

## 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 the relevant 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* implicitly assume. They reject *Propositional Invariantism* (it implausibly implies that any EP proposition is false whose core proposition is known by *anyone* to be false) and maintain that changes in perspective shift either these sentences' propositional contents or their truth-values. *Radical Invariantism*, which I defend, denies that the semantic contents of bare EP sentences shift. It claims, however, that these contents lack truth-values. They are not full-fledged propositions but merely *propositional radicals*. Only explicitly *relativized* EP sentences manage to express propositions, and these 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. It can handle them without resorting, as Contextualism and Relativism do, to 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. Our focus will be on epistemic possibilities and mainly on how we talk about them.

Epistemic possibilities typically arise whenever we ask a *wh*-question, such as “Whodunit?” or “Where is it?” They arise, for example, are looking for something we have misplaced when a detective is trying to solve a crime, when one is looking for misplaced glasses, and when a doctor is trying to diagnose a patient’s symptoms. Ideally, the different answers that come to mind exhaust the relevant epistemic possibilities.<sup>1</sup> 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. Someone claims to know something and we object, raising a counterpossibility, something that if it obtained would either directly contradict the claim in question or at least argue against it. Or, when we think *we* know something or are tempted to draw a certain conclusion or make an assertion, a counterpossibility occurs to us and we think again.

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 and about 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:

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<sup>1</sup> It should be clear that our topic is not the sort of epistemic possibility that is often contrasted with metaphysical possibility. On one definition something, for example that Hesperus is distinct from Phosphorus, is epistemically possible in this sense 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 that is correct, then what distinguishes the different sorts is what the possibility is relative to. So, whereas epistemic possibilities are relative to bodies of information, nomological possibilities are relative to a set of actual states of affairs and a set of actual scientific laws. If this is correct, then it could be argued that modal terms are not systematically ambiguous as between different sorts of modality but, rather, neutral. This could be seen if all uses of modal terms were explicitly relativized. What a given use is relativized to would determine which sort of modality is in question.

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

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

Let's call (1) a *bare* EP sentence, in contrast to (2), which is explicitly *relativized* by containing the phrase 'so far as he knows'. There are various other constructions that can be used to relativize an EP sentence, such as 'given what he knows', 'relative to the information available to him', and simply 'for him'. Interestingly, however, the recent debate on the semantics of epistemic possibility sentences has focused almost entirely on bare EP sentences. In my view, this narrow focus has skewed the entire debate. As I see it, all this puzzling over bare EP sentences without comparing them to explicitly relativized ones has led to needlessly complicated views about the bare ones. There is a simple alternative that has been overlooked.

We will begin by distinguishing propositions about epistemic possibilities from epistemic possibilities themselves and comparing different approaches to the language we use to talk about them. Then we will examine the relativity of epistemic possibilities and consider some standard problem cases that motivate different approaches to handling simple claims about epistemic possibilities. Two prominent types of approach are *Contextualism* and *Relativism*. I will compare, contrast, and criticize them, and offer an alternative of my own, one that shares one central feature of each. To bring out the differences between these views, I will make an excursion into areas where we use implicitly relational predicates, including predicates of personal taste and predicates for other response-dependent properties. Then we will take up a variety of other problem cases that need to be taken into account.

The solution I will propose relies on several distinctions. Once we take them into account, we will be in a position to appreciate why the problem of epistemic possibility is not as hard as contextualists and relativists have made it out to be. The trouble with their approaches is that they misdescribe the data and, as a result, misconstrue the problem. Its solution doesn't require semantic bells and whistles. The strategy behind this solution is to recognize the semantic slack left by bare EP sentences and to focus on how speakers who use and encounter them pick up the slack. Along the way I will make a number of observations about the pragmatics of epistemic possibility statements.

I will suggest that the sentences in question are not context-sensitive in either of the ways that contextualists or relativists have claimed. Although Contextualism and Relativism both offer insights on 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 separate from accounting for the semantics of the sentences themselves. Both Contextualism and Relativism base their semantics of bare EP sentences on our intuitions about truth-values. But truth-values of what? Not the sentences themselves, I say, indeed nothing linguistic. For epistemic possibilities are perspective-relative, and bare EP sentences do not mention perspectives, not even implicitly. So, I will argue, they do not have truth-values, not even relative to contexts. Our intuitions are responsive to the truth-values of the propositions we have in mind when we use or hear these sentences, but these propositions are not semantically expressed by the sentences themselves.

It will be immediately objected that this claim about bare EP sentences is obvious but irrelevant: of course, bare EP sentences do not express propositions, but utterances of them do, and the puzzle about them concerns utterances of them, not the sentences themselves. The idea, then, is that utterances, not sentences, are the primary linguistic items with propositional or truth-conditional contents, and that it is the business of semantics to give a systematic account of the truth-condition of what utterances express. In reply I say first that *linguistic* semantics concerns sentences and that if some sentences do not have truth-conditional contents, even relative to contexts of use, then it cannot be the job of semantics to account for their truth-conditions.<sup>3</sup> Moreover, it is silly 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. But it is an illusion to suppose that utterances are *linguistic* entities over and above sentences. They are speech acts. And their contents are what speakers mean in performing them. So there is nothing in between

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<sup>3</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.

sentences and intentions (in uttering sentences) also capable of having contents. Accordingly, commonly used phrases like ‘the proposition expressed by an utterance’, ‘truth-conditional content of an utterance’, and the simple ‘utterance truth’ are highly misleading.<sup>4</sup>

Contextualism and Relativism blindly both accept the grammar-school dictum that every sentence expresses a complete thought. Bare EP sentences (and many other sentences) do not. This should be evident from the fact that they lack something that explicitly relativized EP sentences have – a place for a perspective. In their different ways both contextualists and relativists are engaged in a fool’s errand. Trying to reckon with the different and often conflicting intuitions that people have regarding a wide range of cases, they seek a systematic account of how context combines with linguistic meaning to determine the semantic features of the linguistic items to which our truth-value intuitions are assumed to be responsive.

In my view there is no systematic account to be had; there is also no need for one. Instead, there is a need to account for the ways in which speakers can reasonably intend and expect utterances of bare EP sentence to be taken and the ways in which such utterances can reasonably be taken. This is a matter of accounting for which perspective comes into play in a given case without being 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 relevant perspective is not the one that would be uniquely salient if none were mentioned, he 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 an explicitly relativized EP sentence to communicate what the relevant perspective is. Of course, sometimes 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

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<sup>4</sup> And it won’t help to invoke sentence tokens, as if tokens have autonomous semantic properties. Token semantics is, well, token semantics. The points in this paragraph are spelled out more fully in ‘Context ex Machina’ (Bach 1995: 22-25).

perhaps an outside source of information) or to retreat to his own perspective. 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. Much of what we are up to when we use them illustrates the distinctive way in which epistemic possibilities are relative to perspectives.

### **1. Contextualism, Relativism, or what?**

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>5</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. Roughly, 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>6</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. When we explicitly relativize epistemic possibility in ordinary speech, generally we do it relative to persons. However, to allow for cases in which the relevant perspective is not a particular person's but is that of a group or is just hypothetical, will often explicitly relativize to perspectives.

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 know rules out something that it does not). And one can believe that something is epistemically possible for them even if it is not (you can neglect to consider all your relevant knowledge). *Being* epistemically possible *for* someone is distinct from *seeming* epistemically possible *to* someone.

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 (relative to different perspectives). A state of affairs

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<sup>5</sup> As I am using 'state of affairs', some states of affairs obtain, and some do not.

<sup>6</sup> There are different ways of construing this, as we will see in section 2.

can be possible relative to one perspective while not being possible relative to another. So, for example, it could be true for you and false for me that my cat is white. That is because of our difference in perspective, that is, in what information is available to us (so, if I knew that you know little about my cat, I could know that it is possible for you that my cat is white). Similarly, because of a shift in perspective, thanks to the acquisition of new information, something that was possible for a person might cease to be so for him.

This suggests that when one goes from accepting to rejecting an epistemic possibility proposition, one could well be doing so relative to different perspectives. 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, it is of little interest to us what was formerly possible. Normally what matters is what is possible relative to the information we have now, which tends to be greater than what we had before. And when we are concerned with what is possible relative to our current information, we generally do not make this relativity explicit, not just in talking about but even in thinking about the possibility.

This last observation points to an obvious difference between using a bare EP sentence as opposed to a relativized one, as with our earlier examples of (1) and (2):

- (1) Richard Branson might go to the moon by 2015.
- (2) As far as he 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 corresponds to the *core state of affairs*, 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 Branson's perspective, (1) can be used to assert it relative to anyone's perspective. Normally, but as we will see not always, it is (or includes) the perspective of the person uttering the sentence. That and related facts about sentences like (1) have led some to suggest that context "determines" or "provides" the relevant relativization.

