

Zulu Counterfactuals in and out of Conditionals

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1. Introduction

Counterfactual (CF) constructions are used to refer to situations that a speaker believes to be “contrary to fact” (Iatridou 2000).¹ Counterfactuals most often occur in conditional environments, though they can also occur in ‘simple’ cases where there is no overt conditional construction:

- (1) **CF conditionals** ($p \rightarrow q$, which conveys $\neg p$ and $\neg q$)
If I had a car, I would go to the store.
- (2) **Simple CFs** (*would p*, conveys $\neg p$)
A person with a car would go to the store.

In this paper I will be exploring aspects of the distribution of CFs in Zulu. Section 2 contains an overview of the two strategies for forming Zulu CF conditionals in the context of cross-linguistic CF typology. A puzzle emerges from this examination: while the two CF strategies appear to behave identically in nearly all contexts, they differ with respect to their ability to cancel CF implicatures in ‘simple’ (not overtly conditional) environments. In section 3 contains an analysis of this puzzle. I argue that we can understand this distribution in terms of the nature of the conditional antecedent, which may not be expressed overtly, associated with the counterfactual construction, but rather on whether an overt antecedent is present. Specifically, any counterfactual with a generic, unrestricted antecedent will not allow implicature cancellation. Data from English suggests that this generalization holds beyond Zulu. This analysis only provides an incomplete account of the pattern: it predicts that both strategies should behave the same in cases with comparable antecedents and that neither strategy should allow implicature cancellation with a generic antecedent. In simple constructions with the same clues to the (generic) missing antecedent, however, the two strategies behave differently, with one allowing the implicature cancellation. To explain the observed difference, I argue that the strategy allowing the cancellation is morphologically ambiguous. In simple constructions with apparent CF implicature cancellation, the construction is disambiguated to the non-CF reading; the other strategy has no such ‘escape hatch’ and therefore is unable to give the appearance of implicature cancellation.

2. Zulu CFs and Cross-Linguistic Context

2.1. Counterfactual Typology

The consensus in the counterfactuality literature is that languages encode counterfactuality in two basic ways (cf. Han 1996, 2006; Iatridou 2000, 2009; Ippolito 2003, 2006; Legate 2003; Wiltschko 2009). First, there are languages that use repurposed past tense² and/or imperfective aspect morphology

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¹True counterfactual situations only arise in past or present tense, where we can fully evaluate the truth or falsity of the proposition. In addition to true CFs, there are constructions in the future tense that look and behave similarly. Iatridou calls these *future less vivid* (FLVs) Throughout the paper, I will be using both true CFs and FLV constructions, since for my purposes here, they behave identically.

²Or analogous INFL-related item. Martina Wiltschko (2009) analyzes INFL in Salish languages as being participant- or location-oriented, as opposed to being a tense-oriented INFL (which is what we find in most languages). In these languages CFs are in fact created using what Wiltschko calls ‘[-coin]’ values for participant or location, which in her system correspond to past tense values in tense languages, making even these apparent exceptions to the fake CF morphology generalizations fit into the crosslinguistic patterns.

to convey counterfactuality (Strategy I). In CF constructions, this repurposed morphology receives only a CF interpretation, and not its ‘standard’ temporal/aspectual meaning.

(3) **Strategy I: Repurposing of other morphology**

a. **Past tense**

- i. FLV: If he **left** tomorrow, he would get there next week.
- ii. PresCF: If I **had** a car (now), I would be happy.
- iii. PstCF: If he **had** been descended from Napoleon he would have been shorter.
(Iatridou 2000)

b. **Imperfective aspect**

- i. An **pari** afto to siropi tha y_I ini kala.
if takeNPST.PFV this syrup FUT become.NPST.PFV well
‘If he takes this syrup, he will get better (FNV)’
- ii. An **eperne** afto to siropa tha y_I inotan kala
if takePST.IMP this syrup FUT becomePST.IMP well
‘If he took this syrup, he would get better.’ (FLV)
- iii. An **peθene** o arx_Iiγos tha ton θavame stin korifi tu vunu
if die.PST.IMP the chief FUT him bury.PST.IMP o-the top the mountain
‘If the chief died, we would bury him on the top of the mountain.’ (FLV)
(Greek, Iatridou 2000)

The constructions in (3a) each contain a layer of past tense morphology that is not interpreted as contributing its standard past tense meaning; in non-CF constructions, the presence of these past tense morphemes would be incompatible with the present- and future-oriented time adverbs, for example. In (3b), the imperfective morpheme appears on CF predicates that receive a perfective interpretation.

