

**Comparing English and Korean Counterfactuals: the Role of Verbal Morphology
and Lexical Aspect in Counterfactual Interpretation***

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1. Introduction

The purpose of this paper is to determine the role of verbal morphology and lexical aspect for counterfactuality and provide a procedure that uses this information to give the right interpretation for counterfactuals.

Counterfactual conditionals of the form *if p, q* indicate that *p* is believed by the speaker to be false. Conditionals can have a present counterfactual interpretation or a past counterfactual interpretation. A present counterfactual conveys that *p* doesn't hold at utterance time, and a past counterfactual conveys that *p* didn't hold at some time in the past.

- (1) a. If John knew the answer (now), he would tell you.
- b. If John had known the answer (yesterday), he would have told you.

For instance, the conditional in (1a) is a present counterfactual. It indicates that the speaker believes that John does not know the answer at utterance time. The claim that (1a) is a present counterfactual is supported by the fact that *p* is compatible with the time adverbial *now*. The conditional in (1b) indicates that the speaker believes that John didn't know the answer at some time in the past. The claim that (1b) is a past counterfactual is supported by the fact that *p* is compatible with the time adverbial *yesterday*.

Wish constructions of the form *wish p* indicate that the wisher believes that *p* is false. *Wish* constructions also allow both a present counterfactual interpretation and a past counterfactual interpretation.

- (2) a. I wish John knew the answer (now).
- b. I wish John had known the answer (then).

For instance, the construction in (2a) conveys that the agent of *wish* believes that John does not know the answer at utterance time. The construction in (2b) conveys that the wisher believes that John didn't know the answer some time in the past.

In §2, I show that the counterfactuality of counterfactual conditionals is an implicature, following Anderson (1951), Stalnaker (1975), and Karttunen and Peters (1979), and that of *wish* constructions is an entailment. In §3, I discuss how a language that does not have a lexical item which corresponds to English *wish* grammaticizes 'counterfactual desires.' Here, I consider the case in Korean. In §4, I discuss the semantics of verbal morphology in counterfactuals proposed in Iatridou (1996), and show how it is relevant for counterfactuals

in Korean. In §5, I discuss the role of lexical aspect in counterfactuals. In §6, I discuss the analysis of counterfactuals proposed in Iatridou (1996). In §7, I modify the analysis in Iatridou (1996) and apply the modified analysis to counterfactuals in Korean. The present analysis can also account for the asymmetries attested in English and Korean counterfactuals: i.e., in English counterfactual conditionals, a future oriented interpretation is available if the antecedent has past tense morphology and a telic predicate, whereas the same type of Korean counterfactual conditionals only allow an epistemic interpretation. I conclude the paper with a brief discussion of the implications of the modified analysis on the system of counterfactuals in general.

2 Counterfactuality: an Implicature or Entailment

2.1 Counterfactuality of Conditionals: an Implicature

Karttunen and Peters (1979) argue that the counterfactuality of conditionals is a conversational implicature, in the sense of Grice (1975). A conversational implicature can be cancelled without contradiction. In both of the examples in (3), the counterfactuality is cancelled in the consequent. (3a) is from Stalnaker (1975), and (3b) is adapted from Karttunen and Peters (1979).

- (3) a. If the butler had done it, we would have found just the clues which we in fact found.
- b. If Mary had the disease, she would be showing the exact same symptoms that she is showing now.

For instance, (3a) can be uttered by a detective who is trying to solve a murder mystery. She may utter (3a) in the process of presenting evidence for the butler being the murderer. (3b) can be uttered by a doctor who is making a diagnosis on Mary's illness. She may utter (3b) as an evidence for her diagnosis.

The examples in (4) show that the counterfactuality can be cancelled by parentheticals.

- (4) a. If the spaceship had reached the station, and we know that it did, they would have been able to see the sun.
- b. If John had a motorcycle, and we know that he does, he would ride it every-day.

A conversational implicature is context dependent. In the following example from Karttunen and Peters (1979), a counterfactual inference may or may not arise depending on the context.

- (5) If Shakespeare were the author of *Macbeth*, there would be proof in the Globe Theater's records for the year 1605.

