

## BOUNDARY IN CONTEXT (REVISED)

*Contextualisms* are something of a craze in philosophy these days. A contextualism maintains that the truth-value of an utterance of a sentence from a specific portion of natural language (e.g., knowledge sentences) may vary depending on the context. Contextualisms pertaining to knowledge, explanation, freedom and other important philosophical concepts are now readily available for consumption.<sup>1</sup> Crazes (and even fads and rages) can be good, and my suspicion is that this one is. How good depends on the viability of some theoretical foundation that takes contextualisms beyond being a disconnected assortment of intriguing claims about relevant alternatives, high and low standards, context shifts, etc. In this paper, building on the work of Robert Stalnaker and David Lewis, I sketch such a foundation and reveal its potential by briefly considering its application to the context-dependence of utterances of subjunctive conditional, explanation and knowledge sentences.

### 1. Stalnaker on Context/Lewis on Boundary

According to Stalnaker, context includes information presumed to be shared by the participants in the conversation. For the simplest, most straightforward cases, he proposes representing this information, *the common ground*, by a set of possible worlds, *the context set*. Intuitively, the presumed-to-be-shared information is what is true in all the members of the context set. Stalnaker takes this information to be what is presupposed. He also takes the common ground to play important

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<sup>1</sup>Knowledge: Cohen 1986, 1988, DeRose 1995, Heller 1999, Lewis 1996, Neta 2003, Unger 1986; Explanation: van Fraassen 1980, Woodward 1984; Freedom: Hawthorne 2001.

roles as regards assertion. If I utter ‘The king of France is bald’, then, in order for me to assert that the king of France is bald, the common ground must include the presupposition of that sentence that there is presently one and only one king of France. In an ordinary case, this is to say that the context set must include only worlds in which there is just one such king. It is not required that the king of France be bald in these worlds. Indeed, that would undermine the point of the assertion. “Assertions ... are proposals to change the context by adding the information that is their content” (Stalnaker 1999, 111).

With certain sorts of speech acts, especially those involving embedded sentences, certain presumed-to-be-shared information is to be represented by a *derived set*. For example, when a *supposition* is made, a derived set often comes into play. Think of an utterance of a sentence of the form ‘Suppose P’, as a proposal to (temporarily) treat the content of ‘P’ as one would treat a successful assertion of that content. If the proposal is accepted and the content of ‘P’ *does not* conflict with the common ground, then the context set itself is restricted to include only worlds in which the content of ‘P’ is true. If the proposal is accepted and the content of ‘P’ *does* conflict with the common ground, then a derived set comes into play and it includes only worlds in which the content of ‘P’ is true. The relationship between a derived set and the context set is important. The context set does not go away when a derived set comes into play; it is just set aside for certain segments of the conversation.

I will adopt Stalnaker’s account of context as just presented with two modifications. First, instead of representing the common ground by a set of possible worlds, I will represent it as a set of propositions. This doesn’t require any major changes to Stalnaker’s account of context. For example, his account of supposition changes in only superficial ways. An utterance of a sentence of the form

‘Suppose P’ is still a proposal to (temporarily) treat the content of ‘P’ as one would treat a successful assertion of that content. The main difference is whether content is added to the common ground by *adding a proposition* or by *eliminating possible worlds*. Second, in the representation of the common ground, it will be important that we keep track of which of the propositions are suppositions and which are *presuppositions*. (Presupposing P includes a commitment to the truth of P that supposing P does not.) As we will see, important features of many modal utterances are sensitive to the falsity of a presupposition in a manner that they are not sensitive to the falsity of a supposition. Just so, it is important that I not represent the common ground (as Stalnaker does) in one uniform presuppositional lump.

In “Scorekeeping in a Language Game”, Lewis suggests that, for an utterance of a sentence with modal terms, context has an important role to play in the determination of the utterance’s truth conditions.

The boundary between the relevant possibilities and the ignored ones ... is a component of conversational score, which enters into the truth conditions of sentences with ‘can’ or ‘must’ or other modal verbs (Lewis 1983, 246).

Probably his best known illustration of this idea is from “The Paradoxes of Time Travel”:

To say that something can happen means that its happening is compossible with certain facts. *Which* facts? That is determined, but sometimes not determined well enough, by context. An ape can’t speak a human language—say, Finnish—but I can.