Second, there are languages that use a dedicated morpheme that conveys only counterfactuality and nothing else (Strategy II):

(4) **Strategy II: Dedicated CF morphology:**

- a. ha holnap el-indul, a jövő hétre oda-ér
if tomorrow away-leave the following week.onto there-reach
‘If he leaves tomorrow, he will get there next week.’ (non-CF)
- b. ha holnap el-indul-**na**, a jövő hétre oda-ér-**ne**
if tomorrow away-leave.CF the following week.onto there-reach.CF
‘If he left tomorrow, he would get there next week.’ (CF)
(Hungarian; Iatridou 2009, from Csirmaz p.c.)

CF constructions convey that the propositions they contain are false. Cross-linguistically, this counterfactuality is conveyed as a conversational implicature (Anderson 1951, Karttunen and Peters 1979, Palmer 1986, Stalnaker 1975; see Iatridou 2000 for more cross-linguistic discussion). Two tests can show that counterfactuality is an implicature. First, Anderson (1951) argued that we can understand the counterfactual as an implicature because it is possible to cancel the counterfactuality of a CF conditional without producing a contradiction, in contrast to a sentence with asserted negation:

- (5) a. If the patient had the measles, he would have exactly the symptoms he has now. We conclude, therefore, that the patient has the measles. (CF)
(Anderson 1951)
- b. #The patient doesn’t have the measles, but he in fact has the measles. (asserted negation)

In addition, the falsity of a CF proposition can be asserted without redundancy, again suggesting that the counterfactuality is an implicature and not an assertion:

- (6) a. If the butler had done it, we would have found blood on the kitchen knife. The knife was clean; therefore, the butler did not do it. (CF)
(Iatridou 2000)
- b. #The butler did not do it, therefore (we can conclude that) the butler did not do it. (asserted)

2.2. CFs in Zulu

Zulu follows the cross-linguistic patterns in forming its counterfactuals. However, unlike in other languages, both strategies are available in Zulu: CFs can be formed either by using past-imperfective morphology (Strategy I) that does not receive its usual interpretation, or by using a dedicated CF marker, *ngabe* (Strategy II).³

(7) Strategy I: repurposed morphology in antecedent and consequent

- a. [ukuba **be-** **ngi-** **phum-** e **izolo**] **be-** **ngi-** **zo-** **fik-** **ile**
if PST.IMP- 1STSG.S- leave- PFV yesterday PST.IMP- 1STSG.S- FUT- arrive- PFV
ekuseni
LOC.dawn
'If I had left yesterday, I would have arrived at dawn.'
- b. [ukuba **be-** **ngi-** **phuma** manje] **be-** **ngi-** **zo-** **fika** **kusasa**
if PST.IMP- 1STSG.S- leave now PST.IMP- 1STSG.S- FUT. arrive tomorrow
'If I left now, I would arrive tomorrow.'
- c. [ukuba **be-** **ngi-** **zo-** **phuma** kusasa] **be-** **ngi-** **zo-** **fika**
if PST.IMP- 1STSG.S- FUT- leave tomorrow PST.IMP- 1STSG.S- FUT. arrive
ngo-Lwesihlanu
LOC.Friday
'If I left tomorrow, I would arrive on Friday.' (FLV)

In the consequent clauses of Strategy I CFs, which use repurposed morphology, a future tense morpheme, *-zo*, also appears on the predicate. In Strategy II, as illustrated below, when the dedicated CF morpheme appears, future tense (and all other tense/aspect morphology) only appears on the predicate if it is clearly receiving its standard temporal interpretation:

(8) Strategy II: repurposed morphology in antecedent and *ngabe* in consequent

- a. [ukuba **be-** **ngi-** **phum-** e **izolo**] **ngabe** (*be-) **ngi-** **fik-** **ile**
if PST.IMP- 1STSG.S- leave. PFV yesterday NGABE (*IMP). 1STSG.S- arrive. PFV
ekuseni
LOC.dawn
'If I had left yesterday, I would have arrived at dawn.'
- b. [ukuba **be-** **ngi-** **phuma** manje] **ngabe** (*be-) **ngi-** **zo-** **fika** **kusasa**
if PST.IMP- 1STSG.S- leave now NGABE (*IMP). 1STSG.S- FUT. arrive tomorrow
'If I left now, I would arrive tomorrow.'
- c. [ukuba **be-** **ngi-** **zo-** **phuma** kusasa] **ngabe** (*be-) **ngi-** **zo-** **fika**
if PST.IMP- 1STSG.S- FUT- leave. tomorrow CF (*IMP). 1STSG.S- FUT- arrive
ngo-Lwesihlanu
LOC.Friday
'If I left tomorrow, I would arrive on Friday.' (FLV)