If (5) is uttered right after going through the Globe Theater's records for the year 1605, and the record that indicates that Shakespeare is the author of *Macbeth* has not been found, then the counterfactual inference that Shakespeare is not the author of *Macbeth* arises. However, if (5) is uttered before the search of the proof has been conducted, it merely indicates that the

speaker does not know whether Shakespeare wrote *Macbeth* or not. In this context, (5) can be preceded by *I don't know if Shakespeare is the author of 'Macbeth'* (cf. Palmer (1986)).

2.2. *Counterfactuality of Wish Constructions: an Entailment*

While the counterfactuality of conditionals is a conversational implicature, there are other counterfactual constructions in which the counterfactuality is not an implicature, but is an entailment: namely, *wish* constructions. All the tests used in §2.1 to show that the counterfactuality of conditionals is an implicature produce negative results when applied to *wish* constructions.

The counterfactuality of a *wish* construction cannot be cancelled.

- (6) a. # I wish Mary had the disease, the symptoms of which she is showing now.
- b. # I wish the spaceship had reached the sun, which it did.

The counterfactual inference of a *wish* construction is not context dependent. Hence, *wish* constructions cannot be used when the truth of the complement is unknown to the wisher, as shown in (7).

- (7) a. # I don't know if John came to the party. I wish he had come to the party.
- b. # I don't know if John knows the answer. I wish John knew the answer.

3. Counterfactuals in Korean

3.1. *Counterfactual Conditionals*

Just like in English, the counterfactuality of conditionals in Korean is only a conversational implicature. The counterfactuality can be cancelled, as shown in (8).

- (8) John-i ku pyeng-ey kely-ess-tamyen, cikum poiko issnun cungsang-ul
 John-Nom the disease-by catch-past-if now show be symptom-Acc
 poil kessi-ta.
 show Fut-Ind
 ‘If John had the disease, he would be showing the symptoms that he is showing now.’

The counterfactual inference of conditionals is context dependent.

- (9) a. John-i salin-ul hay-ss-tamyen, cungke-lul namky-ess-ul
 John-Nom murder-Acc do-past-if evidence-Acc leave-Past
 kess-ita.
 Fut-Ind
 ‘If John had committed the murder, he would have left evidence.’
- b. kulenikka cosa-lul cal ha-la.
 so investigation-Acc well do-Imp
 ‘So, conduct the investigation well.’

(9a) can be uttered in a context which the murderer has already been caught, and it is not John. It can also be uttered in a context which the speaker does not know whether John committed the murder or not. In such a context, (9a) can be followed by the utterance in (9b).

3.2. *Wish Constructions*

Korean does not have a lexical item which corresponds to English verb *wish*. Korean can use the verb *want* in the past tense (*palay-ss-ta*) to grammaticize counterfactual desires.¹

The past tense on the verb *want-Past* does not receive a temporal interpretation. This is not something particular to Korean. Iatridou (1996) has shown that the Greek verb for *want* with a past tense morphology (and an imperfective morphology preceded by the modal particle *tha*) grammaticizes counterfactual desires. The same fact holds for French.

Just like the case in English, the counterfactuality of Korean *wish* constructions is an entailment. The counterfactuality can't be cancelled, as shown in (10).

- (10) # na-nun Mary-ka party-ey wa-ss-(ess)-ki-lul palay-ss-ta. cilcelo
 I-Top Mary-Nom party-to come-Past-(Past)-Acc want-Past-Ind In-fact
 Mary-nun party-ey wa-ss-ta.
 Mary-Top party-to come-Past-Ind
 'I wish Mary had come to the party. In fact, Mary came to the party.'

Moreover, a *wish* construction can't be used when the truth of the proposition expressed by the complement clause is unknown to the wisher, as shown in (11).

- (11) # na-nun Mary-ka party-ey wa-ss-nunci molu-n-ta. na-nun Mary-ka
 I-Top Mary-Nom party-to come-Past not-know-Pres-Ind I-Top Mary-Nom
 party-ey wa-ss-(ess)-ki-lul palay-ss-ta.
 party-to come-Past-(Past)-Acc want-Past-Ind
 'I don't know if Mary came to the party. I wish Mary had come to the party.'

