFarlane (this volume) takes this liberal view, for which he reserves the term ‘Relativism’. He calls the more restrictive view ‘Non-indexical Contextualism’.

epistemically possible just in case its obtaining is not ruled out by *any* body of knowledge.<sup>16</sup> The obvious trouble with this view is that it renders false any bare EP sentence whose core state of affairs is known by anyone not to obtain. Suppose, for example, that the whereabouts of Freddie the Fugitive is known only to Freddie. Then, according to Propositional Invariantism, the proposition that Freddie the Fugitive might be in Philly is absolutely false if Freddie is somewhere else. A detective hot on his trail who assertively utters, “Freddie the Fugitive might be in Philly,” speaks falsely, no matter how strong his evidence. This does not seem plausible.

Recognizing this fatal problem with Propositional Invariantism, contextualists and relativists agree that there must be something context-sensitive about bare EP sentences. Although they disagree on what varies with context, they both take for granted that bare EP sentences do express propositions. I have never seen any defense this assumption.<sup>17</sup> In fact, I think there is good reason to reject this assumption. Compare (1) and (2) again.

(1) Richard Branson might go to the moon by 2015.

(2) As far as Elton John knows, Richard Branson might go to the moon by 2015.

(2) mentions a perspective; (1) does not. (2) is true just in case the state of affairs in question, that Richard Branson goes to the moon by 2015, is possible so far as Elton John knows now. But epistemic possibilities are relative to perspectives. That is, a state of affairs can be epistemically possible relative to one perspective not epistemically possible relative to another. This suggests that (1), by failing to mention a perspective, falls short of expressing a proposition. It is not that a bare EP sentence is context-sensitive, either as to which proposition it expresses (Contextualism) or as to the truth-value of the one proposition it does express (Relativism). Rather, it has a context-independent *non-*

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<sup>16</sup> This version of Propositional Invariantism, which Egan, Hawthorne, and Weatherson call “universalism” (2005: 144), is not the only possible one. On the opposite extreme is the version, which says that a state of affairs is epistemically possible just in case there is some body of knowledge that does not rule it out. This version implausibly makes any state of affairs epistemically possible. Intermediate versions of Propositional Invariantism are possible too, but any choice among them seems arbitrary.

<sup>17</sup> Contextualism was motivated by the obvious inadequacy of (Propositional) Invariantism and Relativism, more recently, by Contextualism’s inability to handle certain cases. For example, Egan, Hawthorne, and Weatherson (2005), although they forthrightly acknowledge that Relativism is not without problems of its own, proceed by arguing against “invariantist solutions,” which they assume without argument to be propositional, and “contextualist solutions.” (Lasersohn (2005), in his defense of a kind of relativism about unrelativized sentences containing predicates of personal taste, proceeds in part by arguing against propositional invariantist and contextualist views.) MacFarlane’s case for Relativism also depends on this line of argument. He does consider “non-truth-conditional approaches,” but only those that treat epistemic modals as “force modifiers” (this volume, section 4).

propositional content. Its content does not add up to a proposition, and is neither true nor false. On this view, *radical* rather than *propositional* invariantism, bare EP sentences are *propositionally incomplete*: their invariant semantic contents are not propositions but merely *propositional radicals*. These notions are straightforward if you think in terms of (structured) propositions rather than truth conditions. Since structured propositions are made up of building blocks assembled in a particular way, it makes sense to suppose that with some (in fact many) sentences this assemblage, put together compositionally from the sentence's constituents according to its syntactic structure, might fail to comprise a proposition (numerous examples are presented in Bach 1994). Even though it comprises the entire semantic content of the sentence, this propositional radical lacks at least one constituent needed to be true or false and to be the content of a thought or a statement.

Although bare EP sentences semantically do not express full-fledged propositions, hence are not capable of being true or false, they are perfectly capable of being used to assert propositions and of being taken as so used. In that case, the speaker implicitly adverts to the perspective with respect to which the relevant possibility is to be considered. But bare EP sentences, unlike relativized ones, do not themselves express propositions. From the radical invariantist standpoint, both contextualists and relativists commit the *Proposition Fallacy*: they assume that if a sentence, with all of its constituents being used literally, can be used to convey a proposition, the sentence itself must express one. Contextualists also commit the *Context Sensitivity Fallacy*: they conflate propositional incompleteness with context sensitivity.<sup>18</sup> They implicitly assume that if, while using all of the constituents of a given sentence literally, speakers in uttering that sentence can mean different things in different contexts, there must be something context-sensitive about the sentence.

Radical Invariantism has something in common with Contextualism and something else in common with Relativism. It agrees with Contextualism on what epistemic

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<sup>18</sup> This fallacy underlies not just contextualism about bare EP sentences but other sorts of contextualism as well, including the extreme view that virtually all sentences are context-sensitive. Such views require assigning an unduly extensive role to context. Cappelen and Lepore (2005) and I (Bach 2005) have both argued that its semantic role should be limited to determining semantic values of clearly indexical expressions. Cappelen and Lepore, however, fail to distinguish between context sensitivity and propositional incompleteness (Bach 2006). In assuming that sentences must semantically express propositions, they escape the Context Sensitivity Fallacy, but still get trapped by the Proposition Fallacy. The alternative to their Propositional Minimalism is what I call Radical Minimalism, which allows for sentences with invariant but propositionally incomplete semantic contents.

possibility propositions there are, and it agrees with Relativism that the semantic contents of bare EP sentences are not context-sensitive. It shares the contextualist view that the only EP propositions there are involve perspectives, the ones that can be expressed independently of context by relativized EP sentences, but it rejects the contextualist claim that these propositions are expressed, relative to context, by bare EP sentences. For it denies that bare EP sentences express propositions at all. Radical Invariantism agrees with Relativism that bare EP sentences do not express perspective-involving EP propositions and that their semantic contents are invariant, but it rejects the Relativist assumption that these contents must be propositions.

Radical Invariantism aims to capture these elements of truth in Contextualism and Relativism. Otherwise, it treats the so-called context-sensitivity of bare EP sentences as a pragmatic phenomenon, not a semantic one. From a pragmatic point of view, the question is not how context fixes semantic content or its evaluation for truth or falsity but, rather, how contextual information can enable speakers to use bare EP sentences to convey propositions that these sentences do not fully express. This is not always feasible, however, and sometimes speakers, anticipating incomprehension or misunderstanding, use relativized EP sentences.

It will immediately be objected that the radical invariantist claim about bare EP sentences is obvious but irrelevant: of course bare EP *sentences* do not express propositions – *utterances* of them do – and the puzzle is about utterances, not the sentences themselves. Moreover, so the objection goes, not sentences but utterances are the primary linguistic items that have propositional or truth-conditional contents, and it is the business of semantics to give a systematic account of the truth-conditions of what utterances express. This idea is reflected in commonly used phrases like ‘the proposition expressed by an utterance’, ‘the truth-conditional content of an utterance’, and the simple ‘utterance truth’.

In my view, these phrases are highly misleading, and the project of utterance semantics is misguided. For reasons that I can only hint at here, *linguistic* semantics concerns sentences, not utterances.<sup>19</sup> Yes, if some sentences do not have truth-conditional contents, even relative to contexts of use, then it cannot be the job of semantics to

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<sup>19</sup> The following reservations about utterance semantics are spelled out more fully in Bach 2005: 22-25.

account for their truth-conditions.<sup>20</sup> However, it is a mistake to infer from this that semantics must therefore be concerned with the nearest things that do have truth-conditions, namely utterances. Considered as distinct from sentences utterances do not express anything – speakers do. If by ‘utterance’ we mean an act of uttering a sentence rather than the uttered sentence, there is nothing for the content of an utterance to consist in other than what the speaker means. It is an illusion to suppose that utterances, being speech *acts*, are *linguistic* entities over and above sentences. Their contents are what speakers mean in performing them. Moreover, there is nothing in between sentences and intentions (in uttering sentences) that are also capable of having contents.<sup>21</sup> So, I conclude, to be semantic theses Contextualism and Relativism must be construed as concerning the semantic contents of bare EP sentences.

One preliminary point in favor of Radical Invariantism is that although terms like ‘might’ and ‘possible’ apply not just to epistemic possibility but also and to other kinds, such as logical, metaphysical, nomological, physical, biological, technological, and legal possibility, this does not make these terms semantically ambiguous. That is, the fact that there are various sorts of possibility does not show that ‘possibility’ – or ‘might’ or ‘possible’ – has various meanings. This fact strongly suggests that perspective relativity is not built into the semantics of these terms. Sentences containing such terms can just as well be relativized to, for example, physical laws or legal codes.<sup>22</sup>

Whether or not this point counts for much, the more pressing question is how well the different views – Contextualism, Relativism, and Radical Invariantism – handle a wide range of cases. I will compare them on this score in the next two sections, where we will first take up some basic examples and then some trickier cases.

## **5. Shifting Perspectives: Basic Examples**

Contextualism and Relativism are each motivated by intuitions about the truth-values of ostensibly conflicting possibility claims made or considered in various situations. Three basic types of case have been discussed in the literature. In the first case, one person asserts a certain possibility and is overheard by someone else who knows that this

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<sup>20</sup> The qualification ‘relative to contexts of use’ allows for the case of sentences containing indexicals to have truth-conditional but context-relative semantic contents.

<sup>21</sup> It won’t help to invoke sentence tokens, as if these have autonomous semantic properties. In my view, token semantics is, well, token semantics.

