

# Rhetorical interpretation of counterfactuals

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This article examines what I call a “rhetorical” interpretation of counterfactual conditionals. The standard interpretation of counterfactual conditionals implies that “there is a possibility that such and such proposition would/might be true. The rhetorical reading of counterfactual conditionals implies that “such and such proposition would NEVER be true.” The subjunctive conditional with a rhetorical interpretation will be called “rhetorical counterfactual.” The examples of rhetorical counterfactuals are found in the focus construction (“*koso-e* construction”) in Early Japanese. I argue that rhetorical counterfactuals are best represented by the semantics of *only-if*, and that the rhetorical reading results from the rhetorical implication that the antecedent is not going to be true with respect to what the speaker considers “conceivable.”

*Keywords: counterfactual; only if; subjunctive conditional; rhetorical; conceivability*

## 1 Interpretations of counterfactuals

Broadly speaking, counterfactual conditionals are a conditional in which the antecedent describes contrary-to-fact state of affairs, and express a certain connection between the antecedent and the consequent: if the antecedent was to hold in the given context, the consequent would hold. For instance, in (1), the antecedent “kangaroos have no tails” is a contrary-to-fact in the context, and if it was to hold, then “kangaroos will topple over” is expected.

(1) If Kangaroos had no tails they would topple over.

Lewis (1973) provided the truth conditions for counterfactuals. According to Lewis’s truth conditions, the counterfactual conditional such as (1) asserts that for all the possible worlds in which the antecedent would hold among those minimally different from the context world, the consequent will be true.

Now let us talk about what is referred to by the term “rhetorical.” Kearns (2000:32) states that the rhetorical use of conditionals refers to the conditional whose antecedent is used rhetorically. Yoos (1975) argues that there are rhetorical uses of subjunctive conditionals, and defined the rhetorical uses as a function of the subjunctive conditional in the discourse, and not what makes the subjunctive conditional true or false. In general, “rhetorical” refers to “figure of speech,”

which adds a certain pragmatic effect to the literal meaning of the linguistic expressions, such as expressing determination or giving advice. According to Kearns, the rhetorical use of conditional is supposed to express that the consequent is false and the conditional does not require any causal connection between the antecedent and the consequent. Furthermore, Kearns argues that the rhetorical use of conditional requires the antecedent be false in order for the conditional to be true, since the consequent is false.

Let us ask ourselves what would be like if the rhetorical reading is expressed in the subjunctive conditional. The rhetorical antecedent of conditionals usually picks up the “impossible” or “absurd” proposition to bring out the rhetorical effect to the conditional. So, if someone asks you, “will you do it?” and you answer by saying “when/if pigs fly!” it simply means “no” or “never.”

However, the matter is not that simple when it comes to the rhetorical use of subjunctive conditionals. The reason is that when a counterfactual conditional has an impossible antecedent as in (2), it doesn’t assert that the consequent is false, as the conditional would be “vacuously” true, failing to distinguish truth value between (2a) and (2b).

- (2) a. If cows had wings, they might jump over the moon.
- b. If cows had wings, they might NOT jump over the moon.

In (2), the antecedent is supposed to be impossible. When the speaker intends to express that the antecedent is impossible, the truth-value assignment of the counterfactual conditional becomes vacuous. Therefore, there is no difference in the truth-values of (2a) and (2b). The examples in (2) do not provide evidence for rhetorical interpretations of counterfactual conditionals, if the rhetorical use is to express the falsity of the consequent.

The purpose of this article, however, is to show that there is a rhetorical interpretation to counterfactual conditionals, which I will call “rhetorical counterfactuals,” and that under this rhetorical interpretation of counterfactuals, it implies that the consequent is false. According to Stalnaker’s (1968) theory of conditionals, a conditional is true (at the context world) when its consequent is true in the world selected. According to Lewis’s (1973) truth conditions of counterfactuals, the counterfactual conditional is true when the consequent is true for all the worlds in which the antecedent is true among accessible worlds. Both theories predict that the counterfactual conditional is assigned a truth-value only when there is at least one possible world in which the antecedent holds. Otherwise, the counterfactual conditional is undefined. I will seek justification for the rhetorical interpretation of counterfactual conditionals as one of the possible interpretations of counterfactual conditionals that have a non-vacuous truth in semantics, to be distinguished from those that are vacuously assigned truth as in (2).

## 2 Rhetorical reading of counterfactuals

In this section, I will provide the examples of rhetorical counterfactuals used in the original texts from literature works written during the period of Old Japanese (OJ). There are certain sentence constructions that elicit rhetorical reading of counterfactuals. One is the focus construction *koso -e* in OJ, and the other is English *only if* counterfactuals. I will examine whether the difference between the rhetorical reading and the non-rhetorical interpretation of counterfactuals follows from conventional meaning of these sentence constructions.

### 2.1 Rhetorical counterfactuals in *koso -e*

The examples of rhetorical counterfactual are the followings<sup>1</sup>:

- (3) a. ひさかたの天のみ空に照る月の失せなむ日こそ吾が恋やまめ  
 Pisakata.no ama.no misonra ni teru tukwi no  
*distant heavenly sky DAT shine moon GEN*  
 use -na -mu pi **koso** a ga kwopwi yama -me<sup>2</sup>  
*end PERF CONJ day koso I GEN longing stop CONJL*  
 (MYS 12: 3004<sup>3</sup>)

‘On **the very** day when the moon that shines in the broad heavens ceased to be, my affection would come to an end.’

(adapted from Suga 1991: Part II, 364)

‘While the moon shines above (=not disappear), I shall **not** change, my love.’

(Honda 1967: 225)

- b. 天地といふ名の絶えてあらばこそ汝と我と逢ふこと止まめ  
 Ametuti to ipu na no tayete ara -ba **koso**  
*world COM call name GEN stop.GER be COND koso*  
 imasi -to are -to apu koto yama -me.  
*you and I and meet to stop CONJL*  
 (MYS 11: 2419)

‘**As long as** the phrase heaven and earth does exist (=not pass away), you and I **will not** give up meeting with each other.’

(adapted from Suga 1991: Part II, 259)

<sup>1</sup> GEN genitive; CONJ(L) conjunctive; GER gerund; COMP complementizer; COND conditional. Refer to Frellesvig (2010) for details of these abbreviations used in the gloss.

<sup>2</sup> Due to the space limitation, no specific notations are given to verbal conjugations in the glossary. This includes “Exclamatory” for the sentence ending form *-e* in *koso -e*.

<sup>3</sup> All the citation numbers follow *Shinpen Nihon Koten Bungaku Zenshu* (1994-1996).

‘O that I **could** keep our relationship (=not give up our relationship) **as sure as** heaven and earth exist (=not pass away).’  
(Honda 1967: 192)

In (3a), the speaker is lamenting that the speaker’s (suffering from) longing would NOT end, believing that the moon will never disappear from the sky; contrary to the standard reading in which the speaker asserts what would be the case when the moon disappears. In (3b), the speaker asserts that s/he will NOT stop meeting with his/her love, contrary to what would be meant by the standard interpretation of the counterfactual: that the speaker would stop meeting with his/her love if it were ever true that “the heaven and earth passed away.”