³A note on glosses: Bantu noun classes agree for person, number, and noun class. Cardinal numbers indicate noun class (number is encoded into class), while ordinal numbers indicate person, with S for subject and O for object agreement. Nouns are marked with their class number. In subjunctive verb forms in Zulu, full phi-agreement occurs with a slightly different morphological paradigm and will be glossed with the abbreviation SJC. Other abbreviations used: PFV for perfective, IMP for imperfective, PST for past, LOC for locative, DEM for demonstrative, POSS for possessive, FUT for future.

Zulu counterfactuals in overt conditionals also pass the standard implicature tests. Both strategies allow for an implicature-cancelling followup:

(9) **Canceling CF in Strategy I**

- a. [uma uSipho u- be- ngu- mbulali], **be- ku- zo- ba** khona igazi
 if 1Sipho 1S- PST.IMP- COP- 1murderer, PST.IMP- 17S- FUT- be DEM 5blood
 ehembeni lakhe...
 LOC.5shirt 5POSS
 ‘If Sipho were the murderer, there would be blood on his shirt...’
 i. Ngempela ku- khona igazi ngakhoke uSipho u- ngu- mbulali!
 truly 17S- exist 5blood therefore 1Sipho 1S- COP- 1murderer
 ‘In fact, there *is* blood on his shirt so he is the murderer!’

(10) **Canceling CF in Strategy II**

- a. [uma uSipho u- be- ngu- mbulali], **ngabe** ku- khona igazi ehembeni lakhe...
 if 1Sipho 1S- PST.IMP- COP- 1murderer, CF 17S- exist 5blood LOC.5shirt 5poss
 ‘If Sipho were the murderer, there would be blood on his shirt...’
 i. Ngempela ku- khona igazi ngakhoke uSipho u- ngu- mbulali!
 truly 17S- exist 5blood therefore 1Sipho 1S- COP- 1murderer
 ‘In fact, there *is* blood on his shirt so he is the murderer!’

Both strategies also allow the counterfactual to be followed up with an assertion of the falsity:

(11) **Asserting CF falsity in Strategy I**

- a. [uma uSipho u- be- ngu- mbulali], **be- ku- zo- ba** khona igazi
 if 1Sipho 1S- PST.IMP- COP- 1murderer, PST.IMP- 17S- FUT- be DEM 5blood
 ehembeni lakhe...
 LOC.5shirt 5POSS
 ‘If Sipho were the murderer, there would be blood on his shirt...’
 i. A- ku- kho igazi ku- sho ukuthi a- ku- yena umbulali
 NEG- 17S- exist 5blood 17S- say that NEG- 17S- 1DEM 1murderer
 ‘There is no blood, which means he’s not the murderer.’

(12) **Asserting CF falsity in Strategy II**

- a. [uma uSipho u- be- ngu- mbulali], **ngabe** ku- khona igazi ehembeni lakhe...
 if 1Sipho 1S- PST.IMP- COP- murderer, CF 17S- exist 5blood LOC.5shirt 5poss
 ‘If Sipho were the murderer, there would be blood on his shirt...’
 i. A- ku- kho igazi ku- sho ukuthi a- ku- yena umbulali
 NEG- 17S- exist 5blood 17S- say that NEG- 17S- 1DEM 1murderer
 ‘There is no blood, which means he’s not the murderer.’

To summarize the basic picture, Zulu has two methods for forming counterfactuals: one involving repurposed past-imperfective morphology and one involving a dedicated CF morpheme. In both of these strategies the CF behaves like a conversational implicature, allowing for either a cancelling or asserting followup. In general, these two strategies were indistinguishable in overt CF conditionals. Native speakers were unable to detect meaning or grammaticality differences between the two strategies across a wide range of contexts.