This suggestion is supported by the consideration that someone could correctly assert a certain possibility but later acquire evidence against it and reject it accordingly. For

example, someone who has assertively uttered (1) could well take it back in 2016, after Branson's lunar exploits have failed (let's suppose). It seems that in uttering (1) the person is speaking truly but that to utter it (adjusted for tense) in 2016 would be to speak falsely (unless one were not following Branson's exploits). However, if Branson firmly intends never to travel to the moon, so that he would be prepared to assertively utter the negation of (1), if he overheard an utterance of (1), he would rightly reject it as false. And yet the speaker of (1), not knowing of Branson's intentions, would seem to be speaking truly. After all, considering Branson's adventurous ambitions, how can one rule the possibility his going to the moon?

Such considerations have led to the widespread opinion that there must be something context-sensitive about bare EP sentences like (1), presumably having to do with perspective. The debate has concerned just what shifts with context. Contextualists hold that a bare EP sentence semantically expresses a *perspective-involving* proposition even though it does not mention a perspective, and that it can express a different perspective-involving EP proposition relative to different contexts in which it is uttered.<sup>7</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 varies with the context. This non-classical proposition does not contain a perspective, but is evaluated as true or false relative to, or from, a perspective.<sup>8</sup>

As we will see, there are various sorts of cases that Contextualism and Relativism have to contend with. I will argue later that neither approach can handle all these cases, but I want to suggest here and now that the trouble with both approaches is an underlying assumption that they both make.

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<sup>7</sup> I am using 'perspective-involving' on the model of 'object-involving' as commonly used in discussions of singular thought. On the conception, which I prefer, of propositions as structured, with objects, properties, and relations as constituents, perspectives are constituents of perspective-involving EP propositions.

<sup>8</sup> There is a further question, on which Relativists disagree, as to what sort of context the truth-value varies with, the circumstance of evaluation, as fixed by the context of utterance, or the context of assessment, quite apart from the context of utterance, as John MacFarlane (forthcoming) suggests. He prefers to reserve



Contextualists and relativists both reject what I will call *Propositional Invariantism*, the view that a bare EP sentence expresses a classical proposition independently of context. Propositional Invariantism does not deny that epistemic possibility is relative, but it does deny that this relativity is variable. On its most natural construal, Propositional Invariantism is the view that a state of affairs is epistemically possible just in case its obtaining is not ruled out by *any* body of knowledge. 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. That does not seem plausible.<sup>9</sup>

Recognizing this fatal problem with Propositional Invariantism, contextualists and relativists suppose that there must be something context-sensitive about bare EP sentences or about the propositions they semantically express. They just disagree on what varies with context. Contextualism says that what varies is which proposition a given bare EP sentence expresses – it expresses different classical, perspective-involving propositions in different contexts.<sup>10</sup> Relativism says what varies is the truth-value of the fixed, non-classical proposition that the sentence expresses – it can be true relative to (or from) some perspectives and false relative to others. But proponents of both views take it for granted that bare EP sentences express propositions. I have never seen any defense this assumption.<sup>11</sup> In my view, there is good reason to reject it.

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the term ‘Relativism’ for the latter view, but we could, I suppose, call the first view ‘Circumstantial Relativism’ and the second ‘Truth Relativism’, as MacFarlane sometimes calls his view.

<sup>9</sup> This, which Egan, Hawthorne, and Weatherson call “universalism” (2005: 144), is not the only possible version of Propositional Invariantism. Another version, no more plausible, states that a state of affairs is epistemically possible just in case there is some body of knowledge that does not rule it out. This would make any state of affairs epistemically possible. Intermediate versions of Propositional Invariantism are possible too, but there seems to be no non-arbitrary basis for choosing between them.

<sup>10</sup> From now on, when talking about sentences rather than speakers, I will use ‘express’ to as short for ‘semantically express’ (obviously I won’t mean this when I say that a speaker expresses something). What a sentence expresses is its semantic content. Sentences containing indexicals can express different things (have different semantic contents) in different contexts.

<sup>11</sup> Contextualism was motivated by the obvious inadequacy of (Propositional) Invariantism and, more recently, proponents of Relativism defend their view in part on the further grounds that Contextualism is also inadequate – it can’t handle the variety of cases that a theory needs to account for. 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.” MacFarlane’s case for Relativism also depends

Compare (1) and (2). (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 he knows now. But epistemic possibilities are relative to perspectives. 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, assuming the sentence is free of indexicals and the like, it has a context-independent *non*-propositional content. Its content does not add up to a proposition, and is neither true nor false. On this view, *Radical Invariantism*, bare EP sentences are *propositionally incomplete*: their invariant semantic contents are not propositions but what I call *propositional radicals* (Bach 1994).

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 using one, a speaker implicitly adverts to the perspective with respect to which the relevant possibility is to be considered. But bare EP sentences, unlike explicitly 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. 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.<sup>12</sup>

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on this line of argument, although he also considers “non-truth-conditional approaches,” but the only ones he considers treat epistemic modals as “force modifiers” (forthcoming, section 4). And 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.

<sup>12</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. Contextualists assign far too extensive a 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 context sensitivity from propositional incompleteness (Bach 2006). In assuming that sentences must semantically express propositions, these propositional minimalists avoid the Context Sensitivity Fallacy only by committing the Proposition Fallacy. The alternative, what I call Radical Minimalism, allows for sentences with invariant but propositionally incomplete semantic contents.

Radical Invariantism has something in common with Contextualism and something else in common with Relativism. It agrees with Contextualism on what epistemic 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 explicitly 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 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 potential misunderstandings use explicitly relativized EP sentences.

One preliminary point in favor of Radical Invariantism is based on the fact that terms like ‘might’ and ‘possible’ apply not just to epistemic but to other sorts of possibility, such as logical, metaphysical, nomological, physical, biological, technological, and political. But these terms, despite their various uses, do not seem to be semantically ambiguous. So it is not plausible to suppose that perspective relativity is built into their semantics.<sup>13</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. But before comparing them on this score, we should look further into the idea that epistemic possibilities are perspective-relative and into how this basic fact about them bears on how we use bare EP sentences.

## **2. The perspective relativity of epistemic possibilities**

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<sup>13</sup> The subject-oriented adverbs ‘maybe’ and ‘perhaps’ are exceptions. We use them exclusively for epistemic (or doxastic or evidential) possibility.

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.<sup>14</sup> Some are summarily dismissed, and some are just overlooked. 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 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 beliefs? We do not have to answer. Instead, we can distinguish both *evidential* and *doxastic* possibility from strictly *epistemic* possibility.<sup>15</sup> When people use terms like ‘maybe’, ‘might’, ‘perhaps’, and ‘possibly’, they probably do not have any such distinction in mind.<sup>16</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 is literally *epistemic* possibility. Although I will not try to justify this, much (but not all) of 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. One point made earlier applies to all three: something can be possible (epistemically, evidentially, or

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<sup>14</sup> Although we speak of open ones as “live” possibilities, curiously we do not describe ones we eliminate as “dead” possibilities.

<sup>15</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: chapter 9).

<sup>16</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.

doxastically, as the case may be) for you even if you do not believe that it is.<sup>17</sup> For you could be mistaken about what your knowledge (beliefs, evidence) is or about what it rules out. Similarly, something could fail to be epistemically (doxastically, evidentially) possible for you even if you think it is. What you know (what you believe, what evidence you have) 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.

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 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 that is pooled even if not actually shared (available to everyone in the group even if it is not possessed by each one), 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? If the information need merely be immediately accessible even if we do not possess it, is it really our knowledge? Surely I do not know anything I can find out after a few seconds of googling.

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<sup>17</sup> This is true up to a point for doxastic possibility. If a person believes that something is not doxastically possible for him, then by virtue of that very belief it is not.

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 a kind of skepticism – there would be far too many epistemic possibilities that one’s knowledge does not rule out. A non-skeptical conception of ruling out does not demand logical incompatibility. No doubt ruling out (closing off, eliminating) 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. If so, that would suggest that for a person’s knowledge to rule out a possibility depends in part on their 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. For present purposes we need not worry about these subtleties. I will just continue to say that epistemic possibilities, whatever they are exactly and whatever their relationship 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 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 ‘perhaps’ and ‘maybe’.<sup>18</sup> We can also use locutions like ‘it is possible that’, ‘for all I know’, and ‘there’s a chance that’.<sup>19</sup> Most of my examples will use ‘might’. Even though epistemic possibilities are relative to

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<sup>18</sup> ‘Perhaps’ and ‘maybe’ can also be used to indicate that one is not asserting the core proposition but one is merely suggesting it or that one is just guessing. In this case the term is being used as an *utterance modifier*, that is, to comment on the main part of the utterance rather than to qualify the content of the utterance. For a discussion of utterance modifiers and taxonomy of them, see Bach 1999: 356-60.

<sup>19</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 requires more than having a (subjective) probability greater than zero.

perspectives, in asserting a possibility we usually 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 which perspective is the relevant one, especially when it is not our own. 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 someone else's 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, as we will see later, our own perspective can and generally does incorporate our audience's, insofar as we can 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 is 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 were the speaker of (8), having no expertise on string theory, I might be adopting the perspective of the physics profession. Certainly that would be more interesting than if I were taking a purely personal perspective, one that took no account of what physicists think. At any rate, typical uses of bare EP sentences are, we might say, self-centered or at least self-inclusive, depending on whether the perspective relative to which the possibility

is being considered 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 a bare EP sentence can be used to assert that something is epistemically possible from a perspective disjoint from one's own. This is clearest, as we will see later, when they are embedded in attitude attributions or are used to explain actions:

(9) Anne realizes 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, 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, we are likely to be taking our own perspective. 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 used to be a gym nearby.

