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Variations on Anderson Conditionals

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1 Introduction

It is widely agreed that conditionals of the form ‘if p, q’ come with one of two types of marking: they are either subjunctive or indicative.¹ What does this difference tell us about the conditionals’ semantics (broadly construed)?

Many agree with the following negative answer: the difference between subjunctive and indicative conditionals matches neither the distinction between counterfactual and noncounterfactual conditionals nor the distinction between nonfactual and factual conditionals. Both subjunctive and indicative conditionals can suggest that the antecedent is false; they can leave it open what the truth value of the antecedent is; and they can suggest that the antecedent is true.² Typically, subjunctive conditionals do suggest something about their antecedent – they typically convey counterfactuality –, while, typically, indicative conditionals leave the truth value of the antecedent open, but since there are exceptions to this rule neither a conditional’s subjunctive marking nor its indicative marking indefeasibly conveys anything about the antecedent’s truth value. In other words, neither kind of marking entails, or semantically presupposes, or conventionally implicates anything about the antecedent’s truth value. But what then does the difference between subjunctive and indicative conditionals tell us about the conditionals’ semantics?

1 Following von Fintel and Iatridou (ms), one might prefer to speak of conditionals with x-marking and conditionals with o-marking.

2 For subjunctive conditionals that seem to suggest that the antecedent is true, see most prominently Anderson (1951). For subjunctive conditionals that seem to leave it open what the truth value of the antecedent is, see Stalnaker (1975) and Edgington (2008). For indicative conditionals that seem to suggest that the antecedent is true, see, e.g., Iatridou (1991) and Haegeman (2003). For indicative conditionals that seem to suggest that the antecedent is false, see von Fintel and Iatridou (ms).

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In his paper ‘Another Way to Look at Counterfactuals’, Klein offers a positive proposal. In a nutshell, it has it that while subjunctive conditionals imply that the topic situation of the conditional is in a nonactual world, indicative conditionals imply that the topic situation is in the actual world (cf. pp. 217, 218). This seems to be roughly equivalent to saying that while subjunctive conditionals of the form ‘if p, q’ imply that there is a nonactual world such that since p holds at that world, q holds at that world, indicative conditionals of the form ‘if p, q’ imply that the actual world is such that if p holds at it, q holds at it as well.

Klein’s proposal straightforwardly accommodates one of the central claims of the mainstream view of subjunctive conditionals: that they don’t indefeasibly convey that the antecedent is false. For, clearly, that there is a nonactual world such that since p holds at that world, q holds at that world merely implies that there is a nonactual p world that is a q world and leaves open whether p is false at the actual world (cf. p. 222). Likewise, his proposal straightforwardly accommodates one of the central claims of the mainstream view of indicative conditionals: that they don’t indefeasibly convey that the antecedent is true. For that the actual world is such that if p holds at this world, q holds at it as well does not imply that the actual world is both a p and a q world and so leaves open whether p is true at the actual world (cf. p. 218).

Klein’s proposal leaves a couple of questions unanswered, for instance, when and how subjunctive conditionals convey counterfactuality of the antecedent, and when and how indicative conditionals achieve the same. At one point, though, Klein indicates that he considers this a question for pragmatics (cf. p. 206), and with this attitude, too, he aligns with the mainstream.³

In this short paper, I focus on subjunctive conditionals and leave indicative conditionals aside. I start from the common assumption that there are two types of subjunctive conditionals. There are *would* conditionals (also called *non-past subjunctive* or *present counterfactual conditionals*) like (1) and there are *would have* conditionals (also called *past subjunctive* or *past counterfactual conditionals*) like (2):

- (1) If Jones took cocaine, he would have fun.
- (2) If Jones had taken cocaine, he would have had fun.

Against the mainstream and concomitantly Klein, I argue that at least *would have* conditionals — the latter type of subjunctive conditionals — indefeasibly convey

³ See, e.g., Stalnaker (1975), Karttunen and Peters (1979), Comrie (1986), von Stechow (1998, 2012), Iatridou (2000), Nevins (2002), Ippolito (2003), Edgington (2008), Leahy (2011a, 2011b, 2018), Arregui and Biezma (2015), Starr (2014), and Mackay (2019).

that the antecedent is false (call this the *minority view*, to be distinguished from the *majority view* according to which the conditionals in question merely defeasibly convey that the antecedent is false). More concretely, I argue that *would have* conditionals have the antecedent's counterfactuality as a non-at-issue content that belongs to the conditional's semantics (broadly construed) rather than its pragmatics. Even more concretely, I suggest that *would have* conditionals have the antecedent's counterfactuality as a semantic presupposition, but depending on one's background theory, one could also model it as a conventional implicature.