2.3. *The puzzle*

In addition to appearing in overtly conditional sentences of the form $p \rightarrow q$, both CF strategies can appear in ‘simple’ sentences that are not overtly conditional. These simple CF constructions resemble CF consequents in form: Strategy I contains a future morpheme in addition to the past-imperfective morpheme, while Strategy II contains the dedicated CF marker *ngabe*:

(13) **Strategy I simple sentences**

- a. uSipho u- **be-** **zo-** vakashela ugogo izolo
 1Sipho 1S- PST.IMP- FUT- visit 1grandmother yesterday
 ‘Sipho was going to visit Granny yesterday.’
- b. **be-** li- **zo-** na izolo
 PST.IMP- 5S- FUT- rain tomorrow
 ‘It was going to rain yesterday.’

(14) **Strategy II simple sentences**

- Ngabe** uSipho u- vakashel- e ugogo izolo
 CF 1Sipho 1S- visit- PFV 1gogo yesterday
 ‘Sipho would have visited/was going to visit Granny yesterday.’
- a. Ngempela u- ne- nhlanhla! **Ngabe** u- shonile engozini.
 truly 2NDSG.S- WITH. 9luck CF 2NDSG.S- die LOC.9accident
 ‘You’re truly lucky! You should have died in the accident.’

Speakers interpret both of these constructions as counterfactual and again accept them as interchangeable in a wide variety of contexts. With both strategies, the CF can be followed with an assertion of CF falsity that does not yield redundancy, indicating that, again, the CF here is an implicature:

(15) **Simple Strategy I: asserting CF falsity**

- uSipho u- **be-** **zo-** vakashela ugogo izolo
 1Sipho 1S- PST.IMP- FUT- visit 1grandmother yesterday
 ‘Sipho was supposed to/was going to visit Granny yesterday.’
- a. ...kodwa a- ka- ya- nga
 but NEG- 1S- go- NEG-PST
 ‘...but he didn’t go.’
- b. ...kodwa u- be- gula
 but 1S- PST.IMP- sick
 ‘...but he was sick.’

(16) **Simple Strategy II: asserting CF falsity**

- Ngabe** uSipho u- vakashel- e ugogo izolo
 CF 1Sipho 1S- visit. PFV 1gogo yesterday
 ‘Sipho would have visited/was going to visit Granny yesterday...’
- a. ...kodwa a- ka- ya- nga
 but NEG- 1S- go- NEG-PST
 ‘...but he didn’t go.’
- b. ...kodwa u- be- gula
 but 1S- PST.IMP- sick
 ‘...but he was sick.’

The two constructions differ, however, when it comes to the ability to cancel the CF implicature. With the Strategy I repurposed past-imperfective morphology, it is possible to cancel the CF implicature with a followup that either casts doubt on or outright asserts the truth of the proposition. In Strategy II constructions with the dedicated CF morpheme *ngabe*, neither of these continuations is felicitous:

(17) **Simple Strategy I: implicature cancellable**

uSipho u- **be-** **zo-** vakashela ugogo izolo
 1Sipho 1S- PST.IMP- FUT- visit 1grandmother yesterday

‘Sipho was supposed to/was going to visit Granny yesterday.

a. ...kodwa a- ng- azi noma u- hamb- ile yini
 but NEG- 1STSG.S- know if 1S- go PFV what

‘...but I don’t know if he went.’

b. ...ngakhoke u- hamb- ile
 therefore 1S- go. PFV

‘...so he went.’

(18) **Simple Strategy II: implicature not cancellable**

Ngabe uSipho u- vakashel- e ugogo izolo
 CF 1Sipho 1S- visit- PFV 1gogo yesterday

‘Sipho would have visited/was going to visit Granny yesterday...’

a. #... kodwa a- ng- azi noma u- hamb- ile yini
 but NEG- 1STSG.S- know if 1S- go PFV what

‘...but I don’t know if he went.’

b. #... ngakhoke u- hamb- ile
 therefore 1S- go. PFV

‘...so he went.’

From these data, the simple Strategy II constructions built using the dedicated CF morpheme stand apart. In all other CF constructions—including both strategies for forming overt CF conditionals and the simple Strategy I CFs—canceling the CF implicature is felicitous. Only in the simple Strategy II construction is the CF implicature cancellation ruled out. In the next section, I will present an analysis for this distribution.

