

Hurford Conditionals in Japanese^{*}

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1 Introduction

Mandelkern & Romoli (2018) have an intuition that (1) is bad and (2) is good.

- (1) **BAD**: #If Taro does not drink a whisky, he drinks an alcohol.
- (2) **GOOD**: If Taro drinks an alcohol, he does not drink a whisky.

This is puzzling, because both **BAD** and **GOOD** have the same underlying structure at a certain logical abstraction: in both cases, the negation of the antecedent entails the consequent. In other words, at a certain level of abstraction, both have the structure in (3), where p^+ is a sentence which asymmetrically entails p .

- (3) If $\neg p^+$, then p . (Mandelkern & Romoli 2018: 358)

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To see that **BAD** has this structure, let $p^+ = \textit{John drinks a whisky}$ and $p = \textit{John drinks an alcohol}$. To see that **GOOD** has this structure, let $p^+ = \textit{Taro does not drink a whisky}$ and $p = \textit{Taro does not drink an alcohol}$. Mandelkern & Romoli call this form of conditionals *Hurford conditionals*.¹ They argue that existing theories of informational oddness (namely, redundancy-based theories and triviality-based theories) cannot distinguish between **BAD** and **GOOD**.²

In this paper, focusing on Japanese, we attempt to find a satisfying explanation of this contrast, and propose that certain concessive conditional morphemes make **BAD** less infelicitous, and that in the absence of these morphemes, **BAD** becomes tautology, which thereby contributes to its infelicity. As for **GOOD**, we claim that it is entirely natural, because it is already a non-trivial conditional.

The rest of this paper is organized as follows. In Section 2, we present some data of Hurford conditionals in Japanese, which are crucial for our analysis. Section 3 introduces the semantics of Japanese ordinary conditionals and concessive conditionals. Section 4 illustrates how the infelicity of **BAD** is derived, and further explains the contrasts between **BAD** with an ordinary conditional form and one with a concessive conditional form. In Section 5, we offer an explanation for **GOOD**, and Section 6 is the conclusion with some implication for this study.

2 Data

Let us first observe some Japanese data. As in (4), Hurford conditionals in Japanese also show the same contrast as in (1).

- (4) (Several kinds of alcohol are on the table.)

¹ They call the conditionals ‘Hurford’ conditionals because they are closely related to *Hurford disjunctions* (Hurford 1974) in which one disjunct entails the other; that is, disjunctions with the form $\lceil p \vee p^+ \rceil$ or $\lceil p^+ \vee p \rceil$. **BAD** and **GOOD** correspond to (i) and (ii) respectively in that each is constructed from (i) and (ii) by way of an ‘or-to-if’ inference (Stalnaker 1974). The observation that Hurford disjunctions are generally infelicitous is known as *Hurford’s constraint* (Chierchia et al. 2012).

- (i) #Either John is in Paris or he is in France.
 (ii) #Either John is not in France or he is not in Paris.

² As redundancy-based theories, a *material implication* ($\lceil p \rightarrow q \rceil$) analysis and a *strict implication* ($\lceil \Box p \rightarrow q \rceil$, von Stechow 2001) analysis predict both **BAD** and **GOOD** to be infelicitous, and a *variably strict semantics* ($\lceil p \rightarrow q \rceil$ is analyzed relative to a contextual parameter, Kratzer 1986) does not predict that **BAD** and **GOOD** are infelicitous (see Mandelkern & Romoli (2018: 360–362)). As triviality-based theories, both a *dynamic theory* (Heim 1983, a.o.) and an *incremental parsing-based theories* (Schlenker 2009) predict **BAD** and **GOOD** to be felicitous, and a *symmetric algorithm* predicts the both to be infelicitous (see Mandelkern & Romoli (2018: 362–363)).

a. **BAD** in Japanese:

#Taro-wa uisukii-o noma-nai nara, osake-o nom-u.
 T.-TOP whisky-ACC drink-NEG if alcohol-ACC drink-PRES
 ‘#If Taro does not drink a whisky, he drinks an alcohol.’

b. **GOOD** in Japanese:

Taro-wa osake-o nom-u nara, uisukii-o noma-nai.
 T.-TOP alcohol-ACC drink-PRES if whisky-ACC drink-NEG
 ‘If Taro drinks an alcohol, he does not drink a whisky.’

It is worth noting that we do not discuss a difference between *nara* and the other types of conditional constructions in Japanese, including *-baai*, *-toki*, etc., since there seems to be no crucial difference among them in the case of Hurford conditionals.