(12) Working out on an elliptical trainer is fun.

In some situations, however, someone else's standpoint would be understood:

(13) [speaking to a friend on the phone] There's a gym nearby.

(14) Working out on the elliptical trainer will be fun.

In uttering (13), I would be telling my friend that a gym is near him, not me, and in adding (14) I would be suggesting that working out on the elliptical trainer will be fun for him, not me.

#### **4. Possibilities and Pragmatics**

Before discussing specific examples in detail and comparing how the different approaches grapple with the place of perspective in them, I need to set out a series of observations about things we do when using bare EP sentences and the circumstances that lend themselves to doing those things. I intend to state these observations in as theory-neutral a way as possible, and I hope they will seem straightforward and not tendentious or controversial. There are too many to explain, illustrate, or justify in detail,



but they generally involve applying basic platitudes in pragmatics to the special case of asserting a possibility.

- You can utter a bare EP sentence without asserting that  $\diamond p$ .<sup>20</sup> You might instead be suggesting that  $p$  or perhaps just guessing that  $p$ . This is especially likely if the sentence begins with ‘perhaps’ or ‘maybe’. In that case, ‘perhaps’ or ‘maybe’ is being used not as a content modifier but as an utterance modifier, to indicate something about what one is doing in uttering the rest of the sentence.
- When you do use a bare EP sentence assertively, you are not asserting a mere possibility. If it is worth mentioning, you likely take it to be a serious possibility and intend it to be taken as such.
- When you assert a possibility, generally you are not merely asserting the possibility. That is because there is generally no point in just asserting it. Depending on the circumstances, you might be suggesting that it is worth looking into, challenging a claim (especially a knowledge claim), or even advising somebody not to do something because of the risk associated with the possibility.
- In asserting that  $\diamond p$ , 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. Your point, rather, is 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 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  $\diamond p$ .<sup>21</sup>
- When you sincerely assert a possibility to someone, normally you assert it as compatible with what they know. If you didn’t assume that the possibility was compatible with what your audience knows, you would qualify your utterance and say, “As far as I know, possibly  $p$ ,” or something of the sort. In general when you

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<sup>20</sup> I am using ‘ $\diamond$ ’ to mean ‘it is epistemically possible that’. Also, in speaking of asserting or denying a possibility, for now I am leaving open whether or not the asserted proposition is perspective involving.

<sup>21</sup> 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 it *must* be  $A$ .

assert something, you represent yourself as knowing it and intend your audience to take you as knowing it. So you assume that it is compatible with what they know.

- Indeed, when you sincerely assert that  $\diamond p$  to someone, normally you expect him or her to believe you. You take for granted that they do not believe that  $\sim p$ . If they did believe that  $\sim p$ , they could accept your assertion only if they gave up their belief that  $\sim p$ .
- The previous two observations, that when you sincerely assert that  $\diamond p$  you normally intend your audience's knowledge and beliefs not to exclude that possibility, 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 your audience's perspective into your own. You intend the possibility that  $p$  to be compatible with your joint perspective.
- On some occasions, your audience has expertise or is in an authoritative position on the subject. In particular, you may take them to know whether or not  $p$  (or to know the answer to the *wh*-question at issue). In that case  $\diamond p$  and  $\diamond \sim p$  are not both open for them (or only one answer to the *wh*-question is open). So your assertion that  $\diamond p$ , which (as observed above) leaves open that  $\diamond \sim p$ , cannot coherently incorporate your audience's perspective. In this case, you are speaking from only your own perspective. It does not incorporate theirs.
- Similarly, if there is some third party or group who, by their expertise or special access to the relevant information, may be assumed to know whether or not  $p$ , your assertion that  $\diamond p$  cannot incorporate their perspective.
- When a bare EP sentence is used, normally what is put in focus is the (possible) state of affairs, not the relevant perspective. It is taken for granted in the conversation what the relevant perspective is, normally one that combines yours and your audience's.
- 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 – the interlocutors may think it is not – but something else, such as what the person whose perspective it is hopes for or fears 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.

- In some cases of using a 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.<sup>22</sup>
- 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 oneself from an earlier perspective. In this way one can avoid being overly committed without being too guarded. It allows for either deferring to one's interlocutor or sticking to one's guns, depending on whether or not one is prepared to let one's own perspective be trumped.
- If you say something of the form, "It is possible for me that  $p$  but not possible for you," you can't coherently mean epistemic possibility (as opposed to doxastic possibility). For you can't coherently believe that something is compatible with your knowledge but not with your audience's. After all, if you believe that it is incompatible with their knowledge, you must take yourself to know that, in which you must take your knowledge as ruling out that possibility.

I hope these briefly stated, unillustrated, and undefended observations do not need further explanation and seem fairly reasonable as they stand. They will be in the background of the following discussion of various cases involving uses of bare EP sentences.

### **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

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<sup>22</sup> This observation is connected to the intuition that something is not possible for someone even though it is ruled out not by information they do have but only by information that is readily available to them (for discussion of this issue see Hacking 1967, Teller 1972, DeRose 1991, and Egan, Hawthorne, and Weatherson 2005). The connection is that the relevant perspective is not the person's current one but one that is more informed and readily attainable.

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 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 ostensibly conflicting claims are both correct, and the puzzle is to explain how. In this section I will present illustrations of each case, sketch the contextualist, the relativist, and the radical invariantist account 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 the possibility from their different perspectives, is this semblance of disagreement an illusion? That is, perhaps they are taking a single utterance in two different ways and 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) and there is no question but that the disagreement 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>

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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 (forthcoming, 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, notably those involving suggesting or asking about a possibility, 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. However, it could be that one of them is just wrong about what their shared information rules out.

However, in the following two cases there is a difference in perspective, and this difference explains the “disagreement.” I use scare quotes because of the question whether the disagreement is genuine, that is, whether there is some one proposition that the two parties are disagreeing about.

*“Disagreement” I: Eavesdropping*

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

(15) Maybe the keys are 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. Surely 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? The obvious answer is that we believed two different things and that each of us was right about what we respectively believed. This answer is not precluded by the mere fact that an utterance of (15) could be understood to mean what I believed and the negation of what my wife 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. Relativism, on the other hand, insists that my wife and I did indeed have opposite attitudes toward the same proposition, the proposition fully expressed by (15). But we did so from different perspectives, and this one proposition was true relative to (or from) my perspective and false relative to hers. So we were both right. This is a case of what Max Kölbel (2003) “faultless disagreement.”

According to Contextualism, I was right to think that my keys might be out on the sidewalk and my wife was right to think that they couldn't be there, but there is no contradiction here since what she believed is not the negation of what I believed. When I

muttered (15), even though I made no reference to my perspective 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 (15), she was in a different context, from which she grasped a different proposition, that relative to *her* perspective my keys might be out on the sidewalk. And, of course, they could not be, since she was holding them.

The relativist rejects the contextualist take on this example. It implausibly implies that my wife misunderstood what I said. For if she did understand what I said, and this 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. So she was not disagreeing with me, since she was not considering the same proposition that I was. Relativism insists that she and I were considering the same proposition. 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. Relativism prompts the obvious question of how this could be *genuine* disagreement, even if it *is* about the same proposition. Besides, couldn't my wife, with just a little empathy, have agreed that from my perspective my keys might be out on the sidewalk? Surely she could have appreciated the fact (if Relativism is correct) that this proposition was true for me, even though it was not true for her.

Radical Invariantism denies that there is any such proposition. It agrees with Relativism that 'might' does not make (15) context-sensitive, but it denies that (15)'s semantic content adds up to a proposition. Epistemic possibilities are perspective-relative and, because sentence (15) does not advert to a perspective, it is propositionally incomplete. Like Relativism, Radical Invariantism holds that (15) expresses the same thing, independently of who is considering it or from what perspective, but it denies that this is 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 (15). Radical Invariantism is thus forced to concede that the proposition that my wife entertained upon hearing me mutter (15) 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 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).

*“Disagreement” II: Disputing*

In the previous case there was no communication between the two parties. But what happens they do communicate and, indeed, get into a dispute about a given possibility? 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 come out with (15),

(15) The key might be out on the sidewalk.

My wife disputes this, 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 my keys might have been out on the sidewalk and relative to what my wife knew they couldn't have. So, were we both right? If so, were we right about the same thing, a perspective-free 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 (15). 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 (15) 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.

The obvious difficulty with the 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 she heard me utter (15) was different from the context in which I uttered it, although the plausibility of the suggestion obviously depends on how the operative notion of context is fleshed out. But here, clearly, the context in which my wife hears my utterance is the same as the context in which I make it, and presumably, according to Contextualism, the relevant sort of context is the context of utterance.<sup>25</sup> And, although she and I are in the same context, our perspectives differ.

This is one consideration that motivates the relativist view that in *Disputing* my wife and I are entertaining the very same proposition, albeit a perspective-free 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 (forthcoming) 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 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 really disagree rather than merely differ.