Facts about the anatomy and operation of the ape's larynx and nervous system are not compossible with his speaking Finnish. The corresponding facts about my larynx and nervous system are compossible with my speaking Finnish. But don't take me along to Helsinki as your interpreter: I can't speak Finnish. My speaking Finnish is compossible with the facts considered so far, but not with further facts about my lack of training (Lewis 1986, 77).

Lewis uses this idea to resolve the Grandfather Paradox. Suppose Tim's grandfather died of natural causes in 1957. Still, Tim wishes that he had killed Grandfather. Tim hops into a time machine and emerges in 1920. After careful planning and training, Tim is well prepared to murder his grandfather on one winter day in 1921.

Tim's killing Grandfather that day in 1921 is compossible with a fairly rich set of facts: the facts about his rifle, his skill and training, the unobstructed line of fire, the locked door and the absence of any chaperone to defend the past, and so on. Indeed it is compossible with all the facts of the sorts we would ordinarily count as relevant in saying what someone can do. ...Relative to these facts, Tim can kill Grandfather. But his killing Grandfather is not compossible with another, more inclusive set of facts. There is the simple fact that Grandfather was not killed. Also there are the various other facts about Grandfather's doings after 1921 and their effects ... Relative to these facts, Tim cannot kill Grandfather (Lewis 1986, 77).

I find Lewis's case for context setting a boundary between the relevant possibilities and the ignored ones convincing. I hope I have said enough, or you've said things like "I can't have the book review done by the end of the month" often enough, that you will go along with me on the need for the boundary as part of the conversational score.

If so, I make the following suggestion: The boundary between the relevant possibilities and the ignored ones is determined by the common ground of the context of evaluation. The context of evaluation will often be the common ground *at the time* the utterance was made. There are exceptions. For example, sometimes the common ground adjusts as a result of the participants in the conversation accommodating the speaker by adding presuppositions of the utterance just *after* the utterance is made, in which case it is this new common ground that is likely to serve as the context of evaluation. In any case, to see how my suggestion is supposed to work, notice that it is when we suppose that Grandfather was not killed in 1921 that it seems so natural to say, 'Tim can't kill Grandfather'. It is when we don't suppose that, and only suppose matters very local to Tim's stalking Grandfather, that we are inclined to say, 'Tim can kill Grandfather'. What I offer here is a hypothesis as to the set of facts with which a proposition needs to be compossible for that proposition to correctly be asserted to be possible. For any assertion, this set of facts is the common ground—the suppositions and presuppositions—of the context of evaluation. Thus, the assertion made by an utterance of ' $\diamond P$ ' is true if and only if the content of 'P' is compossible with the common ground of the assertion's context of evaluation.<sup>2</sup> The corresponding account for necessity assertions is: The

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<sup>2</sup>My approach is similar to the approach of Chierchia and McConnell-Ginet (1990, 235-237) though in their discussion of presupposition they do not go so far as to identify any relationship between the common ground and what they call the modal base. See their discussion of the common

assertion made by an utterance of ‘ $\Box$ P’ is true if and only if the content of ‘P’ is entailed by the common ground of the assertion’s context of evaluation.<sup>3</sup>

This account of the truth conditions of modal assertions may need to be qualified to sidestep a messy matter stemming from the possibility of false presuppositions. Suppose Smith utters, ‘Jones can’t get polio’, and it is presupposed that Jones has had a polio vaccination. Suppose also that, unbeknownst to all the participants of the conversation, that Jones has not been vaccinated and so is at risk. Then, it seems that Smith has not made a true assertion, despite the fact that the content of ‘Jones gets the disease’ is not compossible with the common ground. My current<sup>4</sup> take on cases

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ground vs. the modal base (pp. 290-291).

<sup>3</sup>My statement of the truth conditions of necessity assertions uses the verb ‘entails’. It is tempting to take this modal term *not* to be context-sensitive, perhaps as expressing some formal notion of logical consequence. That is fine for the purposes of this early sketch of my framework. It does keep matters conveniently simple. Nevertheless, I am tempted to think that ‘entails’ as used in the text should not be treated in any exceptional way. Ultimately, I suspect that it is best understood as context-sensitive too and subject to the very account proposed here. Parallel points also apply to my statement of the truth conditions of possibility assertions and its use of the phrase ‘is compossible’.