What we find interesting about Japanese conditionals is that a certain conditional morpheme *toshitemo* ‘even if/even when’ makes **BAD** felicitous, as shown in (5a). In **GOOD**, an insertion of *toshitemo* seems to be optional, (5b).

(5) (context in (4))

a. **BAD** with *toshitemo* ‘even if/even when’:

Taro-wa uisukii-o noma-nai **toshitemo**, osake-o
 T.-TOP whisky-ACC drink-NEG TOSHITEMO alcohol-ACC
 nom-u.
 drink-PRES
 ‘Even if/when Taro does not drink a whisky, he drinks an alcohol.’

b. **GOOD** with *toshitemo* ‘even if/even when’:

Taro-wa osake-o nom-u **toshitemo**, uisukii-o
 T.-TOP alcohol-ACC drink-PRES TOSHITEMO whisky-ACC
 noma-nai.
 drink-NEG
 ‘Even if/when Taro drinks an alcohol, he does not drink a whisky.’

The asymmetries observed so far are organized into TABLE 1.

	w/o <i>toshitemo</i>	w/ <i>toshitemo</i>
BAD	#	✓
GOOD	✓	✓

TABLE 1: The Acceptability of Hurford Conditionals in Japanese

3 Ingredients

Before moving on to the analysis, this section introduces the semantics of Japanese conditional constructions.

Lewis (1975) and Kratzer (1986) suggest that *if* does not denote an operator of its own, but rather *restricts* the domain of the co-occurring quantifier to elements of its domain that satisfy the *if*-clause. Following their *if*-as-a-restrictor analysis, we assume the *nara*-conditional as a prototypical conditional construction without any special meanings, and define its interpretation as in (6). Technically, (6) amounts to saying that in all the best worlds according to the contextual background (i.e. the modal base and the ordering source, Kratzer 1986) in which ψ is true, ϕ is true. For example, the *nara*-conditional in (7a) is interpreted as (7b).

- (6) **nara**(ψ)(ϕ) \rightsquigarrow NEC[ψ][ϕ],
 where NEC is a covert necessity operator (which is interpreted as an epistemic *must*).
- (7) a. Taro-ga kuru *nara*, Hanako-wa ko-nai.
 T.-NOM come *nara* H.-TOP come-NEG
 ‘If Taro comes, Hanako won’t come.’
- b. $\llbracket (7a) \rrbracket = \mathbf{nara}(\llbracket \text{Taro comes} \rrbracket)(\llbracket \text{Hanako won't come} \rrbracket)$
 \rightsquigarrow NEC [**come**(t)] [**¬come**(h)]
 \rightsquigarrow ‘Necessarily, if Taro comes, Hanako won’t come.’
 \rightsquigarrow ‘It must be the case, given that Taro comes, that Hanako won’t come.’

For the semantics of *toshitemo*-conditionals, we suggest that they convey the ‘concessive/unlikely’ meaning as a presupposition. Following Ippolito’s (2004) analysis of the concessive particle *still*, we argue that *toshitemo* introduces a scalar meaning as in (8), where the relevant ordering is the order of worlds according to their *likelihood* with respect to a certain proposition, making use of the *max*-operator in von Stechow (2001).³

- (8) **toshitemo**(ψ)(ϕ) \rightsquigarrow NEC[ψ][ϕ]
 presupposes:
 $\max_{\leq, w} \{w : w \in \psi \wedge w \in \phi\} \prec_{\text{likely}} \max_{\leq, w} \{w : w \in \psi \wedge w \in \neg\phi\} \wedge \mathcal{B}_s(\neg\psi)$, where:
- a. ‘ \prec_{likely} ’ intuitively means ‘less likely’;
 b. ‘ \leq_w ’ intuitively means ‘more similar to w ’;

³ Ippolito does not give a clear motivation for using the *max* operator, but she emphasizes that in this way, we can analyze the semantics of the concessive *still* in parallel to the aspectual/marginality *still*.

- c. for any p , any similarity relation \leq , and any w : $\max_{\leq, w}(p) = \{w' : p(w') = 1 \ \& \ \forall w'' : p(w'') = 1 \rightarrow w' \leq_w w''\}$
- d. ' \mathcal{B}_s ' is a belief predicate which is defined for the speaker.