Can Radical Invariantism avoid the problems of these other views? It agrees with Relativism that a bare EP sentence like (15) has a fixed semantic content but it denies that this proposition amounts to a proposition. It agrees with Contextualism that the only epistemic possibility propositions to be had are perspective involving and, although it denies that (15) semantically expresses any such proposition, it has to agree with Contextualism that what I believe and what my wife rejects are perspective-involving propositions, but not the same ones. So there is no one proposition that we disagree about. Even so, we disagree about the possibility that my keys are out on the sidewalk.

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:

- (15) a. Relative to KB’s perspective, the keys might be out on the sidewalk.  
b. Relative to CB’s perspective, the keys might be out on the sidewalk.

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<sup>25</sup> There is a version of Relativism, which MacFarlane (forthcoming) calls “Nonindexical Contextualism,” according to which the context of utterance determines the circumstance relative to which the non-classical propositional content of an utterance of a sentence like (15) is to be evaluated as true or false.

<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.



Clearly (15a) can be true while (15b) 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 could be out on the sidewalk, but in that case my perspective would have changed. I would not only reject (15b) but also an updated version of (15a).

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:

(15c) 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 this way. Nevertheless, 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, both before and after this realization, we were disagreeing about the same possibility.

These issues are far from settled, and after considering more examples I will revisit it and explore further the idea that in normal conversational situations people take themselves to be operating from a joint perspective – until there is reason to think otherwise, at which point their perspectives diverge.

### *Changing your mind*

We often go from accepting to rejecting a possibility – we consider it, accept it, then look into it further and eliminate it. For example, early in a murder investigation a detective is disposed to say (16) but later, after confirming the butler's alibi, he's ready to take back (16) 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, not merely in the sense that his earlier belief was justified – his earlier belief was true. But what he came to believe

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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.

later, after he changed his mind, seems to be true too. This raises the obvious question of what he believed before and what he believed later.

The contextualist take on what is going on in this case is that even though sentence (17) is the negative version of sentence (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 clear 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. Notice that Radical Invariantism agrees with Contextualism about what the detective believes, although, of course, it denies that (16) and (17) manage to express these propositions, even relative to the respective contexts in which the detective uses them.

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). Moreover, the detective does not disbelieve the EP proposition he believed earlier. So 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

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<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.

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 propositions are both true, not absolutely but only relative to the relevant perspectives. 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.

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, perspective-free) 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. But this is not the 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.

As I will suggest later when we take up ascriptions of beliefs about epistemic possibilities, is that Relativism renders the consideration of a relative proposition context-bound. In this case, for example, it renders the detective no longer able to put himself in 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 that on Relativism it is impossible to consider a (non-classical, relative) proposition from a perspective unless one is in that perspective. 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 or, indeed, from anyone else's, past or present. There is an obvious way out of this predicament, of course, but that requires using explicitly relativized EP sentences and considering the classical, perspective-involving EP propositions of the sort that these sentences express. But that doesn't really deal with the problem of considering relativist, perspective-free 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 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. Like Contextualism, Radical Invariantism insists that the only EP propositions there are involve perspectives and that in the present case the detective initially believes one such proposition and later disbelieves another. The problem, as we saw with Contextualism, is although in a way he is right to say that he was wrong, in another way he is not. The solution is that he is right insofar as he would 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 not really interested in what is possible relative to various perspectives. We are interested in what is possible relative to what we know now. During the course of an inquiry about a given matter, we update the range of open possibilities whenever some get eliminated. This updating is not necessarily a monotonic process, since new evidence can re-open possibilities that were previously ruled out. The key point is that since we are primarily interested in what is the case, not what might be the case (or in actual, not possible answers to a *wh*-question), when we go from accepting to rejecting the possibility that *p* 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>29</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 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.

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<sup>29</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.

Relativism captures the natural intuition that the detective continues to believe the same thing, but 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 is doing 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 perspective-free 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 perspective-free 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 his updated knowledge base. As before, what is important is not what is possible relative to what perspectives but what is possible relative to what one knows now.

## **6. Further, trickier examples**

So far we have considered uses of bare EP sentences in which the speaker's perspective figures. 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>30</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 relevant to the audience's. This occurs when a parent or teacher suggests a possibility to a child or 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 suggest a possibility:

(20) Maybe the ball is 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, which, though not true relative to your perspective, is true relative to the child's.

Something similar happens in teacher-student situations, when one 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 backing it up, but he has overlooked a plausible looking 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.

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

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<sup>30</sup> I am using 'figure in' in a neutral way, to finesse the difference between being a constituent of the relevant proposition and being the perspective relative to which or from which a (perspective-free) proposition is evaluated.



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 perspective-free 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, under different circumstances, 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 circumstances affects what the speaker could plausibly be taken to mean, but it has no bearing on anything semantic. This favors Radical Invariantism, regards the question of whose perspective figures in as a pragmatic matter.

#### *Asking about a possibility*

Now consider the case of asking about a possibility. It raises a little puzzle. When we are curious or concerned about something, sometimes we ask someone who is more informed than we are. Even if they are not in a position to know the answer, since they are more informed 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 have before asking. 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 a teacher of asking a question to suggest a possibility to a student, where the teacher's own information already rules out the 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. Clearly it has something to do with the fact that you do not know the answer relative to the information available to the person you are asking, information that is much greater than your own. Obviously, the pulmonary specialist, with her expertise and the information she is gaining by examining you, is in a much better position than you to assess the possibility that you have lung cancer. 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 combined with simple pragmatic considerations, seems best able to give a straightforward account of what is going on in this example. 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>31</sup> However, this is not a necessary condition for asking a question about a possibility. Consider a case in which one suggests a possibility by asking about it. This can occur when a teacher, challenging a student who thinks he knows something, asks about an alternative possibility. For example, a teacher might ask a student who claims to know that Bismarck is the capital of North Dakota, "Isn't it possible that Bismarck is the capital of *South* Dakota?" The teacher knows that Pierre is the capital of South Dakota, but she raises the possibility to challenge the student's certainty. Similarly, on cross examination a lawyer might challenge a bit of a witness's testimony by asking, "Isn't it possible that the you saw the defendant's twin brother, not the defendant himself?" Again, the perspective that figures in here is that of the person being asked, not the questioner's. The lawyer may know perfectly well that the witness saw her client.

### *Attitude reports*

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<sup>31</sup> Another suggestion is that it is the interrogative form of a sentence used to ask a question that explains why it is the hearer's perspective that 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 performed in uttering it, then clearly we have moved to the realm of pragmatics.

As mentioned earlier, 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 (22).

(22) 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 Ed stopped his violent son Ted from going to his reclusive neighbor Earl’s house. We couldn’t use (22) to indicate that Ed, who knows that Earl doesn’t have a chainsaw but doesn’t want Ted to bother Earl, thinks that as far as Ted knows, Earl might have a chainsaw. That would require making the perspective explicit, as with “Ed 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 (22). However, the perspective can only be Ed’s – it 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. Moreover, the contextualist needs to give a principled reason why the speaker’s perspective does *not* figure in. Radical Invariantism is not faced with these challenges, because it does not require the semantics of bare EP sentences to account for the relevant perspective. Rather, it claims that, as a matter of pragmatic fact, the conversationally relevant perspective is the most salient one, which in the case of attitude ascriptions is 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 explicitly relativized (22r):

(22r) Ed thinks that as far as Ted knows Earl might have a chainsaw.

Here the content of the belief being ascribed is clearly a perspective-involving proposition. However, the relativist will object in regard to our original (22), Contextualism and Radical Invariantism both mischaracterize the content of the ascribed belief as involving a perspective. After all, so the objection goes, a speaker uttering (22) would not be reporting that Ed thinks that as far as he (Ed) knows Earl might have a chainsaw but, simply, that Ed thinks that Earl might have a chainsaw. And, the objection concludes, there is a clear difference between believing the bare EP proposition and the relativized one. I will defer my response to this objection to section 11, where various objections to Radical Invariantism are taken up.<sup>32</sup>

How does Relativism propose to explain the fact that *only* the ascriber's perspective figures in an utterance of (22)? Or, can it avoid conceding that? Consider what it would take, according to Relativism, for the thought ascribed to Ed to be true. It would require the proposition that Earl might have a chainsaw be true relative to the perspective of whoever is assessing it. 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 lapse. So Ed was mistaken in thinking that Earl might have a chainsaw, as he immediately realized. Yet what if Fred does believe that Earl owns many large tools? From Fred's perspective it is true that Earl might have a chainsaw. So from his perspective Ed correctly said that. But what Ed said was false, as Ed is the first to admit as soon as he gets over his momentary lapse.

Relativism does not seem equipped to limit the relevant evaluation of what Ed said to Ed's perspective. This is symptomatic of the more general problem for Relativism, of how to allow for evaluations of perspective-free propositions from others' perspectives. For what is evaluated is really a perspective-involving proposition that involves the other's perspective. That is, to judge the (alleged) proposition that possibly p is true from another's perspective to just to judge that from the other's perspective it is possible that p.

#### *Factive attitude reports*

When the attitude verb is factive, it is even more difficult for either Contextualism or Relativism to account for the sole relevance of the ascriber's perspective in reporting cases. Consider this case.