4. Tense morphology in Counterfactuals

4.1. *English*

According to Iatridou (1996), the conditional forms in English that give rise to the present counterfactual inference have a past tense morphology in *p* and *would* in *q*. (12a) schematizes present counterfactuals. The conditional forms that give rise to the past counterfactual inference have a pluperfect morphology in *p* and *would have* in *q*. (12b) schematizes past counterfactuals.

- (12) a. [If ... V-Past ...] [... would V ...]
 b. [If ... had V-Past ...] [... would have V ...]

Wish counterfactuals of the form *wish p* also require a past tense morphology. (13a) schematizes present *wish* counterfactuals and (13b) schematizes past *wish* counterfactuals. Here, *V-Past* is the verb of the complement clause of *wish*.

- (13) a. wish [... V-Past ...]
 b. wish [... had V-Past ...]

Iatridou (1996) proposes that in counterfactual conditionals of the form *if p, q*, the past tense morphology on the verb in *p* does not have a temporal interpretation. Rather, in the spirit of Klein (1994), the semantics of this morphology is to exclude the world of utterance (*w*), when the sphere of worlds is evoked by virtue of the semantics of conditionals. The sphere of worlds are a set of worlds in which *p* is true. By excluding *w* from the evoked sphere of worlds, the speaker is not making any claims as to whether $p \in w$ or $\neg p \in w$. Hence, $\neg p \in w$ is not an entailment but merely an implicature. This is consistent with the fact that the counterfactual inference of conditionals is an implicature.

In *wish* constructions of the form *wish p*, the past tense morphology in *p* also excludes *w* from the evoked alternate worlds in which *p* is true. The question that must be addressed is what contributes the entailment property of the counterfactual inference in *wish* constructions.

4.2. Korean

Counterfactuals in Korean also require a past tense morphology. The conditional forms in Korean that give rise to counterfactual inference have a past tense morphology in *p* and a future tense morphology in *q*. (14a) schematizes present counterfactuals. They have past tense in *p* and future tense in *q*. (14b) schematizes past counterfactuals. They have pluperfect in *p* and past and future tense in *q*.

- (14) a. [... V-Past ... if] [... V-Fut ...]
 b. [... V-Past-(Past) ... if] [... V-Past-Fut ...]

Korean lexicalizes pluperfect with two past tense morphologies, and they may be phonologically contracted yielding effectively one past tense morphology, regardless of the linguistic environment in which it occurs.

As noted in §3.2, Korean can use the verb *want* in the past tense to grammaticize counterfactual desires. A present counterfactual interpretation is available if the complement of *want-Past* has a past tense morphology, as in (15a).² And a past counterfactual interpretation is available if the complement of *want-Past* has pluperfect morphology, as in (15b).³

- (15) a. [... V-Past ...] want-Past
 b. [... V-Past-(Past) ...] want-Past

If the complement clause of *want-Past* does not have past tense morphology, the counterfactual inference is not available. The past tense on *want-Past* receives a temporal interpretation.

- (16) a. na-nun Mark-ka nalssinha-ki-lul palay-ss-ta.
 I-Top Mark-Nom thin-Acc want-Past-Ind
 ‘I wanted Mark to be thin.’

- b. na-nun Mary-ka party-ey o-ki-lul palay-ss-ta.
I-Top Mary-Nom party-at come-Acc want-Past-Ind
'I wanted Mary to come to the party.'

5. Lexical Aspect and Present Counterfactuals

5.1. English

Iatridou (1996) shows that lexical aspect of the predicate in the antecedent of the counterfactual conditionals plays an important role in determining whether the conditional has a present counterfactual interpretation or not. In English, as shown in Iatridou (1996), when p has a past tense morphology and a stative predicate, present counterfactual interpretation is available.

- (17) a. If John knew the answer, he would tell you.
- b. If John had a car, he would drive everyday.

If p has a telic predicate and a past tense, the conditional has either future orientation or epistemic interpretation, depending on the consequent. The following examples are from Iatridou (1996).