<sup>22</sup> The adverbs ‘maybe’ and ‘perhaps’ are exceptions, being used only for epistemic possibility.

possibility doesn't obtain. The second is a case of direct disagreement between two people about a certain possibility. In the third case, a person accepts a certain possibility and then changes his mind about it. In each case there is a tendency to think that there are two conflicting claims and yet that they are both correct. The puzzle is to explain how this can be – or to explain it away. In this section I will present illustrations of each case, sketch contextualist, relativist, and radical invariantist accounts of the variable role of perspective in each case, and identify certain difficulties and complications for each.<sup>23</sup> I won't hide my preference for Radical Invariantism.

The first two examples involve two people who, with different bodies of knowledge, take different perspectives on the same possibility. This situation raises the question of what is going on when one believes that something is possible and the other believes that it is not. Do they really disagree? Or, since they are considering it from different perspectives, are they not really considering the same proposition? Keep in mind that although two clearly distinct perspectives figure in these examples, there are also common cases in which the two perspectives are relevantly similar (or in effect merged), in which case the disagreement clearly is genuine. This is the situation when, for example, two people engaged in an inquiry share all relevant information (or treat it as shared). In that case, clearly they can genuinely disagree on whether this information leaves open or excludes a given possibility. For instance, two radiologists with the same knowledge and expertise can disagree on whether a certain shadow they both see on an X-ray might be the image of a tumor.<sup>24</sup> However, in the next two cases there is a definite difference in perspective, and this difference contributes to the “disagreement.” I use scare quotes because part of what is at issue here is whether the disagreement is genuine, that is, whether there is some one proposition that the two parties are disagreeing about.

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<sup>23</sup> Some of the problems I mention with contextualist treatments of particular examples are similar to those pointed out by Egan, Hawthorne, and Weatherson (2005: 135-44) and by MacFarlane (this volume, sections 2 and 3). And some of the problems I mention with relativist treatments of particular examples are similar to those pointed out by Wright (2007) or by von Fintel and Gillies (2008). So many of the following observations are not original with me. Space does not permit pinpointing the similarities and differences. Several of the examples in the next section are new, so far as I know.

<sup>24</sup> I suppose it could be argued that in a case like this the two people's perspectives cannot be relevantly similar, much less identical in all relevant respects. The idea here would be that if there is a difference in attitude about the possibility in question, there *must* be a relevant difference in perspective, even if the parties haven't pinned down what it is. But it could be that one of them is just wrong about what their shared information rules out.

*“Disagreement” I: Eavesdropping*

I am looking for my keys and, after not finding them in the usual places, and wonder if, when letting myself in while holding several large packages, I dropped them outside the front door on the sidewalk. So I mutter something like this:

(13) The keys might be out on the sidewalk.

My wife, who has just come home and entered the house very quietly, overhears me. Still holding my keys, after removing them from the front door and using them to let herself in, she thinks to herself that what I said was wrong – my keys are in her hand and they were in the front door, not on the sidewalk. She has not yet said anything, much less shown me the keys.

There is a bit of a puzzle here. I was right to think my keys might be out on the sidewalk, and my wife was right to think that they couldn't be. But how can we both have been right? One answer is that we believed two different things and that each of us was right in what we respectively believed. What I believed was a proposition that involved my perspective, and what she disbelieved was a proposition that involved hers. This view of the situation, which Contextualism and Radical Invariantism share, seems to imply that there was no genuine disagreement, since there was no proposition that we disagreed about. Even though I made no reference to my perspective when I muttered (13), the proposition I had in mind was that, as far as I knew (or relative to my perspective), my keys might be out on the sidewalk. But this is not the proposition that my wife rejected when she overheard me. When she heard me mutter (13), she was in a different context, and grasped a different proposition, that relative to *her* perspective my keys might be out on the sidewalk. This proposition was false, since it conflicted with her knowledge that she was holding my keys.

The relativist would reject this take on the situation, for it implausibly implies that my wife misunderstood what I said. For if she did understand it, and it was a proposition that involved a perspective (mine), she would have agreed that from my perspective my keys might be out on the sidewalk. But that is not how she took my utterance. When she heard it, she considered this possibility relative to her perspective, not mine. Even so, the relativist would insist that my wife and I were considering the same proposition, as fully expressed by (13). This is the proposition that my keys might be out on the sidewalk,

period. Since I believed it and she disbelieved it, we disagreed. However, we were both right, since we considered it from different perspectives. It was true relative to (or from) my perspective and false relative to hers. So this is a case of what relativists, following Max Kölbel (2003), call “faultless disagreement.” But, as many have wondered, how could this be a case of *genuine* disagreement, even if it *is* about the same proposition?

Radical Invariantism denies (13) expresses any proposition. Like Relativism, it holds that (13) expresses the same thing independently of who is considering it or from what perspective, but it denies that this semantic content amounts to a proposition of any kind. On the other hand, Radical Invariantism agrees with Contextualism that perspectives enter into the propositions speakers have in mind when using or hearing sentences like (13). Radical Invariantism is thus forced to concede that the proposition that my wife entertained upon hearing me mutter (13) is not the one that I had in mind when I muttered it. So she and I do not disagree. Rather, we are taking opposite stances toward different propositions, just as the Contextualist says.

Is this a fatal objection to Radical Invariantism (and to Contextualism)? Not quite. Both views can at least pay lip service to Relativism in the following way. Even though my wife and I did not disagree about any (relevant) proposition, we do “disagree” about the relevant possibility. I accept it and she rejects it, relative to our respective perspectives. I thought that the state of affairs of my keys being out on the sidewalk was possible (relative to my perspective), while she thought that it was not possible (relative to hers). This “disagreement” is not genuine – it is not about any one proposition – but it can seem genuine because no perspective is mentioned. That makes it seem as though my wife and I disagree about some one thing. It explains why I would look for them out on the sidewalk and she would not.

### *“Disagreement” II: Disputing*

In the previous case there was no communication between the two parties. But what happens if they do communicate and, indeed, get into a dispute about the possibility in question? Again I have misplaced my keys, and I have started looking for them. Aware of my predicament, my wife joins the search. Getting frustrated I say, “The keys might be out on the sidewalk” (13). My wife disputes what I say, remarking that she distinctly remembers me coming in and dropping them on the kitchen table. I don’t remember that

and tell her I'm going outside to look for them. Eventually they turn up in a bag of groceries on the floor near the kitchen table.

It seems that relative to what I knew but not relative to what my wife knew, my keys might have been out on the sidewalk. So, were we both right? If so, were we right about the same thing, a perspectively neutral proposition that was true relative to my perspective but false relative to hers, or about different things, two distinct perspective-involving propositions? Contextualism and Radical Invariantism say the latter, but they disagree on whether those perspective-involving propositions are semantically expressed by (13). Contextualism says they are, one relative to my context and one relative to my wife's. Radical Invariantism denies that they are semantically expressed at all. As before, it agrees with Relativism that (13) expresses the same thing independently of who is considering it or from what perspective, but again, since no perspective is mentioned, it denies that this thing is a proposition.

One difficulty with the above contextualist treatment of this example is that there is only one context. In the *Eavesdropping* case it is plausible to suppose that the context in which my wife heard me utter (13) was different from the context in which I uttered it, although how plausible this suggestion is obviously depends on how the operative notion of context is fleshed out. Here, clearly, the context in which my wife hears my utterance is the same as the context in which I make it – presumably, according to Contextualism, the relevant sort of context is the context of utterance – but our perspectives differ.<sup>25</sup>

This is one consideration that motivates the relativist view that in *Disputing* my wife and I are entertaining the very same proposition, albeit a perspectively neutral proposition. Relative to our respective perspectives, from which I correctly believe it and she correctly disbelieves it, it is true for me and false for her. John MacFarlane (this volume) characterizes such a proposition as true or false relative to a “context of assessment,” but it is important to note that what matters is not the assessing but the

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<sup>25</sup> However, there is an alternative version of Contextualism, due to Brian Weatherson (forthcoming), according to which he calls the “context of evaluation” can fix semantic content. Although he calls this view “Indexical Relativism” (he applies it to the case of open indicative conditionals), it is clearly not Relativism of the sort we have been discussing. Applying such a view to bare EP sentences would make for a difference between my wife's context and mine and for a corresponding difference between the perspective-involving propositions we believe. But then, on this view, we would not be disagreeing.

perspective, the relevant body of knowledge.<sup>26</sup> But then, as we saw with *Eavesdropping*, it's not clear that my wife and I genuinely disagree.

Can Radical Invariantism avoid the problems of these other views? It agrees with Relativism that a bare EP sentence like (13) has a fixed semantic content but it denies that this proposition adds up to a proposition. It agrees with Contextualism that the only epistemic possibility propositions to be had are perspective involving and, although it denies that (13) semantically expresses any such proposition, it agrees that what I believe and what my wife rejects are perspective-involving propositions, but not the same ones. Even though there is no one proposition that she and I disagree about, we “disagree” (in the way explained earlier) about the possibility that my keys are out on the sidewalk.

As before, it seems that the fact that the perspectives are not made explicit creates the illusion that my wife and I are disagreeing about the same proposition. For consider what happens if we make the perspectives explicit (for precision the times could be made explicit too):

(14) Relative to KB's perspective, the keys might be out on the sidewalk.

(15) Relative to CB's perspective, the keys might be out on the sidewalk.

