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Evaluativity, Frustrativity, and Practicality in Conditionals: The Case of *tewa**

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1 Introduction

Conditionals can be used to express an evaluation of whether a situation is *good* or *bad* according to contextually-salient goals or desires when the outcomes are provided in the consequent. For example, imagine that two interlocutors are deciding if Taro should be invited to a party and one of the speakers utters (1).

(1) If Taro comes, Hanako will come.

In (1), the addressee of a conversation may understand the conditional as an encouragement to invite Taro if the speaker wants Hanako to come--but she may also infer that Taro's presence is not desired if people involved in the conversation do not like Hanako. Inferences related to positive or negative speaker evaluations along those lines are dubbed *evaluative inferences*.

While English *if* does not convey any information with respect to the speaker's attitude towards the situation described by the antecedent, it is reported that conditional expressions in some

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languages conventionally trigger evaluative inferences, such as Japanese *tewa*, Korean *-(e)se(nun)/taka(nun)*, and Spanish *como* (Ahn 2017; Akatsuka 1997; Akatsuka and Sohn 1994; Lee 1996; Schwenter 2001; Yoon 1996). (2) exemplifies the evaluative marker to be examined in this paper, Japanese *tewa*, which has been reported to convey a negative evaluative inference.¹

- (2) Takusan osake-o non-**dewa** karada-o kowasi-mas-u/ #ii kibun-ni nari-mas-u
 a.lot alcohol-ACC drink-TEWA body-ACC break-POL-NPST good mood-DAT become-POL-NPST
 ‘If you drink that much, it will harm your body/# you will be in a good mood.’

The evaluative inference associated with conditional expressions has been noticed and discussed in the descriptive literature of these languages, but it has not been studied from a theoretical perspective, and the nature of these inferences is not well-understood. Focusing on data from Japanese, this paper expands the empirical domain, showing that the inferential profile of *tewa* is more complicated than has been appreciated. Specifically, it demonstrates that the inferences *tewa* gives rise to are not always evaluative, but can be epistemic, which will later be referred to as the *frustrative* use. The expanded empirical landscape raises two related analytical issues. The first is the status of these inferences. I argue that they are conventional rather than pragmatic. The second is an account of how and why epistemic and evaluative inferences arise. I show that *tewa* is sensitive to the distinction between descriptive and practical contexts, and licensed only in the latter. I then show that whether *tewa* gives rise to epistemic or evaluative inferences depends on the type of Question Under Discussion (QUD; Roberts 1996, 2012) that is contextually salient, as it determines the type of relevant alternatives the speaker evaluates. The rest of the section introduces the basic facts about *tewa*, and then a typical case where *tewa* does not convey undesirability.

1.1 Japanese *tewa*

In Japanese, conditional antecedents are marked by verbal endings such as *-(re)ba* and *-tara*, or clitics such as *-nara* and *-to* (Takubo 2020). For example, in (3), all of the listed four conditional connectives are interchangeable.

- (3) Hanako-ga {ku-**reba**/ ki-**tara**/ kuru-**nara**/ kuru-**to**}, Taro-ga yorokobu.
 Hanako-NOM come-REBA come-TARA come-NARA come-TO Taro-NOM rejoice
 ‘If Hanako comes, Taro will be happy.’

In addition to the listed four, in Japanese the conditional meaning can also be expressed by the combination of the clausal conjunction *-te* followed by the topic marker *-wa* (e.g., Arita 2007), as in (4).² Note that in Japanese, there is no all-purpose conditional expression like English *if*. All the listed conditional connectives have their own restrictions, but some are more widely used than others. This paper focuses on *tewa*-conditionals, and discussions about other conditional markers may be included for comparison when necessary.

¹ The judgments of sentences shown in (2) are all based on what is normally considered to be good or desirable. The evaluative inference associated with some of these markers may be contextually dependent. For instance, in a conversation where being healthy is very undesirable for some reason, the judgment for the Japanese *tewa*-conditional may flip.

² In this paper, we will not touch on the issue of how the two pieces combine to give rise to the conditional meaning. See Arita (2007) for a comprehensive discussion on the properties of *tewa*, and Kaufmann and Whitman (2022) for a recent semantic analysis.

- (4) Hanako-ga ki-**tewa** Taro-ga kanashiku nat-te-shimau.
 Hanako-NOM come-TEWA Taro-NOM sad become-GER-ADVERSATIVE
 ‘If Hanako comes, Taro will be sad.’

tewa has been reported to convey a ‘negative’ inference (Akatsuka 1997): situations described by *tewa*-antecedents lead to ‘undesirable’ outcomes. (5) provides a typical example where a *tewa*-conditional is felicitous: imagine that someone sitting in front of you is drinking more than usual, and you think drinking that much is not good. In this case, you can use (5) to dissuade them from drinking.

- (5) Son'nani osake-o non-**dewa** karada-o kowasi-mas-u yo.
 that.much alcohol-ACC drink-TEWA body-ACC break-POL-NPST SFP
 ‘If you drink that much, it will harm your body.’

The ‘evaluative’ inference associated with *tewa* is conventionalized, as described by Akatsuka (1997), “...as soon as S1-*tewa* is uttered, upon hearing only that much, the listener immediately knows that the S2 to follow will express nothing but undesirability” (Akatsuka 1997: 328). The conventionalized inference is tested in (6) and (7), where the *tewa*-conditional cannot be followed with ‘it would be good if Hanako comes’.

- (6) *Context: A plans to host a party tonight. A and Hanako are enemies, but Taro and Hanako are friends. A intends to invite Taro.*
 B: (Demo) Taro-ga ki-**tewa** Hanako-mo ku-ru yo.
 But Taro-NOM come-TEWA Hanako-also come-NPST SFP
 ‘If Taro comes, Hanako will also come.’
 (7) #... Demo Hanako-ga ku-ru-to i-i ne.
 but Hanako-NOM come-NPST-COND good-NPST SFP
 ‘But it would be good if Hanako comes.’

