

Discourse-structuring conditionals and past tense¹

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Abstract. In this paper I present some data that challenges the view that a unified semantics of biscuit conditionals and hypothetical conditionals is possible. There is a class of biscuit conditionals that cannot occur with past temporal reference. In these cases, the antecedent serves to structure the discourse and as such must be true of the discourse situation. I argue that this is the reason why the past tense is incompatible with these conditionals, and therefore we can nevertheless maintain a unified semantics for hypothetical and biscuit conditionals.

Keywords: biscuit conditionals, conditionals, (past) tense, discourse structure.

1. Introduction

The literature on conditionals generally distinguishes between *hypothetical conditionals* as in (1) and *biscuit conditionals* as in (2).

- (1) If Alex went shopping this morning, there are biscuits on the sideboard.
- (2) If you are hungry, there are biscuits on the sideboard.

The default interpretation of (1) includes the notion that the speaker is not committed with respect to whether the consequent *there are biscuits on the sideboard* holds in the actual world w_0 . We typically assume that conditionals reason about what could be the case, for example if Alex went shopping in the morning. By contrast, it is generally understood that the speaker of (2) is in fact committed to it being true in w_0 that there are biscuits on the sideboard. So it is intuitively clear why we consider (1) as a conditional: the speaker doesn't know whether the antecedent holds, but she is willing to commit to the consequent holding just in case the antecedent does. The status of (2) is less clear since the speaker is taken to be committed to the truth of the consequent whether the antecedent holds or not. Still, in recent years a number of authors have proposed analyses which allow for a uniform semantics of sentences like (1) and (2), such as Franke (2009), Francez (2015) and Csipak (2015). There are two main arguments for why we may want a unified analysis: the form of both (1) and (2) is *if p, q*, and moreover, we observe that cross-linguistically many languages use the same form to express both meanings. This suggests that this is not simply a coincidence of the English language, but a systematic extension of the form from hypothetical conditionals to biscuit conditionals.

The literature on biscuit conditionals typically discusses examples that are similar in spirit to (2) and its ancestor *There are biscuits on the sideboard if you want them* (discussed first in Austin 1956). This paper is concerned with another type of example that sometimes gets mentioned in connection with biscuit conditionals, but is not treated in more detail. This type of conditional

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is exemplified in (3).

- (3) If I may be frank, you look awful.

This paper will be dedicated to identifying the ways in which conditionals like (3) differ from biscuit conditionals such as (2), and whether it is possible to come up with a unified analysis that captures the properties of both.

The rest of the paper is structured as follows. In section 2, I discuss the relevant data. Section 3 discusses why we cannot extend the existing analyses to account for the data in 2. Section 4 contains my analysis. Section 5 takes a brief detour into the realm of counterfactuals, and sketches how the data presented here also present a challenge to theories of counterfactuals. Section 6 concludes.

2. The empirical picture

A first glance at sentences like (3) suggests that they share two properties with biscuit conditionals: they have the form *if p, q*, and the speaker uttering them is taken to be committed to the truth of *q*. We will take this seriously and assume that sentences like (3) are in fact a species of biscuit conditional. For reasons that will become apparent below, we will call them *discourse-structuring* conditionals. The insight that biscuit conditionals can fulfill different functions in the discourse is not new; for instance Günthner (1999) proposes to distinguish between the categories of discourse-structuring conditionals, meta-communicative conditionals, and relevance conditionals. The goal of the present section is to investigate the properties of hypothetical conditionals, biscuit conditionals, and discourse-structuring conditionals, and to identify which properties are shared and which are not. I will use the term *biscuit conditional* to refer to conditionals which can co-occur with past reference, but which have a biscuit interpretation (i.e., whose speaker is taken to be committed to the truth of the consequent in the actual world), and reserve the term *discourse-structuring conditional* to the conditionals that are the focus of this paper.

We observe that hypothetical and biscuit conditionals, but not discourse-structuring conditionals, can occur with past temporal reference. Consider first the hypothetical conditionals in (4) and the biscuit conditionals in (5).