Crucially, the truth of the counterfactual conditionals in (3a-b) repeated here as (4) and (5) are demonstrated by the predicted falsity in the scenario 1, and the truth in the scenario 2:

- (4) As long as the moon that shines in the broad heavens does exist (=not ceased to exist), my affection will not come to an end.

Scenario 1: The moon exists (=NOT cease to exist), and the speaker’s affection for the addressee comes to an end.

Scenario 2: The moon exists (=NOT cease to exist), and the speaker’s affection for the addressee does NOT come to an end.

- (5) As long as the heaven and earth does exist (=not pass away), you and I will not give up meeting with each other

Scenario 1: The heaven and earth exist (=NOT pass away), the speaker and the addressee give up meeting with each other.

Scenario 2: The heaven and earth exist (=NOT pass away), the speaker and the addressee do NOT give up meeting with each other

In (4) and (5), the scenario 1 invalidates, while the scenario 2 validates the uttered *koso -e* statements. This result indicates that the *koso -e* statements implicate a strong denial of the consequent whenever the antecedent is false, as stated in the scenario 2; and excludes the scenario 1 where the consequent is true while the antecedent is false.

If we compare these results (4) and (5) with (2), where the counterfactual has an impossible antecedent, repeated here as (6), the difference is obvious. There will be no difference whether the consequent would be true or not, as shown in (6a) and (6b).

- (6) a. If cows had wings, they might jump over the moon.  
b. If cows had wings, they might NOT jump over the moon.

In these cases, the conditional is assigned truth no matter what the consequent is. The rhetorical reading of counterfactual implicates that the consequent is inconceivable.

In the rhetorical counterfactual, on the other hand, the falsity of the antecedent implicates the falsity of the consequent. This clearly shows that the rhetorical counterfactual can be assigned a non-trivial truth, unlike the counterfactual with impossible antecedents.

## 2.2 Rhetorical counterfactuals in English *only if*

In this section, I compare Japanese *koso -e* with English *only if* by which the rhetorical reading of counterfactuals is elicited. I argue that the rhetorical reading of counterfactuals cannot be entailed from the conventional meaning of *only-if* subjunctive conditionals. The English examples of a rhetorical counterfactual are observed in (7):

- (7) a. Only if I had nine lives would I have jumped into the air without fear.  
 b. Only if you were perfect in every sense would you never have to repent.

These sentences have forms of subjunctive conditionals. Subjunctive conditionals in general express a possibility of the truth of the consequent, but there are implicit intentions of the speaker in (7) that is not explicitly expressed by the forms of the sentence. In (7a), the speaker expresses his/her intention that s/he NEVER wishes to jump into the air. Likewise, in (7b), the speaker states the possibility of not repenting at all, but the intension expressed is an expectation for the listener to repent. The hidden intention of the speaker is sensed through the nature of the antecedents, which are believed to be inconceivable.

However, in the default cases, English *only-if* can express non-rhetorical readings of *only-if* subjunctives, as in (8):

- (8) a. Only if the butter had been heated up to 150°F would it have melt.  
 b. Only if everybody agreed would I accept this position.

In (8), the *only-if* subjunctives seem to implicate a possibility of the antecedent and there involves no implication of “never.” In (8a), the speaker indicates the possibility that the butter could have melt; and in (8b), the speaker asserts that there is a possibility that s/he accepts the position. The implication of “there is a possibility” observed in (8a-b) contrasts sharply with the implication of “there NEVER be a possibility” in the rhetorical counterfactuals shown in (7a-b) above.

The contrast observed in (7) and (8) seems to suggest that the subjunctive conditionals are neutral in terms of the existence of possible worlds in which the antecedent would hold. And if true, the subjunctive conditionals are open to different readings of counterfactual conditionals. Von Fintel (1998) defines counterfactuals and subjunctive conditionals as follows:

We will call a conditional *if p, q* counterfactual iff it is presupposed that C (= “current context set” or epistemically accessible worlds) contains no *p*-worlds.

We will call a conditional *if p, q* subjunctive iff it displays the morphosyntactic hallmarks such as a modal *would* or *might* in the consequent and the characteristic use of “fake tense.” (slightly modified from von Fintel 1998: 2)

According to von Fintel’s definition of these terms, counterfactuals are characterized by the presupposition that the antecedent is false in the actual world, whereas the subjunctive conditionals are characterized as morphosyntactic realization of subjunctive markings. In (7) and (8), both conditionals are expressed in the subjunctive forms, differing in the readings of the counterfactual conditionals. The examples in (7) and (8) seem to suggest that the subjunctive conditionals can give rise to different readings. All I can say here is that the morphosyntactic characteristics of *only if* subjunctive conditionals are not responsible for the distinction between rhetorical and non-rhetorical readings, since the same morphology gives rise to either reading. Anderson’s (1951) argument provides us with some evidence as to whether all subjunctive conditionals are counterfactuals. Anderson argued against the view that a subjunctive conditional always expresses counterfactuality, and that a subjunctive conditional, in fact, can state something that holds true in the actual world. For instance, Anderson used the example, “if Jones had taken arsenic, he would have shown just those symptoms which he does in fact show.” In this example, the speaker is using the subjunctive conditional to describe a causal connection between events; but the speaker is indicating that the consequent of the subjunctive is actually the case in the context. So, Anderson claims that this subjunctive conditional is not expressing contrary-to-fact. In this case, the expected truth of the consequent (i.e. “showing the symptoms”) of the subjunctive conditional suggests that the antecedent (i.e. “Jones had taken arsenic”) is likely to be the case, which cannot be verified in the context. The antecedent is still hypothetical due to the lack of our knowledge about facts, but in this case, the speaker believes that the antecedent of the subjunctive conditional is likely to be true based on the causal connection of the two events and the truth of the consequent.

English *only-if* subjunctive conditionals can express either the rhetorical or the non-rhetorical reading of counterfactuals, depending on the context.

### 2.3 Non-rhetorical readings of *koso -e*

Though the rhetorical reading is the primary and default reading of counterfactual interpretation of *koso -e*, there are cases of *koso -e* where the non-rhetorical reading is possible. Such variation is observed when the context allows the possibility of the truth of the consequent and the speaker emphasizes uniqueness of the truth of the antecedent. The examples are the following:

- (9) a. 商返し許せとの御法あらばこそ我が下衣返し賜はめ  
 Akikapyesi yuruse tonon minori ara -ba koso  
*Cancelation allow.IMP COMP law exist COND koso*  
 a -ga sitagoromo kapyesi tamapa -me.  
*I GEN undergarment return receive[hum] CONJL*  
 (MYS 16: 3809)

‘(Only) if there be a law that allows the tradesman to break a contract, would you return to me, my under-robe!’

(Adapted from Nippon Gakujutsu Shinkokai translation: 273)

- b. 薦枕あひまきし児もあらばこそ夜の更くらくも我が惜しみせめ  
 Komomakura api.maki si kwo mo ara -ba koso  
*Pillow share PST love ETOP exist. COND koso*  
 yo.no fukuraku mo a ga wosimi se -me  
*night's advancement ETOP I GEN feel.sad.INF do CONJ*  
 (MYS 7: 1414)

‘Only if my love who used to lie beside me was still alive would I feel sad as the night advances.’