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<sup>32</sup> The second and third objections taken up there consider different versions of the objection sketched here.

(23) 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 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 last year antisocial Ed called on various neighbors. He knows that Earl has never owned a chainsaw, but remembers that Ed was looking for people who owned different things that he wanted to borrow. Ed had limited information about who could plausibly own what and narrows down his options. Among other things, Ed wanted to borrow a chainsaw. To explain why Ed went to Earl's house, Fred utters (24).

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

Fred doesn't believe that, relative to his own perspective, Earl might have owned a chainsaw. In asserting that Ed realizes that Earl might have owned one, he endorses the proposition that, relative to Ed's perspective, Earl might have owned a chainsaw. The problem for Contextualism is to explain why the proposition involving Fred's perspective is not relevant. It seems to predict that Fred's perspective is relevant, but this falsely implies that relative to Fred's perspective, Earl might have owned a chainsaw. After all, Fred does and did know otherwise.

Relativism does not have this problem, since there is only one (non-classical) proposition in question, that Earl might have owned a chainsaw. It has a different problem, to account for the fact that the only relevant evaluation of that proposition is relative to Ed's perspective. It does not seem able to account for the irrelevance of Fred's perspective is irrelevant, from which what Ed realizes is false. After all, Fred is sincerely and truly asserting, according to Relativism, that Ed realizes (the perspective-free proposition) that Earl might have owned a chainsaw. The relativist needs a way for the reporter's perspective to get out of the picture and for the reporter to evaluate the proposition from the agent's perspective and to do so without invoking perspective-involving EP propositions.

#### *Action explanation*

We sometimes have occasion to use a bare EP sentence to explain someone's action. For example, a visitor asks my wife why I briefly went outside, and she replies with (25),

(25) 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 go further and replied with the factive (26),

(26) 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 (25), 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 the water was boiling.

### *Temporal modification*

It seems that temporal modifiers that occur in bare EP sentences with 'might' and 'possible' generally taking narrow scope even when they occur outside the EP term. So consider (27), for example:

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

An utterance of (27) would seem to concern where Barry might have been the previous day, not whether on that day it was possible that he was there. This is so even if the interlocutors mutually know that wherever he is, Barry has not been traveling. So (27) is more plausibly read as saying that Barry might have been in New York yesterday. However, the situation is less clear with (28), which contains two tense markers.

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

The preferred reading of (28) seems to be that it was possible yesterday (even if not today) that Barry was in New York (presumably yesterday but alternatively at some

earlier time, if his whereabouts then was at issue). Indeed, it does not seem that (28) has a reading according to which it is now possible that Barry was in New York yesterday. For that we need (29), which has ‘is’ in place of the first ‘was’ in (28):

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

Even so, I am not suggesting that the preferred reading of (28) is all that good. That is because (28) does not indicate the relevant perspective. (28r) does:

(28r) 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:

(30) 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 (31), not (30), to mean that Fermat’s Last Theorem might have been false twenty years earlier.

(31) It was possible that Fermat’s Last Theorem was false twenty years ago.

So it seems that with their two tense markers temporally modified ‘it is possible’ sentences, such as (28) and (30), concern the time of the perspective, not the time of the state of affairs, whereas temporally modified single clause ‘might’ sentences, such as (28), concern the time of the state of affairs.

The brief observations are preliminary. 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 focus on 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 (28r), the perspective as well as the time.

### *“Conjunctive” disjunction*<sup>33</sup>

It has been observed, for example by Von Stechow and Gillies (2008: 90-2), that a disjunction of ‘might’ clauses, each containing a bare EP sentence, entails the corresponding conjunction, as here:

(32) Sam might be in Sacramento or (he might be in) Seattle.

(33) Sam might be in Sacramento and he might be in Seattle.

This would be puzzling from a logical point of view, since a disjunction can be true even if one of its disjuncts is false. Suppose that Sam is a traveling salesman whose territory includes the west coast of the United States. Then (34) ought to be capable of being true even if there is no chance that Sam is in Seoul.

(34) Sam might be in Sacramento, (he might be in) Seattle, or (he might be in) Seoul.

Nevertheless, it seems that one wouldn’t utter (34) if one thought there was no chance of Sam being in Seoul. Does this indicate that there really is an ‘or’-to-‘and’ entailment here, or is that just an illusion?

I suggest a straightforward pragmatic explanation for this seeming entailment. Generally one does not assert a disjunction that includes a disjunct that one knows to be false.<sup>34</sup> Rather than mislead one’s audience, one just leaves it out. In asserting a disjunction of possibilities, as with (34), where each disjunct comprises a possible answer to the same question, one implicates that one does not know the answer. By mentioning several candidate answers, each given by a different disjunct, one implicates that it is worth mentioning and considering. Otherwise one wouldn’t mention it. So one is committed to the conjunction of the disjuncts. And notice that were all but one candidate eliminated, one would use ‘must’, not ‘might’, and say that Sam must be Seattle.

## **7. Problems with Contextualism**

I have already mentioned Contextualism’s problems with particular cases. Here I will identify some broader problems. They concern not only the general claims of Contextualism but also its motivation.

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<sup>33</sup> There are also some pragmatically puzzling conjunctions that I will mention but not discuss, such as ‘John knows that p, but possibly not-p’ and ‘Suppose that p but that possibly not-p’.

<sup>34</sup> The exception is when one knows but does not wish to reveal which of the disjuncts obtains. One might just want to be coy about this, or perhaps one is using the disjunction to pose a multiple-choice question.



Contextualism and Radical Invariantism agree that EP propositions are limited to classical, perspective-involving propositions. These propositions are absolutely true or false. Explicitly relativized EP sentences can fully and invariantly express them (given that any and all indexical, including time, references are fixed). But Contextualism maintains that *bare* EP sentences have variable semantic contents and that 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. Radical Invariantism denies that there is anything variable or shifty in the semantic content of the sentence itself. What is variable is how the sentence can be used or how an utterance of it can be taken, with its invariant semantic content completed by the inclusion of a perspective, thereby turning a propositional radical into a proposition. But this addition is not part of the sentence's semantic content.

From the standpoint of Radical Invariantism, it is gratuitous to attribute complete (though variable) propositional contents 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>35</sup> The mere fact that we intend to convey propositions when we use them and grasp propositions when we hear them does not show that they semantically express those propositions. Proponents of Contextualism have not provided any linguistic basis for supposing 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 null hypothesis that there are no such variables.

Moreover, there needs to be one formulation of Contextualism that works for the gamut of cases in which bare EP sentences occur. It won't do to adopt a different version of Contextualism for each case. The problem is that although in many cases it is the speaker's perspective (or a perspective incorporating the speaker's) that figures in the proposition allegedly expressed, in other cases it is the hearer's and in still others some third party's. 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

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<sup>35</sup> I discuss the dangers of relying on seemingly semantic intuitions in Bach 2002.

way to keep the group from expanding indefinitely” (forthcoming: 30ms).<sup>36</sup> The contextualist cannot avoid this problem by claiming that the context somehow “determines” which perspective is the one that figures in. Which one it is must be a determinate function of some specified contextual parameter. It won’t do to offer an *ad hoc* story about which perspective counts as the relevant one in each case or to dodge the problem altogether by claiming that the relevant parameter is salience. That would be a flimsy attempt to sweep a semantic problem under the pragmatic rug.

Invoking the speaker’s intention does not help here. That is tantamount to conceding that context plays merely a pragmatic role, not a semantic one. Once we invoke the speaker’s intention, we can no longer claim that context literally determines which perspective is the relevant one. What is loosely called “context” here is the mutually salient contextual information that the audience is intended to use to ascertain the speaker’s communicative intention, partly on the basis that they are intended to do so. Context in this sense does not determine, in the 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 to provide the audience with the basis for determining, in the sense of ascertaining, not constituting, what the speaker means. Context bears only on what the speaker can reasonably mean and on what his audience can reasonably take him to mean. It does not literally determine what he does mean.<sup>37</sup>

So Contextualism has problems explaining how context determines the relevant perspective involved in the proposition allegedly expressed by a bare EP sentence in a

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<sup>36</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” (forthcoming: 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>37</sup> For a fuller and more general discussion of wholesale appeals to context, see “Context ex Machina” (Bach 2005).

given context. More fundamentally, Contextualism's defining claim about the semantics of bare EP sentences rests on the Context Sensitivity and Proposition Fallacies identified at the outset. Fortunately, you don't have to be a contextualist to accept the view that the only epistemic possibility propositions there are involve perspectives and are true or false absolutely. To accept this you do not have to suppose that bare EP sentences somehow manage to express such propositions in some context-sensitive way. Which epistemic possibility propositions there are does not depend on any particular account of the semantic contents of bare EP sentences. Relativism, of course, claims that there epistemic possibility propositions of another sort.