- (4) HYPOTHETICAL CONDITIONAL
- a. If Alex is in San Francisco right now, she is having iced coffee.
 - b. If Alex was in San Francisco yesterday, she was having iced coffee.
- (5) BISCUIT CONDITIONAL
- a. If you are hungry right now, there are biscuits on the sideboard.
 - b. If you were hungry yesterday, there were biscuits on the sideboard.

In the (b) variants of both (4) and (5) the antecedent refers to a time prior to the utterance time, and both sentences are perfectly acceptable even out of the blue. Now compare this to (6)

through (9). In these cases, the (a) variant with the antecedent referring to the present utterance time are perfectly acceptable. The (b) variants whose antecedents refer to a time prior to the time of utterance are unacceptable, at least on a biscuit conditional interpretation. Note that when these conditionals are presented out of the blue, it is difficult to imagine a context in which a hypothetical conditional interpretation is available (more on this in section 4).

- (6) a. If I am being frank, you look awful.
b. #If I was being frank yesterday, you looked awful.
- (7) a. If you promise not to tell anyone, I ran into Alex last week.
b. #If you promised not to tell anyone yesterday, I ran into Alex last week.
- (8) a. If you ask me, Alex is getting ready to leave.
b. #If you asked me yesterday, Alex was getting ready to leave.
- (9) a. Alex is a little odd if you know what I mean.
b. #Alex was a little odd if you knew what I meant yesterday.

What properties do (6)–(9) have in common, apart from not being able to occur with past temporal reference? In all of these cases the antecedent refers to the present discourse situation instead of facts outside of the discourse situation. Typically, the antecedents of hypothetical and biscuit conditionals refer to facts outside of the discourse situation, such as *if you get hungry* or *if Alex went shopping this morning*. But reference to the current discourse situation is not what makes discourse-structuring conditionals special. Hypothetical conditionals, for instance, can also refer to the utterance situation. In these cases, their antecedents remain compatible with past reference, as illustrated in (10) and (11).

- (10) a. If I am being frank, you should tell me.
b. If I was being frank yesterday, you should have told me.
- (11) a. If you understand why this is important, I present the next example.
b. If you understood why this was important, I presented the next example.

Another property that discourse-structuring conditionals have is that whether their antecedents are true in the actual world can be decided directly by the interlocutors. Interlocutors can immediately agree on whether *I may be frank* or *You promise not to tell anyone* are true in w_0 . Typical antecedents of hypothetical or biscuit conditionals are not like this.

- (12) If Alex gets hungry later, there are biscuits on the sideboard.
- (13) If Alex went shopping, there are biscuits on the sideboard.

In these cases, the interlocutors cannot decide immediately whether Alex will get hungry later or whether Alex went shopping earlier. Importantly, while hypothetical and biscuit conditionals can also have antecedents whose truth in the actual world can be decided on the spot, discourse-

structuring conditionals necessarily have this type of antecedent. There are no discourse-structuring conditionals where the interlocutors cannot decide on the truth of the antecedent based on the current discourse situation.

Finally, discourse-structuring conditionals have one more property in common, to the exclusion of other biscuit conditionals and hypothetical conditionals: the proposition expressed by their antecedents is taken to be true of the discourse situation. Moreover, it corresponds to an action that is taken to have been committed by the interlocutors. For antecedents such as *if I am being frank* this is easy to see: simply by uttering the conditional itself, the speaker is being frank. Moreover, she can decide herself – on the spot, for a given discourse situation – whether to frankly communicate or not. Below we will discuss more tricky cases, such as *if we now turn to page 5* or *if you promise not to tell anyone* where the interlocutors together have to decide to make the antecedent true.

Note moreover that the construction is quite productive: any proposition commenting on the current discourse situation that is taken to be true by the interlocutors can be used as the antecedent of a discourse-structuring conditional.² Moreover, they can be combined with consequents that are questions and imperatives as well as declaratives.

- (14) a. If we are discussing people's teeth, have you noticed Alex's new crown?
 b. If you want to hear my opinion, leave him already!
 c. If I can add to this, Alex is also never on time.
 d. If I may introduce a new topic, I have finally booked my vacation.
 e. If we take it one step further, I suggest we invite Alex.