3. Analysis

I will present my analysis of the distribution of CF implicature cancellation in two parts. In the first, I will argue that the simple CF constructions contain elided CF antecedents of a type whose nature prevents implicature cancellation. In the second, I will argue that Strategy I simple CFs, but not Strategy II simple CFs, have an additional parse that is triggered in cases of apparent implicature cancellation.

3.1. Elided CF Antecedents

Following Kasper’s (1992) work on English ‘simple subjunctives,’ I will assume that simple Zulu CFs are counterfactual consequents with an elided CF antecedent: as in the English cases, they have identical structure to CF consequents in overt conditionals and retain a CF meaning. Kasper argues that in English, the antecedent content for simple CFs is determined by some unfulfilled preconditions for the consequent to come about or be true. He analyzes cases in which the preconditions arise from the focus structure of the sentence:

- (19) *Your brother Peter* would have passed the exam.
 = *If your brother Peter had taken the exam*, he would have passed.

In his discussion of English, Kasper only addresses scenarios in which the focus structure, communicated by special intonation, is able to provide ‘clues’ to the specific antecedent content. In contrast to English, Zulu lacks the ability to manipulate the focus structure of the sentence through intonation alone. Instead, the canonical simple CF construction is one that corresponds to a broad,

or neutral, focus interpretation on the sentence.⁴ Lacking information structural clues, how does Zulu determine the content of the elided antecedent?

I propose that when clues to how to restrict the antecedent of a CF are absent, speakers reconstruct the most general, and least restricted, antecedent possible:

(20) Unrestricted antecedent: “If the world were different from how it is.”

In the Zulu simple CF cases discussed, the absence of clues about the restrictor means that speakers reconstruct this unrestricted antecedent.

We can learn about the behavior of unrestricted antecedents by examining them in constructions where they are overt. If we see how they behave with respect to the CF implicature tests, we find that they in fact pattern with the simple Zulu Strategy II (*ngabe*) cases: the falsity of the CF implicature can be asserted, but not cancelled.

(21) **English**

- a. If the world were different from how it is, there would be no hunger or war.
 - i. ...but it’s not different, and there is hunger and war.
 - ii. #...and in fact there is no hunger or war, so it must be different from how it is!
 - iii. #...and in fact it is different from how it is, so there must be no hunger or war!

(22) **Zulu**

- a. ukuba izinto **be-** zi- shintshile **ngabe** ngi- y- isicebi manje...
 if 10thing PST.IMP- 10S- changed CF 1STSG.S- COP- 7rich-person now
 ‘If things were different, I’d be rich by now...’
 - i. ...kodwa zi-njalo ngakhoke a- ngi- sona isicebi
 but SM10.like-that therefore NEG- 1STSG.S- 7DEM 7rich-person
 ‘...but they’re the way they are, so I’m not rich.’
 - ii. #...ngempela ngi- y- isicebi ngakhoke izinto zi- shintshile
 truly 1STSG.S- COP- 7rich-person therefore 10thing 10S- changed
 #‘...and in fact I am rich, so they must be different.’
 - iii. #...ngempela zi- shintshile, ku- sho ukuthi ngi- y- isicebi
 truly 10S- changed 17S- say that 1STSG.S- COP- 7rich-person
 #‘...and in fact they are different, which means I am rich.’

These results are the same in Zulu and in English with an overt unrestricted antecedent. While the Kasper cases all involve a more restricted antecedent, if we create a context where antecedent clues are absent (uttered with neutral intonation) in a simple English CF, we can again mirror the Zulu result⁵:

⁴Speakers tended to reject, or be uneasy about, initial attempts to combine simple CFs with unambiguous narrow focus structures of the following type:

- i. *? Ngabe ku- vakashel- e uSipho
 CF 17S- visit. PFV. 1Sipho
 for ‘SIPHO would have visited.’

More systematic work is needed to determine how CFs interact with different information structures; for this paper, I will limit my analysis to the standard/neutral focus constructions.

⁵In contrast with the cases Kasper discusses, where the cancellation does seem to work:

- ii. *Your brother Peter* would have passed the test—and in fact he did!

- (23) a. *Context:* John has been complaining to you about how Bill seemed unsympathetic to his money troubles.
 b. *Response:* Bill would have lent you fifty dollars...
 i. ...but he couldn't/didn't.
 ii. ...#and in fact he left it in an envelope for you this morning.