I proceed as follows. In Section 2, I look at data featuring what I call *Anderson Conditionals*. I outline an updated version of my argument from Zakkou (2019), showing that these data do not support the majority view. In Section 3, I present novel data partly featuring explanative, concessive, unconditional, *even if* and *only if* variations on Anderson Conditionals. I tentatively argue that these data speak in favor of the minority view. In Section 4, I conclude.

I stay neutral on how best to describe the difference in surface appearance between subjunctive and indicative conditionals. The difference might be said to be about mood or tense or something else instead, but as far as I can see nothing hinges on that for the following.

I concentrate on English conditionals and leave data from other languages aside; also, as indicated, I focus on unmodified and modified Anderson Conditionals and bracket out further challenges to the minority view.⁴ My aim is to contribute one consideration that is relevant to the larger quest of developing a universal theory of the semantic difference between the indicated types of conditionals; my aim is not to present such a theory in full.

2 Anderson Conditionals

In this section, I look at one prominent argument for the claim that *would have* conditionals merely defeasibly convey that their antecedents are false. It goes back to Anderson (1951) and features what I call *Anderson Conditionals* like (3):

- (3) If Jones had taken arsenic, he would have shown the same symptoms he actually showed.

For the first part of the argument, consider the following reasoning:

- (4) If Jones had taken arsenic, he would have shown the same symptoms he actually showed. So, he didn't take arsenic.

⁴ See Stalnaker (1975), Edgington (2008), and von Stechow (1998). I respond to them in Zakkou (2019).

This reasoning sounds strange. If, however, *would have* conditionals indefeasibly conveyed that their antecedents are false, (4) should sound fine, or so the proponent of the majority view claims. Why? Well, if these conditionals indefeasibly conveyed that their antecedents are false, then each one of them should convey at any context of use that its respective antecedent is false. Accordingly, (3) should convey in the context of (4) that its antecedent is false. But if that were the case, (4) should sound fine. After all, there is not even an apparent tension between the falsity of the antecedent of (3) and the content of the last sentence of (4).

I think the last step of the argument is unconvincing.⁵ According to the minority view, there is indeed not even an apparent tension between the falsity of the antecedent and the proposition that Jones didn't take arsenic, but we should not expect that this suffices for (4) to sound fine. What would additionally be needed is that the first sentence provides a reason for what is presented in (4) as a conclusion. Clearly, though, this is not the case.

For the second part of the argument from Anderson Conditionals, consider the following reasoning:

- (5) If Jones had taken arsenic, he would have shown the same symptoms he actually showed. So, he took arsenic.

This reasoning sounds fine. If, however, *would have* conditionals indefeasibly conveyed that their antecedents are false, (5) should sound strange, or so the proponent of the majority view argues. For, as suggested above, if these conditionals indefeasibly conveyed that their antecedents are false, each one of them should convey at any context of use that its respective antecedent is false, and so we'd expect that (3), too, conveys in the context of (5) that its antecedent is false. If that were the case, however, (5) should sound strange. After all, there is an outright contradiction between the falsity of the antecedent of (3) and the content of the last sentence of (5).

As before, I think that the last step of the argument is unconvincing. According to the minority view, there is indeed a contradiction between the falsity of the antecedent and the proposition that Jones didn't take arsenic, but we should not expect that this suffices for (5) to sound strange. To see why, let us rehearse a common assumption about speech acts.

Speech acts are often said to be governed by norms (see, most prominently, Williamson (1996, 2000)). These norms predict when a speech act is proper and

⁵ I'm not even sure that the first step is plausible. Sentences with definite noun phrases in topical subject position like 'The king of France is bald' are usually said to semantically presuppose that there is a king of France, but few would hold that every sentence with 'the king of France' in topical subject position conveys that there is a king of France. Think of 'The king of France is a myth'.

when it is improper. A simple knowledge norm of assertion, for instance, predicts that an assertion of *p* is proper if and only if the speaker knows that *p*.⁶ Consider now two speech acts, one with content *p* and one with content not *p*. When can they be concatenated felicitously?