Clearly (14) can be true while (15) is false. Of course, if I knew what my wife knows, that I dropped the keys on the kitchen table, then I would deny that my keys might be out on the sidewalk, but in that case my perspective would have changed. I would not only reject (15) but also an updated version of (14).

An alternative explanation of what is going on in this example is that initially my wife and I were genuinely disagreeing about a single perspective-involving proposition, that relative to KB and CB's joint perspective, the keys might be out on the sidewalk. Of course she and I were not explicitly thinking about this proposition in these terms. Nonetheless, as Radical Invariantism has it, that was the proposition we were both considering. It is only after we recognized that our perspectives diverged and I retreated into mine and she maintained hers that we came to entertain different perspective-involving propositions. But at least, even after this realization, we were at least “disagreeing” about the same possibility.

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<sup>26</sup> As pointed out earlier, judging that a state of affairs is epistemically possible is neither necessary nor sufficient for its being epistemically possible.

### *Changing Your Mind*

We often go from accepting to rejecting a possibility – we consider it, accept it, but then look into it further and eliminate it. For example, early in a murder investigation a detective is disposed to utter (16) but later, after confirming the butler’s alibi, he’s ready to take it back and to go with its negation (17) instead.<sup>27</sup>

(16) The butler could have done it.

(17) The butler couldn’t have done it.

He might even say, “I was wrong – the butler couldn’t have done it.” On the other hand, even though the detective has changed his mind about whether the butler could have done it, it seems that he was right to think what he did originally, and not merely in the sense that his earlier belief was justified – his earlier belief was true. But what he came to believe later, after he changed his mind, seems to be true too. This raises the question of what he believed before and what he believed later.

The contextualist take on this is that even though sentence (17) is the negative version of (16), they do not express contradictory propositions. (16) and (17) are sensitive to their respective contexts of utterance, specifically to the contextually relevant perspective of the detective. Relative to those contexts, they express these propositions:

(18) Relative to the detective’s perspective at  $t_1$ , the butler could have done it.

(19) Relative to the detective’s perspective at  $t_2$ , the butler couldn’t have done it.<sup>28</sup>

Obviously (19) does not contradict (18), even though there is a sense in which the detective has changed his mind about the possibility that the butler did it. First he accepted this possibility, but later he rejected it. However, he has not gone from believing a proposition to disbelieving it (or believing its negation), for what he later disbelieves is a different proposition. The same epistemic possibility is involved, but not the same epistemic possibility proposition. (Radical Invariantism agrees with Contextualism about what the detective believes, but it denies that (16) and (17) manage to express these propositions, even relative to the respective contexts in which the detective utters them.)

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<sup>27</sup> In these examples I use ‘could’ rather than ‘might’ because negating ‘might’ requires the cumbersome ‘it might not be the case that’ – ‘might not’ is obviously too weak.

<sup>28</sup> To express these propositions in a fully explicit way (and exploiting the context sensitivity of ‘now’, the detective could have used (i) at  $t_1$  and (ii) at  $t_2$ :

(i) Relative to my perspective now [=  $t_1$ ], the butler could have done it.

(ii) Relative to my perspective now [=  $t_2$ ], the butler couldn’t have done it.

The contextualist view explains the intuition that the detective, though right to change his mind, was right before (and not merely justified in what he believed then). His earlier belief was true (that, relative to what he knew then, the butler could have done it), and his later belief was true too (that, relative to his more informed body of knowledge, the butler could not have done it). However, since the detective does not disbelieve the EP proposition he believed earlier, he hasn't really changed his mind about the original proposition. He still believes it, but it is no longer the EP proposition of interest and is no longer under consideration.

Relativism takes (16) and (17) at face value, and maintains that each sentence fully expresses what the detective believes at the time. So what he believes later is, just as appearances suggest, the negation of what he believed earlier, and in this respect he really has changed his mind. But this does not mean that the detective was first mistaken and later correct. Rather, these seemingly contradictory propositions are both true, but only relative to the relevant perspectives, not absolutely. The detective's belief that the butler could have done it was true relative to his earlier perspective, and his later belief, that the butler could not have done it, was true too, relative to his later perspective.

Part of the puzzle about a case like *Changing Your Mind* is that when the detective rules out the butler it seems that if he thought to himself, "I was wrong," we would tend to think he was right in so thinking. But this is not what any of our three theories predicts, at least not straightforwardly (only Propositional Invariantism straightforwardly predicts this, but that view is highly implausible). So how should they characterize the detective's situation, even if not straightforwardly?

Contextualism has to attribute a certain error to him. It says that in now judging himself previously mistaken, he is mistaken about what he previously believed. He is correct insofar as the proposition now expressed by the sentence he used previously is false, but that is not the proposition it expressed on the previous occasion. He mistakes the positive version of what he believes now (that, relative to his current perspective, the butler could have done it) for what he believed before (that, relative to his earlier perspective, the butler could have done it). The fact that the perspective is not made explicit in how the detective would put what he previously believed and now disbelieves helps explain the error. This fact also explains *our* error in thinking that he changed his

mind (went from believing to disbelieving a certain proposition). It may seem implausible to suppose that the detective – or we – are mistaken about what he previously believed, but in defense of Contextualism it can at least be said that he is right about the status of the relevant possibility (the butler's having done it), both earlier *and* later. Earlier he correctly believed that such a possibility was compatible with his then current body of information, and later he correctly believed that it was incompatible with his now current body of information. Moreover, whether he (or we) realize it or not, he still believes that this possibility is compatible with his earlier body of information – he hasn't changed his mind about that. He is just longer concerned with that proposition, with what was possible for him when he was less informed.

Relativism views the detective's situation very differently. It claims that (16) expresses the same (non-classical, perspectivally neutral) proposition later as it did earlier, and that this is the proposition the detective first accepts and later rejects, from his different perspectives. So he is now rejecting the right proposition, and he is right to reject it. And, in thinking he was wrong earlier, he is right about which proposition he is now rejecting. However, there is still a problem here for Relativism. In thinking he was wrong earlier, he does not believe that he was wrong earlier to believe that proposition from his perspective now, since he wasn't in that perspective then. On the other hand, if he thought he was mistaken in believing that proposition from his earlier perspective, he'd be wrong about that! After all, according to Relativism, at the later time he is constrained to evaluate that proposition as false. Of course, he can readily evaluate as true the classical, perspective-involving proposition that relative to his earlier perspective the butler could have done it. However, this is not the perspectivally neutral proposition the relativist needs. So it seems that Relativism is hard put to capture, *in relativist terms*, what it is that the detective rightly thinks he was wrong about.

Relativism seem to render the consideration of a relative proposition context-bound. In the case of the detective, it seems to reckon him no longer able to occupy the cognitive position he was in earlier. He can now think what he thought then but only from his current perspective. In general, it seems impossible to entertain a relative proposition from a perspective other than the perspective one occupies. Relativism seems to lead to a certain *perspectival solipsism*: one can consider EP propositions only from one's current

perspective, not from one's earlier perspectives, much less from anyone else's, past or present. There is an obvious way out of this predicament, of course, but that requires considering classical, perspective-involving EP propositions. So it doesn't really deal with the problem of considering relativist, perspectively neutral propositions from perspectives other than the perspective one is in. Not only that, it raises the question of whether there is any reason to suppose that what one believes from one's current perspective isn't a classical proposition after all, one that involves that perspective.

Radical Invariantism relies on the distinction between the propositional radicals expressed by bare EP sentences and the classical perspective-involving propositions they are used to convey. However, invoking this distinction alone is not enough to address the "I was wrong" problem. Radical Invariantism agrees with Contextualism that the detective initially believes one such proposition and later disbelieves another. The problem, as we saw with Contextualism, is that although in a way he is right to say that he was wrong, in another way he is not. The solution is to say that he is right insofar as he could not use (16) to assert what he now believes but that he is wrong if he thinks that he no longer believes what he believed before. In fact, he still does – he just can no longer use (16) to assert it – and it is no longer of interest anyway.

Is this enough to explain why he is right to say he was wrong before, or at least why we feel some inclination to think so? It seems that we also need an explanation of why he is confused about what he was wrong about. Surely he was not mistaken earlier because he accepted a possibility that would be excluded by his later perspective. Yet that seems to be why he now thinks he was wrong then and why it is natural to describe him as having changed his mind. It is not just that he would no longer assertively utter a sentence he was prepared to use then.

What is going on here, I think, is that we are generally not interested in what is possible relative to other perspectives so much as in what is possible relative to what we know now. During the course of an inquiry about a given matter, we update, usually narrowing, the range of open possibilities whenever some get eliminated.<sup>29</sup> Moreover, our real interest is in what is the case, not what might be the case. When we go from

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<sup>29</sup> This updating is not necessarily a monotonic process, since new evidence can re-open possibilities that were previously ruled out.

accepting to rejecting a possibility and concede that we were wrong before, our attention is misdirected from the proposition we previously believed to the one that we now reject, a proposition that we can now convey with the same sentence.

I concede, then, that Radical Invariantism is committed to a kind of error theory here. The detective *is* confused about what he was wrong about, though right about which sentence it is that he would no longer use. But he is right about more than that. He is also right about the epistemic possibility that he previously accepted. Now that he has ruled it out, presumably correctly, it is no longer the open possibility that it was. But since earlier it was open, in that respect he is wrong to think now that he was wrong then.