In the rest of the paper, the term “desiderative” will be used to refer to the use of *tewa* related to undesirability.³

Note that occurrence of *tewa* is not tied to predicates that would be considered undesirable by a neutral observer. Rather, the undesirable inference associated with *tewa* is context-dependent. For instance, *tewa* can appear in (8) in the case that Hanako being happy is not desirable for the speakers.

- (8) *Context: the speaker and Hanako are enemies, but Hanako and Taro are friends. The speaker heard that Taro is invited to the party that she plans to attend.*

³ Although Arita (2007) has insightfully pointed out that *tewa*-conditionals are not always ‘negative’ (term used by Akatsuka 1997, see also Hasunuma 1987), her analysis is too coarse-grained to explain (i) the (dis-)appearance of the evaluative inference, and (ii) many (in-)felicitous uses of *tewa*, as we will see very soon. Her examples of *tewa*-conditionals without ‘negative’ inferences are not adopted since out of seven native speakers I consulted, only one accepted her examples (and marginally at that).

The inference related to undesirability is sometimes called the adversative inference in the literature (Grosz 2012). We will return to adversative inference in Section 4.

Taro-ga ki-**tewa**, Hanako-ga shiawase-ni nar-u. dakara kare-wa ko-na-i
 Taro-NOM come-TEWA Hanako-NOM happy-DAT become-NPST so he-TOP come-NEG-NPST
 hoogaii na.
 had.better SFP

‘If Taro comes, Hanako will be happy. So I hope he doesn’t come.’

However, Akatsuka (1997)’s characterization that *tewa* expresses undesirability misses many felicitous instances of *tewa*-conditionals in the literature where the situation described by the consequent does not appear to be undesirable, as in (9). The term “undesirability criterion” will be used to refer to Akatsuka (1997)’s characterization in the following discussion.

- (9) Are-dake ookina sakana-o me-ni shi-**tewa** minogas-e-na-i
 that-only big fish-ACC eye-DAT do-TEWA miss-POT-NEG-NPST
 ‘If (you) see a big fish like that (you) can’t miss it.’ (Shioiri 1997: 70)

The goal of this paper is twofold. On the empirical side, this paper engages with a longstanding issue in the literature: whether *tewa* inherently conveys a negative connotation (Hasunuma 1987; Akatsuka 1997; Arita 2007 *i.a.*). I show that the negative connotation associated with *tewa*-conditionals is indeed conventionalized, and that the divergence in interpretation can be reduced to whether *tewa* expresses a *desiderative* or *frustrative* flavor. This is demonstrated through a detailed description of the contextual settings that determine when *tewa* is (in-)felicitous. On the theoretical side, the paper aims at explaining why the two uses of *tewa* arise by relating it to the discussion of descriptive and practical contexts. I show that even though *tewa* shares commonalities with expressives (e.g., expressing evaluative inferences, sensitivity to practical contexts), *tewa*-conditionals express truth values. I propose what I later term the *weak practicality* requirement to distinguish it from expressives. Then, I propose a unified account of the two uses which characterizes the negative connotation as *negative evaluation* towards either an action or a prior belief or expectation. Instead of directly encoding inferences into the semantics of *tewa*, we take the inferences associated with *tewa* to be the *conventional* meaning which is not-at-issue. Such conventional meanings are characterized in terms of pragmatic presuppositions which restrict the context prior to the utterances containing *tewa*. In this way, the two uses only differ in which Kratzerian conversational backgrounds are involved in evaluation (i.e., bouletic, teleological, or stereotypical).

The rest of the paper is structured as follows. Section 2 presents the two properties of *tewa*, its frustrative use and its sensitivity to practical contexts. Section 3 develops an account of *tewa* that relates its two uses. Section 4 concludes.

2 Ingredients for Felicitous Contexts

This section will show that the undesirability criterion alone is not an accurate characterization of felicitous contexts for *tewa*. Novel empirical evidence demonstrates that *tewa* sometimes conveys frustrative inferences related to (un)expectedness, and presupposes the existence of a decision problem in prior contexts.

2.1 Undesirability Is Not Necessary: Frustrative Uses

tewa-conditionals have epistemic uses which convey that an unexpected situation described by the consequent can be predicted naturally given certain exceptional condition. Consider (10).

- (10) Kon'nani yuuyake-ga utsukushiku-**tewa** ashita-mo ii o-tenki darou.
 such sunset-NOM beautiful-TEWA tomorrow-also good HON-weather MOD
 'If the sunset is so beautiful, the weather will probably be great tomorrow.'
 (Kawabata 1958: 51, cited in Arita 2007: 165)

Arita (2007) used (10) as an argument against the undesirability criterion as a good weather is usually desirable. Indeed, (10) seems to fit better in the 'unexpectedness' category as the sunset seems unusually beautiful. However, consultants reported that (10) is infelicitous when the speaker is amazed and pleased by the beautiful sunset. *tewa* is only felicitous when the speaker had previously expected that the weather will not be great but is frustrated to see such an expectation fail to realize. We henceforth refer to such uses as the *frustrative* use, drawing on the notion of *frustrativity* which indicates that some notion of normalcy or expectation is subverted (Copley and Harley 2014; Davis and Matthewson 2022; Kroeger 2017, 2024; Nadathur and Everdell 2025; Overall 2017; Tahar 2021 *i.a.*). The term 'frustrative' also reflects consultants' intuitions about speaker affect: there is general consensus that in addition to mere surprisal, *tewa* is felicitous only when the speaker feels frustrated or annoyed that her expectation has not been met or her prior belief has not been confirmed. To see this more clearly, consider the example from Shioiri (1997) in (11), elaborated from (9).