If the norms of the two speech acts cannot jointly be met, we expect a concatenation of the two speech acts to sound strange without exception.⁷ To illustrate, compare the indicated norm of assertion with a plausible norm of question:⁸ you have to wonder whether *p* for your question of whether *p* to be proper. Arguably, one cannot jointly know that *p* and wonder whether not *p*. Accordingly, we expect a concatenation of an assertion that *p* and a question of not *p* to sound strange. This is what we find: ‘It is raining, but isn’t it raining?’ as well as ‘It isn’t raining, but is it raining?’ sound strange.

If the norms of the two speech acts can be jointly met, we expect a concatenation of the two speech acts to at least sometimes sound fine. To illustrate, compare the suggested norm of assertion with a plausible norm of command: you have to want that *p* while disbelieving that *p* for your command of *p* to be proper. Clearly, one can know that *p* while both disbelieving that not *p* and wanting that not *p*. Accordingly, we expect a concatenation of an assertion that *p* and command of not *p* to sound fine. This is what we find: ‘It is raining, but make it not rain!’ as well as ‘It isn’t raining, but make it rain!’ sound fine.

We can now see what the relevant question regarding (5) is: Can or can’t the norm of conveying the falsity of the antecedent of (3) and the norm of conveying the opposite with the last sentence of (5) be met together?

Let’s consider the second speech act first. Plausibly, the speaker is making an assertion. Now, while it is highly contested what the norm of assertion is, more or less everybody agrees that it is a doxastic or epistemic attitude, like belief, justified belief, knowledge, or even certainty.⁹

Let’s next consider the first speech act. Here, things are a bit more complicated. According to the minority view, *would have* conditionals indefeasibly convey that the antecedent is false. How exactly? There are at least three options. The falsity of the antecedent might be entailed, semantically presupposed, or conventionally

6 If a norm is merely meant to provide either a necessary or a sufficient condition for propriety, only one direction of the above claim holds.

7 Here and in the following, I’m bracketing change of heart contexts as well as contexts in which the speaker gains new evidence during the course of her speech.

8 I’m bracketing expository and rhetorical questions. Thanks to an editor.

9 A belief norm is suggested by Bach and Harnish (1979), a justified belief norm by, e.g., Kneer (2018), a knowledge norm by Williamson (1996, 2000), and a certainty norm by Stanley (2008). Weiner (2007) is one of the few people who argues against doxastic and epistemic norms and proposes a truth norm of assertion.

implicated. Let's assume the second option. Then it seems plausible that the speech act in question is the speech act of presupposition. Elsewhere I argue that the speech act of presupposition is more like assuming something than asserting something; importantly, the speech act of presupposing doesn't seem to be governed by a doxastic or epistemic attitude, but rather by a practical attitude, most plausibly rational acceptance for a given purpose (see Zakkou (ms)).

If this is correct, the norm of conveying the falsity of the antecedent of (3) and the norm of conveying the opposite with the last sentence of (5) can be met together. We can rationally accept for a given purpose that *p* while believing, or justifiably believing, or knowing, or even being certain that not *p*. Accordingly, it is predicted that (5) sounds fine.

Of course, much more needs to be said to show that the minority view is correct. In particular, more needs to be said in defense of the indicated assumptions about the two speech acts in question. Note, though, that as things stand there is work to do for proponents of the majority view as well. They have to show that the norms of the speech acts in question *cannot* be jointly met, which, as indicated, is anything but trivial.

3 Variations on Anderson Conditionals

In this section, I present so-far neglected considerations that seem to support the claim that *would have* conditionals indefeasibly convey that their antecedents are false. I don't consider any of them conclusive, but I hope that they will further the debate.¹⁰

3.1 Explanatives and concessives

Consider the following indicative conditionals:

- (6) If Jones took cocaine, he had fun.
- (7) If Jones takes cocaine, he will have fun.