(adapted from Suga (1991) and Honda (1967))

In (9a), the author of the poem expresses her intention that the addressee should NEVER return the speaker’s undergarment that was once given to the addressee as a gift. According to the translation, the poem was written by the ex-lover of the emperor, who resented the fact that her old gift to the emperor was returned to her as a result of the waning of her relationship with the emperor. Here the speaker (the ex-lover of the emperor) expressed her reasoning that since there will not be such a law that allows cancellation of a past transaction, the emperor is likewise not allowed to return the gift he had once accepted, just because he changed his mind. Understood in this context, the “rhetorical” construal whereby the consequent is denied seems to be forced solely by the speaker’s intention. However, the same poem could receive a “non-rhetorical” construal if the law is felt to be changeable. Assuming that the law was in fact changeable, then the speaker expresses that if the law were to change, the undergarment would be returned. Similarly, the rhetorical interpretation of the poem in (9b) expresses the speaker’s lament of not having his wife back to life in any conceivable future, and thus it no longer matters whether night is longer. This interpretation does not

exclude the “non-rhetorical” construal, since it is possible to imagine the counterfactual situation in which the speaker’s wife was alive.

The rhetorical reading is based on the speaker’s belief that there is no chance of actualization of the antecedent. As soon as the speaker believes in the actualization of the antecedent as a possibility, the rhetorical reading disappears. Thus, the rhetorical implication is in complementary distribution to non-rhetorical reading with respect to context. This contextual requirement can be summarized as follows:

- (10) a. Rhetorical implications in [A *koso* B-*e*]  
 There is no possibility that A is true, and only if A were true would B be true. Therefore, B would never be true.
- b. Non-rhetorical implications in [A *koso* B-*e*]  
 There is a possibility that A is true, and only if A were true would B be true. Therefore, B might be true.

#### 2.4 Summary of implication of *koso -e*

To summarize the counterfactual interpretation of *koso -e*, I argue that there are two contrasting implications, as summarized in (11).

- (11) A-*koso* B-*e* implies either (i) or (ii)
- i. A is not possible/conceivable; therefore, B would never true.
  - ii. A is possible/conceivable; only if A were true, B would be true.

The implication (11i) results in the rhetorical reading of counterfactual: the falsity of the antecedent implies the falsity of the consequent. The implication (11ii) corresponds to the non-rhetorical reading: the truth of the antecedent implies the truth of the consequent. As we have seen in the English *only-if* and *koso -e* in Old Japanese, the two implications are incompatible with each other; the interpretation of *koso -e* picks out one or the other implication depending on the context. In other words, the context determines the speaker’s intention of uttering the counterfactual.

What do these characteristics tell us about the semantics of *koso -e*? I claim that the semantics of *koso -e* is closest to the semantics of *only-if*. First, the *koso -e* and *only-if* have the similar contrasting implications: either that the consequent of the counterfactuals would be true if the antecedent were to be true, or the consequent would never be true. Also, both *koso -e* and *only-if* elicit the rhetorical reading given the right context. This is based on our observation that *koso -e* has the rhetorical implication (11i) as a default interpretation but does not exclude the non-rhetorical implication (11ii). The English *only-if* seems to have the non-rhetorical reading (11ii) as a default reading, but does not exclude the rhetorical reading (11i). The two interpretations, rhetorical reading and non-rhetorical reading of counterfactuals observed so far, cannot be an entailment



from *koso -e* or *only-if*, because construing a counterfactual under both a rhetorical reading and a non-rhetorical reading would be contradictory.

### 3 Previous account on *only if* and *koso -e*: theory of focus

As we have seen in the English *only if* subjunctives and Early Japanese *koso -e*, the subjunctive conditionals can be interpreted as under a rhetorical reading or a non-rhetorical reading. Let us examine how the previous analysis of English *only if* accounts for the possible readings of counterfactual conditionals. As for English *only if*, there is a debate on the status of the prejacent of *only if*. Von Stechow (1994) argued that *only* adds a further restriction to the *if*-clause (the restrictive clause of a conditional modality). I argue that the theory of focus accounts for the non-rhetorical reading of *koso -e*, but not the rhetorical counterfactual. The reason is that the rhetorical counterfactuals can neither entail nor presuppose the prejacent, whereas the prejacent of English *only if* is entailed or presupposed, according to the semantics of *only* associated with focus.

#### 3.1 The prejacent of *only if*

The English *only-if*, which expresses a rhetorical counterfactual, is a type of conditional, in which the adverbial *only* modifies the *if*-clause. First, let us see the semantics of *only* in single sentences.

Horn (1969, 1996) argued that English *only* conventionally entails the exclusive implication but does not entail the prejacent.

- (12) a. Only John passed the exam.  
 b. No one other than John passed the exam. (exclusive implication)  
 c. John passed the exam. (prejacent implication)

In (12a), the subject DP [John] is focused and is associated with *only*. Horn claimed that (12a) always entails (12b), but not (12c). The basic position of Horn is that *only* sentences do not entail prejacent as represented in (12c) and that *only* sentences presuppose an existence of an individual which makes the prejacent true. Atlas (1993, 1996), on the other hand, claimed that the prejacent is entailed when the focused phrase is an individual constant. The two claims seem to contradict, since Horn claimed that the prejacent proposition is not entailed while Atlas assumes that the prejacent is entailed. For Horn, the entailment of *only* sentence in (12a) is equivalent to (12b). For Atlas, the entailment of (12a) is (12c).

The prejacent is even more problematic with the semantics of *only* in *only if*. Von Stechow (1994) argued that *only* functions to restrict the restrictor of the conditional, *if*-clause. However, if *only* in *only if* is restricting the *if*-clause, *only-if* clause should entail *if*-clause; but it doesn't. The restrictions imposed by *if*-clause are neither entailed nor presupposed by the restrictions imposed by *only-if*.

- (13) Only if John passed the final exam would he graduate.  
 $\nRightarrow$ if John passed the final exam, he would graduate.

In addition, von Fintel (1999) argued that *only* is Strawson Downward Entailment (DE), by which he accounts for the behavior of Negative Polarity Item (NPI) in the scope of *only*. Since the behavior of NPI is not the topic of this paper, let us simply examine the nature of Strawson valid inference. According to this theory, *only* adds strengthening, and it shows Strawson validity. Let us see how Strawson validity is defined:

- (14) Strawson validity (Fintel 1999: (19))  
 An inference  $p_1 \dots p_n \therefore q$  is Strawson-valid iff the inference  $p_1 \dots p_n S \therefore q$  is classically valid; where S is a premise stating that the presuppositions of all the statements involved are satisfied.

Simply stated, Strawson valid inference is an inference in which all the premises of the antecedent are presupposed. This inference can be applied to the restrictor of *every* and *only if*, when the quantifier strengthens the domain of quantification specified by the restrictor.

- (15) a. Every student took the exam.  
 $\Rightarrow$  Every student who is graduating took the exam.  
 b. Only if the match had been scratched, it would have lighted.  
 $\Rightarrow$  Only if the match that is dry had been scratched, it would have lighted.