### **8. Problems with Relativism**

Relativists do not deny that there are EP propositions that involve perspectives and that these propositions are expressed by relativized EP sentences. Relativism claims that there are perspective-free EP propositions as well and that these are the ones that *bare* EP sentences express. This claim gives rise to several problems, one having to do with the relativist conception of propositions in general and several specific to the relativist account of bare EP sentences. I will touch only briefly on the problem with relativist propositions, since it is not specific to the semantics of bare EP sentences. There is also the specific problem of handling the full range of cases. In previous sections I pointed out problems that Relativism seems to have with particular cases, and I do not wish to focus on these problems again. More fundamental is the question of whether there is any need to posit the relativist's perspective-free propositions in the first place.

The relativist's non-classical propositions are supposed to be true or false relative to or from a perspective. This means that a given such proposition could be true from your perspective and false from mine. There is a problem with that.<sup>38</sup> Let's say that the (putative) proposition in question is that Central Park might be larger than Golden Gate

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<sup>38</sup> There is also a problem with the relativist notion of assessment sensitivity. John MacFarlane often 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 the non-classical proposition allegedly expressed by a bare EP sentence is supposed to be relative. What matters is not whether the agent assesses this proposition as true or false but that the agent has 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' (forthcoming: 40, n23), but, so far as I can tell, the assessing really plays no role in his account.

Park. Suppose Rudy figures that since New York is so much bigger than San 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>39</sup> Of course the world could *seem* different from our respective perspectives, but obviously that it 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 properties that a state of affairs (such as Central Park being larger than Golden Gate Park) could have, but 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>40</sup>

From the standpoint of Radical Invariantism, the propositions posited by Relativism amount to no more than partially specified classical propositions, that is, propositional radicals. To show otherwise, the relativist at least needs to show that perspective-free EP propositions play an indispensable role, in this case 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 explain. Relativists have not attempted to do this, partly because, it seems to me, they have focused their attention on bare EP sentences.

The burden on the relativist is to show that what he regards as the truth of a perspective-free EP proposition relative to a given perspective amounts to something

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<sup>39</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 merely a heuristic role in metatheory.

<sup>40</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.

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, their different perspectives notwithstanding, that it is true that possibly *p*, 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 thereby 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. Just as they merely have in common the property of loving their (respective) mother, so they share the property of believing that, relative to their respective perspectives, that possibly *p*. The mere fact that they could use the same 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 in common 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 is account of bare EP sentences coheres with the semantics of relativized EP sentences. Now sentences of the latter sort express perspective-involving EP propositions, propositions on which states of affairs are possible relative to perspectives. So if a bare EP sentence expresses all but a perspective, the simple (perhaps naïve) conclusion to draw is that the sentence 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 any corresponding relativized EP sentence and to do so in a way such that expressions like ‘might’ and ‘possible’ have the same meanings regardless of which sort of sentence they occur in.

The basic question here is whether there is any need to posit the relativist’s perspective-free propositions in the first place. As mentioned earlier, 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 or, indeed, from anyone else’s, past or present. To consider an EP proposition relative to earlier or others’ perspectives is just to consider an explicitly relativized, perspective-involving EP proposition. But this makes one wonder if there is any reason to suppose that what one

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

### **9. Predicates of personal taste and other monadic relational predicates**

We have seen that as far as the semantics of bare EP sentences are concerned, wherever Relativism sees a perspective-free relative proposition, one that is true or false only relative to a perspective, Radical Invariantism sees only a proposition radical. As I will now suggest, the case of bare EP sentences is just one instance of a much more general phenomenon. There are many predicates that can occur in analogs of bare EP sentences. In each case the sentence contains a monadic predicate that partially specifies a binary relation. Consider the following example.

(35) Elly is eligible.

In recent debates about this phenomenon it is generally agreed that such a sentence is neither true nor false and does not express a proposition.<sup>41</sup> Being eligible for marriage is a property, being eligible for medical school is a property, but being just plain eligible is not. It makes more sense to think of being eligible as a property function and the relational properties of being eligible for marriage and being eligible for medical school as values of that function. Now imagine a hypothetical relativist about a sentence like (35) who claims that (35) is true or false relative to an institutional status or position. The radical invariantist objection to this is that it needlessly tries to transform relational properties, expressed by predicates like 'is eligible for marriage' and 'is eligible for medical school', into pseudo-semantic properties like being true relative to marriage or true relative to medical school. It would be lame to reply on behalf of the relativist that someone could believe that (35) and someone else could deny it and yet both be correct, on the grounds that this (alleged) proposition is true relative to marriage but false relative to medical school. That would be a needlessly roundabout way of saying that Elly is eligible for marriage but not for medical school. What is relative is not the truth (or falsity) of a would-be proposition but what is expressed by the predicate. The predicate in (35), 'being eligible', expresses not a property but a property function.

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<sup>41</sup> Not everyone agrees. Emma Borg (2004) would say that it semantically expresses the proposition that Elly is eligible for something. Cappelen and Lepore (2004) would say that it expresses the different proposition that Elly is (just plain) eligible. They are uncharacteristically bashful about the truth-conditions of this putative proposition (see Bach 2006).

To see why Radical Invariantism is a more straightforward and less problematic approach than Relativism to this example, just compare (35) with one of its relativized counterparts:

(36) Elly is eligible for marriage.

In (36) ‘is eligible for’ expresses the relation that Elly must bear to marriage for (36) to be true; ‘is eligible for marriage’ expresses the relational property that Elly must have for (36) to be true. The predicate ‘is eligible’ expresses a relational property function whose value, as it occurs in (36), is the property of being eligible for marriage. This predicate expresses the same property function in (35), but there no value is indicated. So in (35) no property is predicated of Elly; the sentence is propositionally incomplete, neither true nor false.

Suppose it did express a proposition. And suppose that Elly were eligible for marriage but not eligible for medical school. Then (35) would be both true and false.<sup>42</sup> On a relativist account, it would be true or false relative to different institutional status, true relative to marriage and false relative to medical school. Analogous accounts could be offered for unrelativized sentences containing relational predicates of other sorts. In each case it could be claimed that the sentence expresses a (non-classical, relative) proposition that is as true or false relative to different values of the property function expressed by the predicate. But such an approach is silly – both implausible and pointless. It might be suggested that instead of supposing (35) expresses a (relative) proposition that is neutral as to institutional status, we should take a contextualist approach and suppose that it expresses, depending on the context, one or another classical proposition, depending on the relevant institutional status. However, as pointed out earlier, a contextualist approach mistakes propositional incompleteness for context sensitivity. It is simpler and more direct to suppose that (35) expresses a propositional radical, which can be turned into a proposition by adding, as in (36), a specification of an institutional status.

Here are a few other examples for which radical invariantist semantics seems natural. These too are unrelativized sentences containing monadic predicates that express

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<sup>42</sup> I am assuming here that (35) does not express the proposition that Elly is eligible for something or other (this is the position that Borg (2004) takes on such cases). There are other predicates for which such a view is plausible (see Gillon forthcoming), such as ‘is thirsty’ and ‘is pleased’, but ‘is eligible’ is not one of them. (35) does not allow implicit existential quantification, as Gillon calls it.

property functions, not properties. There are numerous other examples of terms like these.<sup>43</sup>

(37) Aspirin is effective.

(38) Larry is late.

(39) Toadstools are poisonous.

These sentences are syntactically well formed but do not express propositions. The predicates they contain express property functions, not properties. Unlike their explicitly relativized counterparts, these sentences and countless others like them violate the grammar-school dictum that every sentence expresses a complete thought. They are propositionally incomplete, incapable of being true or false.

Although these sentences do not express complete thoughts, speakers can use them to convey complete thoughts (while using all of their constituents literally). In so doing, speakers intend part of what they mean, something that completes the thought, to be conveyed implicitly. This completer must be something that the speaker can reasonably expect the audience to identify, and something that the audience can reasonably expect the speaker to intend the audience to identify, partly on the basis (à la Grice) of being intended to do so. For example, a speaker of (39) is likely to mean that toadstools are poisonous to humans who eat them. He is unlikely to mean that they are poisonous to turtles that touch them.

There is nothing linguistically defective about sentences like the ones above. The claim that they are propositionally incomplete is based on the fact that nothing can be just plain effective late, or poisonous. This is not a semantic but a metaphysical fact. As such, it does not support a contextualist or relativist stance on such sentences. A contextualist approach would say that the adjectives ‘effective’, ‘late’, ‘poisonous’ have hidden argument slots whose values are somehow determined by the context of utterance. Concrete, syntactic evidence is needed to support such a claim.<sup>44</sup> And a relativist approach would have to claim that (39), for example, is true with respect to humans eating and false with respect to turtles touching. However, it seems that there is no

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<sup>43</sup> Brendan Gillon (forthcoming) discusses a wide variety of “relational words,” not just adjectives, as in my examples, but also verbs, nouns, and prepositions. He presents an interesting taxonomy of semantically distinctive properties, and categories different relational words accordingly.

<sup>44</sup> I have discussed the question of hidden variables or argument slots in other connections elsewhere, such as with quantifier phrases (Bach 2000) and in regard to so-called relational terms (Bach 2001: 35-40).



proposition that toadstools are just plain poisonous. It is only in this regard that Radical Invariantism about sentences like (39) is radical. It just takes the semantic content of a sentence to be a projection of its syntactic structure (this allows for unvoiced constituents but one should resist the compulsion to posit them at will), and leaves room for cases in which that content falls short of comprising a proposition, even relative to a context. In this way it avoids committing the Proposition Fallacy.