With these conditionals, the speaker roughly presents the antecedent proposition as something that, when true, leads to John having (had) fun. She leaves open, however, whether the antecedent proposition is true. Now assume that the speaker

¹⁰ I don't consider the discussion exhaustive either. For relevant data on *unless* conditionals, see, e.g., von Stechow (1994, ch. 4.2.3).

wanted to be more affirmative. Assume that the speaker wanted to convey that the proposition is in fact true. Then she could use the following explanatives, respectively:¹¹

- (8) Since Jones took cocaine, he had fun.
- (9) Since Jones is taking {will take} cocaine, he is having {will have} fun.
- (10) Because Jones took cocaine, he had fun.
- (11) Because Jones is taking {will take} cocaine, he is having {will have} fun.

These sentences not only entail that Jones had, is having, or will have fun, but also that Jones took, is taking, or will take cocaine, respectively (Goodman 1954; McCall 1983; Schnieder 2011). Accordingly, one might say that the sentences are both main clause and subordinate clause factive.

Consider next the following indicative conditionals:

- (12) If Jones took cocaine, he still had fun {had fun nonetheless}.
- (13) If Jones takes cocaine, he still will have fun {will have fun nonetheless}.

With these conditionals, the speaker roughly presents the antecedent proposition as something that, when true, doesn't hinder Jones from having (had) fun. Like with (6) and (7), however, she leaves open whether the antecedent proposition is true. Assume once more that the speaker wanted to be more affirmative. Assume, as before, that she wanted to convey that the proposition is in fact true. Then she could use the following concessives, respectively:

- (14) Although Jones took cocaine, he had fun.
- (15) Although Jones is taking {will take} cocaine, he is having {will have} fun.
- (16) Even though Jones took cocaine, he had fun.
- (17) Even though Jones is taking {will take} cocaine, he is having {will have} fun.

¹¹ The expression *explanatives* is used here in analogy to *concessives*. I abstain from calling 'since' and 'because' *causal connectives*, since the sentences in question can but need not provide a causal explanation. Sentences (8) and (9) also have a temporal reading, but I leave that aside in the following.

These sentences not only entail that Jones had, is having, or will have fun, but also that Jones took, is taking, or will take cocaine, respectively (König 1986). So, here, too, one might say that the sentences are both main clause and subordinate clause factive.

Consider now the *would have* conditional (2), repeated here as (18):

(18) If Jones had taken cocaine, he would have had fun.

And compare it to the following:

(19) Since Jones had taken cocaine, he would have had fun.

(20) Because Jones had taken cocaine, he would have had fun.

These sentences sound strange.¹²

Consider also the following variation of (18):

(21) If Jones had taken cocaine, he still would have had fun {he would have had fun nonetheless}.

And compare it to the following:

(22) Although Jones had taken cocaine, he would have had fun.

(23) Even though Jones had taken cocaine, he would have had fun.

These sentences sound strange as well.

The minority view offers an immediate explanation. (19) and (20) as well as (22) and (23) sound strange because we expect them to convey both that the respective first part is false and that the respective first part is true. The former expectation is due to the subjunctive marking, the latter expectation arises from the semantics of the explanative and concessive conjunctions.¹³

One might object that the majority view can offer an at least equally plausible explanation. (19)–(20) and (22)–(23) sound strange because of their respective second part: the sentences convey on the one hand that the second part is false due to the subjunctive marking and that it is true due to their main clause factivity.

12 (19) and (20) as well as further sample sentences below might be said to sound fine if they are modally subordinated, but these seem to be special cases. For modal subordination, see, most prominently, Roberts (1989).

13 Didn't I argue above that one *can* felicitously concatenate two speech acts with content *p* and content not *p* in one breath and so shouldn't we expect that (19) and (20) as well as (22) and (23) sound fine according to at least one version of the minority view? My response, in a nutshell, is that while one can felicitously concatenate two speech acts with jointly contradictory contents, one cannot felicitously perform both of these speech acts at once.

To respond, note that *would have* conditionals at best conversationally implicate that their main clause is false. This can be seen by looking at (21), for instance, which does not convey that the main clause is false (see, similarly, Klein, p. 194). Accordingly, we would expect that the main clause factivity of the explanatives and concessives cancels the implicature so that no conflict arises. To corroborate, recall our Anderson Conditional (3), repeated here as (24):

- (24) If Jones had taken arsenic, he would have shown the same symptoms he actually showed.