Let us examine how DE works (from the general to the specific) based on Strawson validity. In (15a), when the concept of “student” and all the premises for being a student, such as ‘x has not graduated yet’ are satisfied, it entails that “x took the exam.” In (15b), the inference from general to specific works when all the premises such that ‘x is dry’ is ‘x is in good condition’ are satisfied in addition to the proposition in the antecedent ‘x was scratched.’ The Strawson validity works in these scenarios.

However, the inference used in the rhetorical reading is not based on Strawson validity. The reason is that the rhetorical reading of *only if* does not presuppose the existence of the possible world in which the antecedent would hold. With *every*, the existence of students has to be presupposed and thus the existence cannot be cancelled as in (16a); while in (16b), the existence of possible truth of the *only if* clause can be easily cancelled.

- (16) a. #Every student passed the exam, but no student passed the exam.  
 b. Only if the match had been scratched would it have lighted, but the match would never be scratched.

The difference between *every* and *only if* is that the prejacent or the subset of the prejacent is entailed with *every*, but the prejacent is not entailed with *only if*. This is summarized as follows:

- (17) a. Every student passed the exam.  $\Rightarrow$  Some student passed the exam.  
 b. Only if the match had been scratched would it have lighted.  $\nRightarrow$  If the match had been scratched, it would have lighted.

This difference in presupposition and entailment between *every* and *only* cannot be accounted for by the Strawson DE theory. However, it is important to note that not all *only if* sentences lack entailment of the prejacent. The lack of entailment of the prejacent in (17b) is associated with the rhetorical interpretation of *only if* in (18b). When the prejacent is entailed, it is associated with the non-rhetorical interpretation of *only if* as in (18a).

- (18) Only if A would B.  
 a. A is true, therefore, B would be true. (non-rhetorical reading)  
 b. A is not possibly true, therefore, B would NEVER be true. (rhetorical reading)

What it does not account for, therefore, is the rhetorical reading, which fails to show the existential presupposition that the antecedent would be true. In the non-rhetorical reading, the antecedent is considered possible/conceivable and all the preconditions for the antecedent are contextually presupposed. Thus, the reading in (18a) is Strawson valid, while the reading in (18b) is not.

### 3.2 The *koso* –*e* construction as a “focus construction in Old Japanese”

Now let us proceed to the previous studies of the semantics of *koso* –*e*. The *koso* –*e* construction is one of many variants of *kakari-musubi* phenomena. *Kakari musubi* describes a syntactic relation between *kakari* ‘hanging’ and *musubi* ‘tying/closing’ where the occurrence of *kakari* “focus particles” causes the sentence to end with a corresponding *musubi*, verbal conjugation form. Whitman (1997) proposed that *koso* forms a focus phrase and –*e* marks the domain of the focus closure. When *koso* hangs on a phrase of focus, and the rest of the closure represents “given” information.

Frellesvig (2010) translated “*p koso q–e*” as “It is p (and only p) that is q.” *Koso* is presumably a focus particle and the sentences containing *koso* consistently end with an “exclamatory” conjugation –*e* on the verb. The conjugation form is generally called IZEN ‘realis’ in Japanese grammar (which is often abbreviated as IZ). The IZ functions as ‘exclamatory’ when it has an assertion-like function: i.e. in concord with *koso* in the *koso* –*e* construction.

The Modern Japanese translation of *koso* –*e* is often translated into English as follows:

- (19) [*p koso q-e*] translates  
 “*p* is *q*; (but non-*p* is non-*q*).”

This translation seems to have two components of meaning; the two parts seem to correspond to the preajacent implicature and the exclusive implicature of *only if*. Tsuta (2011) claimed that the contrastive effect of *koso* contributes to an implicature that “non-*p* is non-*q*.”

Hando (1993, 2003) divided the use of *koso -e* into three types. According to Hando’s classification, the meaning types of *koso -e* are the followings:

i) selection by comparison, ii) exclusive, and iii) non-restrictive (simple emphatic). These meaning types are illustrated in (20a-c), respectively.<sup>4</sup>

- (20) a. ... 露こそあはれなれ  
 ...tuyu **koso** aware -nare  
 ...dew koso interesting.ADN COP  
 (Tsurezuregusa 21)  
 ‘The dew moves me even more. (=the dew is the most delightful)’  
 (Keene 1998: 22)

- b. ... 人こそ知らね、松は知るらむ  
 ...pito **koso** sira -ne, matu pa siru ramu  
 Person koso know NEG pine TOP know PCONJL  
 imasi -to are -to apu koto yama -me.  
 you and I and meet to stop CONJL  
 (MYS 2: 145)  
 ‘Men do not know it, but pine must know’  
 (Levy 1981, I: 105)  
 ‘No one knows (his spirit might come back) except the pines’  
 (Honda 1967: 17)

- c. 月見ればちちに物こそ悲しけれ...  
 Tuki mire -ba tidini mono **koso** kanasi kere  
 moon look PROV many.ways things KOSO sad ACOP  
 (Kokin 4: 193)  
 ‘I am burdened with a thousand vague sorrows when I gaze upon the moon.’  
 (McCullough 1985: 255)

Among these, the simple emphatic use in (20c) does not have exclusive implicature. The poem (20c) simply implies the preajacent: I am burdened with sorrows. Ohno (1993) described that diachronically, the simple emphatic use of *koso -e* is considered an innovative use. The emphatic effect of *koso -e* adds a

<sup>4</sup> PCONJ present conjunctural; PROV provisional; ACOP adjectival copula; MPST modal past; AUX auxiliary

positive scalar implication to the degree of sorrow that the speaker is feeling. This type of *koso -e* forms an emphatic positive polarity item like “a thousand of” which can occur with positive polarity.

Now let us turn to the uses of *koso -e* in (20a), classified under “the selection by comparison.” This use of *koso -e* gives rise to the superlative-like interpretation. This scalar implicature can be observed in the poem like (21):

- (21) 花よりも人こそあだになりにつれ  
 Pana yorimo pito koso adani nari ni kyere  
 flower than perso koso short-lived become PERF MPST  
 (Kokin 16: 850)

Lit: ‘A person became more short-lived than a flower (cherry blossoms).’  
 ‘Before the cherry tree comes into bloom the planter is gone; (for which then should I yearn first? I wonder.)’

(Honda 1970: 219)

According to the literature, the short poem in (21) describes a planter who had planted a cherry tree. According to the annotation of the poem, the planter died unexpectedly when the tree came into bloom. The author of the poem in (21) thus expressed his/her sorrow at the news by stating that a person turned out to be more short-lived than flowers. The usual assumption is that flowers are short-lived; but in this poem, the speaker expressed that a person is actually the most short-lived. The focus closure is “x is short-lived” and there is an existential presupposition; and the speaker claims that a “person” is ranked first among all the items that are short-lived. This creates a comparison between a “person” and a “flower” which are both short-lived. When a “person” is focused, it entails the prejacent, a person is short-lived. Hando (1998:48) argued that in this use of *koso -e*, the *koso -e* statement implicates that there is non-*p* that is *q*. Applied to this case, “a person is the most short-lived” implicates that there is non-person (=flower) that is short-lived. That is, (21) does entail the prejacent, but does not have exclusive implicature, “a flower is not short-lived.” This use of *koso -e*, if my analysis is correct, has only the prejacent implicature in (19).