<sup>4</sup>My first temptation when faced with an example like this was to change my specification of the boundary to require that the boundary only include the suppositions and the true presuppositions of the common ground (cf., Carroll, forthcoming). My thought was that Smith had actually made a false assertion. Changing the specification of the boundary as just mentioned provides just that result. But, now I don’t think that this is the way to go: Suppose again that Jones wasn’t vaccinated but this

like this is that the essential context-dependence of modal assertions generates an interesting but familiar phenomenon in a new guise. Because of this context-dependence, a false presupposition of *the conversation* can have effects parallel to the effects of a false sentential presupposition, a presupposition of *a sentence*. Since the elements of the common ground are already being taken for granted, they are no part of the information the speaker intends to convey by the modal utterance, but his commitment to the truth of the conveyed information is still sensitive to what is being taken for granted. So, for example, should Smith find out that Jones wasn't vaccinated, he may want to retract his utterance. It would be like saying, 'The king of France is bald', presupposing that there is a king of France, and then finding out that there is not. When we do recognize cases like the vaccination case as involving something akin to sentential presupposition failure, familiar hard questions arise. It certainly seems that no *true* assertion is made in the vaccination case, but are we prepared to say that a *false* assertion was made or is it that the presupposition failure undercuts there being any assertion at all? I am tempted to maintain that no assertion is made in these cases, because then no qualification of my account would be necessary. But, truth be told, I am pretty sure that this would be too simplistic.<sup>5</sup> So, rather than feigning to settle these and other hard issues about

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time suppose that he is genetically immune to the disease, and so doesn't have the normal susceptibility to the disease. If Smith made a false assertion in the original case, then Smith makes a true assertion in this variation of that case, even though his getting polio is compossible with the true presuppositions and the suppositions. A huge thank you to Marc Lange for raising both versions of the vaccination example.

<sup>5</sup>See von Fintel (2004) and Yablo (forthcoming) for a taste of the complications concerning sentential presupposition failure.

presupposition failure, I'll sidestep them thus: Take my account of the truth conditions of modal assertions to apply only in cases where all the presuppositions of the common ground of the context of evaluation are true. The possibility that some suppositions are false is not as troublesome as the possibility that some presuppositions are false. If we are supposing that there is a monster in the next room, then an utterance of 'It must be scary in there' should clearly be counted as making an assertion and as true even though there is (presumably) no monster in there. No restriction of my account is needed to sidestep potential worries about false suppositions of the conversation.

How does this framework apply to the contextualism craze? By way of illustration, in the next three sections, I briefly consider subjunctive conditional assertions, explanation assertions and knowledge assertions. Section 2, the section on the subjunctive conditional, is especially important because, in the subsequent sections, subjunctive conditional sentences will help understand the contextual behavior of knowledge sentences and explanation sentences.

## 2. The Subjunctive Conditional

Consider a simple analysis of the subjunctive conditional ('>' abbreviates 'If P were the case, then Q would be the case'):

$$P > Q \text{ if and only if } \Box(P \supset Q),$$

with a contextualist twist developed by Ken Warmbröd (1981) and Kai von Fintel (2001). Very

roughly, as Warmbrød describes it, context will supply what he calls auxiliary assumptions or auxiliary “suppositions”, which together with P, must entail Q in order for it to be true that if P were the case Q would be the case. The auxiliary assumptions function something like the cotenable propositions and laws of nature do in Nelson Goodman’s work (1983; 8-9, 15) or like what Roderick Chisholm calls “presuppositions” in his (1955, 102-103).