Given the semantics above, *toshitemo*(ψ)(ϕ) in (5a) is literally 'even if/when ψ , ϕ '; here, $\psi =$ 'Taro does not drink a whisky' and $\phi =$ 'Taro drinks an alcohol.' The scalar meaning in (8) requires that the conditional 'if ψ , ϕ ' be less likely than 'if $\neg\psi$, ϕ '. This scalar condition requires very low credence in 'if ψ , ϕ ,' resulting in the counter-expectational inference that 'if ψ , ϕ .' We further assume that *toshitemo* conveys that the speaker believes the antecedent ψ to be false, $\mathcal{B}_s(\neg\psi)$, which is introduced to capture the intuition in (9): *toshitemo*(ψ)(ϕ) is felicitous only if the speaker believes the prejacent to be false.⁴

- (9) a. Taro-wa uisukii-o **noma-nai nitigainai** ga, uisukii-o
 T.-TOP whisky-ACC drink-NEG must but whisky-ACC
 noma-nai { #**toshitemo** / nara }, kare-wa osake-o
 drink-NEG { TOSHITEMO if } he-TOP alcohol-ACC
 nom-u.
 drink-PRES
 'It must be the case that Taro does not drink a whisky, but {even if/if} he does not drink a whisky, he drinks an alcohol.'
- b. Taro-wa uisukii-o **nom-u nitigainai** ga, uisukii-o
 T.-TOP whisky-ACC drink-PRES must but whisky-ACC
 noma-nai { **toshitemo** / nara }, kare-wa osake-o
 drink-NEG { TOSHITEMO if } he-TOP alcohol-ACC
 nom-u.
 drink-PRES
 'I'm sure Taro drinks a whisky, but {even if/if} he does not drink a whisky, he drinks an alcohol.'

For instance, the *toshitemo*-conditional in (5a) is interpreted as below.

- (10) a. Taro-wa uisukii-o noma-nai toshitemo, osake-o nom-u. (= (5a))
 'Even if/when Taro does not drink a whisky, he drinks an alcohol.'
- b. **toshitemo**([[Taro does not drink a whisky]])([[Taro drinks an alcohol]])
 \rightsquigarrow NEC [\neg **drink**(T, wh)] [**drink**(T, al)]
 presupposes:

⁴One more motivation for assuming the scalar *still* and the believe predicate \mathcal{B} operator as a part of the meaning of *toshitemo* is that *toshitemo* could be decomposed into (i) *-tosur*(u) 'to assume/suppose,' (ii) *-te* (gerundive) and (iii) *mo* 'even/still'; it might be the case that it is this non-factive predicate *tosur*(u) that plays a role of \mathcal{B} , and *mo* carries the meaning of *even/still*.

- (i) $\max\{w : w \in [\neg\mathbf{drink}(T, wh)] \wedge w \in [\mathbf{drink}(T, al)]\}$
 \prec_{likely}
 $\max\{w : w \in [\neg\mathbf{drink}(T, wh)] \wedge w \in [\neg\mathbf{drink}(T, al)]\}$
- (ii) $\mathcal{B}_s(\neg[\neg\mathbf{drink}(T, wh)])$
 $= \mathcal{B}_s(\mathbf{drink}(T, wh))$

Informally, (10b) is saying “Necessarily, if Taro does not drink a whisky, he drinks an alcohol other than a whisky. At the same time, it is presupposed that (i) Taro’s not drinking a whisky and not drinking an alcohol is more likely to happen than Taro’s drinking an alcohol and not drinking a whisky, and (ii) the speaker believes that Taro drinks a whisky.”

4 Explaining the Oddness in BAD

As observed in Hurford disjunctions (Hurford 1974), categorial relations seem to be the core of the problem in Hurford conditionals. Hurford points to the following generalization known as *Hurford’s constraint* (Chierchia et al. 2012): a sentence that contains a disjunctive phrase of the form $\lceil p \wedge q \rceil$ is infelicitous if p entails q or q entails p . This constraint is illustrated by the infelicity of the following sentences:⁵

- (11) a#Mary saw a dog or an animal.
 b#Mary saw an animal or a dog.
 c#Every girl who saw an animal or a dog talked to Jack.

The subtype/type relation functions in (11): ‘dog’ is a subset of ‘animal,’ and ‘animal’ is a superset of ‘dog.’ The examples in (11) are all odd since ‘being a dog’ entails ‘being an animal’ but ‘being an animal’ does not entail ‘being a dog.’