Now let us proceed to the “exclusive” use of *koso -e* in (20b). The exclusive use of *koso -e*, exhibited by (20b), is different from (20a) in that there is no scalar implicature. In addition, this type of *koso -e* is characterized by the existence of a contrastive proposition: in (20b), *pito* ‘person’ is contrasted with *matu* ‘pine’. Interestingly, the *koso -e* sentence “There is no person (that) knows” invokes contrast with an existential “a pine knows.” This indicates that the *koso -e* statement does not presuppose either the non-existence or the existence of x in “x knows.” Yet the prejacent “a person doesn’t know” is entailed from the *koso -e* statement in (20b). There is an exclusive implicature “non-person (=pine) knows,” but it is not an entailment.

Now let us examine the non-rhetorical counterfactual expressed in *koso -e*, in which *koso* modifies a conditional adverbial clause. The example is given in (22). In (22), “if I died” is contrasted with “if I was alive”:

- (22) 死なばこそ相見ずあらめ生きてあらば白髪児らに生ひざらめやも  
 Sina -ba **koso** api mi zu ara me,  
 die COND *koso* recip see NEG AUX CONJL  
 ikite ara -ba sirokami kwora ni opi zara me.yamo  
 live be COND grayhair children DAT grow NEG CONJ.RQ  
 (MYS 16: 3792)

Lit: ‘If I died, I wouldn’t see my children, but if I were alive, wouldn’t I see my children grow gray hair?’

In the above example, *koso* is attached to the antecedent of the conditional and *-e* is attached to the end of the main clause as in (23). The two implicatures of (22) according to (19) are the following:

- (23) a. [*p* is *q*]: if [I die]<sub>*p*</sub>, [I would not see my children grow gray hair]<sub>*q*</sub>.  
 b. [non-*p* is non-*q*]: as long as [I am alive]<sub>NON-*p*</sub>, [I would see my children grow gray hair]<sub>NON-*q*</sub>.

The *koso -e* statement in (22) entails the prejacent in (23a), contrary to the speaker’s expectation that he will be more likely to see his children grow their gray hair. The prejacent is entailed because the antecedent “if I died” describes a conceivable event and so is the consequent “I would not see my children grow their gray hair.” However, there is a certain strengthening added into the inference from the antecedent to the consequent. One of the preconditions to be inferred from the condition “if I died” is that the speaker unexpectedly dies young. If he lived long and died, he would see his children grow their gray hair. Thus, the preconditions such as “I am not old,” or “my children are alive,” are presupposed. This effect of strengthening is to be found in the context, elicited by scalar implicature of *koso -e*. Assuming all these are true, Strawson DE seems to work.

- (24) [x died] ***koso*** [x will see x’s children grow gray hair]-***e***  
 ⇒If x died, and x is young and x’s children are alive, x will not see them grow gray hair.

The semantics of the non-rhetorical counterfactual follows from Strawson DE. As with (20b), the prejacent is entailed in (22).

Let us proceed to the rhetorical counterfactual repeated from (3a) in (25):

- (25) ひさかたの天のみ空に照る月の失せなむ日こそ吾が恋やまめ  
 Pisakata.no ama.no misonra ni teru tukwi no  
*distant heavenly sky DAT shine moon GEN*  
 use -na -mu pi **koso** a ga kwopwi yama -me  
*end PERF CON. day koso I GEN longing stop CONJ*  
 (MYS 12: 3004)

‘On the very day when the moon that shines in the broad heavens ceased to be, my affection would come to an end.’

(adapted from Suga 1991: Part II, 364)

This *koso -e* should be in the “exclusive” use, under the classification given by Hando (1993), as this *koso -e* only invokes a sense of exclusion. Let us spell out the prejacent implication [*p* is *q*] and the exclusive implication [non-*p* is non-*q*] in (26):

- (26) a. [*p* is *q*]: if [the moon disappears]<sub>*p*</sub>, [I stop longing for you]<sub>*q*</sub>.  
 b. [non-*p* is non-*q*]: as long as [the moon exists]<sub>NON-*p*</sub>, [I wouldn’t stop longing]<sub>NON-*q*</sub>.

The exclusive implication is represented in (26b), which is equivalent to “as long as the moon exits, I would not stop longing for you.” The prejacent implication represented in (26a) cannot follow from the rhetorical reading expressed in (25). Therefore, the Strawson DE fails here, as illustrated in (27):

- (27) [the moon disappeared]-*koso*, [would I stop longing for you]-*e*  
 ≠ If the moon disappeared, and you aged and died, I would stop longing for you.

Even if presuppositions of *p* (= “the moon disappears”) are satisfied, such as “you aged” and “you died,” etc., we cannot locate any world in which *p* (= “the moon disappears”) is satisfied. This is because *p* would be true in those worlds that have nothing common with the worlds we consider conceivable. This lack of the speaker’s belief that *p* would be true at any possible world further implies that there is no existence of a possible world in which *q* (= “I stop longing for you”) holds. It became clear that the prejacent in (26a) is not entailed by the rhetorical reading of the *koso -e* construction. The rhetorical reading of counterfactual in the *koso -e* construction in (25) only implies (26b).

Let us summarize the semantics of *koso -e*. We have seen that the *koso -e* in the “selection by comparison” use has the existential presupposition, and only entails its prejacent. The *koso -e* in the “exclusive” uses has exclusive implicature. While the non-rhetorical counterfactuals in *koso -e* entails its prejacent, the rhetorical counterfactuals in *koso -e* doesn’t. I showed that the English *only if* and the Japanese *koso -e* are both analyzed by the theory of focus in the previous studies. I argued that the theory of focus can account for the non-rhetorical counterfactuals expressed by *koso -e*. However, I claimed that the

theory of focus cannot account for the emphatic effect of *koso -e* expressed in the rhetorical counterfactuals, as it lacks an existential presupposition and fails to entail its prejacent.

#### 4 Proposal: The semantic account for rhetorical counterfactuals

In the last section, we have seen that rhetorical counterfactuals have the truth conditions equivalent to “only if,” but the semantics of focus cannot explain the lack of existential presupposition of rhetorical counterfactual antecedent. In this section, I propose truth conditions of *koso -e*, which is equivalent to *only-if* counterfactuals, and claim that the rhetorical reading results from the application of accessibility (i.e. conceivability) to the closest worlds, which is defined by what is conceivable to the speaker of the context world.

##### 4.1 Truth conditions of *koso -e* counterfactual conditionals

Let us see how Lewis’s (1973: 16) stated truth conditions of *if* counterfactuals. Though the statement is slightly modified, Lewis’s truth conditions of *if* counterfactuals consist of the following two cases in (28):

- (28)  $\llbracket \text{If it were the case that } p, \text{ it would be the case that } q \rrbracket^C = 1$ , iff either
- i.  $p$  is impossible (=there is no world in which  $p$  is true among the closest worlds to  $w$ , or
  - ii.  $p$  is possible (=there is at least one world in which  $p$  is true among the closest worlds to  $w_i$ ), and  $p \rightarrow q$  (if  $p$ , then  $q$ ) holds at all the worlds closest to the actual world  $w_i$

According to (28), a counterfactual of the form “if it were the case that  $p$ , it would be the case that  $q$ ” is true if and only if one of the following holds. The counterfactual is vacuously true when the antecedent  $p$  is impossible. Or the counterfactual is non-vacuously true if and only if for all the closest worlds in which  $p$  holds, the material conditional  $p \rightarrow q$  (‘if  $p$ , then  $q$ ’) holds. Now let us assume that *koso -e* counterfactuals are equivalent to *only if* counterfactuals and state the truth conditions of *koso -e* counterfactuals as in (29).