There is a straightforward way to incorporate this approach to subjunctive conditionals into my contextualist framework from Section 1. Take utterances of subjunctive conditional sentences as proposals to (temporarily) exclude their consequent and the negation of their antecedent from the common ground.<sup>6</sup> If the negation of the antecedent of a subjunctive conditional sentence is in the common ground, then either a derived set comes into play such that the negation of the antecedent is not in the derived set or else the utterance makes no assertion. Same goes for the consequent of the conditional: If it is in the common ground, either a derived set that does not include it comes into play or else the utterance of the conditional fails to make an assertion. If the proposal to exclude the consequent and the negation of the antecedent is accepted, then the utterance of the subjunctive conditional sentence asserts that, necessarily, the antecedent implies the consequent. It is at this point

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<sup>6</sup>von Fintel (2001, 134-135) reports that Irene Heim made the proposal that, roughly, subjunctive conditionals presuppose that their antecedent is possible. von Fintel adopts Heim’s proposal. In a way, I am making the additional suggestion that subjunctive conditionals also presuppose the negation of the consequent is possible. My description of the role of the boundary further supplements von Fintel’s analysis by making a suggestion as to how what he calls *the modal horizon* expands and contracts. His footnote 15 (p. 147) mentions an idea something like the proposal I describe for including a role for the boundary.

that the boundary becomes important. If the presuppositions of the common ground are all true and the common ground entails that the antecedent implies the consequent, then the assertion made by the utterance of the subjunctive conditional sentence is true. If the presuppositions of the common ground are true and the common ground doesn't entail that the antecedent implies the consequent, then the assertion is false. Support: In standard philosophical discussions of time travel, why do we often say, 'If Tim were to try to kill Grandfather, he would fail'? Obviously, for the same sorts of reasons that we say in these contexts, 'He can't kill Grandfather'. We are supposing that he didn't. So, it *must* be true that *if he tries then he fails*.

This is not the place to try to give a full defense of my approach to subjunctive conditionals. But, I should at least address one standard example of a criticism that has been thought to undermine this idea:

(1) If the match were struck, then it would light.

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∴ (2) If the match were struck and wet, then it would light.

It seems that the premise is true, but, in conjunction with the proposed analysis, the premise also seems to entail an obvious falsehood. Surely, the objection goes, it might be true that, if the match were struck, it would light even though, if it were struck and wet, then it would not light. Fortunately, the argument just given is fallacious because the premise being true and the conclusion being false depends on there being a change of the context of evaluation. Though utterances of sentence (1) are true in many contexts, utterances of sentence (2) fail to make an assertion in those contexts. In a

typical context in which (1) is uttered, the context of evaluation will include the presupposition that the match is dry. In those contexts, the negation of the antecedent of (2) is presupposed and so an utterance of (2) fails to make an assertion relative to those contexts. For just this reason, these are not natural contexts of utterance for (2). Not surprisingly, an utterance of (2) does make an assertion and is false in its many more natural contexts of utterance. To avoid the antecedent contradicting a member of the common ground, these contexts will not include that the match is dry. These contexts do not present any problem for the proposed analysis either. Given the analysis, it is hard to see how (1) could be true in any of these contexts precisely because they lack the proposition that the match is dry.

Time now to consider explanation assertions and knowledge assertions. As I said at the end of Section 1, in doing so, I let certain subjunctive conditional sentences be my guide. For the case of explanation, I rely on the principle: Q because P only if Q would be the case if P were the case.<sup>7</sup> For the case of knowledge, the relevant counterfactuals are what are sometimes called sensitivity conditionals. So, with the knowledge sentences, I rely on the principle that S knows Q only if S wouldn't believe Q if Q weren't the case. These principles are hardly without their critics, but they are only being used here as a rough guide to the context-dependence of knowledge and explanation sentences. My goal, remember, is just to support the idea that the framework sketched above is one

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<sup>7</sup>Some may be surprised that I do not rely on the conditional that, if the explanans weren't the case, then the explanandum wouldn't be the case. Though I think that this conditional can also be a useful guide to the contextual nature of explanation, I haven't relied on it here simply because it won't distinguish utterances (4) and (5) discussed in Section 3. Both conditionals are employed in Menzies (2004).

worth developing.

### 3. Explanation

For explanation assertions, I will begin by considering a basic case with some similarities to a case discussed by Bas van Fraassen (1980, 127). Suppose it is true and presumed to be shared information that Adam was hungry, that he was going to eat either the pear or the apple (not both), and that he just devoured an apple. So, all of this information is true and in the common ground. Suppose also that someone asks,

(3) Why did Adam eat the apple?