Bearing this basic fact in mind, let us see what happens in Hurford conditionals. See TABLE 2 below, where SUB(set) $\models_{entails}$ SUPER(set) whereas SUPER $\not\models$ SUB.

	Negation in Consequent	Negation in Antecedent
$\lceil \text{SUPER} \rightarrow \text{SUB} \rceil$	① $\lceil \text{SUPER} \rightarrow \neg\text{SUB} \rceil = \mathbf{GOOD}$	② $\lceil \neg\text{SUPER} \rightarrow \text{SUB} \rceil = \perp$
$\lceil \text{SUPER} \rightarrow \text{SUB} \rceil$	③ $\lceil \text{SUB} \rightarrow \neg\text{SUPER} \rceil = \perp$	④ $\lceil \neg\text{SUB} \rightarrow \text{SUPER} \rceil = \mathbf{BAD}$

TABLE 2 Hurford Square

⁵ As is well-known, Chierchia et al. (2012) have a counterexample to Hurford’s constraint. See Chierchia et al. (2012: 2–3) for the relevant discussion.

For example, let SUB be ‘Taro drinks a whisky’ and SUPER be ‘Taro drinks an alcohol,’ where ‘Taro drinks a whisky’ \models ‘Taro drinks an alcohol.’ Then, ① is translated to ‘Taro drinks an alcohol, he does not drink a whisky,’ which corresponds to **GOOD**. ② and ③ are translated to ‘If Taro does not drink an alcohol, he drinks a whisky’ and ‘If Taro drinks a whisky, he does not drink an alcohol,’ respectively, both of which are contradiction. Finally, ④ corresponds to the **BAD** case, which is translated to ‘If Taro does not drink a whisky, he drinks an alcohol.’

Now, recall that our question here is why the construction in ④, namely **BAD**, is always infelicitous. We argue that the infelicity of **BAD** comes from *tautology* (or *triviality*) generated by following steps:⁶

- (12) i. ‘Taro drinks a whisky’ asymmetrically entails ‘Taro drinks an alcohol.’
- ii. The antecedent part of the conditional in **BAD** ‘If Taro does not drink a whisky’ does not entail ‘Taro drinks an alcohol.’
- iii. However, the antecedent part ‘If Taro does not drink a whisky’ presupposes ‘Taro drinks an alcohol, just not a whisky.’
- iv. The subsequent part of the conditional in **BAD** ‘Taro drinks an alcohol’ **asserts** ‘Taro drinks a whisky.’
- v. Thus, in **BAD**, the presupposition conveyed by the antecedent and the assertion conveyed by the subsequent make the same statement ‘Taro drinks a beer,’ which leads to tautology.

This line of accounts is justified from the general fact that a continuity of a presupposition ($p \gg_{Pres}$) to an assertion (q_{Assert}) leads to a redundancy if they convey the same content $p \gg_{Pres} = q_{Assert}$ (van der Sandt 1992). van der Sandt claims that if the speaker first conveys p as a presupposition using a factive verb *know* which presupposes the truth of its sentential complement (Karttunen 1973), and (s)he then conveys the same p by asserting p , the assertion feels odd because of a triviality. Consider the example in (13), where ‘John knows that it’s raining’ presupposes ‘it’s raining.’

- (13) Let φ be ‘it’s raining,’
 - a. $\varphi_{Assert} \dashrightarrow \varphi \gg_{Pres}$
It’s raining. John knows that it’s raining.

⁶We should also note, however, that it might be the case that what we call *presupposition* in (12iii) is not in fact a presupposition but a subclass of (scalar) implicatures. Meyer (2014) argues that all utterances encode the exhaustive operator, and the infelicity of disjunctions in which one disjunct entails the other (known as *Hurford disjunctions*), as well as the felicity of a subclass of Hurford disjunctions, can be derived from implicatures which are generated by exhaustive operators in the grammar. We will pursue this possibility as our future task.

b. $\varphi \gg_{Pres} \dashrightarrow \varphi_{Assert}$

John knows that it's raining. #It's raining.

(cf. van der Sandt 1992)

One may wonder, however, if the antecedent part 'Taro does not drink a whisky' really conveys the presupposition 'Taro drinks an alcohol.' We argue that this can be examined by introducing the notion of a presupposition *hole*: a semantic operator that allows presuppositions to slip through it, even as that operator targets the at-issue content, e.g., negations, conditional antecedents, and interrogative operators (Karttunen 1973). Let us consider the examples in (14).