### *New Evidence, Same Possibility*

The case of *Changing Your Mind* should not divert our attention from an even simpler case, one that tends to be overlooked in the literature on epistemic possibility. This is the case of *not* changing one's mind even as one's body of information expands. Consider what goes on when a person who accepts a certain possibility at one stage of an inquiry and who, after looking further into the matter, continues to accept that possibility. The matter might be the possibility itself, or it might be some other question, the answer to which either confirms or rules out this possibility. Either way, the person goes from accepting the possibility given his initial information to accepting the same possibility after acquiring additional information.

Suppose the possibility is that the butler could have done it, as in (16). And suppose that the detective thinks at one time that the butler could have done it and then, after further investigation, continues to think that the butler could have done it.<sup>30</sup> It should be obvious what the different views say about this case and what the problem is for each. Although Contextualism and Radical Invariantism differ as to whether sentence (16), as used on either occasion, manages to express a (perspective-involving) proposition, they agree that in using it on those two occasions the detective would be asserting two different things, each involving his perspective at the time. After he gathers additional evidence, he believes something he didn't believe before. He may continue to believe

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<sup>30</sup> Notice that I don't say "continues to believe that" because I do not want to assume that he continues to believe the same thing. In this regard, I am not assuming that the 'that'-clause of a true belief attribution must fully specify something that the subject believes. In my view, identical 'that'-clauses of two different true belief attributions can partially specify two different beliefs. See Bach 1997.

what he believed before (that, relative to his earlier perspective, the butler could have done it), but this is not the belief he expresses in making the later assertion. According to the Relativist, on the other hand, the detective believes the same thing all along, that the butler could have done it, but this non-classical proposition is first true relative to his earlier perspective and later true relative to his later perspective.

Relativism captures the natural intuition that the detective continues to believe the same thing, but it is hard put to explain just how the detective can rightly say that he was right all along (just as in *Changing Your Mind* it is hard put to explain how the detective can rightly say that he was wrong earlier). To be sure, he continues to believe the same thing, but he does so from a different perspective. Again, Relativism is faced with the problem of perspectival solipsism – it cannot readily explain how one can consider a given perspectivally neutral EP proposition from different perspectives. Whenever another perspective is involved, Relativism seems forced to change the subject to perspective-involving propositions. And this raises the question whether perspectivally neutral propositions are needed after all.

Perhaps that is not as serious a problem as that facing Contextualism and Radical Invariantism, which have the detective believing two different things, one before and another after gathering additional evidence. Indeed, both these views seem to make it difficult to verify an EP proposition. For as soon as one gathers additional evidence for a given epistemic possibility, one ends up verifying a new perspective-involving proposition. Just as Contextualism and Radical Invariantism seem to have trouble explaining how in *Changing Your Mind* the detective could have rightly thought that he was wrong earlier, in this case they seem to have trouble explaining how he could rightly think that he has verified what he previously thought.

The solution, as before, is to distinguish accepting or rejecting an epistemic possibility from believing or disbelieving an epistemic possibility proposition. When the detective verifies the possibility that the butler did it, he is gathering additional evidence that supports the proposition that this state of affairs obtains. A new EP proposition is verified, but it is the same possibility that remains open, now relative to his updated knowledge base. As before, what is important is not what is possible relative to what perspective but what is possible relative to what one knows now.

## 6. Further, Trickier Examples

So far we have considered uses of bare EP sentences where the speaker's perspective figures in. As we will now see, there are other cases in which it does not. And in some of those cases not even the perspective of the person considering the utterance figures in.<sup>31</sup>

### *Suggesting a Possibility*

Sometimes one mentions a possibility not because it is open relative to one's own information but because it is open relative to the audience's, as when a parent or a teacher suggests a possibility to a child or a student. In such cases it is the audience's perspective, not one's own, that comes into play. For example, suppose you have hidden a ball from your child. Your child has looked in various places, but has not thought to look in certain other places. So you mention a possibility:

(20) The ball might be under a cushion on the sofa.

You know that it is actually in the empty vase on the coffee table. But in uttering (20) you don't mean that as far as *you* know the ball might be under a cushion. Even so, what you mean is true. For what you mean is that as far as the child knows the ball might be under a cushion. Or, as the relativist has it, what you mean is that the ball might be under a cushion, a relative proposition which, though not true relative to your perspective, is true relative to the child's.

Something similar happens in when a teacher asks a student a question about an overlooked possibility. Suppose you are teaching chess and your student is trying to find the best move in a certain position. The student proposes what is in fact the best move and gives some analysis to back it up, but he has overlooked a plausible but unsound sacrificial reply. So you say "What about the knight sac on e6?" or, less colloquially,

(21) Sacrificing the knight on e6 might be good for White.

Since you see the refutation of that move, you don't mean that as far as *you* know the knight sac might be good. Rather, you mean that as far as the student knows the knight sac might be good. Here the relativist would say that what you suggested is that the knight sac might be good, which though not true relative to your perspective, is true relative to the student's.

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<sup>31</sup> I am using 'figure in' in a neutral way, to finesse the difference between being a constituent of a perspective-involving proposition and being the perspective relative to which or from which a perspectively neutral proposition is evaluated.

In these two examples, it seems that what the speaker means is true, even though the mentioned states of affairs are not possible relative to his perspective. So the relevant perspective cannot be the speaker's. If it were, then, given the speaker's evident authority on the subject matter, the hearer could infer that the core propositions are true (that the ball *is* under a cushion or that the knight sac *is* good), which obviously is not intended. In these cases, clearly the hearer's perspective is the relevant one.

These cases pose a problem for both Contextualism and Relativism. Whether what the speaker means is a proposition involving the hearer's perspective, as Contextualism has it, or is a perspectively neutral proposition, as on Relativism, these views need to explain how, as a matter of *semantic* fact, it is specifically the hearer's perspective that figures in and why it is neither the speaker's nor an arbitrary eavesdropper's. For there is nothing special about the sentences: (20) and (21) could both be used, in a different situation, to make statements in which the speaker's perspective figures in. The speaker could be the one looking for the ball or wondering if the knight sac is good. The difference in situation affects what the speaker could reasonably intend and plausibly be taken to mean, not the semantic content of the uttered sentence. This factor favors Radical Invariantism.

#### *Asking about a Possibility*

This case of poses a little puzzle. Often when we are curious or concerned about something, we naturally ask someone who is more informed about it than we are. Even if they are not in a position to resolve the issue, we can still ask them about the possibilities. For example, a bout of chronic coughing might lead you to consult a pulmonary specialist. At some point in the course of the examination, unnerved by the doctor's silence you come out and ask,

(22) Is it possible that I have lung cancer?

Here's the little puzzle. If you asking about this possibility, presumably it is not ruled out by the information you already have. So it is possible for you that you have lung cancer. But, then, why are you asking the question? It seems that you are asking a question to which you already know the answer! This is not like the case of the teacher asking a question to mention a possibility to a student, where the teacher's own information already rules out that possibility. You ask the doctor not because you want to see if she

knows the answer but because you yourself want to know it. But it seems that you already do. So why ask?

There must be a simple solution to this little puzzle, having something to do with the fact that you do not know the answer relative to the superior information available to the person you are asking. Obviously, the pulmonary specialist, with her expertise and the information she gains by examining you, is in a much better epistemic position than you to assess your medical condition. Although you know that further tests would be needed to determine if you actually do have lung cancer, you are confident that the examination is providing her with information that could definitively rule out that possibility.

Radical Invariantism, when augmented with simple pragmatic considerations, seems best able to give a straightforward account of what is going on in this case. The patient is asking the doctor whether it is possible, relative to the doctor's body of information, that the patient has lung cancer. Contextualism and Relativism might try to explain the irrelevance of the speaker's perspective on the grounds that the speaker knows less than the hearer.<sup>32</sup> However, this is not a necessary condition for asking a question about a possibility. Here is a case in which the speaker knows more. A lawyer challenges a witness's testimony by asking, "Isn't it possible that you saw the defendant's twin brother, not the defendant himself?" Even though the questioner knows *more* (the lawyer knows perfectly well that her client, not his twin brother, was at the scene of the crime), the perspective that figures in here is that of the person being asked, not the questioner's.

### *Attitude Reports*

When we ascribe beliefs or other attitudes about possibilities to other people and use bare EP sentences in the 'that'-clause of the ascription, normally the relevant perspective is that of the person we're talking about, as in (23).

(23) Ed thinks that Earl might have a chainsaw.

The ascriber's perspective figures in here, not the ascriber's or the audience's. Indeed, it seems that this is the only perspective that figures in, even if the focus of the conversation is on someone else's perspective. So, for example, suppose that we are discussing why

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<sup>32</sup> Another suggestion is that it is the interrogative form of a sentence used to ask a question that explains why the hearer's perspective figures in. However, this explanation can't be right, since one can ask a question with declarative sentences, of forms like 'I wonder who ...' or 'I would like to know what ...'. But if the explanation is based not on the form of the sentence but on the speech act being performed in uttering it, then clearly it is a pragmatic explanation.

Ed stopped his violent son Ted from going to his reclusive neighbor Earl's house. We couldn't use (23) to indicate that Ed, who knows that Earl doesn't have a chainsaw, thinks that as far as Ted knows, Earl might have a chainsaw.