It seems to me that the case of bare EP sentences is relevantly similar. However, it might be argued that they comprise a special case, since with them the relativity is to perspectives. I will address this contention in the next section, but first I want to discuss the case of monadic predicates of personal taste, which is also a perspective-relative phenomenon. Indeed, several authors, including Egan, Hawthorne, and Weatherson (2005) and Stephenson (forthcoming), have likened bare taste sentences to bare EP sentences because of perspective relativity. However, I will argue that monadic predicates of personal taste, like the predicates just considered, also fall short of expressing properties and that bare sentences containing them do not require special treatment, relativist or contextualist.

Suppose it is conceded that Radical Invariantism is unproblematic for sentences like the ones above. But nothing like perspective is involved in those cases. They are just normal instances in which monadic predicates happen to express binary relations, and there is nothing linguistically anomalous about this, however misleading it may be metaphysically. For example, there is no proposition that Elly is eligible, period, only such propositions as that Elly is eligible for marriage and that Elly is eligible for medical school. That is because 'is eligible' does not express a property. But what about the predicates in sentences like these?

(40) Broccoli is delicious.

(41) Playing poker is fun.

(42) Physics is fascinating.

These sentences contain predicates of personal taste. Peter Lasersohn (2005) works out and defends a relativist semantics for such sentences and argues against a contextualist

approach.<sup>45</sup> He also considers and rejects a propositional invariantist approach to such sentences, but overlooks the radical invariantist alternative. Now it is obvious that the various explicitly relativized counterparts of these sentences express unproblematic classical propositions. For example, ‘Broccoli is delicious to George H. W. Bush’ straightforwardly expresses the proposition that broccoli is delicious to George H. W. Bush. But what about unrelativized sentences like the ones above?

A relativist will naturally suggest that these sentences really do express propositions, not classical ones but propositions that are true or false relative to, or from, perspectives.<sup>46</sup> One basis for this suggestion is that whether or not something is, as the case may be, delicious, fun, or fascinating is a matter of one’s perspective, a matter of taste or sensibility, call it what you will. By itself, this is not much of a basis for the suggestion. It seems to confuse subjectivity with relativity (or relationality). Whether or not broccoli is delicious to me is a matter of how it tastes to me, not how I think it tastes.

Another basis for this suggestion is that speakers use such sentences to indicate their perspectives on the matters in question. For example, you can use (40) to convey that broccoli is delicious to you and to people like you. Does that mean that (40) is true relative to, or from, the perspective of you and people like you? No. The proposition that broccoli is delicious to you and to people like you is a classical proposition, true or false independent of any perspective, but (40) does not express that proposition. The temptation for supposing that it does ultimately depends on the assumption that every syntactically well-formed declarative sentence must express a proposition. By giving up that assumption, we can treat what the speaker *means* as a perspective-involving proposition without supposing that this proposition is what the sentence semantically expresses, even relative to the context. That is not a matter of sentence semantics. Moreover, the relativist has to demonstrate a need for positing his non-classical

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<sup>45</sup> For Lasersohn the relativity of personal taste properties is to judges, not perspectives, but for our purposes the difference is not important. Tamina Stephenson (forthcoming) points out that times need to be taken into account, since the tastes of judges can change (I have been assuming perspectives to be time-indexed), and accordingly she develops a modified version of Lasersohn’s account. Also, it seems to me that something is fun or tasty to a person *qua* experiencer, not judge. What matters is the experience, not one’s judgment (whether about the experience or its object).

<sup>46</sup> The difference here corresponds to the difference between Circumstantial Relativism and Truth Relativism, as distinguished in note 8.

propositions and for supposing that bare taste sentences don't merely express propositional radicals.

The contextualist view is that a bare taste sentence expresses, relative to a context, a classical proposition that involves the contextually relevant perspective. However, although I can't argue this here, it has the same difficulties as a contextualist approach to bare EP sentences. From the radical invariantist point of view, the role of context is not to contribute to the semantic content of the sentence (relative to the context). Rather, it comprises the mutually evident information that the speaker intends his audience to rely on and, if all goes well, that the audience does rely on (partly on the basis of being intended to rely on it), to figure out which proposition the speaker is conveying.

Uses of bare personal taste sentences give rise to cases much like those we considered in sections 5 and 6 with uses of bare EP sentences. We can disagree about matters of taste and change our minds about them. We can make suggestions, ask questions, and attribute attitudes about them. For example, in resolving a dispute about a matter of taste, one person can change his mind and concede to the other. Or, insofar as there is no disputing about taste, at least after a certain point, people can "agree to disagree." If you assertively utter (41) to someone and they do not accept your assertion, they are not denying that poker is fun for you but only that it is not fun for them. There is no real disagreement here. You would recognize that your perspectives differ and that you do not really disagree. Indeed, you can agree that poker fun for one of you and not for the other.<sup>47</sup>

Sometimes uses of bare personal taste sentences implicitly involve perspectives other than the speaker's. For example, if you serve someone a dish that contains an ingredient that you yourself are known not to like and say, "Try it. It will taste good," clearly your perspective is not the relevant one – the hearer's is. Or you and your spouse could be trying to find foods for your finicky cat. You serve him something new, Felix gobbles it

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<sup>47</sup> There are different ways of disagreeing about a matter of personal taste. You can reply with a bare denial, by saying, "No it isn't." Or you can be more circumspect and say, "Not for me it isn't." The latter response explicitly relativizes the matter of personal taste, but it also removes much of the sense that there is any real disagreement. Responding with a bare denial presents a semblance of genuine disagreement and, indeed, as long as the interlocutors maintain a presumption of shared perspective, any difference on a matter of personal taste is genuine disagreement. But one way of retreating from that situation is to acknowledge an underlying difference in perspective, which is tantamount to turning the disagreement into a mere difference. It is only when people do not appreciate the relativity of matters of personal taste or when they regard each other as relevantly similar in sensibility that they can treat the semblance of disagreement as genuine disagreement.

up, and you say, “At least Feline Fritters taste good.” Obviously it is Felix’s perspective that figures in here, not yours.

The subject of predicates of personal taste obviously deserves more attention than I can give it here. I have not tried to spell out specific problems for contextualist or relativist treatments of these different cases as I did with the different uses of bare EP sentences. If I did, I would argue that here too contextualism mistakes context sensitivity for propositional incompleteness and what people mean for the semantic contents of the sentences they use. But contextualism is right about what taste propositions there are – perspective-involving but no perspective-free taste propositions. I would argue also that relativism is right to claim that the contents of bare taste sentences do not vary with context but wrong to insist that these contents are (relative, perspective-free) propositions. They are merely propositional radicals. Without having given such arguments, I can only say that I see no reason to think that predicates of personal taste are relevantly different from other monadic relational predicates that express property functions. But could there is something special about bare EP sentences after all?

#### **10. What is special about bare epistemic possibility sentences?**

Matters of epistemic possibility and matters of personal taste differ in one clear respect: matters of personal taste are *obviously* relative to persons (and experiencers in general). The Latin saying “de gustibus non est disputandum” attests to this. When people argue about matters of taste and don’t agree, sooner or later they realize that they have irreconcilable differences in sensibilities or preferences, differences that persist even after they have brought to each other’s attention all the aesthetically relevant properties of whatever it is they’re discussing. Once that happens, they are content to agree to disagree. Part of what they realize is that something is fun or tasty or whatever to one is not fun or tasty or whatever to the other. Why should the case of epistemic possibility be any different if it too is relative?

There are several related reasons. First of all, matters of taste are relatively stable for a given person. In contrast, something can go very quickly from being possible to not being possible for a person. All it takes is acquiring some new information to rule out that possibility. Secondly, the truth or falsity of an EP proposition is generally of no particular interest as compared to the truth or falsity of the core proposition. One can improve one’s

perspective, that is, gather more evidence, but ultimately it's the core proposition that matters. There is nothing quite analogous to this in the case of personal taste. Something can be fun or tasty now and, to be sure, one can improve one's perspective, that is, pay closer attention, discern subtler features, and have more to savor, but that's as far as the analogy goes. There is no analog here to truth or falsity. Thirdly, when one considers whether a certain state of affairs is possible relative to other people's information, this is as relevant as other sorts of evidence. But if one learns from a more informed person whether something is possible (relative to their information), then the fact that it is not possible for them makes it not possible for oneself. In effect, one can incorporate what others know into one's own knowledge in a way that one cannot incorporate someone else's taste. Others' tastes can influence one's own, but they can't make something fun or tasty to one if one doesn't enjoy or like it.

So there are real differences between matters of epistemic possibility and matters of personal taste. Such differences can, perhaps, make it seem as though there is something special about the semantic contents of the bare, unrelativized EP sentences that people commonly use or something special about the claims they make or the things they believe when they use such sentences. But that doesn't mean that there is something special here, certainly not from a radical invariantist perspective. Even so, Radical Invariantism may have problems of its own.