- (18) a. If he took this syrup (five times in the coming week), he would get better.
- b. If he took this syrup (yesterday), he must be better.

The conditional in (18a) has a past tense morphology and a telic predicate in p . The conditional is future oriented as can be seen by the fact that a future oriented adverbial is compatible with the antecedent. The future oriented conditionals are semantically non-counterfactuals. Iatridou (1996) calls these conditionals FUTURE LESS VIVID (FLV) conditionals. The conditional in (18b) also has a past tense morphology and a telic predicate in p . The antecedent has a past interpretation as can be seen by the fact that p is compatible with a past oriented adverbial, and the whole conditional has an epistemic interpretation.

In *wish* constructions of the form *wish p*, the lexical aspect of the predicate in p also plays an important role in determining whether the construction has a present counterfactual interpretation or not. The constructions are licit present counterfactuals if p has a past tense and a stative predicate.

- (19) a. I wish Mary knew the answer.
- b. I wish I had a car.

But the constructions are ungrammatical if p has a past tense and a telic predicate.⁴

- (20) a. *I wish Mary smoked a cigarette now.
- b. *I wish Mary came to this party.

Both counterfactual conditionals and *wish* constructions with a pluperfect morphology can give rise to a past counterfactual inference even when the relevant predicate is not a stative.

- (21) a. If John had come to the party, Mary would have left.
 b. I wish John had come to the party.

The following table summarizes the correlations among tense morphology, lexical aspect and available interpretations in English conditionals and *wish* constructions.

- (22) Tense and Lexical Aspect in English Counterfactuals (*if p, q, and wish p*)

Predicate in <i>p</i>		Interpretations	
Tense	Lexical Aspect	Conditionals	<i>Wish</i> Constructions
Past	Stative	present counterfactual	present counterfactual
Past	Telic	FLV or epistemic	ungrammatical
Pluperfect	Stative	past counterfactual	past counterfactual
Pluperfect	Telic	past counterfactual	past counterfactual

Note that the interpretational differences between conditionals and *wish* constructions are attested in the past-telic row.

5.2. Korean

The interpretation of the conditionals in Korean that have the form in (14a) (repeated below as (23)) is sensitive to the lexical aspect of the predicate in the antecedent.

- (23) [... V-Past ... if] [... V-Fut ...]

If the antecedent has a stative predicate, present counterfactual reading is available. The relevant example is given in (24).

- (24) John-i cha-lul kacko iss-ess-tamyen mayil wuncenhal kessi-ta.
 John-Nom car-Acc have be-past-if everyday drive Fut-Ind
 ‘If John had a car, he would drive everyday.’

If the antecedent has a telic predicate, present counterfactual reading is not available. The antecedent of such a conditional has past interpretation and the whole conditional has epistemic interpretation, as shown in (25).

- (25) John-i (ecey) yak-ul mek-ess-tamyen, pyeng-i kos nahul
 John-Nom (yesterday) medicine-Acc eat-Past-if illness-Nom soon better
 kess-ita.
 Fut-Ind
 ‘If John took the medicine (yesterday), he will soon get better.’

The interpretation of *wish* constructions that have the form in (15a) (repeated below as (26)) is also sensitive to the lexical aspect of the predicate in the complement clause.

- (26) [... V-Past ...] want-Past

If the complement clause has a stative predicate, present counterfactual reading is available, as in (27).

- (27) na-nun Mark-ka nalssinha-yess-ki-lul palay-ss-ta.
 I-Top Mark-Nom thin-Past-Acc want-Past-Ind
 ‘I wish that Mark was thin.’

However, if the complement clause has a telic predicate, present counterfactual reading is not available. Such a construction is ambiguous between a past counterfactual interpretation or a non-counterfactual interpretation, as exemplified in (28).

- (28) na-nun John-i yak-ul mek-ess-ki-lul palay-ss-ta.
 I-Top John-Nom medicine-Acc take-Past-Acc want-Past-Ind
 (i) ‘I wanted John to have taken the medicine.’ (non-counterfactual)
 (ii) ‘I wish John had taken the medicine.’ (past counterfactual)

On the non-counterfactual interpretation of (28), the past tense on the verb *want* and the past tense on the predicate in the complement clause get temporal interpretation.