- (11) *Context: Hanako usually does not catch any fish herself. However, today, Hanako seems to be interested and is walking towards a river to catch a fish. Both interlocutors witness this.*
 A: Look, Hanako is going to catch a fish herself!
 B: Are hodo ookina sakana-o me-ni shi-**tewa** (soryaa) tsukamae-ni iki-mas-u yo.
 that DEGREE big fish-ACC eye-DAT do-TEWA of.course catch-to go-POL-NPST SFP
 'If (you) see a big fish like that, (of course you) will go catch it.'
 (Based on Shioiri 1997: 70, with context added and a change to the consequent)

The *tewa*-conditional in (11) requires certain prior belief in order to be felicitous: in (11), the belief shared by interlocutors is that Hanako usually does not catch fish herself, and thus Hanako trying to catch a fish is considered surprising. The condition described by the *tewa*-antecedent in (11) provides a plausible reason why Hanako is displaying what appeared to be unusual behavior.

(11) exemplifies a typical use of *tewa* which is unrelated to undesirability: *tewa*-conditionals describe an exception to normalcy or to habitual behaviors, as illustrated in (12). Additionally, when the speaker utters a *tewa*-conditional, she assumes that what is considered normal/habitual in the utterance context is shared knowledge among discourse participants, and *tewa* signals that the evaluation situation is exceptional. For example, in the fish-catching case, Hanako trying to catch a fish is unusual according to her habits. However, after providing a reason for Hanako's unusual behavior (i.e., a big fish was observed), Hanako trying to catch a fish becomes less surprising.

- (12) Usually, Hanako does not catch any fish at all.
 But if she sees such a big fish she catches it.

One may wonder if the information conveyed by the *tewa*-antecedent in (11) serves as an explanation for the unusual situation described by the consequent. Indeed, the function of *tewa*-marked antecedent in (11) is reminiscent of Gärdenfors (1988)'s notion of explanation: an explanation (explanans) should make the unexpected fact (the explanandum) less surprising relative to the (relevant) agents' epistemic states prior to learning the explanation. In our case, however, the exceptional situation that the *tewa*-conditional describes is not factual. After all, Hanako has not yet caught the fish. The thing that merits explaining is that she is trying to catch a fish. The conditional however appears in generic form and specifies conditions for when people catch fish. A clearer non-factual example of the frustrative use of *tewa* is shown in (13).

- (13) *Context: Hanako likes attending chess competitions, but she hardly wins. Ken likes it too, but he is even worse—he never wins. Now both Hanako and Ken registered for an upcoming competition. A is Hanako's friend, and A is worried about her, but A does not know that Ken also registered.*

A: It's just impossible for Hanako to win.

B: Demo Hanako-no aite-wa Ken-to kii-ta. Ken-no yoona yatsu-ga
 But Hanako-POSS opponent-TOP Ken-COMP hear-PST Ken-POSS just.like person-NOM
 aite-**dewa** soryaa Hanako-ga kat-temo fushigi-de-wa-na-i.
 opponent-TEWA of.course Hanako-NOM win-EVEN.IF no.wonder-GER-TOP-NEG-NPST
 'But I heard Hanako's opponent is Ken. If someone like Ken is the opponent, even for Hanako to win wouldn't be surprising.'

In (13), it is not known to be true that Hanako would win. Here we are not trying to explain any facts about the world. Consider that Hanako is known to enter competitions she is bound to lose, and we have not yet observed anything surprising—like her winning. So, given what A and B know, it is still impossible to conclude that Hanako will win, since she may still face a contestant who is more capable than Ken. It is just that, with the information conveyed by the sentence preceding the *tewa*-conditional, it becomes considerably more likely that Hanako might win. Such an effect is overtly spelt out in the consequent with phrases such as *fushigidewanai* “no wonder”.

The inference resulting from *tewa*-conditionals in this type of scenarios, namely that a surprising situation can be predicted naturally after all, is reminiscent of Veltman (1996)'s default reasoning theory. Veltman (1996) spells out a theory in terms of more and less specific default rules, which is a case of non-monotonic reasoning. Pelletier and Asher (1997)'s description of non-monotonic inference as in (14) is adopted here:

- (14) An inference is non-monotonic if the set of premises Γ generates conclusion ϕ , but the premises $(\Gamma \cup \psi)$ do not generate conclusion ϕ . (Pelletier and Asher 1997: 1147)

To see how this works, consider (15). Suppose that an agent knows both default rules in (15). Other things being equal, if the agent has no grounds to infer that there is an easterly wind in the actual situation, then the general default rule applies and she should conclude that presumably it is raining. However, if the agent learns/has grounds to say that there is an easterly wind in the actual situation, the second premise should be prioritized over the general one. In this case, the expectation should be it is not raining.

- (15) *premise 1: Normally it rains.*
premise 2: If there is an easterly wind, then normally it doesn't rain.

(Veltman 1996: 20)

Moving back to our case of *tewa*-conditionals, readers may have noticed that *tewa*-conditionals appear to occur (without inferences related to undesirability) in cases where conflicting

defaults are at stake, and *tewa* marks the conditional as a rule for making exception. The speaker uses a *tewa*-conditional to inform the addressee that the more specific default (the exception rule) predicts the seemingly surprising/unexpected situation. Note that Veltman (1996) distinguishes between accidental exceptions and ‘default’ exceptions. It has been noted by Tsubomoto (1993) (see also Kaufmann and Whitman 2022) that Japanese *to*-conditionals expresses lawlike, generic effects. *tewa*-conditionals have similar effects, and thus they express conditional default rules, or one-time cases relying on law-like generalizations.

To conclude the section: the cases of *tewa*-conditionals as in (11) where no obvious inference related to desirability is triggered are revealing. they suggest that *tewa* is not inherently ‘undesirable’ (contrary to Akatsuka 1997), but also that it is not entirely unconstrained either.⁴ Empirical evidence has demonstrated that *tewa* is indeed evaluative, but it may express an attitude other than undesirability, such as surprisingness. A speaker may choose to use *tewa* when the situation described by the consequent is considered unexpected relative to the addressee’s epistemic state, and given that the information provided by a *tewa*-marked antecedent makes the consequent proposition less surprising. The claims about the status of the consequents of *tewa*-conditionals are summarized in (16).

- (16) Status of consequent: *p-tewa q* conveys one of the following two options: (To be revised)
- a. Frustrative use: *q* describes an unexpected course of events;
 - b. Desiderative use: *q* describes an undesirable course of events

2.2 Undesirability Is Not Sufficient: Weak Practical Contexts

We now turn to the cases where undesirability alone is not sufficient to license *tewa*-conditionals. In both frustrative and desiderative uses, *tewa*-conditionals are sensitive to contrasts similar to what is discussed in the literature of speech acts and in connection with deontic (or more generally, priority) modals. It is well-known that deontic modals can be used *descriptively* or *performatively* (Kamp 1973; Portner 2007; Kaufmann 2012 among many others) as exemplified in (17). In its descriptive use (17a), the sentence reports a pre-existing obligation, to which the speaker may or may not be committed to. In its performative use (17b), the speaker issues a command with commitment to it.

- (17) a. You **should** go to confession, but you’re not going to. (descriptive, Portner 2007, ex.31a)
 b. You **should** sit down right now. (performative, Portner 2007, ex.28)

Analogous facts pertain to the description of possibilities in contrast to permissions with descriptive and performative possibility modals. Recent work shares the assumption that there is no semantic difference between descriptively-used and performatively-used modals; the difference between the two uses results from contextual settings. Such differences in contextual setting are explored in an attempt to provide a semantics for imperative clauses, which are intuitively similar to performatively used modals, but lack descriptive uses. To capture the parallels between imperatives and performatively used deontic modals, Kaufmann (2012) proposes that imperatives are, semantically, modalized propositions with restrictions on the modal flavor and on the contexts in

⁴ Arita (2007) focuses on distinguishing between the use of conditional/non-conditional *tewa*, and presents interesting observations on the interpretation of *tewa*-conditionals under aspect marking *tei*. Yet she does not provide an account for *tewa* on how it is constrained except for mentioning that it is evaluatively neutral and it marks ‘contrastiveness’.

which they can be felicitously uttered. More specifically, a deontic modal may be felicitously uttered in a descriptive context or a *practical* context, but an imperative is not felicitous in a descriptive context.⁵ A practical context is characterized by the existence of a salient decision problem in the form of “what should an addressee do”. The following discussion of *tewa* will make use of the characteristics of practical contexts (i.e., having a decision problem), but in a much weaker sense, since *tewa*-conditionals are not genuine, seemingly truth value-less expressives which fail to occur in descriptive contexts (see discussion below). To distinguish the cases of *tewa* from expressives, the practicality requirement for *tewa* will be henceforth called *weak practicality*.

It turns out that the conditional marker *tewa* is also sensitive to the distinction between descriptive and practical contexts. To begin with, in a practical context where the speaker is trying to dissuade the addressee from drinking more alcohol, an imperative (18a) and a *tewa*-conditional (18b) are both felicitous.

- (18) Context: *The addressee has already drunk a lot, and is trying to drink even more.*
 a. Son'nani osake-o noma-nai de!
 so.much alcohol-ACC drink-NEG IMP.COP
 ‘Don’t drink so much alcohol!’ (Imperative)
 b. Son'nani osake-o non-**dewa** karada-o kowasi-mas-u yo.
 so.much alcohol-ACC drink-TEWA body-ACC break-POL-NPST SFP
 ‘If you drink so much, it will harm your body.’ (*tewa*-conditional)

Here the prejacent of the imperative and the antecedent of the *tewa*-conditional both constitute answers to what can easily be construed as a decision problem for the addressee in the given context (“should you drink this amount of alcohol”).

When the context is descriptive, that is, when interlocutors either describe or report the laws/rules/ causal relations without reference to any personal judgments, *tewa*-conditionals are infelicitous. Consider the example related to undesirability in (19). In (19a), the context is practical in the sense that A utters a *tewa*-conditional to dissuade B from killing people. In (19b), the context is descriptive as the conditional is recorded as a legal clause.⁶

- (19) Hito-wo koroshi-**tewa** keimushoiki-des-u.
 human-ACC kill-TEWA go.to.prison-COP-NPST
 ‘If you kill someone, you’ll go to prison.’
 a. Context: A is trying to prevent B from killing someone: OK
 b. Context: A is explaining the law to B: #

Crucially, in frustrative cases, *tewa* is subject to a weaker practicality constraint: the decision problem in a weak practical context may be in the form of “what should addressee do” as in (19), or “what should addressee believe”. The latter type of decision problem arises only when there is disagreement or debate concerning some interlocutor’s belief. In principle, any assertion is about what discourse participants should believe in some relevant sense, but a decision problem in the form of “should we believe *p*” does not always arise since cooperative interlocutors assume the Maxim of Quality (“be truthful”, Grice 1975) for each other and accept each others’ assertions by default. The need to decide what one should believe arises only if an interlocutor holds doubt about

⁵ Kaufmann (2012) specifies two types of contexts where an imperative is felicitous: (i) practical contexts, and (ii) contexts in which the speaker has no control over the prejacent. The latter captures the wish-type imperatives, which she ignores for simplicity. See Kaufmann (2012) for detailed discussion.

⁶ (19) becomes acceptable as a legal clause if we replace *tewa* with *tara*.

the inferences drawn by others, possibly due to conflicting evidence presented in the discourse. We will see in the following that felicitous uses of *tewa* require the existence of such an epistemic conflict in the context.

Consider the dialogue in (20), where the interlocutors are arguing if training hard is a necessary condition for staying on A's team. In (20), *tewa* is acceptable because the context has a practical flavor, as the speakers are deciding who draws better inferences. Speaker A utters *tewa* to convey that the situations brought up by Speaker B do not constitute counterarguments to A's previous claim ('to stay on A's team, one has to train hard') because the situation is exceptional.

- (20) *Context: A coaches a successful university basketball team. Hanako, a player on the team, frequently misses training sessions. She is known to be 2 meters tall.*

A: Staying on my team is not easy, you have to train really hard.

B: Hanako-wa zenzen doryoku shi-nai-des-u kedo.

Hanako-TOP at.all work.hard do-NEG-POL-NPST but

'But Hanako doesn't work hard at all.'

A: (Maa) sinchoo-ga ni meetoru-**dewa**, soryaa (takusan toreiningu shi-naku-temo)
well height-NOM two meter-TEWA of.course a.lot training do-NEG-even
chiimu-ni noko-re-ru yo.

team-DAT stay-POT-NPST SFP

'Well if you are two meters tall, of course you can stay on the team (even if you do not train a lot).'

In a descriptive context as in (21), the speaker is simply reporting how things are stereotypically, and thus *tewa* is infelicitous.⁷ The conditional sentence from (21) becomes felicitous in a descriptive context if we substitute *tewa* with a different conditional connective such as *tara*.

- (21) Chiimu-ni noko-ru tame-ni-wa, takusan toreiningu shi-naker-eba narana-i. Demo, sinchoo-ga
team-DAT stay-NPST purpose-DAT-TOP a.lot.of training do-NEG-COND BAD-NPST but height-NOM
ni {meetoru-??**dewa**/ meetoru-dat-**tara**}, (takusan toreiningu shi-naku-temo) chiimu-ni noko-re-ru.
two meter-TEWA meter-COP-TARA a.lot training do-NEG-even.if team-DAT stay-POT-NPST
'To stay on the team, you have to train very hard. But if you are two meters tall, you can stay on the team
(even if you do not train a lot).'

While *tewa*-conditionals share commonalities with expressives in that both fail to occur in descriptive contexts and cannot be easily embedded, *tewa*-conditionals are not genuine expressives. argues that expressives such as exclamatives are performatives whose meanings are captured by conventional implicatures.⁸ However, *tewa*-conditionals have truth values as shown in (22) while expressives do not (or at least not intuitively).

- (22) Son'nani osake-o non-**dewa** karada-o kowasi-mas-u yo
that.much alcohol-ACC drink-TEWA body-ACC break-POL-NPST SFP
'If you drink that much, it will harm your body.'

⁷ It is worth noting that by Veltman (1996)'s default theory, the frustrative inference (or speaker affect) is not predicted to be necessarily conveyed by a conditional default rule. Stating two default rules side by side as in (15) should not incur any unnaturalness.

⁸ See similar stances from Lauer (2013), and Grosz (2012) for treating *if*-optatives as expressives. See also discussion in Kaufmann and Tamura (2017) on Japanese modals and Portner (2009).

OK Soo-desu ne! /OK Son'na-koto-nai yo.
 right-COP SFP such-thing-NEG SFP
 'That's true (I agree)! /That's not true (lit: there is no such thing).'

Nevertheless, the frustrative or desiderative inferences conveyed by *tewa* are conventionalized and cannot be canceled. Moreover, the inferences associated with *tewa* are not-at-issue as the corresponding attitudinal propositions cannot be directly challenged, as shown in (23) for a desiderative case, and (24) for a frustrative case.

- (23) Taro-ga ki-**tewa** Hanako-mo ku-ru yo.
 Taro-NOM come-TEWA Hanako-also come-NPST SFP
 'If Taro comes, Hanako will also come.'
- #Son'na-koto-nai yo. Anata-wa Hanako-ni ki-te hoshi-i.
 such-thing-NEG SFP 2SG-TOP Hanako-DAT come-GER want-NPST
 'That's not true. You want Hanako to come.'
- (23) Ken-no yoona yatsu-ga aite-**dewa** (soryaa) Hanako-ga kat-e-ru.
 Ken-POSS just.like person-NOM opponent-TEWA of.course Hanako-NOM win-POT-NPST
 'If someone like Ken is the opponent, (of course) Hanako can win.'
- #Son'na-koto-nai yo. Anata-wa Hanako-ga kat-e-ru koto-ni kitai-shi-tei-ru.
 such-thing-NEG SFP 2SG-TOP Hanako-NOM win-POT-NPST thing-DAT expect-do-ASP-NPST
 'That's not true. You expect that Hanako can win.'

To sum up, this section has demonstrated that undesirability alone is not sufficient for a *tewa*-conditional to be felicitous, contrary to Akatsuka (1997). *tewa*-conditionals cannot occur in neutral contexts where speakers' judgments or evaluations are not relevant. The relevance of speaker evaluations is determined by salient decision problems in the context. *tewa*-unfriendly 'non-judgmental' contexts are connected to the descriptive contexts from the literature of expressives, yet *tewa*-conditionals are not genuine expressives, they are intuitively truth-evaluable.⁹ The evaluativity associated with *tewa* should be treated as part of the not-at-issue meaning of *tewa*-marked conditionals and characterized in terms of pragmatic presuppositions. (24) summarizes our generalizations about the conventional meaning of *tewa*.

- (24) a. Status of consequent: *p-tewa q* conveys one of the following two options: (Final)
 i. Frustrative use: *q* describes an unexpected course of events;
 ii. Desiderative use: *q* describes an undesirable course of events.
 b. Practicality: the context is weakly practical (i.e., *tewa* presupposes a decision problem).

3 Accounting for *tewa*-conditionals

3.1 Relating the Two Uses

Crosslinguistically, there is strong tendency that modal expressions may convey a deontic or an epistemic flavor, such as English *must* (but see Matthewson 2016 on Salish and Gitksan modals). In standard Kratzerian modal theory (Kratzer 2012), all modal expressions share a core modal semantics, that is, modals express quantification over possible worlds. The specific modal flavor

⁹ It is assumed throughout this paper that conditionals express propositions. See Edgington (2003), Stalnaker (2014), and Kaufmann (2024) for discussion on this issue.

as epistemic or deontic is determined by context.¹⁰ More recently, Chung and Mascarenhas (2023) propose to unify the epistemic and deontic flavors of *must* in terms of expected values. According to Chung and Mascarenhas (2023), a sentence ‘*must* ϕ ’ is true just in case assuming ϕ leads to the only good-enough expected value among all alternatives to ϕ . For deontics, the expected value is just the expected utility of ϕ . For epistemics, the expected value is what they dub *explanatory value*, which reflects how well the prejacent ϕ explains the available evidence. The alternatives to ϕ are determined by the type of QUD: in deontics, the QUD is construed as a set of action choices; in epistemics, the QUD is a set of plausible explanations for the available evidence. In this way, *must* ϕ is true iff the expected utility or the explanatory value of ϕ is greater than a certain threshold θ but no alternative to ϕ is such that its expected value is greater than θ . Chung and Mascarenhas (2023) show that Korean conditional evaluative constructions exemplify the unification of expected utilities and confirmation measures transparently. In (25), the conditional evaluative construction, which is ambiguous between an epistemic (i.e., the best explanation) or a deontic (i.e., a preference) interpretation, contains the evaluative predicate *toy* ‘good’ in the consequent.

- (25) John-un cip-ey iss-Ø-eyā toy-n-ta.
 John-TOP home-DAT COP-PRES-only.if good-PRES-DECL
 Lit: ‘Only if John is home, it suffices.’
 ‘John must be home.’

(Chung and Mascarenhas 2023: 11)

3.2 Negative Evaluation

Turning to *tewa*, recall that the consequent of a *tewa*-conditional (*p-tewa q*) is the negation of a proposition that describes a contextually salient goal, desire, or stereotypical course of event. In other words, the consequent goes against the relevant ‘ideals’ assumed in the context. It is therefore tempting to unify the meaning of *tewa*, in a reversal of Chung and Mascarenhas (2023)’s proposal for *must*, by suggesting that assuming an antecedent proposition *p* leads to an outcome that contradicts certain ideals. However, analyzing *tewa* requires more careful consideration, especially when we take into account the practicality requirement. For Chung and Mascarenhas (2023), the opposite meaning of *must p* is predicted to be either that prejacent *p* is not a good enough explanation for the salient body of evidence (or *p* is extremely unlikely given the available evidence), or that *p* is not a good action to take. Such a proposal holds only on *tewa*’s desiderative use, but not on its frustrative use, as we have seen that the frustrative *tewa* is not used to convey that the antecedent proposition *p* is unlikely. Instead, a *tewa*-conditional is concerned with the conditional likelihood of the consequent given *p*. In other words, it addresses the decision problem “given *p*, what should addressee believe/should addressee still believe $\neg q$?”

The core idea of our proposal is the following: *tewa* conveys *negative evaluation* toward either an action (e.g., inviting Taro) or a prior belief or expectation (e.g., that Hanako would not catch any fish). Just as there is a distinction between good and bad actions to perform, there are also “good” and “bad” beliefs based on the evidence one possesses. In desiderative cases, *tewa* expresses a negative inference that the action described by a *tewa*-antecedent has undesirable consequences, or does not suffice the goals (i.e., not a good action). In frustrative cases, *tewa* expresses that a

¹⁰ Specifically, modals are sensitive to contextually given parameters, a modal base and an ordering source, both of which are functions from worlds to sets of propositions (*conversational backgrounds*, Kratzer 1977, 1991, 2012 a.o.).

prior belief (the negation of the consequent) no longer holds given the antecedent situation (i.e., not a good conclusion given the available evidence). Drawing on insights from Kratzerian conversational backgrounds, the two uses of *tewa* can be unified in terms of different types of contextual ordering sources.¹¹ In desiderative uses of *tewa*, the ordering source may be deontic, bouletic, or teleological, depending on the contextually salient rules, desires, or goals involved. In frustrative uses, the ordering source is stereotypical. Given the (weak) practicality requirement, we follow *'s* framework, which allows us to compare the relative goodness of the cells in a decision problem. It is further assumed that the contextually given QUD Q_c is a partition with mutually exclusive propositions. In this framework, the ordering of worlds from standard Kratzerian modal semantics is *coarsened* so that all worlds in the same cell of the QUD are tied for relative goodness or badness. Given that *tewa*-antecedents are concerned with courses of events deemed possible by the speaker, it is assumed that the modal base $\cap f_c(w)$ is constituted by the speaker's beliefs.¹² The notation $[k]_{c,w}$ refers to the set of worlds which belong to the same cell as some given world k :

$$(26) \quad [k]_{c,w} := \text{the unique } p \in Q_c \text{ such that } k \in p, \text{ defined if } k \in \cap f_c(w).$$

The notation $\mathcal{G}_{c,w}(k)$ is used to refer to the set of ordering source propositions in which the truth of the propositions is guaranteed by the cell which k belongs to ($[k]_{c,w}$). This is different from the Kratzerian ordering source: it is sufficient for a proposition p from the Kratzerian ordering source to affect k 's relative goodness when it is true at k , but not necessarily for this framework. The ordering of the worlds from other cells where the truth of p is not guaranteed is not affected even if p is true at them. The function $\mathcal{G}_{c,w}$ from worlds to sets of propositions is defined as in (27).

$$(27) \quad \mathcal{G}_{c,w}(k) = \{p \in \mathcal{G}_c(w) \mid [k]_{c,w} \subseteq p\}$$

The coarsened preference ranking $\leq_{c,w}$ compares the relative goodness of worlds only according to the ordering source propositions hold in their cells, as in (28).

$$(28) \quad \begin{array}{l} \text{Coarsened preference ranking} \\ \text{For any context } c \text{ and world } w, \text{ the coarsened preference ranking } \leq_{c,w} \text{ is a preorder on the set of worlds } W: \\ \text{a. } j \leq_{c,w} k \text{ iff } \mathcal{G}_{c,w}(k) \subseteq \mathcal{G}_{c,w}(j) \\ \text{b. } j <_{c,w} k \text{ iff } j \leq_{c,w} k \wedge k \not\leq_{c,w} j \end{array}$$

¹¹ The current analysis can be couched in a probability-based model as Chung and Mascarenhas (2023) have done for *must*. For desiderative cases, *p-tewa q* expresses that the expected utility of p is below certain threshold θ . For frustrative cases, *p-tewa q* expresses that the conditional expected value of $\neg q$ (i.e., the normal cases) given p is below certain threshold η . For consistency in formalization throughout this paper, we follow the standard Kratzerian semantics of modals. But it is easy to demonstrate that the current analysis can be implemented following Chung and Mascarenhas (2023), and it might be formally more elegant since we only need a unified notion of conditional expectations for both cases.

¹² The modal base is assumed to be epistemic rather than historical, even though *tewa*-conditionals seem to have restrictions on the (un)settledness of the antecedent and/or consequent. The current analysis abstracts away from the temporal properties of *tewa*-conditionals, as the focus of this paper is to determine the contexts in which *tewa* is felicitous, rather than to examine when *tewa* receives a conditional interpretation. For detailed discussions of the temporal dimension, see Arita (2007) and Kaufmann and Whitman (2022).

The set of optimal (or best-ranked) worlds given context c and world w $Best(c, w)$ is defined in (29).

$$(29) \quad Best(c, w) := \{u \in \cap f_c(w) \mid \neg \exists v \in \cap f_c(w) [v <_{c,w} u]\}$$

The negative evaluation is formulated in terms of a pragmatic presupposition as in (30): a *tewa*-conditional (p -*tewa* q) conveys that for all the choice(s) given by the decision problem Q_c at w which guarantees the realization of contextually salient ideals (rules, desires, goals), q is not true at w .¹³

(30) **Pragmatic presuppositions for *tewa***

Interpreted relative to a context c and a world w , a *tewa*-conditional (p -*tewa*, q) can be felicitously uttered iff:

- a. the context is weakly practical (i.e. *tewa* presupposes an action or belief-related decision problem Q_c),
- b. $\forall w' \in Best(c, w): \neg q(w')$. (negative evaluation)

4 Conclusion

Using Japanese *tewa*-conditionals as a lens, this paper has contributed to our understanding of conventionalized evaluative and frustrative inferences encoded in conditional expressions. In contrast to the characterization from the previous literature that *tewa* always conveys undesirability, novel generalizations have established that *tewa* may convey a frustrative inference, and the undesirability criterion is not sufficient for *tewa* to occur. Instead, *tewa* must satisfy the weak practicality requirement. This paper has provided a formal analysis that characterizes the (weak) practicality requirement in terms of contextually salient decision problems, and unifies the two uses of *tewa* with Kratzerian conversational backgrounds and additional ordering source restrictions for each use. It remains to be seen to what extent the current analysis can be applied to evaluative conditional expressions in other languages (e.g., Korean (Akatsuka and Sohn 1994; Yoon 1996), and Spanish (Schwenter 2001)). This study represents a first attempt to approach evaluativity and frustrativity in conditionals from a formal semantic-pragmatic perspective, in the hopes of establishing a framework for further such work in Japanese and beyond.

References

- Ahn, K.-D. 2017. Constructions of Viewpoint Aspect and Grammaticalization of Negative Conditionals in Korean. *Concentric: Studies in Linguistics*, 43(2), 63–86. <https://doi.org/10.6241/concentric.ling.43.2.03>
- Akatsuka, N. 1997. Negative Conditionality, Subjectification, and Conditional Reasoning. *On conditionals*, 323–355. <https://doi.org/10.1075/cilt.143.19aka>
- Akatsuka, N., & Sohn, S.-O. 1994. Negative Conditionality: The Case of Japanese-*tewa* and Korean-*taka*. *Japanese/Korean Linguistics*, 4, 203–220.

¹³ See also AnderBois and Dąbkowski (2020) for a similar treatment of apprehensives as having a negative evaluative modal component. The current proposal builds on insights from AnderBois and Dąbkowski (2020)'s account, but diverges in its implementation of the practicality requirement, and in its treatment of an additional frustrative meaning, which is not associated with apprehensives.

- AnderBois, S., & Dąbkowski, M. 2020. A'ingae= sa'ne'appr'and the Semantic Typology of Apprehensional Adjuncts. *Semantics and linguistic theory*, 43–62. <https://doi.org/10.3765/salt.v30i0.4804>
- Arita, S. 2007. *Nihongo Jookenbun to Jiseisetsusei*[*Japanese Conditionals and Tensedness*]. Tokyo:Kuro-sio Publishers.
- Asarina, A., & Shklovsky, K. 2008. Optativity in English and Other Languages. *Handout for MIT Ling-Lunch*.
- Beaver, D., & Condoravdi, C. 2003. A Uniform Analysis of 'Before' and 'After'. *Semantics and Linguistic Theory* 13, 37–54. <https://doi.org/10.3765/salt.v13i0.2899>
- Biezma, M. 2011. Optatives: Deriving Desirability from Scalar Alternatives. *Proceedings of Sinn und Bedeutung*, 15, 117–132.
- Büring, D. 2003. On d-trees, Beans, and b-accents. *Linguistics and Philosophy*, 26(5), 511–545. <https://doi.org/10.1023/A:1025887707652>
- Cariani, F., Kaufmann, M., & Kaufmann, S. 2013. Deliberative Modality under Epistemic Uncertainty. *Linguistics and Philosophy*, 36, 225–259. <https://doi.org/10.1007/s10988-013-9134-4>
- Chung, W., & Mascarenhas, S. 2023. Modality, Expected Utility, and Hypothesis Testing. *Synthese*, 202(1), 11. <https://doi.org/10.1007/s11229-023-04191-6>
- Condoravdi, C. 2010. NPI Licensing in Temporal Clauses. *Natural Language & Linguistic Theory*, 28(4), 877–910. <https://doi.org/10.1007/s11049-010-9115-z>
- Constant, N. 2014. *Contrastive Topic: Meanings and Realizations*. Doctoral dissertation, University of Massachusetts Amherst.
- Copley, B., & Harley, H. 2014. Eliminating Causative Entailments with the Force-Theoretic Framework: The case of the Tohono o'odham Frustrative *cem*. *Causation in grammatical structures*, 120–151.
- Davis, H., & Matthewson, L. 2022. St'át'imcets Frustratives as Not-at-issue Modals. *Linguistics*, 60(5), 1337–1397. <https://doi.org/10.1515/ling-2020-0211>
- Ebert, C., Ebert, C., & Hinterwimmer, S. 2014. A Unified Analysis of Conditionals as Topics. *Linguistics and Philosophy*, 37, 353–408. <https://doi.org/10.1007/s10988-014-9158-4>
- Edgington, D. 2003. What if? Questions about Conditionals. *Mind & Language*, 18(4), 380–401. <https://doi.org/10.1111/1468-0017.00233>
- Funk, W.-P. 1985. On a Semantic Typology of Conditional Sentences. *Folia Linguistica*, 19, 365–414. <https://doi.org/10.1515/flin.1985.19.3-4.365>
- Gärdenfors, P. 1988. *Knowledge in Flux: Modeling the Dynamics of Epistemic States*. The MIT press.
- Grice, H. P. 1975. Logic and Conversation. In P. cole and j. morgan (eds.), *syntax and semantics* (pp. 41–58, Vol. 3). New York: Academic Press. https://doi.org/10.1163/9789004368811_003
- Grosz, P. 2012. *On the Grammar of Optative Constructions*. John Benjamins Publishing Company.
- Grosz, P., Kaiser, E., & Pierini, F. 2021. Discourse Anaphoricity and First-person Indexicality in Emoji Resolution. *Proceedings of Sinn und Bedeutung*, 25, 340–357.
- Haiman, J. 1978. Conditionals are Topics. *Language*, 54(3), 564–589.
- Hasunuma, A. 1987. Joukenbun ni Okeru Nichijouteki Suiron–tewa to ba no Sentaku Youin o Megutte. [Invited Inferences in Japanese Conditionals –The Choice of Conditional Connectives *tewa* and *ba*]. *Studies in the Japanese language*, (150), 1–14.
- Hoji, H., Kinsui, S., Takubo, Y., & Ueyama, A. 2003. The Demonstratives in Modern Japanese. *Functionalstructure (s), form and interpretation: Perspectives from East Asian languages*, 97–128.
- Hsieh, I.-T. C. 2012. *Polarity in Conditionals and Conditional-like Constructions*. Doctoral dissertation, University of Connecticut.

- Iatridou, S. 1991. *Topics in Conditionals*. Doctoral dissertation, Massachusetts Institute of Technology.
- Isaacs, J., & Rawlins, K. 2008. Conditional Questions. *Journal of Semantics*, 25(3), 269–319. <https://doi.org/10.1093/jos/ffn003>
- Kamp, H. 1973. Free Choice Permission. In *Proceedings of the aristotelian society* 74 (pp. 57–74).
- Kaufmann, M. 2012. *Interpreting Imperatives*. Springer Dordrecht.
- Kaufmann, M. 2024. What Conditional Conjunctions Can Teach Us about Conditionals. Manuscript.
- Kaufmann, M., & Kaufmann, S. 2012. Epistemic Particles and Performativity. *Semantics and Linguistic Theory* 22, 208–225. <https://doi.org/10.3765/salt.v22i0.2635>
- Kaufmann, M., & Tamura, S. 2017. Japanese Modality-Possibility and Necessity: Prioritizing, Epistemic, and Dynamic. *The Handbook of Japanese Semantics and Pragmatics*, 1–33.
- Kaufmann, M., & Whitman, J. 2022. Conditional Conjunctions Informed by Japanese and Korean. *Linguistics Vanguard*, 8(s4), 479–490. <https://doi.org/10.1515/lingvan-2021-0045>
- Kratzer, A. 1977. What ‘Must’ and ‘Can’ Must and Can Mean. *Linguistics and philosophy*, 1(3), 337–355. <https://doi.org/10.1007/BF00353453>
- Kratzer, A. 1991. Modality. In D. Wunderlich & A. von Stechow (Eds.), *Semantik: Ein international handbuch zeitgenössischer forschung* (pp. 639–650). Berlin: Walter de Gruyter.
- