

## Counterfactuality in non-standard subjunctive conditionals\*

María Biezma<sup>1</sup>, Andrew Carnie<sup>2</sup>, Daniel Siddiqi<sup>1</sup>

<sup>1</sup>Carleton University, <sup>2</sup>University of Arizona

### 1. On standard and non-standard subjunctive conditionals: The data

English subjunctive conditionals can adopt different forms. The standard form of subjunctive conditionals (SC) is illustrated in (1). However, speakers of some dialects of English also accept some of the variants in (2) as subjunctive conditionals. The forms in (2) differ from (1) in that they include: *would* or *had*.

- (1) If Jones had taken arsenic, he would have shown some symptoms. [SC]  
(2) If Jones would have/ had have/ would've/ had've/ woulda'/ hada'/ would of / had of taken arsenic, he would have shown some symptoms. [NSSC]

The non-standard forms (NSSC) exemplified in (2) appeared in the 15<sup>th</sup> C, at the time when the subjunctive voice in English disappeared (Huddleston & Pullum 2002). While the NSSCs mark different registers, no differences have been observed in terms of interpretation between an NSSC and an SC. The extra piece of morphology has usually been considered vacuous: a redundant repetition (Wilson 1993), a phonological harmony effect (Moléncki 2000), or a psychological effect (Boyland 1995).

The aim of this paper is two-fold: a) we present a novel empirical observation: we claim there is a contrast in meaning between (1) and (2); and b) we offer an analysis that predicts the differences in meaning.

### 2. Meaning differences between SCs and NSSCs

Speakers of NSSC dialects are aware of a difference between NSSCs and SCs in terms of 'counterfactuality', i.e., the inference that the proposition in the antecedent is false in the actual world. The counterfactual inference is cancellable in SCs (3), whereas it is not in NSSCs (4). (The examples below are modified from Anderson 1951).

---

\* The authors thank the audience and organizers of NELS23 at CUNY. Also special thanks to Ana Arregui for extremely helpful comments and insights. All remaining errors are our own.

- (3) If Jones had taken arsenic, he would have shown exactly those symptoms that he in fact shows (so, he probably took arsenic)
- (4) #If Jones had've/ would've taken arsenic, he would have shown exactly those symptoms that he in fact shows (so, he probably took arsenic)

Anderson (1951) points out that the detective in charge of investigating the murder of Jones could utter the SC in (3) to suggest the likelihood that Jones took arsenic. This is not possible in the case of NSSCs, (4). A pilot study carried out with 13 speakers of NSSC English dialects provided robust evidence for the contrast above: all speakers of NSSC dialects rejected (4), but they accepted (3). This observation is summarized in (5):

- (5) **Novel empirical observation:** The counterfactual inference in NSSCs cannot be cancelled, whereas it is cancellable in SCs.

We know from Anderson (1951) that the counterfactual inference in SCs is an implicature, because it is cancellable. However, counterfactuality in NSSCs cannot be cancelled. We argue that counterfactuality in NSSCs is also an implicature – despite the fact that it cannot be cancelled. We explain the impossibility of cancelling counterfactuality in NSSCs by appealing to principles of pragmatic economy and discourse rationality.

The remainder of the paper is organized as follows: in §3 we provide an overview of the ingredients needed to explain the observation in (5). In §4 we spell out our proposal. We argue that the contrast between NSSCs and SCs can be explained by assuming that NSSCs, unlike SCs, embed simple subjunctives (SISUs) in the antecedent clause (Kasper 1992). As a result, the truth-conditions for NSSCs are different from those of SCs and so are the inferences they trigger. We can then derive the impossibility of cancelling counterfactuality in NSSCs from principles of pragmatic economy and discourse rationality: for speakers of NSSC dialects, canceling counterfactuality upon hearing an NSSC amounts to accepting a pragmatic contradiction and hence they refuse to do so.

### 3. Towards a theoretical explanation: The necessary ingredients

#### 3.1 The extra modal in NSSCs:

We make the assumption that in (2), *would* is a modal in *would've*. Siddiqi & Carnie (2012) claim that *had* in *had've/ had of/ had'a* is also a modal. Amongst the arguments supporting this view are that *had* undergoes V to T movement past Neg (or projects a TP above Neg) (6a); that *had* undergoes T to C movement (6b); that *had have* does not co-occur with other modals (6c); that like modals, *had* licenses the unmarked form of the auxiliary; that *had* allows for the four-way reduction pattern that only modals preceding aspectual marker *have* allow (Kayne 1997) (6d).