- (29)  $\llbracket p - \mathbf{koso} \ q - \mathbf{e} \rrbracket^C = 1$ , iff either
- i.  $p$  is impossible (=there is no world in which  $p$  is true among the closest worlds to  $w$ , or
  - ii.  $p$  is possible (=there is at least one world in which  $p$  is true among the closest worlds to  $w$ ), and  $q \rightarrow p$  ( $q$  only if  $p$ ) holds at all the worlds closest to the actual world  $w$ .

According to (29), the counterfactual of the form “ $p$ -*koso*  $q$ -*e*” or equivalently, “only if it were the case that  $p$  would  $q$ ” is true if and only if one of the following two cases hold. The counterfactual is vacuously true when the antecedent  $p$  is



impossible. Or the counterfactual is non-vacuously true if and only if for all the closest worlds in which  $p$  holds, the material conditional  $q \rightarrow p$  (' $q$  only if  $p$ ') holds. How to derive this material conditional from the semantics of *only* is beyond the scope of this article.

The difference between (28) and (29) is that the antecedent  $p$  functions like a sufficient condition in (28), while the antecedent  $p$  functions as a necessary condition in (29). This difference is projected on the ordering source of the propositions that potentially cause the truth of the consequent  $q$ . The necessity of  $p$  can be reinterpreted as a scalar implicature of  $p$ :  $p$  is the least likely proposition among all other conditions that potentially contribute to the truth of  $q$ , but needs to be satisfied in order for  $q$  to be true. This makes the closest world in which  $p$  holds to be the furthest to the actual worlds among all other closest worlds in which all other conditions would hold.

There are two problems with the truth conditions of (29) in application to the rhetorical counterfactuals. First, the truth conditions in (29) will incorrectly predict that the rhetorical counterfactuals will be vacuously true. Rhetorical counterfactuals, according to our intuition, are different from counterfactuals with "impossible" antecedent. Secondly, the rhetorical/non-rhetorical distinction is unaccounted for by the truth conditions of the counterfactuals. In the next section, I will claim that the antecedent is not "impossible"; but it is "inconceivable," which is context-sensitive.

#### 4.2 Conceivability as a contextual restriction

I propose that the speaker's application of accessibility (i.e. "conceivability" in the case of counterfactuals) determines whether a counterfactual proposition receives the rhetorical reading or the non-rhetorical reading. In other words, whether the given counterfactual conditional has a rhetorical reading or a non-rhetorical reading depends on the speaker's conception of conceivability, which is unspecified by a subjunctive.

Let us define the notion of conceivability as a contextual restriction imposed by the speaker who is the agent of utterance in that context as follows:

- (30)  $\text{Conceivable}_{C_i} = \{p: p \text{ is compatible with what } x_i \text{ considers conceivable at } w_i\}$

Conceivability is a function, which gives us a set of propositions that are compatible with what the speaker of the context (represented by  $x_i$ ) considers possible in the conceivable future or in the actual world (represented by context world  $w_i$ ). The basic idea of accessibility came from Kratzer (1977, 1981); here we consider that conceivability is uniquely determined by the speaker in the context. Let us represent the set of conceivable propositions as  $\cap \text{Conceivable}_{C_i}$ . Any conceivable proposition is a member of (or compatible with) all the propositions that are considered conceivable by the speaker at the context world. Let us suppose  $p$  is an antecedent of a non-rhetorical counterfactual.

Incorporating the Kratzer's (1979) notion of conditional modality, let us assume that the antecedent of conditionals function as a restrictor. Let us further assume that conceivability is applied to the antecedent of a counterfactual conditional in order to restrict the relevant possible worlds by context:

- (31) There is at least one world  $w$  such that  $w \in \cap \text{Conceivable}_C$  and  $\llbracket p \rrbracket^w = 1$ .

Let us assume that when the speaker considers a counterfactual antecedent conceivable, the antecedent  $p$  is added to a set of propositions of what the speaker considers conceivable. Rhetorical counterfactuals have an antecedent that is "inconceivable" from the speaker's point of view; the speaker doesn't take the antecedent seriously and the  $p$  is not added to the set of conceivable propositions. Now we can express the difference between conceivable and inconceivable antecedents of counterfactual conditionals as follows:

- (32) Conceivable antecedent  
There is a world,  $w$ , such that  $w \in \cap \text{Conceivable}_C$  and  $\llbracket p \rrbracket^w = 1$ .
- (33) Inconceivable antecedent  
There is no world,  $w$ , such that  $w \in \cap \text{Conceivable}_C$  and  $\llbracket p \rrbracket^w = 1$ .

For the purpose of the article, I simply adopt the notion of "closest world" as the best world(s) in which the counterfactual proposition would hold by the relative similarity to the actual world. In light of the inconceivable type of counterfactual conditionals, the counterfactual conditionals may have the closest world(s) outside of the accessible (i.e. conceivable) worlds. In this sense, conceivability is not a typical accessibility relation that restricts the domain of possible worlds in which the proposition would hold.

In Lewis's (1973) truth conditions of counterfactuals, the closest world overlaps with the set of accessible worlds. Thus, if conceivability is a kind of accessibility relation, it follows that the closest world is always selected out of the accessible worlds: the worlds in which the conceivable proposition is true. Let us take the non-rhetorical reading of an *only-if* counterfactual, "Only if the butter had been heated up to 150°F would it have melted." Under the non-rhetorical reading, the speaker believes that there is a possibility that the consequent would be true. We can consider the non-rhetorical reading as a realization of a subjunctive conditional in which the speaker implicitly assumes that there is a closest world among conceivable worlds. Thus, in this case, there is an implication that there is a world in which the antecedent would hold:

- (34) There is a world  $w$  such that  $\llbracket \text{the butter was heated up to } 150^\circ\text{F} \rrbracket^w = 1$  among those that speaker  $x_i$  considers "conceivable" at  $w_i$ . Namely,  $\{w: w \in \cap \text{Conceivable}_{C_i} \ \& \ \llbracket \text{the butter was heated up to } 150^\circ\text{F} \rrbracket^w = 1\} \neq \emptyset$ .

On the other hand, the rhetorical reading of *koso -e* counterfactual has an inconceivable antecedent. In this case, the closest world in which the antecedent holds is not selected from the accessible worlds. We can consider the rhetorical reading as a subjunctive conditional with no existential import. Thus, the lack of the speaker's belief that the antecedent is conceivable can be formalized as in (35):

- (35) There is no world in which  $\llbracket \textit{the moon disappears} \rrbracket^w=1$  among those that  $x_i$  considers "conceivable" at  $w_i$ . Namely,  $\{w: w \in \bigcap \text{Conceivable}_{c_i} \ \& \ \llbracket \textit{the moon disappears} \rrbracket^w=1\} = \emptyset$ .