There seems to be no room for shifting perspectives in this case. Contextualism says that it is the context of utterance that determines which perspective gets included in the proposition expressed by (23). However, the perspective can only be Ed's – whose it is can't vary with the context. I suppose a contextualist could reply that when the bare EP sentence is embedded in the 'that'-clause of an attitude ascription, the relevant fact about the context is that the attitude is being ascribed to a certain person, so that it is this person's perspective that figures in. But this linguistic fact is relevant only because of its pragmatic relevance. It is something that a speaker can reasonably expect a reasonable hearer to regard as the relevant perspective. Radical Invariantism can exploit this fact, because it does not require the semantics of bare EP sentences to account for the relevant perspective. Rather, as a matter of pragmatic fact, the conversationally relevant perspective is the uniquely salient one, in this case the ascriber's. It is made salient by the fact that the incompletely specified attitude content is the ascriber's. So it is the one that a speaker can reasonably expect a reasonable hearer to regard as the relevant one. This suggests that if some other perspective were the relevant one, it would have to be mentioned, as in the relativized (24):

(24) Ed thinks that as far as Ted knows Earl might have a chainsaw.

Here the content of the ascribed belief is explicitly a perspective-involving proposition.

The relativist will insist that both Contextualism and Radical Invariantism mischaracterize the content of the belief ascribed by a speaker of (23). Because (23) mentions no perspective, no perspective is included in its content. That is, the speaker is reporting that what Ed thinks is merely the bare EP proposition that Earl might have a chainsaw. But this poses a problem for Relativism. Consider that for Ed's belief to be true, the proposition that Earl might have a chainsaw must be true relative to Ed's perspective. However, Relativism does not discriminate among perspectives. One way for that proposition to be true is for it to be true relative to Fred's perspective, which it could be even if it is not true relative to Ed's. So suppose Ed says to Fred, "Earl might have a chainsaw," and then it dawns on Ed that Earl does not own any large tools and that

it's his brother Burl who does. Ed knew this all along, despite his momentary memory lapse. So Ed was mistaken in thinking that Earl might have a chainsaw, as he immediately realized. Yet what if Fred believes that Earl owns many large tools? From Fred's perspective it is true that Earl might have a chainsaw. So from Fred's perspective Ed correctly said that. But what Ed said was false, as Ed is the first to admit. Relativism seems unable to limit the relevant evaluation of what Ed said to Ed's perspective.

### *Factive Attitude Reports*

When the attitude verb is factive, it is even more difficult for Relativism to account for why only the ascriber's perspective is relevant. Consider this example.

(25) Ed realizes that Earl might own a chainsaw.

The reporter's use of a factive verb ('realizes') indicates his agreement with the ascriber about the epistemic possibility proposition in question and his endorsement of the ascriber's belief. But change the case slightly and things are different. Put it in the past tense and suppose that the reporter knows full well that the core proposition is false. Let's say that Fred is talking about why antisocial Ed called on his neighbors last year. He knows that Earl has never owned a chainsaw, but remembers that Ed was looking to borrow various things from various people. Ed's limited information about who owned what enabled him to narrow down the possibilities somewhat. Knowing that a chainsaw was one of the things Ed wanted to borrow, Fred utters (26), in order to explain why Ed went to Earl's house.

(26) Ed realized that Earl might have owned a chainsaw.

Fred seems to be speaking truly here. But suppose Fred knows that Ed doesn't own a chainsaw. Then Fred doesn't believe (relative to his own perspective) that Earl might have owned a chainsaw. In asserting that Ed realizes that Earl might have owned one, he endorses the proposition that Earl might have owned a chainsaw, but relative to Ed's perspective, not his own. The problem for Relativism is to account for the irrelevance of Fred's perspective, from which what Ed realizes is false. After all, Fred is sincerely and truly asserting that Ed realizes that Earl might have owned a chainsaw (a perspectively neutral proposition, according to Relativism), even though Fred himself disbelieves it. The relativist needs a way for the reporter's perspective to stay out of the picture so that the reporter can endorse this perspectively neutral proposition from the agent's

perspective (as opposed to endorsing the perspective-involving proposition that has the agent's perspective as a constituent).

### *Action Explanation*

Even without being embedded, a bare EP sentence can be used to explain an action. For example, a visitor asks my wife why I briefly went outside, and she replies with (27),

(27) He might have left the keys in the front door.

What matters here is my perspective, not hers. Having just come in through the front door, she might know full well that the keys can't be there. So her perspective doesn't matter. Indeed, she could have gone further and replied with the factive (28),

(28) He realized that he might have left the keys in the front door.

As we just saw, this doesn't commit her to believing that from her perspective I might have left the keys in the front door.

It might be objected regarding (27), where the bare EP sentence is not embedded, that there is no commitment to the relevant perspective-involving proposition; my wife is committed only to the fact that I *thought* that I might have left the keys in the front door. However, this objection, if valid, would show too much. We frequently explain people's actions in terms of facts they are aware of. For example, my wife could explain why I shut off the stove by saying, "The water was boiling." She does not have to hedge her explanation by saying, "He thought the water was boiling." Of course, if the whistling I heard were not that of the teakettle, then this explanation would be incorrect. But it doesn't follow that it is actually incorrect. What's more, to shift to the attitude attributing form is to shift from a reasons explanation to a causal explanation. My reason for turning off the stove was that the water was boiling, not that I thought it was boiling.

### *Temporal Modification*

It seems that temporal modifiers that occur in bare EP sentences with 'might' and 'possible' generally take narrow scope even when they occur outside the EP term.

Consider (29), for example:

(29) Yesterday Barry might have been in New York.

An utterance of (29) would seem to concern where Barry might have been the previous day, not whether on that day it was possible that he was there. It is more plausibly read as

saying that Barry might have been in New York yesterday. However, the situation is less clear with (30), which contains two tense markers.

(30) Yesterday it was possible that Barry was in New York.

The preferred reading of (30) seems to be that it was possible yesterday (even if not today) that Barry was in New York (presumably yesterday but perhaps at some earlier time). Indeed, it does not seem that (30) has a reading according to which it is now possible that Barry was in New York yesterday. For that we need (31), which has 'is' in place of the first 'was' in (30):

(31) It is possible that Barry was in New York yesterday.

Even so, I am not suggesting that the preferred reading of (30) is all that good. That is because (30) does not indicate the relevant perspective. The relativized (32) does:

(32) Yesterday, given what we knew then, it was possible that Barry was in New York.

This point is clearer in cases where the state of affairs in question is atemporal, as here:

(33) Twenty years ago it was possible that Fermat's Last Theorem was false.

In this case, the temporal modification cannot plausibly be taken to bear on the time at which Fermat's Last Theorem was false. Indeed, even someone who thinks that a mathematical claim can change truth-value over time would need to use (34), not (33), to mean that Fermat's Last Theorem might have been false twenty years earlier.

(34) It is possible that Fermat's Last Theorem was false twenty years ago.

So it seems that with their two tense markers temporally modified 'it was possible' sentences, such as (30) and (33), concern the time of the perspective, not the time of the state of affairs, whereas temporally modified single clause 'might' sentences, such as (30), concern the time of the state of affairs.

These brief observations are provisional. The subject of temporally modified bare EP sentences is much too complicated to discuss here in detail. Unfortunately, the in-depth investigations I am familiar with, notably Condoravdi 2002 and Von Stechow and Iatridou 2003, do not specifically discuss the place of perspective or address the contrast between bare and relativized EP sentences. For now I can only speculate that wherever there is a puzzle involving tense or temporal modification in bare EP sentences, the puzzle probably arises because despite there being an indication of the time of the relevant perspective there is no indication of whose perspective it is. This just goes to show that if

you wish to assert that something was possible relative to a certain perspective at a certain time, you need to indicate, as in (32), the perspective as well as the time.

## 7. General Problems for Relativism

Contextualism and Relativism are subject to problems that go beyond their difficulties at handling particular cases. These concern their underlying assumptions and the philosophical motivations behind them. I will discuss problems with Relativism first, because of its appeal to nonclassical perspectivally neutral propositions. In the next section I will turn to some basic problems for Contextualism.

Relativists rarely mention, much less discuss, relativized EP sentences and their semantic contents. Even so, I think it is safe to assume that relativists do not deny that these sentences semantically express perspective-involving EP propositions, classical propositions true or false independently of the context in which they are conveyed or considered. What relativists claim is that there are perspectivally neutral EP propositions as well, that these are nonclassical, relative propositions, and that bare EP sentences express them. This view gives rise to several problems. One concerns the relativist conception of propositions in general, and several are specific to the relativist account of bare EP sentences. I will touch only briefly on the general worry about the relativist's propositions, since it is not specific to the semantics of bare EP sentences. A question specific to them is whether, in order to make sense of our uses of bare EP sentences and of the semantic contents of the sentences themselves, there is any need to invoke perspectivally neutral propositions in the first place.

The relativist's non-classical propositions are supposed to be true or false relative to or from a perspective, so that such a proposition could be true from one perspective and false from another. The following example suggests a problem with that.<sup>33</sup> Suppose that the (putative) proposition in question is that Central Park might be larger than Golden Gate Park. Suppose Rudy figures that since New York is so much bigger than San

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<sup>33</sup> There is also at least a terminological problem with the relativist notion of assessment sensitivity. MacFarlane describes epistemic modal terms (and expressions of certain other types, such as predicates of personal taste) as "assessment-sensitive," but this is misleading. For it is not the assessment but the context of assessment to which the truth of a relative EP proposition is supposed to be relative. What matters is not whether the agent assesses this proposition as true or false but that the agent possesses a certain body of knowledge (information, evidence) relative to which this proposition is true or false. MacFarlane seems to use 'true at a context of assessment' interchangeably with 'true as assessed from a context of assessment' (this volume: n23), but, so far as I can tell, the assessing itself plays no role in his account.

Francisco, its most famous park could well be bigger too. Meanwhile, I know for a fact that Golden Gate Park is more than 20% larger in area than Central Park. Now the relativist view is that there is one proposition, that Central Park might be larger than Golden Gate Park, which is true relative to Rudy's perspective and false relative to mine. But what is such a proposition? Offhand it would seem that a proposition corresponds to a possible or conceivable way the world is. That is, the proposition is true just in case the world is as the proposition says it is. This view of propositions is not preserved on the relativist conception. If it were, the world could be one way from Rudy's perspective and another way relative to mine.<sup>34</sup> Of course the world could *seem* different from our respective perspectives, but obviously that is not the relativist's point. Nor is it that being possible from Rudy's perspective is compatible with not being possible from mine. These are two different relational properties that a state of affairs (such as Central Park being larger than Golden Gate Park) could have, as ascribed by different perspective-involving EP propositions. The relativist claim is that one and the same proposition (that Central Park might be larger than Golden Gate Park) could be true relative to Rudy's perspective and false relative to mine.<sup>35</sup>

From the standpoint of Radical Invariantism, the propositions posited by Relativism amount to no more than propositional radicals, if considered as the semantic contents of bare EP sentences, or partially specified classical propositions, if considered as contents of thoughts about epistemic possibilities. I think it is fair to regard this as the default hypothesis about them. To show that this hypothesis is inadequate, the relativist needs to show that perspectivally neutral EP propositions play an indispensable role in our talk about epistemic possibility. For example, he needs to argue that people can disagree and change their minds about epistemic possibilities in a way that attributing classical propositional contents to our attitudes cannot make sense of. Because they have restricted their attention to bare EP sentences, it has not occurred to relativists to do this.

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<sup>34</sup> Worth noting here is what Michael Glanzberg (forthcoming) calls "the easy road to relativism," the argument that since truth is relative to a world anyway, there is no principled roadblock to extending its relativization to other parameters, such as perspectives. Glanzberg argues that, contrary to popular opinion, relativization of truth to worlds plays no essential role in semantic theory and plays merely a heuristic role in meta-theory.

<sup>35</sup> This and related problems are brought out more fully by Crispin Wright (forthcoming). Wright and also Paul Boghossian (2006), in the course of discussing various sorts of relativism, register their doubts as to whether truth relativism in a given area can amount to anything more than property relativism in that area.

The burden on the relativist is to show that what he regards as the truth of a perspectivally neutral EP proposition relative to a given perspective amounts to something other than the truth of a classical EP proposition that involves that perspective. To show this it is not enough to point out that two people who both think that possibly *p*, their different perspectives notwithstanding, must have something in common. For that does not show that they believe the same thing. It shows only that they believe something of the same sort and to that extent have a belief property in common. Surely it does not follow from the fact that two people love their mother that they love the same person. Even so, they share the property of loving their (respective) mothers. Similarly, the mere fact that two people could use the same bare EP sentence to convey their respective beliefs does not show, even if the sentence has invariant semantic content, that they believe the same thing. Even if they share the property of accepting the same epistemic possibility, it does not follow that they believe the same EP proposition.

Another challenge for Relativism is show that its account of bare EP sentences coheres with the semantics of relativized EP sentences, which express perspective-involving EP propositions. Such a proposition says that a certain state of affairs is possible relative to a certain perspective. So if a bare EP sentence expresses all but a perspective, the simple (perhaps naïve) conclusion to draw is that it falls short of expressing a full-fledged EP proposition – it seems to lack an essential ingredient. To rebut this simple conclusion the relativist needs to explain how and why the semantic content of a bare EP sentence amounts to anything more than an underspecified content of any corresponding relativized EP sentence. And it must explain this in such a way that expressions like ‘might’ and ‘possible’ have the same meanings regardless of which sort of sentence they occur in.

Finally, there is our earlier worry that Relativism seems to lead to a certain *perspectival solipsism*: one can consider a perspectivally neutral EP proposition only from one’s current perspective, not from an earlier perspective, much less from anyone else’s, past or present. To consider an EP proposition relative to an earlier or another’s perspective is just to consider a relativized EP proposition involving that perspective – one can’t consider a perspectivally neutral EP proposition (if there is such a thing) from any but one’s current perspective. All this makes one wonder whether what one believes

from one's current perspective isn't a just classical EP proposition involving that perspective.

## 8. General Problems for Contextualism

Contextualism and Radical Invariantism agree that all EP propositions involve perspectives, propositions that are absolutely true or false and are expressed (invariantly) by relativized EP sentences (given that any and all indexical, including time, references are fixed). But Contextualism maintains that they can also be expressed by *bare* EP sentences, though which such proposition a given bare EP sentence expresses depends on the context in which it is used. The semantic content of a given bare EP sentence as used in a given context involves a perspective, which is somehow provided or otherwise determined by that context. The question is whether there is any good reason to suppose this.

From the standpoint of Radical Invariantism, it is gratuitous to attribute complete propositional contents, however variable, to bare EP sentences just on the basis of intuitions of truth or falsity. That just takes for granted that these intuitions pertain to the sentences themselves.<sup>36</sup> The mere fact that we can convey propositions when we use them and grasp propositions when we hear them does not show that they semantically express those propositions. The semantically more modest position, that of Radical Invariantism, is that there is nothing variable or shifty in the semantic content of a bare EP sentence. What is variable is how the sentence can be used or how an utterance of it can be taken, with its semantically invariant but propositionally incomplete content completed by the addition of a perspective, thereby turning a propositional radical into a proposition. Rather than appeal to supposedly semantic intuitions, proponents of Contextualism need to provide some linguistic basis for claiming that bare EP sentences contain variables that get assigned values by certain features of the context of utterance (or else are quantified over by being in the scope of some suitable quantifier phrase). Lacking evidence for this supposition, we should adopt the default hypothesis that there are no such variables.

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<sup>36</sup> I discuss the error of putting too much credence in seemingly semantic intuitions, e.g. by mistaking pragmatic regularities for matters of semantic fact, in Bach 2002 and 2005: 29-33.

Contextualism must also confront what I'll call the uniqueness problem. That is, it needs to be formulated in a way that works for the variety of ways in which bare EP sentences can be used, as illustrated in sections 5 and 6. The relevant perspective generally includes the speaker's, but in many cases it extends beyond that, beyond even the joint perspective of the speaker and hearer. In order to come up with a unitary account, the contextualist can try to extend the reach of the relevant group but, as John MacFarlane points out, "there is no way to keep the group from expanding indefinitely" (this volume: 30ms).<sup>37</sup> Besides, as some of our examples illustrated, the perspective that figures into the proposition allegedly expressed by the bare EP sentence sometimes does not include the speaker's. The relevant one might be the hearer's perspective, a group perspective that includes the hearer's but not the speaker's, or some third party's or separate group's perspective. And it won't do for the contextualist to offer an *ad hoc* story about which perspective counts as the relevant one in a given case. Nor can the contextualist just summarily claim that in each case the context somehow "determines" which perspective is the relevant one. Which one it is must be a determinate function of some specified contextual parameter. And it would be facile to try to solve the uniqueness problem by claiming that the operative parameter is appropriateness, salience, or the like. That would be a flimsy attempt to sweep a semantic problem under the pragmatic rug.

Invoking the speaker's intention does not help here.<sup>38</sup> That would effectively concede that context plays merely a pragmatic role, not a semantic one. For once we invoke the speaker's intention, we can no longer claim that context itself determines which

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<sup>37</sup> As MacFarlane explains, "The problem is that once we let data about third-party assessments and retraction motivate an expansion of the contextually relevant group to include more than just the speaker, there is no way to stop this machine. The same kind of arguments that motivate expanding the relevant group of knowers to include [the eavesdropper] would motivate expanding the relevant group of knowers to include anybody who will ever consider the claim" (this volume: 12ms). "There [does not] seem to be any stable position that balances these two competing desiderata. If we focus on uptake (third-party assessments, retractions, and disagreement), we are led to expand the relevant body of knowledge, seemingly without end. But if we focus on production, we are led to contract it (on pain of making ordinary, apparently reasonable assertions unwarranted). We are led to a kind of paradox: although the truth of a claim made using epistemic modals must depend somehow on what is known – that is what makes it "epistemic" – it does not seem to depend on any particular body of knowledge" (19-20ms).

<sup>38</sup> The points in this paragraph about speakers' intentions and context are defended more fully in Bach 2005: 36-39.

perspective is the relevant one.<sup>39</sup> For context here plays only an evidential role. It comprises the mutually salient contextual information that the audience is to use to ascertain the speaker's communicative intention, partly on the basis that they are so intended. Context in this sense does not determine, in the (metaphysical) sense of constituting, what the speaker means. An unreasonable speaker could mean something that his audience is unable to identify, and nothing in the context (or in the meaning of the bare EP sentence he uses) prevents him from meaning that. When communication succeeds, the speaker must utter a sentence whose utterance makes evident what he means. In that case, context combines with what he says *and the fact that he says it* (this is what makes its role pragmatic) to provide the audience with the basis for determining, in the (epistemological) sense of ascertaining, not constituting, what the speaker means. Whereas context bears on what the speaker can reasonably mean (this comes to the same thing as what his audience can plausibly take him to mean), the speaker's communicative intention determines what he does mean.