Suppose someone else answers:

(4) Adam ate the apple because he prefers apples to pears.

What's going on? Why does this seem so natural? Why is the utterance of (4) likely to be both true and highly assertable?

Let the subjunctive conditional sentence for (4) (namely, 'if Adam were to prefer apples to pears, then he would eat the apple') lead us. An utterance of this conditional proposes that the negation of its antecedent and also its consequent not be in the common ground. So, since the

consequent is presupposed, a derived set where that is not presupposed needs to become the context of evaluation for an assertion to be made. If the conversation is normal, one would expect the presupposition that Adam was hungry, the presupposition that he was going to eat either the apple or the pear, and commonplace presuppositions about how the world ordinarily works all to carry over from the original context to the derived set. In that case, it would be natural for the participants in the conversation to accept the assertion of the conditional, because it is plausible to think that Adam's preferring apples to pears and the carryover presuppositions together entail that he eats the apple. With it presupposed that Adam was hungry, that he was going to eat either the pear or the apple, etc., it is plausible that, necessarily, Adam's preferring apples to pears implies his eating the apple.

In the same conversation, an answer of 'Adam was hungry' does not seem as though it would be so assertable. So, suppose what was uttered is (5), not (4):

(5) Adam ate the apple because he was hungry.

Many things may contribute to (5)'s low assertability. First, that he ate the apple because he was hungry might itself be presupposed. Then asserting (5) would have no point. Second, assuming that what is asserted is not already presupposed, there is reason to think that the utterance of (5) would be false. Notice that, for an utterance of (5)'s correlate conditional to make an assertion, the context needs to be a derived set in which its consequent (i.e., that Adam ate the apple) is not presupposed. Furthermore, it is not part of the original context that Adam prefers apples to pears and so that is not likely to appear in the derived set either. So, there is no reason to think that Adam's being hungry together with the other presuppositions of the derived set entail that he eats the apple; an utterance

of (5)'s correlate conditional would not be true. Letting this conditional be our guide, it looks like the utterance of (5) would be false.

Let's see how this all applies to a case discussed by James Woodward:

Suppose (to use a hackneyed example) that *A* who has an ulcerated stomach, eats parsnips and develops indigestion. *A* may (truly) say,

(6) Eating parsnips caused<sup>8</sup> my indigestion

and mean that his eating parsnips accounts for the contrast between the actual situation and an otherwise similar situation in which his stomach is ulcerated but in which he develops no indigestion. Here *A* attempts to answer the following question, 'Given that my stomach is ulcerated why did I get indigestion on this particular occasion and not on others?' *A*'s doctor, on the other hand, may understand the question, 'Why did *A* get indigestion?' in a different way—as a request for a factor which distinguishes the actual situation from an otherwise similar situation in which *A*'s digestive system functions normally and he does not develop indigestion while eating parsnips. If so, *A*'s doctor will offer a different explanation. He will say

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<sup>8</sup>Woodward uses 'to cause' instead of 'because' or 'to explain' in his examples of singular causal explanation sentences. In the quotation, I have renumbered Woodward's example sentences so that they fall in line with my numbering of the other displayed examples from this paper.

(7) *A*'s ulcerated stomach caused his indigestion

and mean that this factor explains why *A* developed indigestion while other people (or *A* at an earlier time) do not when they eat parsnips. So there are two plausible readings of the question, 'What caused *A*'s indigestion?' and corresponding to these, a sense in which (6) is correct and a sense in which it is not, and similarly for (7) (1984, 250-251).

As indicated in the quotation, Woodward thinks that what is going on here is that (6) and (7) are intended to explain certain contrasts. But, Woodward's use of the given-that clause readily suggests how these utterances can also be understood from my contextual framework. When *A* says (6), it appears that he intends to answer the why-question from a context that includes the presupposition that *A* has an ulcerated stomach, but doesn't include the presupposition that he ate parsnips or the presupposition that he had indigestion. Just so, there seems to be no problem with (6). It is as natural, highly assertable, and likely to be true as the assertion of (4) in the Adam/apple example. In contrast, were the doctor to answer the why-question as raised in such a context by uttering (7), his answer should strike *A* as odd. For *A*, the context does not include that he ate parsnips, and so, from *A*'s viewpoint, (7) runs into some of the same sorts of potential problems as did (5) in the Adam/apple example. For example, since it is not presupposed that *A* ate parsnips, there is no reason to think that *A*'s having an ulcerated stomach together with the common ground of the context of evaluation entails that *A* has indigestion. Shifting to how that doctor sees the situation, he takes the why-question as asked in a context in which there is the presupposition that *A* ate parsnips but not the