In sum, we have seen that discourse-structuring conditionals have the following properties.

	hypothetical conditional	biscuit conditional	discourse-structuring conditional
can occur with past tense	✓	✓	✗
q taken to be true in w_0	✗	✓	✓
p can refer to discourse situation	✓	✓	✓
truth of p in w_0 decided immediately	✗	✗	✓
p taken to be true in w_0	✗	✗	✓

3. A unified analysis?

The literature on biscuit conditionals consists of two main lines of argument. Several authors have argued that there is a fundamental difference in the syntax and semantics of hypothetical

²The antecedent and consequent propositions also have to be conditionally independent in the sense of Franke (2009) as discussed in section 3.2.

conditionals and biscuit conditionals (e.g., Iatridou 1994, Ebert et al. 2008, 2014, Scheffler 2008, and Siegel 2006).

Others argue that both kinds of conditionals share the same syntax and semantics, and propose pragmatic mechanisms that cause the difference in interpretation (e.g., Franke 2009, Francez 2015, Lauer 2015, Biezma and Goebel this volume).

The data presented in section 2 pose a puzzle for the view that biscuit conditionals have the same syntax and semantics as hypothetical conditionals: if discourse-structuring conditionals are a species of biscuit conditional, and biscuit conditionals have the same syntax and semantics as hypothetical conditionals, then it should follow that discourse-structuring conditionals are acceptable under the same circumstances where hypothetical conditionals are acceptable. In particular, we would expect them to be acceptable with past temporal reference, since hypothetical conditionals and biscuit conditionals are compatible with it. On a non-unified view, we could simply stipulate that discourse-structuring conditionals are not compatible with past temporal reference, or move away even farther from a unified analysis by claiming that the data in (6) through (9) are simply not conditionals at all. This view is unattractive in light of the fact that many languages use the form *if p, q* to express discourse-structuring conditionals.

The arguments in Franke (2009) and Francez (2015) for a unified analysis for hypothetical and biscuit conditionals are convincing. Still, the present section aims to add some additional empirical arguments for a unified analysis. Section 4 then sketches how we can account for the puzzling data in section 2 even within a Franke-style unified analysis.

3.1. A different syntax and semantics

Let us first take a look at some of the empirical differences that are claimed to exist between biscuit conditionals and hypothetical conditionals. Iatridou (1991, 1994) argues that biscuit conditionals in English do not allow *then*-insertion, unlike hypothetical conditionals.

- (15) a. If Alex went shopping, then there are biscuits on the sideboard.
 b. If you are hungry, (#then) there are biscuits on the sideboard.

Crucially, her analysis rests on this fact: the presence of *then* is what allows the hearer to interpret the consequent with respect to the worlds selected by the antecedent. Conversely, when *then* cannot occur, this interpretation is impossible and a biscuit interpretation is required instead. A more recent discussion of the (pragmatic) role of *then* is found in Biezma (2014), which mostly sets aside the issue of biscuit conditionals. Here I present some conditionals that clearly have a biscuit interpretation even though they contain *then*.

- (16) If you are hungry then there is a Sainsbury's just behind the main complex that does a reasonably priced breakfast.

<http://www.lancaster.ac.uk/colleges/graduate/wp-content/uploads/2016/09/DAY-TRIP-TO-CHESTER.CESHIRE-OAKS.pdf>

- (17) If you are hungry, then there is a tempting menu.

http://www.newshopper.co.uk/news/10879271.PubSpy_reviews_The_Rose_and_Crown...Green_Street.Green/

Thus the empirical claims on which this analysis is based do not hold.

Another empirical difference that is claimed to exist between biscuit conditionals and hypothetical conditionals applies to German (the claim originates in Davison 1983 and is widely cited, e.g. in Iatridou 1994 and Ebert et al. 2008, 2014). It is claimed that word order in the consequent determines whether a conditional receives a biscuit interpretation or a hypothetical conditional interpretation. For conditionals with a preposed antecedent, the verb can occur either as the second constituent (directly following the antecedent) or as the third constituent (following the antecedent and one more constituent). Davison claims that V2 (i.e., with the verb directly following the antecedent) word order in the consequent only allows a hypothetical conditional interpretation, whereas V3 word order (with the verb following the antecedent and another constituent) only allows a biscuit interpretation.

- (18) *Wenn du mich brauchst, bin ich in meinem Büro.* V2 WORD ORDER
 if you me need am I in my office
 ‘If you need me, I will be in my office.’

- (19) *Wenn du mich brauchst, ich bin in meinem Büro.* V3 WORD ORDER
 if you me need I am in my office
 ‘If you need me, I will be in my office.’

Davison reports that (18) only has an interpretation as a hypothetical conditional, whereas (19) only has an interpretation as a biscuit conditional. The literature further claims that whenever a conditional with V2 consequent word order occurs where only a biscuit interpretation makes sense, speakers reject the conditional. Some analyses, such as Ebert et al. (2008), crucially rely on this difference for their analysis. They propose that the V3 word order in the consequent of biscuit conditionals is not a speaker preference, but rather grammaticalized. Thus, the consequent V3 word order triggers an obligatory biscuit interpretation even in contexts where world knowledge suggests that this does not make sense. In the same way they propose that consequent V2 word order forces a hypothetical conditional interpretation, again even in contexts where world knowledge suggests only a biscuit interpretation makes sense.

Empirically these claims do not hold. Naturally occurring data suggests that speakers do choose consequent V2 word order in contexts where a biscuit conditional interpretation is necessary, as in (20).

- (20) *Wenn du Durst hast, habe ich etwas für dich.*
 if you thirst have have I something for you
 ‘If you are thirsty, I have something for you.’ Jan Paul: Paul und die Monsterpflanze

Speakers also produce consequent V3 conditionals with a clearly hypothetical conditional interpretation, as in (21).

- (21) **Context:** A user on a knitting website is talking about how fast knitters from Finland knit socks.

*Die sind so schnell, ich glaube, wenn ich das 'trainieren' würde, ich wäre
 they are so fast I believe if I that train would I would.be
 nie so schnell!
 never so fast
 'They are so fast – I think if I 'trained' [speed knitting] I would never be so fast!'*

Furthermore there is experimental evidence against the view that syntax determines conditional interpretation. Köpcke and Panther (1989) asked speakers to rate conditional sentences with consequent V2 word order on a 5-point scale where 1 was 'fully acceptable' and 5 was 'not at all acceptable'. Interestingly, speakers rated the sentence *Wenn Sie mich fragen, wird es bald schneien* 'if you ask me, it's going to snow soon' on average at 1.85. The same sentence was rated at 1.73 when *dann* 'then' was inserted. Other biscuit conditionals were less acceptable for the speakers, e.g. *Wenn du durstig bist, ist Bier im Kühlschrank* 'If you are thirsty, there is beer in the fridge' was rated at 2.68 without *dann* 'then', and 2.73 with *dann*.

In Csipak (2015) I report on an acceptability judgment study I conducted with 24 speakers of Standard German from Göttingen (Lower Saxony). These speakers were asked to rate the acceptability of biscuit conditionals and hypothetical conditionals on a 7-point scale, with 7 being completely acceptable and 1 being completely unacceptable. The results showed that speakers found conditionals with a hypothetical conditional interpretation with the (atypical) V3 word order less acceptable than with V2 word order, both by subject ($F_1(1,23)=218.8$, $p<.001$, $\eta_G^2=.79$) and by item ($F_2(1,11)=195.2$, $p<.001$, $\eta_G^2=.89$). However, the lowest rated conditionals (hypothetical conditionals with V2 consequent word order) were still significantly more acceptable than ungrammatical filler sentences that contained word order violations ($F_1(1,23)=42.00$, $p<.001$, $\eta_G^2=.19$). For the biscuit conditionals, there was a marginal preference for V3 word order.

Thus, while speakers do display a preference for hypothetical conditionals to occur with V2 consequent word order, they do not seem to exhibit a preference for consequent word order for biscuit conditionals. We conclude that speakers are able and willing to assign the less preferred interpretation to both kinds of conditionals where world knowledge makes it necessary. This suggests that the speaker preference for one or the other word order, to the extent that it exists, is not grammaticalized, and it should not be the basis from which we derive an obligatory syntactic or semantic difference between hypothetical and biscuit conditionals.

3.2. The pragmatic view

The previous section has shown that a syntactic or semantic difference between biscuit and hypothetical conditionals runs into empirical problems. We therefore turn to an alternative story proposed in Franke (2009). He argues that biscuit conditionals have the same semantics that we assume for hypothetical conditionals (for example a modal restrictor analysis along the lines of Kratzer 1986, 2012). The difference in interpretation that we observe between biscuit

and hypothetical conditionals on this view is not a semantic one, but comes about pragmatically. Franke introduces the notion of conditional independence and proposes that two propositions p and q are conditionally independent if changing one's beliefs about one will not cause a change in one's belief about the other. On his view, hypothetical conditionals are conditionally dependent. Consider the following example.

(22) If Alex went shopping, there are biscuits on the sideboard.

Imagine that the speaker is undecided about whether Alex went shopping, and equally undecided about whether there are biscuits on the sideboard. Upon learning that Alex went shopping (that is, a change in belief about p), the speaker will likely also change her beliefs about whether there are biscuits on the sideboard (that is, a change in belief about q). Compare this to a biscuit conditional such as (23).

(23) If you are hungry, there are biscuits on the sideboard.

Will learning that the addressee is hungry change the speaker's beliefs about whether there are biscuits on the sideboard? World knowledge suggests that it should not. Thus, the antecedent and consequent propositions are *conditionally independent*. Franke proposes that whenever two propositions that are conditionally independent, they are nevertheless linked via a conditional structure, the hearer undergoes the following chain of reasoning:

- (24)
- a. The speaker used a conditional to link p and q , suggesting conditional dependence.
 - b. p and q are conditionally independent.
 - c. The speaker knows that the hearer knows this but used the construction nonetheless.
 - d. The hearer concludes that the speaker must be uncertain about the truth of p .
 - e. Since p and q are conditionally independent, the speaker must have independent evidence for the truth of q .

This is how the biscuit interpretation of conditionals like (23) comes about, allowing us to maintain a unified syntax and semantics for both types of conditionals.

What predictions does this proposal make for discourse-structuring conditionals? World knowledge suggests that the antecedent and consequent of a discourse-structuring conditional are conditionally independent.

(25) If you ask me, Alex is tall.

World knowledge suggests that changing one's belief about whether the addressee is asking to hear the speaker's opinion will not change one's belief about whether Alex is tall. So on Franke's view, (25) could be treated as a biscuit conditional. On Franke's view biscuit conditionals and hypothetical conditionals have the same syntax and semantics. This means that we expect discourse-structuring conditionals, which are essentially biscuit conditionals, to have

the same properties that hypothetical conditionals have. In particular, they should be able to co-occur with past temporal reference, as biscuit conditionals do (recall the examples (4) and (5) in section 1). But the examples discussed in sections 1 and 2 have shown that this is not the case. In section 4, I argue that there are independent reasons why discourse-structuring conditionals are not available with past temporal reference, and that we can in fact maintain a Franke-style unified analysis nevertheless.

3.3. Present counterfactual uses

Before turning to the analysis, let us briefly consider some additional data. It is well-known that English uses past tense morphology in the antecedents of counterfactual conditionals. Since section 2 has shown that run-of-the-mill past temporal reference is excluded in discourse-structuring conditionals, we might ask what is going on in counterfactuals that use past tense morphology. (26b) illustrates a present counterfactual conditional. Most importantly, we observe the simple past form *was* in the antecedent, and the form *would be having* in the consequent.

- (26) a. If Alex was in San Francisco last week, she was having iced coffee.
 b. If Alex was in San Francisco right now, she would be having iced coffee.

In recent years counterfactual conditionals like (26b) have received a lot of attention. The past tense morphology in particular has been the subject of much debate. There are currently two lines of argument: some authors propose that the past tense morphology is not semantically interpreted as a ‘real’ past tense. On this view, the past tense does not refer to a past time, but instead tracks remoteness on another dimension, namely across worlds (see Iatridou 2000, Schulz 2014). Others have argued that the past tense that we observe is in fact interpreted temporally (see for instance Arregui 2009, Ippolito 2013). On this view, the past tense takes us back to a time when the consequent was still a live possibility in w_0 .

The two types of accounts differ slightly in the predictions that they make for the availability of discourse-structuring counterfactual conditionals. The fake tense approach assumes that the past tense in the antecedent is not interpreted temporally in counterfactuals like (27). Therefore we conclude that in principle, nothing in this approach directly predicts that discourse-structuring counterfactuals are unacceptable, so long as the antecedent refers to counterparts of the utterance time in counterfactual worlds. And we find some discourse-structuring present counterfactuals that are acceptable, as in (27).

- (27) If I was being frank right now, you look awful.

But we also find some discourse-structuring present counterfactuals which are not acceptable, as in (28).

- (28) #If you promised not to tell anyone right now, Alex is getting ready to leave.

In fact, the majority of discourse-structuring conditionals seems to behave like (28), i.e., they are unacceptable as counterfactuals as well as with run-of-the-mill past temporal reference. This unacceptability is a puzzle for the fake tense approach since on this view, ‘fake’ tense should behave differently semantically from ‘real’ past tense.

The counterfactual-past-as-regular-past (‘past-as-past’) approaches run into similar but different problems. They assume that a past tense operator takes scope over the entire conditional, which causes the counterfactual interpretation. The simple past observed in the antecedent and the *would* in the consequent are reflexes of this higher past tense operator. Thus in principle this account would predict that neither conditionals with run-of-the-mill past temporal reference nor counterfactual conditionals should be available with a discourse-structuring flavour, and this is indeed what we find for most antecedents – except for (27), which is a puzzle for this view.

But this view has a more serious problem. Speakers of English disprefer biscuit conditionals with consequents containing *would*, as in (29). Note that speakers seem to vary on whether they find a biscuit reading of (29) unacceptable, or whether they simply prefer (27).

(29) #/?If I was being frank right now, you would look awful.

This is true of biscuit conditionals more generally. For counterfactual biscuit conditionals, speakers prefer past tense morphology in the antecedent, but present tense morphology in the consequent. The past-as-past approach to counterfactuals cannot straightforwardly account for this.³

- (30) a. If you wanted something to nibble on later, there are biscuits on the sideboard.
 b. #/?If you wanted something to nibble on later, there would be biscuits on the sideboard.

Solving this puzzle goes beyond the scope of the present paper.

4. My proposal

The present section will make a proposal for how to tackle discourse-structuring conditionals.

A first analysis that suggests itself from examples like (3) is one in terms of self-verifying utterances in the sense of Eckardt (2012). She proposes that utterances are self-verifying iff they become true by virtue of being uttered.

- (31) a. I am using a verb.
 b. I promise to mow the lawn.

It is easy to see that the speaker of (31a), by virtue of uttering (31a), is making the sentence true

³Note that conditionals like (30) are not discussed in Swanson (2013). He only discusses examples where the consequent shows the past tense morphology that is predicted under the past-as-past analyses.

since it contains the verb *am using*. The speaker of (31b) makes a promise by uttering (31b) (the word *promise* is being used *performatively*), and again it is by virtue of being uttered that (31b) becomes true. Now let us consider how to translate this to biscuit conditionals.

- (32) a. If I am being frank, you look awful.
 b. In all the worlds closest to w_0 where I am being frank, you look awful.
- (33) a. By uttering (32a) I am being frank.
 b. Thus w_0 itself is the world closest to w_0 where *I am being frank* is true.
 c. (32a) is a biscuit conditional; thus the speaker has independent evidence for the consequent.
 d. The speaker believes that *you look awful* is true in w_0 .
 e. (32a) is true in w_0 .
- (34) *If I am being frank, you look awful.*
 a. $\forall w' \in \max_g(\cap f(w_0) \cup \llbracket \text{I-AM-BEING-FRANK} \rrbracket^{w'})$: YOU-LOOK-AWFUL(w')=1 because
 b. $\forall w' \in \max_g(\cap f(w_0) \cup (\text{sp sends } \mathbf{m} \text{ to } \mathbf{add} \text{ and FRANK}(\varepsilon, \mathbf{m}), \text{ and } R \subseteq t(\varepsilon) \text{ and } S \subseteq R))$: ADD-LOOKS-AWFUL(w')=1.

The indexicals *sp* for *speaker*, *add* for *addressee*, *m* for *message* and ε for *event* receive their values relative to the utterance context. When the speaker utters *if I am being frank, you look awful*, there is an event ε of sending a message *m*, and the message counts as frank. Without going into the lexical semantics of *frank* in too much detail, let us assume that one of the ways in which a message counts as frank is if it is both true with respect to the speaker's beliefs, and exceeding a contextual standard of what counts as rude. I assume that speakers will in a next step associate the message *m* with the consequent proposition, *q*. We can then verify that the speaker's message ('*you look awful*') indeed counts as frank. Crucially, the speech time falls into the time of this event. This serves to verify the utterance.

When combined with past temporal reference, the conditional no longer self-verifies the antecedent, causing oddness.

- (35) *#If I was being frank yesterday, you looked awful.*
 a. $\forall w' \in \max_g(\cap f(w_0) \cup \llbracket \text{I-WAS-BEING-FRANK-YESTERDAY} \rrbracket)$:
 YOU-LOOKED-AWFUL(w')=1.
 b. $\forall w' \in \max_g(\cap f(w_0) \cup (\text{sp sends } \mathbf{m} \text{ to } \mathbf{add} \text{ and FRANK}(\varepsilon, \mathbf{m}), \text{ and } R \subseteq t(\varepsilon) \text{ and } R < S))$:
 ADD-LOOKED-AWFUL(w')=1.

Here the speaker claims to have made a frank utterance prior to speech time (there was an event ε of sending a frank message *m* which lies before speech time). But because the event connected to the frank message lies before the speech time, it cannot serve as a witness to automatically verify the utterance. The resulting interpretation is a hypothetical conditional about the past ('all the (relevant best) worlds in which I was frank yesterday are worlds in which you looked awful') that is pragmatically odd.

This proposal cannot straightforwardly account for those cases where the addressee is addressed in the antecedent: *if you promise not to tell anyone; if you know what I mean* or even *if we now turn to page 5* are not antecedents that can self-verify; that is, the speaker cannot guarantee that by virtue of uttering the conditional, these antecedents become true. We therefore broaden the proposal to account for these cases.

The intuition we are trying to capture is that by uttering a discourse-structuring conditional, the speaker uses the antecedent to communicate under which conditions she is willing to share the contents of the consequent, and then shares the consequent. This invites the inference that the speaker takes the antecedent to be true. To illustrate, we consider (36).

(36) If you promise not to tell anyone, Alex is asleep.

We can then assign the following semantics to (36).

(37) $\forall w' \in \max_g(\cap f(w_0) \cup (\text{promise}(\varepsilon, \mathbf{add}, \neg \text{tell}(\mathbf{add}, \mathbf{m}))) \text{ and } S \subseteq R \subseteq t(\varepsilon))$: Alex-asleep(w')=1

In prose, in all the (relevant best) worlds where there is a promising event happening at speech time involving the addressee not telling anyone about message m , q holds. Again I assume that the interlocutors will associate m and q ; thus, in all the best worlds where the addressee promises not to tell anyone that q , q holds. Since the antecedent and q are conditionally independent, the speaker is taken to be committed to the fact that q holds in w_0 . It is now up to the addressee to ensure that the entire conditional is true in w_0 by simply not telling anyone about q , i.e., by keeping the promise not to tell anyone.

The proposal spelled out for (36) can be extended to other antecedents: *if you know what I mean (by message m)*, *if you ask me (about message m)*, etc.

The analysis also derives why past tense uses are odd.

(38) #If you promised not to tell anyone yesterday, Alex was asleep.