So any version of Contextualism worthy of the name must explain how context literally determines the relevant perspective involved in the proposition allegedly expressed by a bare EP sentence in a given context. From the standpoint of Radical Invariantism, this problem arises only because of the Context Sensitivity and the Proposition Fallacies, which combine to lead contextualists to think that if a sentence doesn't semantically express a proposition independently of context, it must do so in a way that depends on context. Fortunately, you don't have to be a contextualist to accept the view that all EP propositions involve perspectives and are true or false absolutely. To accept this you do not have to suppose that bare EP sentences manage (in some context-sensitive way) to semantically express such propositions.

## **9. Radical Invariantism: Objections and Replies**

As noted earlier, Contextualism was motivated by the obvious inadequacy of Propositional Invariantism and Relativism in turn by the shortcomings of Contextualism. Radical Invariantism is partly motivated by the shortcomings of both, but also by their insights. It agrees with Contextualism about what EP propositions there are and it agrees

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<sup>39</sup> It is important to note that the speaker's communicative intention is not itself part of the context. For if context is to play the explanatory role claimed of it, it must be something that is the same for the speaker as it is for his audience, and obviously the role of the speaker's intention is not the same for both.

with Relativism that the semantic contents of bare EP sentences do not vary. I take Radical Invariantism to be the default position on the semantics of bare EP sentences, but that doesn't mean it isn't subject to objections. I will take up the best ones I can think of. The first charges that Radical Invariantism is nothing more than a version of Contextualism, and the others allege that Radical Invariantism implies something false about the claims we make and thoughts we express when we use bare EP sentences.

*i. Radical Invariantism is just a version of Contextualism.*

People often complain to me that Radical Invariantism is just a version of Contextualism (and fraught with the same problems). After all, it agrees that EP propositions involve perspectives, that the meaning of a bare EP sentence underdetermines which such proposition a speaker means in using the sentence literally, and that in some sense context fills in the gap. But, I say, there the resemblance ends. For one thing, the sense in which context fills in the gap is radically different. Radical Invariantism rejects the contextualist claim that context literally determines which perspective figures into the relevant EP proposition. What proposition this is can vary from context to context, but this doesn't mean that the context determines which one. And, as explained in the previous section, invoking either salience or the speaker's intention is tantamount to conceding that context plays not a semantic but merely an evidential, pragmatic role. It provides the hearer with evidence regarding what EP proposition the speaker means, but it does not fix the EP proposition that is supposed to be expressed semantically.

Another source for this objection is the idea, discussed at the end of section 4, that what at issue is the semantic content of *utterances* of bare EP sentences, not that of the sentences themselves. To that I can only repeat what I said then. The term 'utterance' can refer either to a sentence that is uttered or to an act of uttering a sentence. Obviously it can't apply to sentences. But if it applies to acts of uttering sentences, it is ineffective. Utterances are speech acts, the subject matter of pragmatics, not semantics.

*ii. Radical Invariantism gets the phenomenology wrong.*

It might be objected on phenomenological grounds that, despite arguments to the contrary but in accordance with appearances, bare EP sentences really do express propositions. This objection is based on the observation that when we entertain, accept, or reject a possibility, we do not *seem* to do so relative to a perspective. The perspective does not

strike us as getting into the content of the attitude we have toward the possibility. Accordingly, when as speakers we utter a bare EP sentence, we straightforwardly say what we mean, and what we mean is a perspectivally neutral proposition. We do not have the sense that we are speaking elliptically, omitting reference to our perspective, in the way we would if we uttered “I haven’t have lunch” and meant that we haven’t yet had lunch that day. In the latter case, we would immediately acknowledge, if asked, that this is what we meant. This difference leaves open the question of what it is for a perspectivally neutral proposition to be true, but that is where Relativism comes in (assuming Propositional Invariantism is a nonstarter). Relativism is an answer to that question, but the objection itself does not assume Relativism.

The short answer to this objection is that appearances can be deceiving, in particular about the structure of propositions about epistemic possibilities. Consider other cases, involving predicates like ‘offensive’, ‘scary’, and ‘obvious’. People can use them in simple sentences to say things and express attitudes that they take to be absolute, not relational. However, it does not follow that the relevant facts are absolute rather than relational. If they are relational, as presumably they are, then it is plausible that these facts are captured only by perspective-involving propositions (in a broad sense of ‘perspective’).

I suppose that one could concede this reply, so far as it goes, but argue that even though there are no bare epistemic possibility facts (because of the perspective relativity of epistemic possibility), people can still have beliefs and make claims about epistemic possibilities that are not relativized. This would be analogous to the suggestion that people believe things and make claims about motion or weight without realizing that motion and weight are relative (to frame of reference and gravitational field, respectively). However, implementing this suggestion would require adopting a strong error theory about people’s ordinary epistemic possibility beliefs and claims. Such a theory seems relatively plausible regarding beliefs and claims about motion and weight, but it is much less plausible regarding beliefs and claims about offensiveness, scariness, or obviousness – or epistemic possibility, whose relativity seems, well, obvious.<sup>40</sup>

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<sup>40</sup> Boghossian (2006) and Wright (forthcoming) insightfully examine this and related issues that arise from different versions of theses that certain ostensibly monadic properties are actually relational.

*iii. Radical Invariantism mischaracterizes the mental representation of EP propositions.*

This objection is similar to the previous one, but it concerns the representation of EP propositions, not the phenomenology of believing or asserting them. The objection, quite simply, is that when we assertively utter bare EP sentences or have beliefs that dispose us to utter them, we do not mentally represent perspectives. Not only does the bare EP sentence that a speaker utters not represent a perspective, neither does the speaker or his mental state.

This contention provides the basis for an indirect argument against Radical Invariantism. Assume that when a speaker assertively utters a sentence, what he asserts is a proposition and, since assertion is the expression of belief, the content of the belief he expresses is that proposition. But Radical Invariantism denies that bare EP sentences express propositions. So it implies that the belief a speaker expresses when using a bare EP sentence has a content that includes more than the semantic content of the sentence, namely a perspective, typically the speaker's (could this objection plausibly apply to any other case?). But there is no mental representation of a perspective in this case. So the proposition that a speaker asserts and presumably believes when uttering a bare EP sentence does not include a perspective.

I grant that this would be a compelling argument against Radical Invariantism if indeed speakers who use bare EP sentences do not represent perspectives. But I do not concede that. A perspective can be represented without being explicitly represented. Here is an analogy. Considering a possibility relative to one's current body of information is like seeing an object as being at a certain distance and direction. Just as you do not have to represent your location and orientation to see (or judge) an object as being roughly twenty feet away and off to your right, so you do not have to represent your current body of information in order to judge that some possibility is compatible with it. As with polar coordinates, the center is built into the system of representation and does not itself have to be represented. Whether you deem a possibility as live or far-fetched, you do so from your current perspective, that is, relative to your current view of things. To represent

something as from your point of view does not require representing your point of view. It just requires occupying that point of view.<sup>41</sup>

In this connection it is plausible to suppose that by default we represent epistemic possibilities from our own current cognitive perspective. Epistemic possibilities are, we might say, *default-egocentric*. That is, we consider them from our own current perspective unless we are prompted to consider them from a different perspective. It is only when some other perspective comes into play that we explicitly consider the possibility relative to a perspective (we can't view it *from* that perspective since we do not occupy that perspective). Only when the relevant perspective is different from our own current one does the perspective have to be represented. When considering or even temporarily adopting a different perspective, we must represent a possibility as relative to that perspective. So, for example, if you believe that your grandfather thought it possible that the world was created in 4004 BC, you take it that he thought this relative to the body of information he had. The situation is analogous to believing that a certain object in another person's field of vision is at a certain distance and direction from them.

*iv. Radical Invariantism "overgenerates".*

The worry here is that by keeping perspectives out of the semantics of bare EP sentences, Radical Invariantism imposes no constraint on what speakers can mean in uttering such sentences. It allows that a speaker could utter 'I might be a spy', knowing full well that he is not a spy, but mean that from Dick Cheney's perspective the speaker might be a spy.

It is true that Radical Invariantism, as a thesis about the semantics of bare EP sentences, imposes no such constraint. That is the job of a pragmatic account of how such sentences can reasonably be used or plausibly be understood to convey more than they express semantically. Such an account begins with the observation that there is a general, rational constraint on speakers' communicative intentions, namely that they be recognizable by the intended audience. A speaker cannot utter a sentence and rationally mean anything he pleases. He must mean something that he can reasonably expect to be taken as meaning. In the case of bare EP sentences, there must be a unique candidate that

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<sup>41</sup> This observation ties in with views about thought that invoke notions like belief *de se*, essential indexicals, or centered possible worlds.

the audience can identify as the relevant perspective. Otherwise, there would be no determinate way of taking the utterance, in which case the speaker would need to make the relevant perspective explicit. As we saw in discussing various cases, the uses of an unembedded bare EP sentence often involves the joint perspective of the interlocutors, not a third party's. There has to be some evident reason for the hearer to suppose that the relevant perspective is one that does not include the speaker's and it needs to be evident whose perspective that is. We saw cases, namely *Suggesting a Possibility* and *Asking about a Possibility*, where the relevant perspective is the hearer's. And, as we saw with cases in which a third party's attitude is being reported or action is being explained, normally it is that person's perspective that comes into play. In such cases the focus is not on the possibility itself but on the person's attitude or action.