As in English, both counterfactual conditionals and *wish* constructions with a pluperfect morphology can give rise to a past counterfactual inference even when the relevant clause does not have a stative predicate.

The following table summarizes the correlations among tense morphology, lexical aspect and available interpretations in Korean conditionals and *wish* constructions.

- (29) Tense and Lexical Aspect in Korean Counterfactuals (*if p, q* and *wish p*)

Predicate in <i>p</i>		Interpretations	
Tense	Lexical Aspect	Conditionals	<i>Wish</i> Constructions
Past	Stative	present counterfactual	present counterfactual
Past	Telic	epistemic	non- or past counterfactual
Pluperfect	Stative	past counterfactual	past counterfactual
Pluperfect	Telic	past counterfactual	past counterfactual

Note that the interpretational differences between conditionals and *wish* constructions are attested in the past-telic row.

It is interesting that the difference between conditionals and *wish* constructions in both Korean and English is located in the past-telic combination. Moreover, the difference between English and Korean is also located here. English counterfactuals and Korean counterfactuals are different in that while English counterfactual conditionals may have future oriented interpretation if the antecedent has a past tense and a telic predicate, Korean counterfactual conditionals only give rise to epistemic interpretation. Also, they are different in that while English *wish* constructions are ungrammatical if the complement clause of *wish* has a past tense and a telic predicate, Korean *wish* constructions give rise to past counterfactual or non-counterfactual interpretation. However, what is important and interesting to us is the similarity that English and Korean counterfactuals have: they both give rise to a present counterfactual inference only when the relevant clause has a past tense morphology and a stative predicate.

6. Iatridou’s (1996) Analysis of Counterfactuals

Iatridou (1996) provides an analysis that accounts for the fact that present counterfactuals require stative predicates, which follows from her proposal that the semantics of the past tense morphology in counterfactuals is to exclude the current world (w) from the evoked alternate worlds.

In counterfactual conditionals of the form *if p, q*, the past tense morphology in p is used in excluding w when the sphere of worlds are evoked, and *if p* is evaluated without the past tense morphology. She argues that the interpretation depends on the point of earliest possible evaluation for truth, and the earliest possible evaluation for truth depends on the predicate type. For instance, (30) has a past tense and a stative predicate in p . The past tense is used to exclude w from the evoked alternate worlds and *if p* is evaluated minus the past tense morphology.

(30) If John knew the answer, he would tell you.

The situation described in *if p* can be evaluated for truth at the time of utterance, since if it is to hold, it will already be doing so at the time of utterance. So, *if p* has a present interpretation and the whole conditional in (30) has a present counterfactual interpretation.

If p has a telic predicate and a past tense, as in (31), the whole conditional can be future oriented. The past tense is used to exclude w from the evoked alternate worlds and *if p* is evaluated minus the past tense.

(31) If he took this syrup, he would get better.

The situation described in *if p* can only come about at a time after the time of utterance. That is, the earliest evaluation point is in the future. Hence, *if p* has future interpretation and the whole conditional in (31) is future oriented.

Iatridou (1996) also accounts for the fact that counterfactual conditionals with pluperfect morphology in p give rise to a past counterfactual inference even when the predicate in p (minus the perfect morphology) is not a stative (as in (21a)). The pluperfect counts as having two past tenses. One past tense gets spent on excluding w when alternate worlds are evoked and the other past tense has temporal interpretation. This results in past counterfactual interpretation.

7. A Proposal

7.1. Past Tense Morphology in Counterfactuals

Following Iatridou (1996), I assume that when a set of alternate worlds is evoked by virtue of the semantics of conditionals, past tense morphology in counterfactuals excludes the current world (w). However, I differ from Iatridou (1996) in the exact procedure of interpreting counterfactuals. I propose that the interpretation of counterfactual conditionals of the form *if p, q* depends on the interpretation of p' , where p' is literally p minus the past tense morphology. If p has a past tensed verb, p' ends up with a tenseless verb. If a language grammaticizes present tense with a null morphology, the interpretational system will be fooled into yielding a present interpretation for p' , and a present counterfactual interpretation will be available to *if p, q*. If p has pluperfect morphology, p' ends up with a past

tensed verb (assuming that pluperfect counts as having two past tenses). The interpretational system yields past tense interpretation for p' and a past counterfactual interpretation will be available to *if p, q*.