presupposition that *A* has an ulcer or the presupposition that *A* had indigestion. So, from the doctor's viewpoint, to answer with (6) is potentially a problem and (7) seems perfectly assertable.

My account of these conversations foreshadows an alternative to a certain standard view about explanation. *Contrastivism* is a kind of contextualism, one that usually maintains that the truth of ordinary explanation sentences depends on a contextually determined implicit 'rather than' clause supplying a contrastive foil for the explanandum. My account applies a plausible, well motivated story about the dynamics of conversations, a story built on the received view of context. Yet my account makes no appeal to implicit 'rather than' clauses or the contrasts they are supposed to supply, even though both van Fraassen and Woodward think that such an appeal is called for by their examples. This suggests that there is an alternative to a popular form of contextualism in the philosophy of science.

#### 4. Knowledge

Once again, I will start with a simple case, this time one from Keith DeRose.

Bank Case A: My wife and I are driving home on a Friday afternoon. ...as we drive past the bank, we notice that the lines inside are very long... Although we generally like to deposit our paychecks as soon as possible, it is not especially important in this case that they be deposited right away, so I suggest that we ... deposit our paychecks on Saturday morning. My wife says, "Maybe the bank won't be open tomorrow. Lots

of banks are closed on Saturdays.” I reply, “No, I know it will be open. I was just there two weeks ago on Saturday. It’s open until noon.”

Bank Case B: ..., I ... suggest we deposit our paychecks on Saturday morning, explaining that I was at the bank on Saturday morning only two weeks ago and discovered that it was open until noon. But in this case, we have just written a large and very important check. If our paychecks are not deposited in our checking account before Monday morning, the important check we wrote will bounce, leaving us in a *very* bad situation. And, of course, the bank is not open on Sunday. My wife reminds me of these facts. She then says, “Banks do change their hours. Do you know that the bank will be open tomorrow?” Remaining as confident as I was before that the bank will be open then, still, I reply, “Well, no. I’d better go in and make sure” (DeRose 1992, 913).

Let’s consider these two cases building on the ideas from Sections 1 and 2, starting with Bank Case A.

In making the suggestion to deposit the checks tomorrow, it is clear that Keith presumes that the bank will be open. His wife is not prepared to go along with the suggestion, at least not yet. She makes an assertion that, if accepted, will keep the proposition that the bank will be open out of the common ground; ‘Maybe the bank won’t be open tomorrow’ calls for the common ground not to include that the bank will be open. Then, Keith tries to establish that the bank will be open, trying to convince his wife that he does know it will be open by citing some of his evidence. By the end of the

conversation, it seems that the bank's being open does become presumed to be shared information between Keith and his wife. Assuming the bank will be open, there is no apparent reason to think Keith's assertion of 'No, I know it will be open' is false.

A consideration of the corresponding sensitivity conditional is in line with this conclusion. The common ground seems to include a lot of relevant information. For example, it seems to include propositions to the effect that Keith went to the bank two weeks ago, that if the bank was open then it will be open tomorrow, and that if the bank hadn't been open then Keith wouldn't believe it would be open tomorrow. If these propositions are in the context of evaluation, then it will turn out according to the analysis of Section 2 above that an assertion of 'If the bank weren't going to be open tomorrow, then Keith wouldn't have believed that it would be' would be true. After all, the evidently true presuppositions that Keith went to the bank two weeks ago, that if the bank was open then it will be open tomorrow, and that if the bank hadn't been open then, Keith wouldn't believe it would be open tomorrow together entail that the bank's not being open implies that Keith doesn't believe it will be open. So, the correlate sensitivity conditional is true for the context of evaluation for Keith's utterance of 'No, I know it will be open'.