Let us suppose that "conceivability" is tied to strictness of the antecedent: how strict the counterfactual assumption is in the speaker's view of similarity to the actual world. Then, we can say that the counterfactual antecedent  $p$  is stricter when the speaker considers  $p$  to be inconceivable than when the speaker considers  $p$  to be conceivable. Thus, the degree of strictness of the counterfactual antecedent can vary depending on how conceivable the truth of the antecedent proposition would be from the speaker's view of the world. This notion of strictness has not been clearly expressed in Lewis's truth conditions of counterfactuals, but it can be a contextual restriction added to the accessibility relation. Then, we can say that what is conveyed by a rhetorical counterfactual is the speaker's sense of accessibility of the closest world: the non-rhetorical reading is interpreted to be what might be the case (i.e. presence of conceivability of  $p$ ) in the normal sense of counterfactuals, while the rhetorical reading is interpreted as what would never be the case (i.e. the absence of the conceivability of  $p$ ) in the speaker's view of the world.

To summarize, we have discussed how conceivability gives rise to the presence/absence of an existential presupposition in the non-rhetorical/rhetorical readings of the counterfactuals. This explains why the rhetorical reading cannot be felicitous in a context where the non-rhetorical reading is salient.

### 4.3 Derivation of non-rhetorical reading of *koso -e*

Let us suppose that a counterfactual antecedent is felt to be conceivable by the speaker. Then, it follows that the closest world in which the antecedent holds is a member of the conceivable worlds. But what kind of world is the closest (best) world in the non-rhetorical reading?

This part of the implication is not clearly stated in the truth conditions of *koso -e* subjunctive conditionals in (29), as the material conditional of *only if*, "the truth of  $q$  implies the truth of  $p$ " does not refer to anything about the hypothetical situation in which  $p$  were the case. This is because we cannot pre-determine how strict  $p$  (the antecedent) is: under what condition  $p$  would be true in the speaker's assumption in the context. For example, we cannot decide how strict the counterfactual antecedent such as "if the moon disappeared" is without the context. The speaker may be thinking of one of the conceivable situations

where the moon would disappear behind the cloud, or one of the inconceivable situations in which the moon would become invisible or move away. Thus, as Lewis (1973: 13) described counterfactuals as “variably strict conditionals,” the counterfactual conditionals are vague because of their contextual dependency on how strict the counterfactual proposition is. The context uniquely determines under what conditions and circumstances the counterfactual would hold. The question is how strict the counterfactual antecedent is in the non-rhetorical reading, and how we can express the strictness of the antecedent of the counterfactual.

Let us suppose that the counterfactual conditional of “*p-koso, q-e*” is uttered in such a context in which the truth of *p* requires that there are certain set of preconditions, say,  $\{r_1, r_2\}$ , distinct from *p*, and the preconditions must be satisfied in conjunction with the antecedent *p*. For example, take Goodman’s (1946: 8) example: “(Only) if the match had been scratched, would it have lighted.” Goodman states that there are true statements such as “the match is well made,” “the match is dry,” “oxygen enough is present,” etc., that can be inferred from “the match is scratched.” Let us further assume that there is a scalar implicature in *koso -e*, which picks up the most unlikely condition as the antecedent of the conditional. Namely, *p* is the most unlikely condition among all the preconditions inferred from the context.

Now let us examine what the possible preconditions are that can be inferred from the context in which “*p koso q-e*” is uttered. In (36) below, let me repeat the translation of the non-rhetorical counterfactual in *koso -e* from (22). In (36), *koso* is attached to the antecedent of the conditional and *-e* is attached to the end of the main clause:

(36) [[I die-*koso*], I would not see my children (grow gray hair)-*e*]

There are preconditions to be inferred from the context of utterance. In this case, the speaker is assuming the counterfactual situation where he would unexpectedly die young; if he lived long and died, he would see his children grow their gray hair. Thus, we infer that there are preconditions such as “I am not old,” or “my children are alive,” and so on. The truth of non-rhetorical counterfactual in *koso -e* can be represented as in Figure 1:

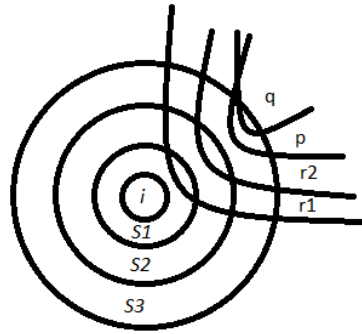


Figure 1. Non-rhetorical reading of *p-koso q-e*

In Figure 1, the closest worlds in which the antecedent holds are those in which all of the preconditions, (in this case,  $\{r_1, r_2\}$ ) are satisfied. The possible worlds are ordered by similarity to the actual world with respect to the preconditions. When the speaker utters the counterfactual conditional with  $p$  as an antecedent, there is a presupposition that all the preconditions  $\{r_1, r_2\}$  had already been established as common knowledge between the speaker and the hearer. In Figure 1, the sphere  $S_3$  is the closest to the context world  $i$  in which  $p$  as well as all the preconditions  $\{r_1, r_2\}$  are satisfied. The closest worlds in which the speaker dies are limited to those worlds in which the speaker dies young, and his/her children are alive, so that he wouldn't see the children's gray hair grow. Let us strengthen the definition of the best/closest world to reflect the truths of preconditions of  $p$  as in (37).

- (37)  $[[\text{Closest}(p)]]^C$  is defined only if there is at least one possible world  $v$ , such that  $v \in [[\text{Closest}(p \wedge r_1 \wedge \dots \wedge r_n)]]^C$ , where  $\{r_1, r_2, \dots, r_n\}$  are preconditions of  $p$ .

In (37), the closest world is defined by the context (i.e. the actual world and the speaker). The closest world has to be as strict as those in which all the preconditions  $\{r_1, r_2\}$  and  $p$  (the antecedent) hold true, and that the world is stricter than any other world in which  $p$  does not hold. The truth conditions state that a counterfactual conditional [*p-koso q-e*] is true if and only if for all the worlds in which  $q$  holds are among the worlds in which  $p$  holds. The truth conditions do not directly refer to whether the closest world(s) in which the antecedent holds is/are conceivable. Let us apply the contextual restriction of conceivability to the closest world. When the closest world is assumed among the conceivable worlds, the truth condition in (37) has the following implication.

- (38) Suppose  $\{w: w \in \cap \text{Conceivable}_C \ \& \ \llbracket p \rrbracket^w = 1\} \neq \emptyset$ . ①  
 Let us define the closest world  $v$  such that  $v \in \llbracket [\text{Closest}(p)] \rrbracket^C$   
 By application of ① to  $v$   
 $v \in \{w: w \in \cap \text{Conceivable}_C \ \& \ \llbracket p \rrbracket^w = 1\}$   
 By application of strengthened definition of the closest in (37),  
 $v \in \{w: w \in \cap \text{Conceivable}_C \ \& \ \llbracket p \rrbracket^w = 1 \ \& \ \llbracket [r_1 \wedge \dots r_n] \rrbracket^w = 1 \}$   
 $\llbracket [r_1 \wedge \dots r_n] \rrbracket(v) = 1$  and  $\llbracket p \rrbracket(v) = 1$ .  
 Then,  $\llbracket q \rrbracket(v) = 1$ .