7.2. Counterfactual Conditionals

In counterfactual conditionals of the form *if p, q*, the past tense in p is spent on excluding the current world (w) from the evoked alternate worlds, and p is interpreted with the morphology that remains, literally. For instance, (32a) has a past tense and a stative predicate in p . The past tense is spent on excluding w from the evoked alternate worlds, and p is interpreted as the string p' in (32b).

- (32) a. John-i cha-lul kacko iss-ess-tamyen mayil wuncenhal kessi-ta.
 John-Nom car-Acc have be-past-if everyday drive Fut-Ind
 ‘If John had a car, he would drive everyday.’
- b. John-i cha-lul kacko iss-ta.
 John-Nom car-Acc have be-Ind
 ‘John has a car.’

(32b) is tenseless. Since Korean grammaticizes present tense on stative verbs with null morphology, the interpretational system is fooled into yielding present interpretation for (32b). Thus, the whole conditional in (32a) has present counterfactual interpretation.

The conditional in (33a) has a past tense and a telic predicate in p . If the past tense was spent on excluding w from the evoked alternate worlds, p would be interpreted as the string p' in (33b).

- (33) a. John-i yak-ul mek-ess-tamyen, pyeng-i kos nahul
 John-Nom medicine-Acc eat-Past-if illness-Nom soon better
 kess-ita.
 Fut-Ind
 ‘If John took the medicine, he will soon get better.’
- b. * John-i yak-ul mek-ta.
 John-Nom medicine-Acc eat-Ind
 ‘John takes medicine.’

Korean grammaticizes present tense on telic verbs with a present tense morphology *-nun*. Thus, a present tense morphology *-nun* must be on the verb *mek-ta* to yield *mek-nun-ta* in order for (33b) to have present interpretation. Since (33b) does not have the required morphology, it is uninterpretable. Hence, the past tense in the antecedent of the conditional in (33a) cannot be spent on excluding w . It receives the usual temporal interpretation and the whole conditional ends up with an epistemic interpretation.

Recall that counterfactual conditionals with pluperfect morphology give rise to a past counterfactual inference even when the predicate in p (minus the perfect morphology) is not a stative. In Korean, combination of two past tense markers gives the pluperfect interpretation, as in *wa-ss-ess* (‘come-Past-Past’). Under the present system, we can say that one past tense marker is spent on excluding w from the evoked alternate worlds.

- (34) a. John-i party-ey wa-ss-ess-tamyen, party-ka culkewe-ss-ul kess-ita.
 John-Nom party-at come-Past-Past-if party-Nom fun-Past Fut-Ind
 ‘If John had come to the party, the party would have been fun.’
- b. John-i party-ey wa-ss-ta.
 John-Nom party-at come-Past-Ind
 ‘John came to the party.’

For instance, in (34a), one of the past tenses in p is spent on excluding w from the evoked alternate worlds, and p is interpreted with the string p' in (34b). (34b) has a past interpretation, and the whole conditional has a past counterfactual interpretation.

A similar analysis can be applied to English counterfactuals. For instance, in (30), p will be interpreted with the string p' in (35).

- (35) John knows the answer.

Following Enç (1990), I assume that the third person singular marker on the verb *know* is an agreement marker, and not a present tense marker. Hence, presence or absence of the third person singular marker on the verb *know* doesn't make any difference on the interpretation in the semantics. Here, I include the agreement morphology for the sake of explicitness. What is important here is that a sentence that has a stative predicate with null tense morphology in English has present interpretation. Hence, the interpretational system is fooled into yielding present interpretation for (35) and the whole conditional in (30) has present counterfactual interpretation.

Under the present system, I am forced to argue that if a language grammaticizes present tense with an overt morphology and still allows present counterfactual interpretation in counterfactual conditionals and in *wish* constructions, the overt morphology is not a tense morphology but an agreement marker.