These data suggest that, in general, CF implicature cancellation fails when the antecedent is unrestricted. The unrestricted nature of the antecedent, rather than whether it is overt or covert, is what actually determines whether it can be cancelled. As we saw in English, when clues to antecedent content allow us to reconstruct a more restricted antecedent, cancellation can occur. While clues to the content of the antecedent in a simple Zulu CF can't be deduced from information structure, this proposal predicts that if clues to the content of the antecedent are present, the simple CF should be cancellable. In cases where the conversation context can restrict the antecedent, this prediction is borne out:

(24) **Clue provided by previous question:**

- a. uSipho **ubezokwenzani** yingabe ebenemali?
 What would Sipho do if he had money?
- b. **Ngabe** u- thenga imoto...
 CF 1s- buy 9car
 'He would buy a car.'
 i. ...Ngoba u- ne- moto entsha, ku- sho ukuthi u- ne- mali
 because 1s- WITH- 9car 9new 17s- say that 1s- have money
 '...Since he does have a new car, that means that he has money.'
 ii. ngempela wenze lokho
 truly 1s-do.PST DEM
 '...and he did!'

It seems, then, that the relevant factor in CF cancellation in Zulu, as in English, is not whether the antecedent is overt or covert, but rather whether it is restricted or unrestricted. In this section, I have argued that unrestricted antecedents will fail the implicature cancellation test and suggested that due to the relative difficulty of garnering clues to antecedent content from information structure in Zulu, the unrestricted antecedent is the default in simple CFs (unless otherwise specified by conversational context).

3.2. Understanding Simple Strategy I CFs

The analysis so far claims that CFs will fail the implicature cancellation test any time they contain an unrestricted antecedent, overt or covert. This story correctly predicts that the 'clueless' simple Strategy II *ngabe* cases cannot have their counterfactuality cancelled. However, it also predicts that Strategy I simple CFs, with repurposed past-imperfective morphology, should also fail the CF implicature cancellation test. As we have seen, this is not the case: the Strategy I simple CFs are cancellable (17). In this section, I will argue that the simple Strategy I CFs are actually an ambiguous construction. When paired with a 'CF cancellation,' their non-CF reading is triggered.

In section 2, we saw that Strategy I CFs are formed using repurposed morphology that does not contribute its 'standard' meaning. In antecedent clauses, the past-imperfective morpheme *be* is required, while in consequents both this morpheme and the future morpheme *zo* must appear. In an overtly conditional environment, this combination of morphemes seems to be unambiguously counterfactual. When only something that looks like a CF consequent appears, bearing past-imperfective and future morphology, as in a simple CF, the resulting construction is ambiguous. While it can still be understood as counterfactual, its morphology can also contribute its more standard sense, yielding a progressive 'past future' construction (cf. Copley 2009, Ultan 1978).

In the past future construction, both the past-imperfective and the future morphology contribute their usual aspectual/temporal senses, which yields a meaning in which the speaker is referring to the future

of a certain period in the past. We can bring this reading out by using time adverbs to separate out the two tenses involved, which cannot be done in a simple Strategy II *ngabe* CF:

(25) **Imperfective past futures: morphology gets standard interpretation**

- a. kuthangi uSipho u- be- zo- vakashela ugogo izolo
 day before yesterday 1Sipho 1S- PST.IMP- FUT- visit 1grandmother yesterday
 ‘Two days ago, Sipho was going to visit Granny yesterday.’
- b. izolo be- li- zo- na namhlanje
 yesterday PST.IMP- 5S- FUT- rain today
 ‘Yesterday, it was going to rain today.’

(26) **Simple Strategy II: can’t support multiple time adverbs**

- a. *kuthangi ngabe uSipho u- vakashel- e ugogo izolo
 day before yesterday CF 1Sipho 1S- visit- PFV 1grandmother yesterday
 for ‘Two days ago Sipho would have visited granny yesterday.’
- b. *izolo ngabe li- ya- na namhlanje
 yesterday CF 5S- YA- rain today
 for ‘Yesterday, it would rain today.’

As Copley (2009) discusses, in imperfective past future constructions, nothing is conveyed about whether the proposition holds at the relevant evaluation time. Given this generalization, the prediction for Zulu past futures formed with past-imperfective and future morphology is that they should be able to be followed with any time of continuation. This is the result we saw for the the simple sentences (17), repeated below:

(27) **Simple past futures: all continuations possible**

uSipho u- be- zo- vakashela ugogo izolo
 1Sipho 1S- PST.IMP- FUT- visit 1grandmother yesterday

‘Sipho was supposed to/was going to visit Granny yesterday.’