- (6) a. If Jones had not have taken arsenic, he wouldn't have shown symptoms.
- b. Had Jones have taken arsenic, he would have shown symptoms.
- c. i. \*If Jones would have have taken arsenic, he would have shown symptoms.
- ii. \*If Jones could have have taken arsenic, he could have shown symptoms.
- d. If he had have/had've/had of/hada' taken arsenic, he would have shown symptoms.

In addition, we observe that NSSCs do not represent cases of modal concord (7).

(7) If Sarah would/had've eaten bread, she could/may/might have had an allergic reaction.

We have no reason to believe that there is a difference in meaning between NSSCs with *had've* and those with *would've*. Since *had* in NSSCs is a modal, it is a safe assumption to suppose that the semantics of *had* in NSSCs is the same as the semantics of *would* (a modal with universal force that cares about similarity with the actual world).<sup>1</sup> In what follows we exemplify mostly with *would* to avoid confusion between aspectual and modal *had*.

### 3.2 Counterfactuality

Anderson (1951) shows that counterfactuality in SCs can be cancelled (see (3) above). Since, counterfactuality in SCs has mostly been taken to be an implicature. We follow Arregui and Biezma (2012) (who build on Leahy 2011) in taking counterfactuality to be an antipresupposition (Heim 1991, Chemla 2008, Schlenker 2012) triggered by the choice of *would* versus *will* bundled together with the choice of aspect (see also Arregui 2007).

Since counterfactuality in subjunctive conditionals is an implicature, the question then arises as to why it cannot be canceled in NSSCs.<sup>2</sup> There are different ways one could attempt to answer this question. One could claim for example that counterfactuality in NSSCs, unlike in SCs, is semantically encoded and is not an implicature. However, there doesn't seem to be any element in the make-up of NSSCs that would provide independent support for such a claim. We take a different approach in this paper. We argue that counterfactuality in NSSCs is an implicature (just as it is an implicature in SCs) and account for the impossibility of cancelling it by appealing to pragmatic principles and assumptions about the choices made regarding the morpho-syntactic alternatives available to the speaker.

### 3.3 Kasper's (1992) Simple Subjunctives

We argue that the meaning difference between NSSCs and SCs can be derived from the fact that NSSCs embed a simple subjunctive (SiSU) in the antecedent clause whereas SCs don't. Consider the SiSU in (8), uttered by a mother to one of her sons, who has just failed an exam (Kasper 1992:(5)):

(8) Your brother Peter would have passed the exam. SiSU(*p*)  
*p* = that your brother passed the exam

---

<sup>1</sup> NSSCs have an even further reduced form in which the *would* and *had* versions are homophonous:

(i) If I'd have/ I'da'/ I'd've eaten bread, I would have had an allergic reaction.

<sup>2</sup> A reviewer points out that the case of other subjunctive conditionals whose counterfactuality cannot be cancelled (such as conditionals with subject-auxiliary inversion as depicted in Iatridou and Embick 1994) might find a common explanation with NSSCs. However, Biezma (2012) showed that counterfactuality in such inverted-conditionals can be cancelled. It is true though that, given the semantic-pragmatic contribution of non-canonical word order in conditional antecedents, cancelling counterfactuality is more difficult than in subjunctive conditionals without subject-auxiliary inversion. The reader is referred to Biezma (2011, 2012) for details.

Intuitively, we could describe the mother above as saying that if her other son Peter had taken the exam, he would have passed. In spite of a plausible conditional paraphrase, Kasper (1992) argues that SiSUs are actually not elliptical conditionals, i.e., they are not conditionals with an elided antecedent in which only the consequent is spelled out. Kasper notes that there are differences between examples like (8) and elliptical conditionals where the antecedent is retrieved from the preceding linguistic context, as in (9):

(9) What would John do if his wife left him?– He would marry his girlfriend.

The response to the question is a conditional whose antecedent can be retrieved from the question. However, as Kasper shows, cases like (9) contrast in several ways with SiSUs like (8). In the remainder of this section we summarize Kasper's (1992) arguments against an analysis of SiSUs as elliptical conditionals by contrasting SiSUs with full conditionals.

According to Kasper (1992), the mother uttering (8) meant something like (10):

(10) If your brother Peter had undergone the exam, he would have passed it.

As Kasper (1992) points out, “the antecedent in this circumscription of (8) does not express a sufficient condition for the consequent to be true, but rather just a necessary condition for the possibility of the consequent to be true: undergoing an exam is usually not considered as being sufficient for passing it.” In other words, what the mother wants to convey with (8) is, “roughly, that if Peter had been in the situation of the failed candidate, the outcome would have been different. What this ‘situation’ actually is, of course, varies with the circumstances of the utterance”. The mother's claim obviously isn't that the brother would have passed just by undergoing the exam (a necessary but not sufficient condition). The mother conveys that she knows that Peter would have studied hard for the exam, that he wouldn't have gone partying till late the night before, and maybe even that he is smarter. This is what the relevant situations in which Peter undergoes the exam look like, and these are what we call the preconditions for  $p$ ,  $Prec_p$  ( $p$  = that Peter passes the exam).

Adapting Kasper's (1992) analysis of SiSUs to a quantificational analysis of conditionals in the manner of Lewis/Stalnaker, the claim made by uttering a SiSU is that in all worlds most similar to the actual world in which the necessary preconditions for  $p$  are true,  $p$  is true.<sup>3</sup> Similar to the case of SCs, SiSUs give rise to ‘counterfactual’ inferences, which in the case of SiSUs is the inference that the necessary preconditions for  $p$  ( $Prec_p$ ) are not fulfilled. In the case of the SiSU in (8), the inferences are that Peter was not in the situation of the failed candidate (counterfactual inference), and that he did not pass the exam (the necessary preconditions were not met: he didn't even take it).

Another difference between SiSUs and SCs is negation. This is important to us, since we are concerned with examples in which the counterfactual inference of an NSSC puts SiSU in the scope of negation. Let us examine some examples.

(11) If Peter had been in those circumstances, he wouldn't have bought a Japanese car.

(12) Peter wouldn't have bought a Japanese car

---

<sup>3</sup> This is in the spirit of Kasper, but not in a DRT framework.

### Counterfactuality in non-standard subjunctive conditionals

The utterance of (11) can lead the hearer to conclude that Peter did indeed buy a Japanese car (he wasn't 'in those circumstances' in which he wouldn't have). However, this inference is not possible in (12) (assuming a discourse context in which (12) can only be interpreted as a SiSU not as an elliptical conditional). In the case of (11), the inference arises because SCs trigger the inference that the antecedent proposition is false and, assuming strengthening to 'if and only if' via conditional perfection (van der Awera 1997, von Stechow 2000, i.a.), we reach the conclusion that the consequent is probably also false (it is false that Peter was in those circumstances, so he (could have) bought a Japanese car). However, in (12) the inference is not only that the 'antecedent' is false (i.e. Peter was not in a buy-a-car situation), but also that Peter did not buy a Japanese car (so  $\neg p$ , that Peter didn't buy a Japanese car, is true). Kasper offers (13) to make the scope of negation in (12) clear, where  $\text{Prec}_p$  stands in for the preconditions for the truth of  $p$ :

- (13) It is not the case that Peter would have bought a Japanese car.  
 $\neg\text{SiSU}(p) = \text{would}(\text{Prec}_p)(\neg p)$

A summary of the discussion so far is provided in (14) (where ' $\rightarrow$ ' stands for 'inference'):

- (14)  $\text{SiSU}(p) = \text{would}(\text{Prec}_p)(p)$   
a. Inferences triggered by the fact that SiSUs are subjunctive conditionals  
 $\rightarrow \neg\text{Prec}_p$ , and since  $\text{Prec}_p$  are necessary,  $\neg\text{Prec}_p$  entails  $\neg p$   
b. Inferences triggered by the interaction between negation and SiSUs (see 12).  
 $\neg\text{SiSU}(p) \rightarrow \neg\text{Prec}_p$  and hence,  $\rightarrow \neg p$
- (15)  $\text{SC} = \text{would}(q)(p)$   
Inferences triggered by the fact that SCs are subjunctive conditionals  
 $\rightarrow \neg q$  [q is sufficient]

We take it that counterfactuality in SiSUs (the inference that  $\neg\text{Prec}_p$ ) is of the same nature as in SCs: counterfactuality is an implicature in both cases. Following Leahy (2011) we characterize this inference as an antipresupposition (Heim 1991, Chemla 2008, Schlenker 2012, i.a.). In the case of SiSUs, the antipresupposition is triggered by the choice of *would* + perfect aspect, as opposed to the morphology of a simple indicative (16a vs. 16b). In simple indicatives (16a), in which  $p$  is taken to be true, the necessary conditions for the truth of  $p$  ( $\text{Prec}_p$ ), are also taken to be true. When the speaker chooses to utter  $\text{SiSU}(p)$ , it is because s/he cannot utter the indicative: the speaker does not actually commit to the truth of  $\text{Prec}_p$ . The example in (16c) illustrates that counterfactuality (i.e.  $\rightarrow \neg\text{Prec}_p$ ) can be cancelled in the case of SiSUs. This supports the view that counterfactuality in SiSUs is an implicature:

- (16) a. Your brother passed the exam.  
b. Your brother would have passed the exam.  
c. Your brother would have passed the exam, as he in fact did.

There are other differences between SiSUs and SCs. In particular, there are differences regarding the discourse conditions in which SiSUs are uttered and the circumstances in

which SCs are uttered. We refer the reader to Kasper (1992) for details, but one interesting factor that is relevant later refers to the information structure of the conditional. Kasper points out that the full conditionals are not discursively interchangeable with (8): in SCs the antecedent provides the topic, whereas in SiSUs it is the overt (consequent) clause.<sup>4</sup>

#### 4. Putting the pieces together

##### 4.1 NSSCs embed SiSUs

As noted earlier, Siddiqi & Carnie (2012) provide morphosyntactic arguments supporting the claim that *had* in NSSCs is a real modal and there is no difference in meaning between an NSSC with *would* and one with *had*. Thus, we assume these two modals have the same semantic import, and in what follows we will exemplify mostly with *would*.

*Would* is a modal that needs two arguments: the restrictor of the domain of quantification for the modal and the nuclear scope. The restrictor helps identify the temporary assumptions that we make for the evaluation of the nuclear scope. In a Stalnaker/Lewis analysis, the claim is that in the worlds most similar to the actual world in which the restrictor is true, the nuclear scope is also true.

In the case of SCs there is a single modal and the restrictor is the antecedent (*p*). The consequent is the nuclear scope (*q*). In the case of NSSCs there are two modals, one embedded within the antecedent. There is no spelled out restrictor for the embedded *would*, (17a), and we claim that the antecedent of NSSCs embed a SiSU. The (surface) structural contrast between NSSCs and SCs is illustrated in (17): whereas SCs involve a single modal (located in the consequent clause) that function as the main operator in the sentence, NSSCs have two modals, one is found within the antecedent clause and the other serves as the main operator (located in the consequent clause).

- |      |  |      |
|------|--|------|
| (17) | a. <i>would</i> ( <i>would</i> ( $\_$ )( <i>p</i> ))( <i>q</i> ) | NSSC |
|      | b. <i>would</i> ( <i>p</i> )( <i>q</i> )                         | SC   |

There are various reasons to make the claim that NSSCs embed a SiSU. On the one hand, the embedded *would* in NSSCs is missing an overt restrictor and the missing antecedent of the embedded *would* is not recovered linguistically (in parallel to what we saw in our discussion of SiSUs above). This is consistent with a SiSU embedded in the antecedent of NSSCs. On the other hand, the discourse-conditions for uttering NSSCs support the view that they embed SiSUs. To see this, let us first observe that the topic discourse-conditions for the utterance of a NSSC are the same as the topic discourse-conditions for uttering a SC:

- (18) If he would've taken arsenic, he would show some symptoms.  
 (19) If he had taken arsenic, he would show some symptoms.

The topic of conversation is the same in both cases. Both conditionals are uttered while pondering whether someone had taken arsenic. The discourse-conditions are the same

---

<sup>4</sup> See Haiman (1978), Endriss (2009), Biezma (2011) i.a. for a discussion regarding information structure in conditionals.

because in both cases the topic is the proposition that he took arsenic. These facts are consistent with an analysis in which NSSCs have a SiSU embedded in the antecedent clause. In the case of SCs, the antecedent clause provides the topic (see Haiman (1978) i.a.), but in the case of SiSUs, the proposition that is actually spelled out (not the implicit conditions) is the topic (see discussion above). If we assume that NSSCs embed SiSUs, we will have an explanation as to why NSSCs and SCs have the same discourse-conditions.

Assuming that NSSCs embed SiSUs in the antecedent, we end up with an analysis corresponding to the picture sketched in (20):

- |      |   |      |
|------|---|------|
| (20) | a. <i>would</i> [SiSU( <i>p</i> )] [ <i>q</i> ] | NSSC |
|      | b. <i>would</i> [ <i>p</i> ] [ <i>q</i> ]       | SC   |

This analysis also explains the contrast in meaning between NSSCs and SCs. It has the welcome result of allowing us to characterize counterfactuality in NSSCs as an implicature, making NSSCs equal to other subjunctive conditionals in this respect.

## 4.2 Truth-conditional differences

Given the assumption that NSSCs embed a SiSU in the *if*-clause whereas SCs don't, the truth conditions of NSSCs and SCs will be different. This is because in our Lewis/Stalnaker-style quantificational analysis of conditionals, the *if*-clause functions as a restrictor. It introduces temporary assumptions for the evaluation of the matrix clause (the consequent). The *if*-clause contributes to identify the domain of quantification for the matrix modal. Given the differences in *if*-clauses between SCs and NSSCs, the domain of quantification for the matrix modal will be different in each case.

In the case of an SC *If p, q*, the modal quantifies over the worlds most similar to the actual world in which *p* is true, and states that in those worlds, *q* is true. However, in the case of an NSSC, *If SiSU(p), q*, the modal quantifies over the worlds most similar to the actual world in which the SiSU(*p*) is true, and says that in those worlds, *q* is true. The worlds in which SiSU(*p*) is true are worlds in which the  $\text{Prec}_p$  guarantees that *p* is true (the SiSU(*p*)-claim). Hence, the modal in NSSCs quantifies over worlds in which the  $\text{Prec}_p$  make *p* true:

- (21) *Differences in quantificational domains:*  
**SCs' quantificational domain:** most similar worlds in which *p* is true.  
**NSSCs' quantificational domain:** most similar worlds in which  $\text{Prec}_p$  make *p* true.

Every world in the domain of quantification of NSSCs is also in the domain of quantification of SCs. However, there are worlds in the domain of quantification of SCs that are not in the domain of quantification of NSSCs. Let us explicate this with an example, comparing the case of the SC *If Peter had passed the exam, we would have celebrated* and the NSSC *If Peter would've passed the exam, we would have celebrated*. How should we think about worlds in which the  $\text{Prec}_p$  do not guarantee *p*? Let us simplify the discussion and assume that in this particular case, the  $\text{Prec}_p$  is simply to actually undergo the exam. This means that the worlds in which  $\text{Prec}_p$  does not guarantee *p* are worlds in which undergoing an exam does not guarantee passing it. Grading actually works in a funny way. Sometimes the professor really reads the exams, but sometimes she just passes everybody who is called Peter. In the actual

world, Peter did not undergo the exam and he did not pass it. What would the worlds quantified over by SC and SiSU look like?

(22)  $p$  = that Peter passed the exam

worlds	$\text{Prec}_p$	other circumstances in the world	$p/\neg p$
$w_1$	undergoes exam	The prof. always passes Peter regardless (she doesn't even look at the exam)	$p$
$w_2$	undergoes exam	regular grading	$p$
$w_3$	undergoes exam	regular grading	$\neg p$

Both  $w_1$  and  $w_2$  are in the domain of quantification of the SC *If Peter had passed the exam, we would have celebrated*, since both worlds are amongst the most similar worlds in which  $p$  is true. However, only  $w_1$  is in the domain of quantification of the NSSC *If Peter would've passed the exam, we would have celebrated*. Only in  $w_1$  does Peter undergoing the exam guarantees that he passes it. The consequence of this is that an NSSC is less informative than the corresponding SC: by uttering an NSSC we only learn what happens in a subset of the worlds we learn about with the utterance of the parallel SC.

Given that speakers of NSSC dialects have available both SCs and NSSCs, the following question arises: when are speakers of NSSC dialects justified in uttering an NSSC instead of an SC? Assuming a cooperative speaker that tries to be as informative as possible, we would expect speakers of these dialects to choose an SC most of the time, unless informativity is traded for something else – i.e. unless by being less informative overall the speaker gains something else. It may be that a speaker chooses to be less informative if that allows them to make a point about something specific: by using a NSSC the speaker makes a less informative assertion overall but provides information about the preconditions of  $p$  and triggers the inference that those  $\text{Prec}_p$  may be false.<sup>5</sup>

In this section, we have characterized NSSCs as subjunctive conditionals specialized in providing information about the preconditions of the antecedent proposition. In the following section, we will explore in more detail the differences between SCs and NSSCs regarding the implicatures they trigger.

### 4.3 Differences in Implicature

Subjunctive conditionals give rise to the inference that the antecedent is false. Since NSSCs and SCs have different antecedents, the inferences that arise will be different too:

- (23) NSSC: **would** [SiSU( $p$ )]<sub>restrictor</sub> [ $q$ ]<sub>nuclear scope</sub>
- a. **Inferences from subjunctive conditionals (Falsity of antecedent):**  $\rightarrow \neg \text{SiSU}(p)$   
 Since  $\neg \text{SiSU}(p)$  triggers  $\rightarrow \neg p$  (see (14b)), we obtain  $\rightarrow \neg p$
  - b. **Inferences from the embedded SiSU would[ $\text{Prec}_p$ ][ $p$ ]:**  $\rightarrow \neg \text{Prec}_p$ .  
 Since  $\text{Prec}_p$  are necessary for the truth of  $p$ ,  $\neg \text{Prec}_p$  entails  $\neg p$

<sup>5</sup> In Gricean terms, we have a competition between relation and quantity.



(24) SC: **would**  $[p]_{\text{restrictor}}$   $[q]_{\text{nuclear scope}}$

a. **Inferences from subjunctive conditionals (Falsity of antecedent):**  $\rightarrow \neg p$

In NSSCs we obtain the inference that  $\neg \text{SiSU}(p)$ , while in the case of SCs we obtain the inference that  $\neg p$ . As we know from (14b),  $\neg \text{SiSU}(p)$  triggers the inference that  $\neg p$ . In addition, NSSCs also trigger inferences arising from the SiSU in the antecedent. As do subjunctive conditionals, SiSUs trigger the inference that the restrictor is false:  $\neg \text{Prec}_p$ .  $\text{Prec}_p$  are necessary conditions for the truth of  $p$  and thus the inference that  $\neg \text{Prec}_p$  triggers the entailment that  $\neg p$ .

(25) *Summary of inferences*

NSSC	$\rightarrow \neg p$
	$\rightarrow \neg \text{Prec}_p$ (which entails $\neg p$ )
SC	$\rightarrow \neg p$

The differences between SCs and NSSCs can be paraphrased in the following way: an SC *if*  $p$ ,  $q$  triggers the inference that  $p$  is not true, whereas an NSSC *if*  $\text{SiSU}(p)$ ,  $q$  triggers the inference that not even the preconditions for  $p$  to be true are true.

In the case of SCs, nothing is said about  $\text{Prec}_p$ . Since quantification is over worlds in which  $p$  is true, it is also over worlds in which the  $\text{Prec}_p$  are true. The inference arising from the SC is that  $p$  itself is false (regardless of whether the  $\text{Prec}_p$  are true). In the case of NSSCs, the inference arising from  $\text{SiSU}(p)$  is that those  $\text{Prec}_p$  are themselves false, and as a consequence, it is entailed that  $p$  is false. In both cases, that  $\neg p$  is the result of an inference. The difference is that we can cancel the inference in the case of SCs, but not in the case of NSSCs. Why?

#### 4.4 Cancelling implicatures

In the case of SC *if*  $p$ ,  $q$ , the counterfactual inference that  $\neg p$  can be cancelled either directly by claiming that  $p$  is true, or indirectly by claiming that  $q$  is true (since if  $q$  is true,  $p$  may also be true, see (3)).<sup>6</sup> The case of NSSC *if*  $\text{SiSU}(p)$ ,  $q$  is different. One would expect that the claim that  $p$  is true would also suffice to cancel the SiSU-triggered implicature that  $\neg \text{Prec}_p$ : even though the truth of  $p$  does not directly contradict the implicature that  $\neg \text{Prec}_p$ , we know that such implicature entails that  $\neg p$ . Hence, the claim that  $p$  is true would be in conflict with the entailment that  $\neg p$  and lead to cancelling the implicature that  $\neg \text{Prec}_p$  (which is the one responsible for the inference that  $\neg p$ ). And yet, cancelling the counterfactual inference that  $\neg p$  in the same way as in SCs is not possible (as seen above in (4), attempts to do so result in infelicity). Why?

#### 4.5 Informativity

We saw above that the truth conditions of the NSSC *if*  $\text{SiSU}(p)$ ,  $q$  and those of the SC *if*  $p$ ,  $q$  are different. However, if we were to claim that  $p$  after either the utterance of the SC or the

<sup>6</sup> This is even more so in cases in which we find conditional perfection.

NSSC, in terms of information gain the final result would be the same. Consider the simplified paraphrases below:

- (26) **NSSC:** In the worlds most similar to the actual world in which the  $\text{Prec}_p$  are true and  $p$  is true,  $q$  is true. Since  $p$  is true,  $\text{Prec}_p$  are true, and  $q$  is true.

**SC:** In the worlds most similar to the actual world in which  $p$  is true,  $q$  is true (all the worlds in which  $p$  is true, are worlds in which  $\text{Prec}_p$  are true<sup>7</sup>). Since  $p$  is true, the  $\text{Prec}_p$  are true and  $q$  is true.

Considering a Stalnakerian common ground (Stalnaker 1974, 2002), claiming that  $p$  is true after the NSSC *If SiSU(p), q* amounts to the same result as claiming that  $p$  is true after a SC.

Given that the results are the same, speakers of NSSC dialects could in principle choose between either NSSC+ $p$  or SC+ $p$  to achieve it. However, the sequence NSSC+ $p$  is a less economical (we process more inferences) and more complex (morpho-syntactically) route. In the following section, we claim that this is at the core of the impossibility of cancelling counterfactuality in NSSCs.

#### 4.6 Pragmatic contradictions

NSSCs are both less informative (overall), morpho-syntactically more complex than SCs, and more complex both semantically (they have a SiSU embedded in the *if*-clause) and pragmatically (there are more inferences triggered in NSSCs than in SCs). Since speakers of NSSC dialects of English have readily available both the SC and the NSSC form of the subjunctive, those speakers would be justified in uttering an NSSC only if there is something to be gained despite the extra effort. As we have seen above, the extra value provided by NSSCs is that they are specialized in giving rise to the inference that  $\neg\text{Prec}_p$ . The problem is that the extra effort is not recompensed if the NSSC *if SiSU(p), q* is followed by the claim that  $p$  is true. As we saw above, if we are going to end up claiming that  $p$  is true, we could have achieved the same informational result using the simpler SC+ $p$  sequence (also available to the speakers):

- (27) Move 1: *If SiSU(p), q* [NSSC]

COMPUTATION OF NSSC:

**Information included in the common ground:**

- Assertion made by the NSSC: In the most similar worlds in which  $\text{Prec}_p$  are true and  $p$  is true,  $q$  is true.
- The speaker went out of his way to trigger the inference that  $\neg\text{Prec}_p$  (he could have used an SC)

**Cost:** Extra morpho-syntactic parsing and extra inference-computation.<sup>8</sup>

**Conclusion:** That  $\neg\text{Prec}_p$  is relevant (so the speaker is justified in using an NSSC).

<sup>7</sup> The claim made when uttering SiSU( $p$ ) is that the necessary conditions are sufficient conditions (guarantee) the truth of  $p$ .

<sup>8</sup> That there is extra cost is the result of the alternative SC being also available in this dialect.

## Counterfactuality in non-standard subjunctive conditionals

Move 2:  $+p$

COMPUTATION OF  $+p$

**Final informational stage:**  $p$  is true and hence  $\text{Prec}_p$  are true too!

**Consequence:** That  $\neg\text{Prec}_p$  wasn't relevant! [Contradiction!]

The computational process in (27) puts forward a pragmatic contradiction: upon hearing the utterance of *if* SiSU( $p$ ),  $q$  the processor is lead to the assumption that  $\neg\text{Prec}_p$  is relevant, justifying the extra cost of this discourse move in exchange for informativity. This assumption is then contradicted by the assertion that  $p$  is the case. This is not accepted by speakers of NSSC dialects; accepting that  $p$  is the case after the utterance of an NSSC *if* SiSU( $p$ ),  $q$  would amount to accepting that the speaker can freely lead the processor to spurious false assumptions (that  $\neg\text{Prec}_p$  is the case) and require extra work without justification. The fact that the speaker rejects such sequences indicates that that the speaker does not accept this contradictory/irrational move at the cost of extra-effort.

If this account is correct, the broader claim is that, when processing language, principles of pragmatic economy are at work:

(28) *Principle of pragmatic economy:* Use the simplest and most informative utterance available.<sup>9</sup>

Accepting that  $p$  is true after an NSSC amounts to accepting a pragmatic contradiction.

### 5. Conclusion

The availability of a richer set of morpho-syntactic options in non-standard dialects provides an ideal vantage point from which to investigate counterfactuality implicatures in conditionals. We have shown that not all implicatures behave alike. Principles of pragmatic economy come into play to seemingly hard-wire certain implicatures in view of the total range of alternative constructions available to the speakers of a particular dialect. And, as we have shown (contra to other work), speakers of non-standard dialects are very aware of differences between the forms, making conscious and clear choices when uttering an SC or an NSSC.