Things go differently in Case B. When Keith's wife says that banks do change their hours, she raises the possibility that their bank has changed its hours in the last two weeks. This blocks as a presupposition something Keith seemed prepared to include in the common ground; namely, that if the bank was open two weeks ago, then it will be open tomorrow. Apparently, given his wife's remark, Keith no longer seems prepared to presuppose that. The context of evaluation for 'Well, no. I'd better go in and make sure' leaves it as possible that the bank has changed its hours in the last two weeks. If it is possible that the bank has recently changed its hours, the sensitivity conditional is not

in as good shape as it was in Bank Case A. The bank's not being open tomorrow together with what is presupposed won't entail that Keith does not believe that the bank will be open. As the context evolves in Bank Case B, Keith's formation and retention of his belief is not sensitive to any recent changes of hours.

The bank example, thus, fits nicely with the positions sketched in my Sections 1 and 2. But, the real payoff may occur when we turn to other well known examples and issues from the epistemology literature. Here's one:

I know the animal in that cage is a zebra. If closure is true, then I also know that the animal in that cage is not a mule disguised to look like a zebra. But, by sensitivity, I don't know that the animal in the cage isn't a mule disguised to look like a zebra; if there were a mule disguised to look like a zebra, I would still have believed there wasn't.

Friends of the sensitivity conditional as a necessary condition of knowledge argue therefore that closure is false. Friends of closure instead take the example to show that sensitivity is not a necessary condition of knowledge. I say they both may have been misled by shifting contexts. A context of evaluation for an utterance of 'If the animal in that cage were not a zebra, I wouldn't believe it was' is likely to have a certain sort of common ground, one that includes something like that the animal in the cage is a zebra or else it is another familiar and ordinary zoo animal. In such a context, the corresponding knowledge assertion will be true. An utterance of 'If the animal in that cage were a cleverly disguised mule, then I wouldn't believe it wasn't' will not make an assertion in that context

because the negation of the antecedent is presupposed. An assertion of this counterfactual calls for a change of context, a change that drops the sorts of presuppositions just mentioned, counting there being a painted mule in the cage as possible. Well, yes, sure, then it is true that if the animal were a mule disguised to look like a zebra, I would still believe it wasn't. In such a context, it will be true to say, 'I didn't know it was not a disguised mule' and 'I didn't know it was a zebra'. Different contexts, different true knowledge assertions, different true counterfactual assertions, never a real threat to closure or sensitivity.

It doesn't stop there. There are a lot more issues to be explored. Here's just a taste: First, in cases where the presuppositions of the context of evaluation do not exclude brain-in-the-vat or evil-demon possibilities, most knowledge claims and corresponding sensitivity conditionals won't be true. This is a result contextualists will embrace. Second, the Stalnaker theory of context has included in it a story about how context changes. So, we should expect it to have consequences about what raising standards (eliminating presuppositions) and lowering standards (adding presuppositions) really amounts to. Third, on the analysis of the subjunctive conditional given in Section 2, assuming that neither their consequents nor their antecedents are presupposed in the context of evaluation, the sensitivity conditional (If P weren't the case, S wouldn't believe P were the case) and the safety conditional (If S were to believe P, then P would be the case) are equivalent because ' $\Box(\sim P \supset \sim Q)$ ' and ' $\Box(Q \supset P)$ ' are equivalent. What could be going on in debates between those authors who favor one over the other as a necessary condition of knowledge?

## 5. Conclusion

I hope my discussions of knowledge assertions and explanation assertions suggest to you a program for further investigation. Find an issue on which context-dependence seems a live option and where subjunctive conditional discourse seems especially pertinent. You know the usual candidates: explanation, knowledge, causation, action, perception, lawhood, measurement, dispositions, freedom, harm, and so on. See how changes in the boundary of possibility—differences among the true presuppositions—affect utterances of the key subjunctive conditionals and thereby determine how they affect utterances of the issue-key sentences (the explanation sentences, the knowledge sentences, etc.). Always keep in mind that a change in the boundary is a change in context. Then, see how that affects the issue at hand. It is my contention that the rewards of applying this approach will be many. As I see it, awareness of the boundary generates unbounded opportunities.<sup>9</sup>

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