- (14) Taro-wa uisukii-o nama-nai $\rightsquigarrow \varphi_p$
 'Taro does not drink a whisky'
- a. Taro-wa uisukii-o nama-nai **nara**, (then...) $\rightsquigarrow \text{IF}(\varphi_p)$
 'If Taro does not drink a whisky, (then...)'
 Implies: Does Taro drink some alcohol? \rightarrow YES.
- b. Taro-wa uisukii-o nama-nai **no?** $\rightsquigarrow ?\varphi_p$
 'Doesn't Taro drink a whisky?'
 Implies: Does Taro drink some alcohol? \rightarrow YES.
- c. Taro-wa uisukii-o nama-nai **wake-de-wa-nai**. $\rightsquigarrow \neg\varphi_p$
 'It is not the case that Taro does not drink a whisky.'
 Implies: Does Taro drink some alcohol? \rightarrow YES.

Assume that (14) has the at-issue content that 'Taro does not drink a whisky (φ)' and the presupposition that 'Taro drinks some alcohol (p).' Then, the translations on the right (the right of the arrow ' \rightsquigarrow ') in (14a–c) have φ (subscript p) in the scope of negation (\neg), a conditional operator (IF), and an interrogative operator (?), respectively. And yet, whereas φ is modified by these semantic operators, the presupposition p remains, in some sense, an entailment of all of these sentences.

Why and how does **BAD** become felicitous when *toshitemo* occurs instead of *nara*? More specifically speaking, why does the triviality expected to be carried out by **BAD** disappear in *toshitemo*-conditionals? We would like to give an answer for this question by proposing that *toshitemo* plays a role of a presupposition *plug* (Karttunen 1973), a semantic operator that blocks off the projection of presuppositions. Recall that *toshitemo* contains a believe predicate whose meaning is identical to the non-factive *believe*, which has been considered to be one of the most typical plugs (cf. Potts 2014). Consider the following example to see whether *toshitemo* is a plug.

- (15) Aya-wa senshuu-no shiken-o ukenakat-ta ga, ...
 'Although Aya didn't take the exam last week, ...'

- a#Aya-wa sono shiken-ni **oti-ta**.
 A.-TOP that exam-for fail-PAST
 ‘Aya failed the exam.’
- b. Aya-ga sono shiken-ni **oti-ta** *toshitemo*, hahaoya-wa
 A.-NOM that exam-for fail-PAST even.if mother-TOP
 okoranakat-ta (daroo).
 get.mad-NEG (would)
 ‘even if she failed it, her mother wouldn’t have been angry.’
- cf#Aya-ga sono shiken-ni **oti-ta** (*na*)ra, hahaoya-wa
 A.-NOM that exam-for fail-PAST even.if mother-TOP
 okoranakat-ta (daroo).
 get.mad-NEG (would)
 ‘if she failed it, her mother wouldn’t have been angry.’

In (15a), the implicative verb *otiru* ‘fail’ presupposes the fact that ‘Aya took the exam’ (Karttunen & Peters 1979, cf. (15a)), but the *toshitemo*-clause in (15b) does not presuppose it.⁷

Given that *toshitemo* is a plug, the presupposed content ‘Taro does not drink a whisky’ in **BAD** with *toshitemo* need not to be projected since *toshitemo* as a plug blocks the presupposition, which thereby prevents the sentence from becoming a tautology.

5 GOOD as a Concessive Conditional

Finally, let us derive the fact that **GOOD** is felicitous without having *toshitemo*. The first question that we need to answer is this: why does **GOOD** not become a tautology despite the fact that it has the same underlying form as **BAD**?

- (16) Taro-wa osake-o nom-u nara, uisukii-o noma-nai.
 T.-TOP alcohol-ACC drink-PRES if whisky-ACC drink-NEG
 ‘If Taro drinks an alcohol, he does not drink a whisky.’ (= (4b))

Our account based on triviality explains why **GOOD** like (16) is not infelicitous; since **GOOD** has the form $\lceil \varphi_A \dashv\vdash \varphi_P \rceil$, which corresponds to the felicitous pattern in (13a), it does not convey any triviality. Let us comment step by step as follows:

- i. In (16) with *nara*, the consequent part q (= ‘Taro does not drink a whisky’) presupposes ‘Taro drinks an alcohol’ (= q_{Pres}).
- ii. Since q_{Pres} is identical to the antecedent part p (= ‘Taro drinks a beverage’), $p = q_{Pres}$, uttering *nara*(p) is vacuous.