### References

- Anderson, Alan. 1951. A note on subjunctive and counterfactual conditionals. *Analysis* 12:35–38.
- Arregui, Ana. 2007. When aspect matters: the case of *would*-conditionals. *Natural Language Semantics* 15:221–264.
- Arregui, Ana, and María Biezma. 2012. Pragmatic constraints on backtracking counterfactuals. Ms. University of Ottawa and Carleton University.

---

<sup>9</sup> The use of an SC instead of a simple indicative in detective-reasoning scenarios (see 3 above) is justified by the use of deductive reasoning from consequences to probable causes. In detective-reasoning scenarios, we end up with the claim that  $p$  is probably the case.

- van der Awerda, Joahn. 1997. Pragmatics in the last quarter century: The case of conditional perfection. *Journal of Pragmatics* 27:261–274.
- Biezma, Maria. 2011. Anchoring pragmatics in syntax and semantics. Doctoral Dissertation, University of Massachusetts Amherst, Amherst, MA. Ms.
- Biezma, Maria. 2012. Conditional inversion and GIVENNESS. In *SALT XXI: Proceedings of Semantics and Linguistic Theory XXI*, 552–571. eLanguage.
- Boylund, Joyce. 1995. A corpus study of *would+have+past participle*. In *Historical linguistics: Germanic*, ed. R. Hogg and L. van Bergen, 1–17. Amsterdam: John Benjamins.
- Chemla, Emmanuel. 2008. An epistemic step for anti-presuppositions. *Journal of Semantics* 25:141–173.
- Endriss, Cornelia. 2009. *Quantificational topics: A scopal treatment of exceptional wide scope phenomena*. Studies in Linguistics & Philosophy. Springer.
- von Fintel, Kai. 2000. Conditional strengthening: A case study in implicature. Ms. MIT.
- Haiman, John. 1978. Conditionals are topics. *Language* 54:564–589.
- Heim, Irene. 1991. Artikel und definitheit. In *Semantik: Ein Internationales Handbuch der Zeitgenössischen Forschung*, ed. Arnim von Stechow and Dieter Wunderlich, 487–535. Berlin: De Gruyter.
- Huddleston, Rodney and Geoffrey Pullum. 2002. *The Cambridge Grammar of the English Language*. Cambridge: Cambridge University Press.
- Iatridou, Sabine, and David Embick. 1994. Conditional Inversion. In *North Eastern Linguistic Society* 24, 189–203. UMass, Amherst: GLSA.
- Kasper, Walter. 1992. Presuppositions, composition, and simple subjunctives. *Journal of Semantics* 307–331.
- Kayne, Richard. 1997. The English complementizer *of*. *Journal of Comparative Germanic Linguistics* 1:43–54.
- Leahy, Brian. 2011. Presuppositions and antipresuppositions in conditionals. In *Proceedings of SALT21*, ed. David Lutz Neil Ashton, Anca Chereches, 257–274.
- Molencik, Rafel. 2000. Parallelism vs. asymmetry: The case of English counterfactual conditionals. In *Pathways of change*, ed. O. Fischer, A. Rosenbach, and D. Stein, 311–328. Amsterdam: John Benjamins.
- Schlenker, Philippe. 2012. Maximize presupposition and Gricean reasoning. *Natural Language Semantics* 20:391–429.
- Siddiqi, Daniel, and Andrew Carnie. 2012. The English modal *had*. *Snippets* 25.
- Stalnaker, Robert. 1974. Pragmatic presuppositions. In *Semantics and Philosophy*, ed. Milton K. Munitz and Peter K. Unger. NY: New York University Press.
- Stalnaker, Robert. 2002. Common Ground. *Linguistics and Philosophy* 25:701–721.
- Wilson, Kenneth. 1993. *The Columbia Guide to Standard American English*. New York: Columbia University Press.

Carleton University  
Schools of Linguistics and Language Studies  
215 Paterson Hall, 1125 Colonel By Drive  
Ottawa, ON, K1S 5B6, Canada  
maria\_biezmagarrido@carleton.ca  
daniel\_siddiqi@carleton.ca

University of Arizona  
Department of Linguistics  
PO box 210028  
Tucson, AZ, 85721, USA  
carnie@email.arizona.edu