### **11. Radical Invariantism: objections and replies**

As I pointed out at the outset, Contextualism was motivated by the obvious deficiencies of Propositional Invariantism, and Relativism has been motivated also by the deficiencies of Contextualism. Radical Invariantism is partly motivated by the deficiencies of both, insofar as they both commit the Proposition Fallacy (and Contextualism the Context Sensitivity Fallacy), but also by their insights. It agrees with Contextualism about what EP propositions there are and it agrees with Relativism that bare EP sentences do not have variable contents. I take Radical Invariantism to be the default position, or null hypothesis, on the semantics of bare EP sentences, but that leaves it potentially vulnerable to objections. I can anticipate various objections to Radical Invariantism or, rather, to what the radical invariantist has to say regarding claims and thoughts about epistemic possibilities. I will discuss the best four I can think of.

*i. Radical Invariantism confuses the basis of an EP claim for part of its content.*

One possible objection to Radical Invariantism (as well as to Contextualism) is that it mistakenly reads the perspective relativity of epistemic possibilities into epistemic possibility propositions. The claim is that Radical Invariantism mistakes the basis for an epistemic possibility belief (or statement) for part of its content. The fact that the belief is held or the statement is made on the basis of a body of information (what I have been calling a perspective) does not mean that its content takes the form, ‘possibly p relative to B’, or anything of the sort. Instead, so the objection goes, the content of the belief (or claim) is simply of the form ‘possibly p’, and that this is what is believed on the basis of B. If this objection is correct, then both Contextualism and Radical Invariantism are wrong and, given the obvious problems with Propositional Invariantism, the only remaining alternative is Relativism.

Obviously this objection is not applicable to claims or beliefs that are made or voiced by means of explicitly relativized EP sentences. But does it have any force in respect to claims or beliefs for which bare EP sentences will do? I grant that the perspective relativity of epistemic possibilities does not by itself *entail* that all epistemic possibility propositions are perspective involving. Showing that, or at least showing that there is no good reason to think otherwise, requires further argument (I take myself to be giving such argument elsewhere in this paper, including later in this section). The objection is that Radical Invariantism confuses the basis for an epistemic possibility belief (or claim) of the sort that can be expressed (or made) with a bare EP sentence with a constituent of its content. Part of the idea behind this objection is that the relativity of epistemic possibility (to perspective) is not like the relativity being poisonous (to type of organism) or being eligible (to occupy a certain position).

The trouble with this objection is that its premise that the perspective, or body of information, relative to which a state of affairs is possible for someone is the basis on which the person with that perspective believes and claims that the state of affairs is possible. However, the perspective relativity of epistemic possibilities does not directly pertain to bases for beliefs or claims. Rather, it concerns compatibility. A state of affairs is epistemically possible relative to a body of information if it is compatible with that information, and its being compatible with that information does not require being

believed or being claimed to be compatible. Indeed, someone could mistakenly believe or claim that a certain state of affairs is not epistemically possible when in fact it is, and vice versa. Accordingly, whether or not a state of affairs is epistemically possible for someone at a time, that is, relative to their perspective at the time, this is not a matter of whether they believe it is possible.

*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 seem to get into the content of the attitude we have toward the possibility.

Accordingly, when as speakers utter bare EP sentences, we straightforwardly say what we mean, and what we mean are perspective-free proposition. We do not have the sense that we are speaking elliptically, omitting the reference to our perspective because it will be understood in the way that one might use “I haven’t have lunch” and mean that one has not yet had lunch that day. In the latter case, one would immediately acknowledge, if asked, that this is what one meant. This difference leaves open the question of what it is for a perspective-free 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.

My direct reply 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 ‘obvious’, ‘funny’, and ‘delicious’. 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 – and the objection does not show that they are not – then it is plausible that these facts are captured only by perspective-involving propositions.

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 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 more plausible regarding beliefs and claims about motion and weight, but much less plausible regarding beliefs and claims about obviousness, funniness, and deliciousness – or epistemic possibility, whose relativity seems, well, obvious.<sup>48</sup>

*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.<sup>49</sup>

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, according to Radical Invariantism, the belief that a speaker expresses in 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 (this is the only case to which the objection could plausibly apply). But there is no mental representation of a perspective in this case. So the proposition that a speaker asserts and expresses a belief when using 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

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<sup>48</sup> Paul Boghossian (2006) and Crispin Wright (forthcoming) insightfully examine this and related issues that arise from different versions of theses that certain ostensibly monadic properties are actually relational.

<sup>49</sup> This is essentially a Relativist objection to Radical Invariantism, although it can also be directed against Contextualism. However, there would not be much point in arguing against Contextualism in this way when one could argue directly against the main Contextualist claim that bare EP sentences express, relative to contexts, perspective-involving EP propositions.



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.<sup>50</sup> It just requires having that point of view.

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 view the possibility relative to a different perspective (we can't view it from that perspective since we are not in that perspective). Only when a perspective different from one's own current perspective is the relevant one does the perspective have to be represented. When considering or even temporarily adopting a different perspective, one 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 his body of information at the time. 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.

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<sup>50</sup> This observation ties in with views about thought that invoke notions like belief *de se*, essential indexicals, or centered possible worlds.

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 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 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 the audience can identify as the relevant perspective. Otherwise, there will be no determinate way of taking the utterance, in which case the speaker should make the relevant perspective explicit. As we saw in discussing various cases, the uses of an unembedded bare EP sentence normally 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 clearly the hearer's. And, as we saw with cases in which a third party's attitude is being reported or action is being explained, it is that person's (or group's) perspective that comes into play. In such cases the focus is not on the possibility but on the attitude or action.

## **12. 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. In this regard it is important to distinguish the semantic question of what these sentences express from the metaphysical question of what propositions there are to express, whether or not bare EP sentences are capable of expressing them. We also need to distinguish that semantic question from the pragmatic question of what speakers use such sentences to convey and how hearers understand uses of them. And there is also the distinction between accepting

(or rejecting) an epistemic possibility from believing (or disbelieving) an epistemic possibility proposition.

Contextualism holds that a given bare EP sentence expresses a perspective-involving EP proposition and can express different ones in different contexts. Relativism holds that such a sentence expresses (irrelevant indexicality aside) a single, perspective-free proposition independently of context, but that such a nonclassical proposition can be true or false from, or relative to, different contexts. I have discussed various kinds of uses and occurrences of bare EP sentences, and I have argued that neither Contextualism nor Relativism can handle the full range of cases. Contextualism needs one principle that works for them all, not an *ad hoc* story about each. Relativism does not seem equipped to handle cases in which its perspective-free propositions have to be considered relative to another's perspective, and if, to avoid perspectival solipsism, it resorts to considering propositions that build the other perspective into the proposition, then it is not clear that there is any need for perspective-free propositions in the first place. Moreover, Contextualism operates with much too liberal a notion of context, and Relativism operates with much too liberal a notion of proposition. But my basic worry is that neither view is well motivated. Their proponents are overly impressed by our intuitions about truth and falsity but, as I have suggested, these intuitions are not directed at the truth-values of the sentences themselves. Rather, they are responsive to how speakers use or understand uses of these sentences. But that takes us beyond semantics and 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 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 denies that their invariantist semantic contents are fully propositional. However, it charges Contextualism with mistaking propositional incompleteness for context sensitivity and Relativism with mistaking proposition radicals for propositions. And it is overly optimistic to hope to find a general rule, either in contextualist or relativist terms, that delivers context-sensitive truth-conditions for bare EP sentences. The

sensible thing is to avoid the Context Sensitivity and the Proposition Fallacies and not demand truth-conditions or propositional contents for these sentences. It is not a semantic but a metaphysical fact that epistemic possibility is perspective-relative, and there is no reason to expect this fact to be reflected in the semantics of all sentences containing epistemic possibility terms.

Since speakers must use bare EP sentences to convey propositions and hearers must take them as conveying propositions, when used these sentences need intended or imputed completions involving perspectives. Intended or imputed completions are not determined by context, at least not in any legitimate sense of ‘determine’ or ‘context’. From a pragmatic point of view, the problem is to not to give an account of the propositional contents of bare EP sentences but to explain how people can use or understand uses of them as involving a certain perspective. Generally the perspective is self-centered or at least self-involving, but sometimes it is not. For example, if it is obvious that the hearer knows the truth-value of the core proposition, the speaker’s perspective does not plausibly incorporate the hearer’s, since the speaker probably isn’t telling the hearer something that he doesn’t already know. If it is obvious that the speaker knows the truth-value of the core proposition, the speaker’s perspective is not plausibly the relevant one, since then the speaker could have just come out and asserted or denied the core proposition. If the speaker and the hearer cannot be expected to agree on what the relevant perspective is, the speaker needs to make explicit what the intended perspective is. In some cases, it may be unclear or misunderstood what the intended perspective is. Or the interlocutors may be under the illusion that they share perspectives. They may both accept the possibility in question but not believe the same EP proposition – they accept that possibility from different perspectives. Or they may at first think that they share a perspective and then, with one accepting and the other rejecting the possibility in question, retreat to their respective perspectives. There are all sorts of possibilities here. Generally, however, we know when to use bare epistemic possibility sentences, even though they do not express full-fledged propositions. As theorists, we have to figure this out. As speakers, we already understand this reasonably well.

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