This sentence does not convey that the consequent is false. Now compare it to the following:

- (25) Since {Because} Jones had taken arsenic, he would have shown the same symptoms he actually showed.
- (26) Although {Even though} Jones had taken arsenic, he would have shown the same symptoms he actually showed.

These sentences sound strange.

One might agree with this but object that the majority view can point to a much simpler explanation: the felt difference between the *would have* conditionals in question and the explanatives and concessives (19)–(20), (22)–(23), and (25)–(26) is due to a different syntactic status of the subordinate clause.

I won't look into this option in the following (for relevant discussion, see, e.g. Geis (1985)). Instead, I consider similar constructions, for which the indicated explanation seems less plausible.

3.2 Unconditionals

Recall (6)–(7) as well as (12)–(13) from above. Assume once more that the speaker wanted to be more affirmative. Assume this time though that she wanted to convey that the consequent is true irrespective of whether the antecedent is. She could then make use of the following:¹⁴

- (27) Whether or not Jones took cocaine, he had fun.
- (28) Whether or not Jones takes cocaine, he will have fun.

¹⁴ For recent discussion of unconditionals, see, e.g., Rawlins (2013) and Bledin (2020).

Now go back to (18) and (21) and compare them to the following:

(29) Whether or not Jones had taken cocaine, he would have had fun.

This sentence sounds strange.

Recall also our Anderson Conditional (3/24) and compare it to the following:

(30) Whether or not Jones had taken arsenic, he would have shown the same symptoms he actually showed.

This sentence sounds strange as well.

As before, the minority view offers an immediate explanation: (29) and (30) sound strange because we expect them to convey that the respective first part is false, which is absurd, since it is an exhaustive disjunction.

Can the majority view offer an at least equally plausible alternative explanation? The felt difference between (27) and (28) on the one hand and (29) and (30) is not due to the respective main clause (as seen above, *would have* conditionals at best conversationally implicate that their consequent is false) and it doesn't seem due to the syntactic status of the subordinate clause either; after all, 'whether or not' phrases seem to be more similar to 'if' than to 'since' and 'because' or 'although' and 'even though' phrases (König 1986).

But let's look at two further kinds of constructions that are even more similar to 'if p, q' conditionals.

3.3 *Even if* conditionals

Recall once more (6)–(7) and (12)–(13). Assume, as before, that the speaker wanted to be more affirmative and wanted to convey that the consequent sentence is true irrespective of whether the antecedent is. She could then make use of the following:¹⁵

(31) Even if Jones took cocaine, he had fun.

(32) Even if Jones takes cocaine, he will have fun.

Now go back to (18) and (21) and compare them to the following:

(33) Even if Jones had taken cocaine, he would have had fun.

¹⁵ For pertinent discussion of *even if* conditionals, see, e.g., Pollock (1976), Bennett (1982), Lycan (1991), Guerzoni and Lim (2007), and Tellings (2017).

This sentence sounds fine. Recall also our Anderson Conditional (3/24) and compare it to the following:

- (34) Even if Jones had taken arsenic, he would have shown the same symptoms he actually showed.

This sentence sounds fine as well.

One might think that this speaks against the minority view and in particular against the explanation given above according to which (29) and (30) sound strange since, due to the subjunctive marking, the sentences indefeasibly convey that the exhaustive disjunction is false. For if this explanation were correct, *would have* conditionals with *even if* should sound strange. After all, conditionals of the form ‘even if p, q’ imply both a conditional of the form ‘if p, q’ and a conditional of the form ‘if \neg p, q’, which, taken together, entail an unconditional of the form ‘whether or not p, q’. So, if (29) and (30) are predicted to sound strange, (33) and (34) are predicted to sound strange as well.

Does the minority view really predict that *would have* conditionals with *even if* sound strange? Note that there are two types of *even if* conditionals: introduced-‘if’ conditionals and standing-‘if’ conditionals (Bennett 1982). Only the former, not the latter, are said to imply both if ‘p, q’ and ‘if \neg p, q’ (Guerzoni and Lim 2007; Lycan 1991).

Sentences (33) and (34) are most naturally read as standing-‘if’ conditionals. For on the most natural reading, (33) and (34) do not imply their consequent.¹⁶ They would imply their consequent, however, if they were read as introduced-‘if’ conditionals.¹⁷ Now, clearly, the minority view does not predict that (33) and (34) sound strange when read as standing-‘if’ conditionals. For, as outlined, when read that way, the sentences do not imply both ‘if p, q’ and ‘if \neg p, q’.