- a. ...kodwa a- ka- ya- nga
 but NEG- 1S- go- NEG-PST
 ‘...but he didn’t go.’
- b. ...kodwa u- be- gula
 but 1S- PST.IMP- sick
 ‘...but he was sick.’
- c. ...kodwa a- ng- azi noma u- hamb- ile yini
 but NEG- 1STSG.S- know if 1S- go PFV what
 ‘...but I don’t know if he went.’
- d. ...ngakhoke u- hamb- ile
 therefore 1S- go- PFV
 ‘...so he went.’

Even if the simple Strategy I construction with repurposed morphology sometimes receives an elided antecedent CF interpretation, when faced with a continuation that would cancel its counterfactuality, it will always have the additional parse as a past future construction available. In contrast, *ngabe* sentences are unambiguously counterfactual, and thus simply become infelicitous when continued with a CF cancellation.

As I mentioned above, the overt conditional environment seems to make both strategies unambiguously counterfactual. Thus, I predict that in an overly conditional environment, which is necessarily counterfactual, with an unrestricted antecedent, which cannot be cancelled, even Strategy I repurposed morphology will be infelicitous when combined with an implicature cancelling interpretation. As we see below, this prediction is borne out:

- (28) [ukuba izinto **be-** zi- shintshile], **be-** ngi- **zo-** ba isicebi manje...
 if 10thing PST.IMP- 10S- changed PST.IMP- 1STSG.S- FUT- be 7rich-person now
 ‘If things were different, I’d be rich by now...’
- a. ...kodwa zi-njalo ngakhoke a- ngi- sona isicebi
 but SM10.like-that therefore NEG- 1STSG.S- 7DEM 7rich-person
 ‘...but they’re the way they are, so I’m not rich.’
- b. #...ngempela ngi- y- isicebi ngakhoke izinto zi- shintshile
 truly 1STSG.S- COP- 7rich-person therefore 10thing 10S- changed
 #‘...and in fact I am rich, so they must be different.’

In this section, I have argued that the distribution we observed regarding implicature cancellation in simple and overtly conditional CFs is not due to the simple Strategy II *ngabe* CFs being fundamentally different from the other three constructions. Rather, the pattern we see, where only the simple Strategy II CFs can’t be cancelled, results from two independent factors: first, unrestricted antecedents cannot be cancelled; and second, simple Strategy I has a non-CF parse. In general contexts, these two factors combine to yield the distribution: simple Strategy I can simply receive its non-CF parse when combined with a ‘cancellation,’ while simple Strategy II is unambiguously counterfactual and must receive a non-cancellable unrestricted antecedent when clues are absent.

4. Conclusion

In this paper, I have shown that Zulu uses two strategies to form counterfactual constructions: a repurposed morphology strategy (Strategy I) and a dedicated CF morphology strategy (Strategy II). Both of these strategies appear inside and outside of overt CF conditionals. I showed that outside of overt conditionals, in simple CF constructions, it is difficult to cancel the counterfactuality of the dedicated morphology CF (Strategy II), though in all other CF constructions, the cancellation is easy to attain. I argued that we should analyze this distribution in terms of antecedent type, rather than in terms of CF strategy used. Simple unambiguous CFs always contain an elided antecedent which, absent clues to antecedent contents, is understood as a general, unrestricted antecedent. Unrestricted antecedents can never be cancelled, even when overt. In the simple repurposed morphology CFs (Strategy I), a second parse of the construction allows for an interpretation as a progressive past future when speakers are confronted with what would be an infelicitous cancellation for a CF.

This approach accounts for Zulu’s rather complex CF distribution with respect to implicature cancellation. As we’ve seen throughout the paper, much of the account is also directly applicable to English. To generalize further, if we assume that these Zulu findings have cross-linguistic relevance, the analysis makes several predictions. First, it predicts that any language with a dedicated CF marker will be unable to cancel simple ‘clueless’ counterfactuals. Second, in languages with repurposed morphology CFs, the potential for ambiguity in simple CF constructions should exist; where it does, the non-CF reading should be available in cases of otherwise felicitous CF cancellation. However, in overtly conditional CF constructions, this analysis predicts that all languages should behave the same with respect to cancellation, based on antecedent type.

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