⁷ See also fn.4.

- iii. Uttering *nara(p)* does not lead to oddness since **GOOD** has the felicitous form $\lceil \varphi_{Assert} \dashrightarrow \varphi_{Pres} \rceil$
- iv. However, there must be some reason that the speaker utters *nara(p)*, since uttering the consequent *q* is sufficient for the speaker to convey the information.
- v. We can make an inference that *nara(p)* is added in order to convey an additional implicature: the concessive implicature.

How can **GOOD** induce the concessive implicature, then?; in other words, how can the insertion of *nara(p)* in **GOOD** lead to the concessive implicature? Let us briefly discuss how concessivity arises in general. Papafragou (2000) and Winterstein (2012) propose what can be called ‘inferential approach’ to the adversative *but*, and claim that the concessivity in sentential conjunctions arises when an inference triggered by the first conjunct is canceled by the second conjunct, where the first one entails the negation of the second one. The example below is straightforwardly captured by the inferential approach.⁸

- (17) Lemmy smokes a lot, but he’s in good health. (Winterstein 2012)
- (18) a. Contextual entailment: if one smokes, he is not in good health.
 $p \rightarrow q$
- b. Lemmy smokes ($: p$) but he is in good health ($: \neg q$).
 $p \wedge \neg q$

In (17), *p* (=‘Lemmy smokes a lot’) enhances, on the basis of everyday knowledge concerning tobacco, an inference like ‘Lemmy is likely not in good health’ that will be blocked by the ‘*but q*’-continuation, which corresponds in this case to the opposite content $\neg q$ (=‘Lemmy is in good health’). We follow their inferential approach, and extend this idea to conditionals. Consider the case of **GOOD** in (16).

- (19) If Taro drinks an alcohol, he does not drink a whisky.
- a. Contextual entailment: if Taro drinks an alcohol, he (normally) drinks a whisky.
 $p \rightarrow q$
- b. If Taro drinks an alcohol ($: p$), he does not drink a whisky ($: \neg q$).
 $p \rightarrow \neg q$

In (19), the antecedent *p* (=‘Taro drinks an alcohol’) makes the contextual inference like ‘he drinks a whisky’ that is blocked by the consequent part,

⁸ Baranzini & Mari (2019) submit, however, that a proper theory of the concessivity with epistemic modality requires a more articulate account than those previously proposed.

which corresponds to $\neg q$ (=‘Taro does not drink a whisky’). Here, we can soon notice that **GOOD** has the same underlying form as the adversative *but(p)(q)*, and that the contribution of the antecedent *nara(p)* in **GOOD** is to convey the concessivity; in **GOOD**, *nara(p)* is inserted by reason of triggering the inference which will be canceled by the consequent.

As for **BAD**, however, it is clear that no such structure exists between an antecedent and a consequent. (Recall that **BAD** has a form $\lceil \varphi_P \dashrightarrow \varphi_A \rceil$, which is infelicitous.) Thus, the only strategy for **BAD** to be a fine concessive conditional is to use *toshitemo* instead of *nara*.

6 Conclusion

To the best of our knowledge, this paper is the first work that gave the solution to the puzzle on Hurford conditionals raised by Mandelkern & Romoli (2018). We have argued that the contrast found in Hurford Conditionals, **BAD** vs. **GOOD**, is explained as follows. **BAD** is a tautology, but the concessive conditional morpheme *toshitemo* disrupts it by turning **BAD** into a concessive conditional. In contrast to **BAD**, since **GOOD** has a form that does not lead to triviality, it is a fine concessive conditional already.

As a future work, it would be interesting to see what concessive particles can/cannot disrupt the tautology in **BAD**. For instance, Mandelkern & Romoli point out that *still* increases the acceptability of **BAD**, (20). In Japanese, there are also many particles expressing *still*-like concessivity (e.g. *soredemo*, *nao*, *mada*), but the acceptability of **BAD** with those particles seems to be odd, (21). We hope that in the future we will figure out what is going on here.

(20) **BAD** with *still*:

If Taro does not drink a whisky, he **still** drinks an alcohol.

(21) **BAD** with *still* in Japanese:

Taro-wa uisukii-o noma-nai nara, { ??soredemo / ??nao /
 T.-TOP whisky-ACC drink-NEG if STILL
 ??mada } osake-o nom-u.
 alcohol-ACC drink-PRES

‘If Taro does not drink a whisky, he still drinks an alcohol.’

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