(39) $\forall w' \in \max_g(\cap f(w_0) \cup (\text{promise}(\varepsilon, \mathbf{add}, \neg \text{tell}(\mathbf{add}, \mathbf{m}))) \text{ and } R \subseteq t(\varepsilon) \text{ and } R < S)$: Alex-asleep(w')=1

In all the (relevant best) worlds where there was a promising event at some time prior to speech time that involved the addressee not telling anyone about message m , q holds. Again p and q are conditionally independent, but since the antecedent is about whether or not the addressee told anyone about a message m at a time prior to speech time, there is no reason to associate m with q . But without this connection, the conditional is simply uninterpretable on a discourse-structuring interpretation (and it is difficult to imagine a context where a hypothetical conditional interpretation is available).

Before concluding, I will point out that as with other types of discourse effects, we expect that the antecedents of discourse-structuring conditionals should be acceptable with past temporal

reference in contexts where they are not used to refer to the present discourse and there is some other interpretation available. This prediction is indeed borne out, as illustrated with (40).

- (40) a. If you knew what I meant when I called Alex ‘organized’ yesterday, you will understand what I mean when I call Jesse ‘disorganized’.
 b. If I was being frank yesterday I may have offended Alex.
 c. If you asked me yesterday, I don’t recall.

All of the conditionals in (40) have reasonable interpretations as hypothetical conditionals. For instance, in (40b) the speaker is unsure whether what she said yesterday counts as frank (presumably she is uncertain whether her statement exceeded the standard for rudeness), and consequently she is unsure whether she offended Alex.⁴

Finally, I speculate on the contextual clues that turn a conditional into a discourse-structuring (biscuit) conditional. Consider (41), which has an interpretation as a hypothetical conditional, but not as a discourse-structuring conditional.

- (41) If you promise not to tell anyone, I will tell you a secret.

Given the right context, this example is perfectly acceptable with past temporal reference.

- (42) Context: After waking up with amnesia, A and B are trying to figure out what happened the night before.
 A: If you promised not to tell anyone, I told you a secret.

On my view, the reason why (42) is acceptable and the reason why (41) is not interpreted as a discourse-structuring conditional is the same. In the antecedent, the speaker is referring to an event of the addressee not telling anyone the message *m*. However, the consequent proposition is both conditionally dependent on the antecedent proposition, and it is also not ‘juicy’, i.e., the interlocutors are unlikely to associate the message *m* with the consequent proposition. Compare this to (43).

- (43) If you promise not to tell anyone, I will tell Peter about the baby tomorrow.

We observe that (43) is ambiguous between a biscuit interpretation on which the speaker’s telling Peter is conditionally independent from the addressee agreeing not to tell anyone. On this interpretation, the past tense reading is out.

- (44) #If you promised not to tell anyone last week, I told Peter about the baby the next day.

But on a hypothetical conditional interpretation where the two propositions are conditionally

⁴Remember that a verb like *promise* can be used performatively with present temporal reference, and reportatively with past temporal reference.

- (i) a. I promise to let you sleep in on Sunday. *performative*
 b. I promised to let you sleep in last Sunday. *reportative*

dependent, the past tense interpretation is available.

- (45) A and B have amnesia. Looking through the records, they see that B signed a non-disclosure agreement, but they do not find one signed by A. They also read in Peter's diary that someone told him about the baby.
A: If you promised not to tell anyone, I told Peter about the baby.

Thus we conclude that given the particular interplay of context and content that is necessary for a discourse-structuring conditional interpretation, it follows that this interpretation is simply unavailable when the antecedent is interpreted with past temporal reference. But as the examples have shown, there is no reason to assume a separate syntax or semantics for discourse-structuring conditionals. Thus we can maintain a unified syntax and semantics for hypothetical and biscuit conditionals.

5. Conclusion

The present paper has provided some challenging evidence for a unified account of hypothetical and biscuit conditionals: there are some biscuit conditionals that cannot co-occur with past temporal reference, namely discourse-structuring conditionals. This is unexpected given that both hypothetical conditionals and most biscuit conditionals can occur with past temporal reference. I have argued that a unified analysis of the two can be maintained. The reason why discourse-structuring conditionals are unacceptable with past temporal reference has to do with the relationship between antecedent and consequent: the antecedent refers to an event that is assumed to involve the consequent proposition. Such a relationship between antecedent and consequent is not available when the antecedent is temporally located in the past, but the consequent proposition is uttered in the present.

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