The question that must be addressed is why English counterfactual conditionals may have future orientation if the antecedent has a past tense and a telic predicate, but Korean counterfactual conditionals only give rise to epistemic interpretation. The account for this asymmetry is presented below.

In English, a sentence that has a telic predicate with no tense morphology is uninterpretable under the episodic reading (as in (36a)), but if such a sentence is included in an antecedent of a conditional, it has future orientation (as in (36b)).

- (36) a. * John takes the medicine.
 b. If John takes the medicine (soon), he will get better.

In Korean, a sentence that has a telic predicate with no tense morphology is uninterpretable (as in (37a)). Moreover, a conditional with an antecedent that includes such a sentence is also uninterpretable (as in (37b)).

- (37) a. * John-i yak-ul mek-ta.
 John-Nom medicine-Acc eat-Ind
 ‘John takes medicine.’

- b. * John-i yak-ul mek-tamyen, pyeng-i kos nahul kess-ita.
 John-Nom medicine-Acc eat-if illness-Nom soon better Fut-Ind
 ‘If John takes the medicine, he will soon get better.’

In counterfactual conditionals of the form *if p, q*, the past tense morphology in *p* is spent on excluding the current world from the evoked alternate worlds, and *p* is interpreted as *p'*, where *p'* lacks the past tense morphology. In English, *if p', q* has future orientation, whereas in Korean *if p', q* is ungrammatical. From this, the availability of future orientation in English *if p, q* and the non-availability of future orientation in Korean *if p, q* follows.

7.3. *Wish Constructions*

We now turn to *wish* constructions of the form *wish p*. The construction in (27) (repeated below as (38a)) has a stative predicate and a past tense in *p*.

- (38) a. na-nun Mark-ka nalssinha-yess-ki-lul palay-ss-ta.
 I-Top Mark-Nom thin-Past-Acc want-Past-Ind
 ‘I wish that Mark was thin.’
 b. Mark-ka nalssinha-ta.
 Mark-Nom thin-Ind
 ‘Mark is thin.’

Following the analysis in the previous section, the past tense morphology is spent on excluding *w* from the evoked alternate worlds, and *p* is interpreted as the string *p'* in (38b). (38b) has present interpretation and the whole construction in (38a) has present counterfactual interpretation.

The construction in (28) (repeated below as (39a)) has a telic predicate and a past tense in *p*.

- (39) a. na-nun John-i yak-ul mek-ess-ki-lul palay-ss-ta.
 I-Top John-Nom medicine-Acc take-Past-Acc want-Past-Ind
 (i) ‘I wanted John to have taken the medicine.’ (non-counterfactual)
 (ii) ‘I wish John had taken the medicine.’ (past counterfactual)
 b. * John-i yak-ul mek-ta.
 John-Nom medicine-Acc eat-Ind
 ‘John takes medicine.’

If the past tense morphology was spent on excluding *w*, *p* would be interpreted as *p'* in (39b). But (39b) does not have any interpretation. Hence, the present counterfactual reading is not available in (39a). However, non-counterfactual interpretation (reading (i)) or past counterfactual interpretation (reading (ii)) is available. Reading (i) is possible when the past tense on both the *want* and the complement clause has temporal interpretation. Reading (ii) is possible because the past tense morphology in the complement can be counted as a pluperfect. As pointed out before, the pluperfect in Korean can be lexicalized with two past tense markers or one past tense marker.

In English *wish* constructions, when *p* has a past tense and a telic predicate, the entire string is ungrammatical, as in (20b) (repeated here as (40a)).

- (40) a. * I wish Mary came to this party.
 b. * Mary comes to this party.

Under the present analysis, the past tense in *p* is spent on excluding *w* from the evoked alternate worlds, and *p* is interpreted as *p'* in (40b). But (40b) is ungrammatical. From this, the ungrammaticality of (40a) follows.⁵

8. Conclusion

I have argued that the interpretation and the grammaticality of counterfactuals of the form *if p, q* and *wish p* depends on the interpretation and the grammaticality of *p'*, where *p'* is literally *p* minus the past tense morphology. If the proposed analysis of counterfactuals is correct, it implies that morphology conspires with the interpretational system to rule out a certain type of counterfactual constructions.

Korean and English grammaticize present tense with no tense morphology in statives, and so the interpretational system is fooled into yielding present interpretation for *p'* when *p'* is a stative. The analysis here predicts that if a language grammaticizes present tense with no tense morphology in sentences with telic predicates as well, then it should allow present counterfactuals of the form *if p, q* and *wish p*, where *p* has a past tense morphology and a telic predicate. This prediction remains to be tested.

Groos and Riemsdijk (1980) and Bhatt (1995) have respectively shown that the syntactic requirement of matching and a certain morphological property in the language conspire in the domain of German free relatives and Hindi correlatives to rule out certain constructions but allow others. For instance, in German, free relatives are acceptable only when case matching obtains. That is, the case assigned to the relativized element from inside the free relative clause must be the same as the case assigned to the free relative clause from the outside. Although there is no matching in (41), the sentence is acceptable.

- (41) [Was du mir gegeben hast], ist prächtig.
 what you me given have is wonderful
 'What you have given me is wonderful.' (Acc from inside, Nom from outside)

According to Groos and Riemsdijk (1980), the acceptability of (41) indicates that the syntax is fooled to yield an acceptable string by the surface matching of the morphology, since in German, the relative pronoun *was* represents both the nominative and the accusative neuter. The conclusions reached in the present paper suggest further evidence of the interaction between morphology and other modules of the grammar.

Endnotes

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¹If the verb *want* is used in the present tense, the counterfactual inference is not available. When the complement has a verb in past tense, the interpretation of the whole construction

corresponds to that of the English *hope* construction, as in (42a). When the complement has a non-tensed verb, the interpretation of the whole construction corresponds to that of English *want* construction, as in (42b).

- (42) a. na-nun Mark-ka nalssinha-yess-ki-lul pala-n-ta.
 I-Top Mark-Nom thin-Past-Acc want-Pres-Ind
 ‘I hope Mark was thin.’
- b. na-nun Mark-ka nalssinha-ki-lul pala-n-ta.
 I-Top Mark-Nom thin-Acc want-Pres-Ind
 ‘I want Mark to be thin.’

²The constructions with the form in (15a) can have the non-counterfactual reading in which the past tense on *want* and the past tense on the verb in *p* get a temporal interpretation. The non-counterfactual reading of (15a) is not available if *p* has an individual-level predicate.

³As in the case mentioned in footnote 2, the constructions with the form in (15b) can have the non-counterfactual reading in which the past tense on *want* and the past tense on the verb in *p* get a temporal interpretation.

⁴In conditionals of the form *if p, q* and *wish* constructions of the form *wish p*, if *p* has an atelic predicate and a past tense, *p* gets habitual reading and the whole construction gets present counterfactual interpretation, as shown in (43).

- (43) a. If John smoked, I would be unhappy.
 b. I wish John smoked.

Habituals are statives. Hence, it is not surprising that the constructions in (43) behave just like those with a stative predicate and a past tense in *p*.

⁵In present counterfactual conditionals, Hindi does not use a past tense morphology. Instead, Hindi uses the imperfective/habitual marker without any tense morphology, as discussed in Bhatt (1996).

- (44) [agar John uttar jaan-taa (*hai/*thaa/*hogaa)] [to vo tum-ko bataa
 if John answer know-Hab/Impfv (*Pres/*Past/*Fut) then he you-dat tell
 de-taa]
 give-hab/impfv
 ‘If John knew the answer, he would tell you.’

In *wish* constructions, Hindi also uses the imperfective/habitual marker with no tense morphology.

- (45) kaash mai uttar jaan-taa (*hai/*thaa/*hogaa)
 wish I answer know-Hab/Impfv (*Pres/*Past/*Fut)
 ‘I wish I knew the answer.’

Although our analysis in this paper crucially depends on the presence of a past tense morphology in counterfactuals, the thesis of this paper would still hold assuming a parameter that would select a past tense morphology for English and Korean and lack of tense morphology (with the addition of imperfective/habitual marker) for Hindi to grammaticize counterfactuality. How such a parameter would be set during language acquisition is unclear.

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