Assume that the antecedent  $p$  is conceivable in the context. Then there is at least one closest world in which  $p$  holds among the conceivable worlds defined by the context. With the strengthened definition of “closest,” the closest world of a (subjunctive) proposition  $p$  in the given context is as strict as those where all the preconditions  $\{r_1, r_2, \dots\}$  are satisfied. In other words, the strengthened definition of the closest world ensures that all the preconditions are assumed to be true at the context, and the antecedent  $p$  is to hold at the closest world. Thus, the truth of  $q$  naturally follows. This strengthened definition of the closest world is what is expected from Strawson validity. The strengthening in the non-rhetorical reading comes from the existence of preconditions underlying the truth of  $p$ .

To summarize, I have derived the non-rhetorical counterfactual reading from (pragmatically) strengthened definition of the closest world, and the assumption that the antecedent of the counterfactual is a conceivable proposition.

#### 4.4 Derivation of rhetorical reading of *koso -e*

I argued that conceivability is a contextual restriction that determines how strict the counterfactual antecedent is with respect to what the speaker considers to be conceivable in the context. We have seen that in the rhetorical reading of counterfactuals, the speaker assumes that the antecedent is “inconceivable.” In other words, when the antecedent of the counterfactual conditionals is “inconceivable,” the counterfactual obtains rhetorical reading.

Rhetorical counterfactuals are distinguished from non-rhetorical counterfactuals by the absence of the closest world among the conceivable worlds. Let us see how this assumption works in the rhetorical reading of the *koso -e* counterfactuals. In the rhetorical counterfactual, there is no closest world in which the antecedent holds among all the situations that the speaker considers conceivable. This concept can be represented as follows:

- (39) Suppose  $p$  is not a conceivable proposition. Then,  
 $\{w: w \in \cap \text{Conceivable}_C \ \& \ \llbracket p \rrbracket^w = 1\} = \emptyset$

A proposition  $p$  is inconceivable if and only if there is no possible world in which  $p$  holds among all the situations in which the speaker considers conceivable. Let us apply (39) to the closest world and what follows from the truth conditions of the counterfactuals of *koso -e* given in (40).

- (40)  $\llbracket p - \mathbf{koso}, q - \mathbf{e} \rrbracket^C = 1$  iff for some sphere  $S$  in  $S_i$  which contains the closest world defined by the context,  $\{w: \llbracket q \rrbracket^w = 1\} \subseteq \{w: \llbracket p \rrbracket^w = 1\}$ . ②  
 Let us apply (39) to the truth condition of *koso -e*. From (39),  
 $\{w \mid w \in \cap \text{Conceivable}_C \ \& \ \llbracket p \rrbracket^w = 1\} = \emptyset$ . ③  
 Applying ③ to ②, the right hand of the set  
 $(\{w: w \in \cap \text{Conceivable}_C \ \& \ \llbracket p \rrbracket^w = 1\})$  is empty.  
 $\{w: w \in \cap \text{Conceivable}_C \ \& \ \llbracket q \rrbracket^w = 1\} \subseteq \emptyset$   
 The set of worlds in which  $q$  is true is a subset of the empty set.  
 Therefore,  
 $\{w: w \in \cap \text{Conceivable}_C \ \& \ \llbracket q \rrbracket^w = 1\} = \emptyset$ .

Since  $p$  is a superset of  $q$  as defined in ②,  $q$  would be an empty set when  $p$  is. Let us apply (40) to the following example of the rhetorical counterfactual in *koso -e*:

- (41)  $\llbracket [\text{the moon disappears} - \mathbf{koso}], \text{I would stop longing for you} - \mathbf{e} \rrbracket$

Let us examine under what conditions and in what circumstance “the moon disappears” might hold when we take “the moon disappears” to be a conceivable proposition. We can imagine the counterfactual situations in which “my love ages” or “my love dies” might hold, and “the moon disappears” holds in some of those situations. However, if the speaker assumes that the counterfactual situation in which “the moon disappears” is inconceivable, “the moon disappears” is not going to be true in any conceivable worlds in which “my love ages” or “my love dies” might hold. Therefore,

- (42)  $\llbracket [\text{the moon disappears} \ \mathbf{koso}], \text{I stop longing for you} - \mathbf{e} \rrbracket^C = 1$  iff  
 for some sphere  $S$  in  $S_i$  which contains the closest  $p$ -world,  
 $\{w: w \in \cap \text{Conceivable}_C \ \& \ \llbracket \text{I stop longing for you} \rrbracket^w = 1\} \subseteq$   
 $\{w: w \in \cap \text{Conceivable}_C \ \& \ \llbracket \text{the moon disappear} \rrbracket^w = 1\}$  ④  
 Suppose there is no world in which the antecedent holds among conceivable worlds. Then,  
 $\{w: w \in \cap \text{Conceivable}_C \ \& \ \llbracket \text{the moon disappears} \rrbracket^w = 1\} = \emptyset$ . ⑤  
 From ④ and ⑤,  
 $\{w: \llbracket \text{I stop longing for my love} \rrbracket^w = 1\} \subseteq \emptyset$ .  
 $\{w: \llbracket \text{I stop longing for my love} \rrbracket^w = 1\} = \emptyset$ .  
 Namely, there is no world in which  $\llbracket \text{I stop longing for my love} \rrbracket^w = 1$ .

In (42), the value assignment of any conceivable worlds cannot assign truth to the antecedent of the rhetorical counterfactual, and therefore, the truth conditions of the counterfactual in (42) conclude that there is no conceivable world in which the consequent would hold. This semantics meets our intuition. Thus, we have successfully derived the rhetorical reading of the counterfactual. However, note

that the truth conditions of the counterfactuals in (42) may not render non-vacuous truth, since the closest world in which the antecedent holds is not one of the accessible worlds. I will leave this issue for future research.

To summarize, I have shown that the rhetorical reading of *koso -e* does not entail the prejacent. The rhetorical reading is derived from the truth conditions of subjunctive conditionals in *koso -e* with a contextual restriction, called conceivability. Conceivability applies to the closest world, whose existence is presupposed by the semantics of the subjunctive conditionals. The result is exclusion of the closest world from the accessible worlds. This naturally leads to the lack of existential presupposition, which gives rise to the implication that the consequent would never hold.

## 5 Conclusion

I have shown that counterfactual conditionals have contrasting interpretations. The rhetorical reading arises when the speaker intends to convey the message that the consequent would NEVER be true; while the default reading is non-rhetorical, in which the speaker assumes that the consequent would be the case if the antecedent were true. I have argued that counterfactual interpretations in the *koso -e* construction have the semantics equivalent to *only-if* subjunctives, and that the non-rhetorical or the rhetorical reading of counterfactuals are implicational. I have argued that the non-rhetorical counterfactuals are Strawson valid: the counterfactual is true in the context in which all the preconditions are presupposed to hold and the addition of the truth of the antecedent would lead to the truth of the consequent. Also, I argued that the rhetorical reading of counterfactuals arises when the speaker considers the counterfactual antecedent to be “inconceivable.” The notion of being inconceivable consists of the speaker’s assumption that the world in which the antecedent holds is more remote than all the conceivable worlds. I showed that conceivability is a contextual restriction on the closest worlds and determines how strict the counterfactual antecedent is based on comparative similarity to the actual world.

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