In my view there is no semantic account to be had of how perspectives enter into the uses of bare EP sentences, in either of the ways suggested by contextualists and relativists. There is also no need for such an account. In denying that perspectives enter into the semantic contents of these sentences. I am not denying the need for a pragmatic account of the ways in which speakers can reasonably intend and expect utterances of bare EP sentences to be taken and the ways in which such utterances can reasonably be taken (see the Appendix for some general conjectures in this regard). This is a matter of accounting for which perspective comes into play in a given case even though it is not mentioned. In some cases no unique perspective comes into play, and interlocutors talk past each other. In those cases, as well as in those in which the intended perspective is not the one that would be uniquely salient if none were mentioned, the speaker needs to make explicit what the intended perspective is. From a pragmatic point of view, the problem posed by bare EP sentences is not to account for how extralinguistic facts combine with sentence meaning to determine what perspective figures in to an utterance of the sentence. Rather, the challenge is explain under what circumstances a speaker does not need to use a relativized EP sentence to communicate what the relevant perspective is. In some cases, a wary speaker will use a bare EP sentence to leave himself some wiggle room as to what the relevant perspective is. He could be poised either to embrace the perspective of the audience (or perhaps an outside source of information) or to retreat to his own perspective. So, it turns out that the semantics of bare EP sentences is not all that

interesting. Much more interesting are the uses to which we put them, as illustrated by the examples we have discussed.

### **10. The Bottom Line**

It is agreed on all sides that a state of affairs is or is not epistemically possible only relative to a perspective, a body of information. Epistemic possibility sentences that mention perspectives (or persons with perspectives) semantically express propositions that include perspectives (or persons) as constituents. These are classical propositions, absolutely true or false (orthogonal issues of vagueness aside). The semantic puzzle about epistemic possibility arises with sentences that do not mention perspectives. Solving it requires recognizing a couple of distinctions. First, we need to distinguish the semantic question of what bare EP sentences express from the metaphysical question of what EP propositions there are to be expressed. That leaves open whether the semantic contents of bare EP sentences add up to propositions. We also need to distinguish this semantic question from the pragmatic question of what propositions speakers use can such sentences to convey (and how hearers understand these uses).

Contextualism holds that a given bare EP sentence expresses perspective-involving EP propositions, different ones in different contexts. Relativism holds that such a sentence expresses (irrelevant indexicality aside) a single, perspectivally neutral proposition independently of context, but that this nonclassical proposition can be true or false from, or relative to, different contexts. Both views have trouble handling certain cases, but they face more general difficulties as well. Partly as the result of focusing on bare EP sentences and neglecting their relativized counterparts, both contextualists and relativists have overlooked the possibility that bare EP sentences, like a great many other sentences, simply fall short of fully expressing propositions. These theorists have not asked themselves if their seemingly semantic intuitions are responsive not to the truth-values of the sentences themselves but rather to how speakers use and understand uses of these sentences. That takes us beyond semantics into the realm of pragmatics.

Radical Invariantism, considered strictly as a view about the semantics of bare EP sentences, agrees with Contextualism about what propositions there are for EP sentences to express but denies that bare EP sentences (as opposed to relativized) are fit to express them. It claims that bare EP sentences express propositional radicals, not full-fledged

propositions. Radical Invariantism agrees with Relativism that bare EP sentences are not inherently context-sensitive, but it denies that their invariant semantic contents are fully propositional. From the radical invariantist point of view, contextualists mistake propositional incompleteness for context sensitivity and relativists mistake propositional radicals for propositions. The blind spot induced by the Proposition Fallacy sustains the false hope of formulating some sort of context-sensitive truth-conditional semantics for these sentences. However, it is not a semantic but a metaphysical fact that epistemic possibility is perspective-relative. This is a fact not about ‘is possible’ but about being epistemically possible, that it is a relation, not a property.<sup>42</sup> Neither contextualists nor relativists have given us any reason to expect this fact to be reflected in the semantics of EP sentences that do not mention perspectives.

Since speakers must use bare EP sentences to convey propositions, at least when they mean something determinate, what they mean must involve a perspective. The relevant perspective is not determined by context, at least not in any legitimate sense of ‘determine’ or ‘context’, but by what speakers can reasonably mean (and what hearers can plausibly them to mean) in uttering these sentences. The problem is to not to give a semantic account of the propositional contents of bare EP sentences but to explain pragmatically how we can use or understand uses of them to convey a proposition involving a certain perspective. Usually the perspective is or includes the speaker’s, but not always, especially when the bare EP sentence is embedded. In some cases, in order to forestall misunderstanding or incomprehension, we need to make the relevant perspective explicit and must use a relativized epistemic possibility sentence. But we generally know when using a bare epistemic possibility sentence will do, in which case we do not bother mentioning the relevant perspective. Just what this ability involves is something for us as theorists to figure out, but as speakers we have already mastered it pretty well.<sup>43</sup>

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<sup>42</sup> Similarly, it is a metaphysical fact that tastiness, offensiveness, boringness, and amusingness are perspective-relative. This is not a semantic fact about ‘is tasty’, ‘is offensive’, ‘is boring’, or ‘is amusing’. Rather, it is a metaphysical fact about the things they semantically express, that these things are relations, not properties. Predictably enough, I develop a radical invariantist account of unrelativized sentences containing so-called predicates of personal taste in a companion piece called “Relatively Speaking.”

<sup>43</sup> I am grateful to an anonymous OUP referee and to the not so anonymous editors for their valuable comments. Thanks also to audiences at the universities of California at Davis, California at Santa Cruz, Chicago, Edinburgh, London (Institute of Philosophy), St. Andrews, Sheffield, and Wisconsin-Milwaukee, where many of the ideas in this paper were presented.

## Appendix: Possibilities and Pragmatics

Here is a series of observations about the pragmatics of utterances of bare EP sentences. To avoid being tendentious I frame them in as theory-neutral a way as possible. So, for example, when I speak of asserting a possibility, I leave open whether or not the asserted proposition involves a perspective. Space does not permit explaining, illustrating, or justifying these observations in any detail, but they mostly apply basic platitudes in pragmatics to the special case of utterances about epistemic possibilities.

- When you use a bare EP sentence assertively, ordinarily you do not assert a mere or idle possibility. If it is worth mentioning, presumably you take it to be a more serious possibility than that and intend it to be taken as such.
- In asserting that  $\diamond p$  (' $\diamond$ ' means 'it is epistemically possible that'), sometimes you are not so much committing yourself to its being true as refraining from committing yourself to the falsity of its core proposition  $p$ .
- Often the point of asserting that  $\diamond p$  is not to inform your audience that  $\diamond p$  or to get them to believe it but, rather, to call it to their attention or, if it is obvious that they already believe that  $\diamond p$ , to remind them of it.
- When you assert a possibility, you often do something more than just assert it. Depending on the circumstances, you might be suggesting that it is worth looking into, challenging a claim (a knowledge claim, say), or even advising somebody not to do something because of the risk associated with the possibility.
- You can utter an unembedded bare EP sentence without asserting that  $\diamond p$ . You could instead be suggesting that  $p$  or even just guessing that  $p$ , especially if you use 'perhaps' or 'maybe' rather than 'might' or 'possibly'. In that case, you would be using the term not as a content modifier but as an utterance modifier, to indicate something about what you are doing in uttering the rest of the sentence.
- When you assert that  $\diamond p$ , normally you leave open that  $\diamond \sim p$  as well. For if you were foreclosing that possibility, you would be prepared to deny that  $\sim p$ , hence to assert that  $p$ , in which case it would be misleading to assert the weaker  $\diamond p$ . Similarly, if you were considering an exhaustive list of possible answers to a *wh*-question and ruled out all but A, you would not merely say that A is a very strong possibility. You would conclude (by elimination) is that the answer *must* be A.

- When you sincerely assert that  $\diamond p$ , often you do not expect your audience's knowledge and beliefs exclude that possibility. In that case, you implicitly assume that if you knew what they know and believed what they believe, you could still coherently believe and assert that  $\diamond p$ . So your assertion implicitly incorporates their perspective into your own. You intend the possibility that  $p$  to be compatible with your joint perspective.
- On some occasions, however, your audience believes something that if true would rule out the possibility in question. In that case, your assertion that  $\diamond p$ , which leaves open that  $\diamond \sim p$  (as observed above), cannot coherently incorporate their perspective.
- In some cases of using an unembedded bare EP sentence, the fact that a state of affairs is compatible with one's *current* perspective is not at issue. Suppose you say, for example, "I have no idea whether  $\diamond p$ ," and go on to say you are going to look into the matter or proceed to ask your audience whether  $\diamond p$ . Obviously it is already possible for you that  $p$ . However, that does not keep you from inquiring into it, since what you are interested in is whether  $\diamond p$  from a more informed perspective.
- When you use a relativized EP sentence rather than a bare one, not only do you make explicit what the relevant perspective is but also, by explicitly mentioning it, you make it the focus. Typically what is then at issue is not whether the mentioned state of affairs is possible – you and your audience may think it is not – but something else, such as what the person with that perspective hoped for or feared or perhaps why the person did a certain thing. Or the point of the assertion may be to call attention to the person's overlooking or disregarding a certain possibility.
- Not mentioning a perspective is a way of keeping the question of the possibility in focus and, moreover, of hedging the question as to whose/which perspective is at issue. This allows for retreating from a joint perspective or distancing yourself from your earlier perspective. In this way you can avoid being overly committed without being too guarded. It allows for either deferring to your interlocutor or sticking to your guns, depending on whether or not you are prepared to let your own perspective be trumped.

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