Can (33) and (34) sound fine when read as introduced-‘if’ conditionals? Consider the exchanges (35) and (36) which force an introduced-‘if’ reading on B’s respective response. Intuitions seem to be shaky here, but my informants agree that B’s response is marked in both cases.

- (35) A: If Jones hadn’t taken cocaine, he would have had fun.
 B: Even if Jones had taken cocaine, he would have had fun.
- (36) A: If Jones hadn’t taken arsenic, he would have shown the same symptoms he actually showed.

¹⁶ Jones did certainly show the same symptoms he showed but that doesn’t mean that this proposition is conveyed.

¹⁷ It is sometimes suggested that only *even if* conditionals with (concealed) degree expressions can get a standing-‘if’ reading (see, e.g. Guerzoni and Lim (2007)), but I’m skeptical that’s the case.

- B: Even if Jones had taken arsenic, he would have shown the same symptoms he actually showed.¹⁸

Note also and perhaps more importantly that it is anything but clear that the minority view predicts that (33) and (34) sound strange when read as introduced-‘if’ conditionals. When read that way, they do indeed imply both ‘if p, q’ and ‘if \neg p, q’. But the minority view is only committed to the claim that (33) and (34) indefeasibly convey that p is false (schematically speaking). It is not committed to the claim that they also indefeasibly convey that \neg p is false as well. Since there is not even an apparent tension in conveying ‘if p, q’ and ‘if \neg p, q’ as well as that p is false, it is not predicted that (33) and (34) sound strange when read as introduced-‘if’ conditionals.

3.4 *Only if conditionals*

Recall one last time (6)–(7) and (12)–(13). Assume this time though the speaker didn’t want to convey that the proposition expressed by the subordinate clause is a sufficient condition, but that it is a necessary condition for the proposition expressed by the main clause to be true. Then she could use the following:

- (37) Only if Jones took cocaine, he had fun.

- (38) Only if Jones takes cocaine, he will have fun.

Now go back to (18) and (21). And compare them to the following:

- (39) Only if Jones had taken cocaine, he would have had fun.

This sentence sounds fine. Recall also the Anderson Conditional (3/24) and compare it to the following:

- (40) Only if Jones had taken arsenic, he would have shown the same symptoms he actually showed.

This sentence sounds fine as well.

One might think that the latter datum speaks against the minority view. It is widely agreed that conditionals of the form ‘only if p, q’ imply conditionals of the form ‘if \neg p, \neg q’; given the assumption that (40) conveys that its subordinate clause is

¹⁸ Compare the above with the following exchange, for instance:

- (35’) A: If Jones didn’t take cocaine, he was having fun.
B: Even if Jones took cocaine, he was having fun.

Here, B’s response sounds fine.

false, we would thus predict that (40) also conveys that its consequent is false, that is, that Jones did not show the same symptoms he showed. This proposition, though, would be an absurd thing to convey and so we would expect (40) to sound strange.

At this stage, I can only offer a suspicion in response: (40) sounds okay because we apply a repair strategy and interpret ‘had taken’ as tense rather than fake tense; in other words, we interpret the subordinate clause as plainly being about the past. To support this idea, compare the following variation of (40).

- (41) Only if Jones had taken arsenic yesterday, he would have shown the same symptoms he actually showed.

which explicitly refers to the past, with the following two variations

- (42) Only if Jones had taken arsenic right now, he would have shown the same symptoms he is actually showing.

- (43) Only if Jones had taken arsenic tomorrow, he would have shown the same symptoms he will actually show.

which explicitly refer to the present and future, respectively.¹⁹ While (41) makes sense as a mixed-mood conditional, (42) and (43) seem hard to parse.

4 Conclusion

In this paper, I have argued that *would have* conditionals indefeasibly convey that their respective subordinate clause is false. If correct, this does not show that Klein’s ‘way to look at counterfactuals’ is false. But it indicates that his view fails to capture one important aspect of the difference between subjunctive and indicative conditionals.

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¹⁹ For more on so-called *mismatched past counterfactuals* or *future-shifted conditionals*, see, e.g., Ogihara (2000), Ippolito (2003), and Arregui and Biezma (2015).

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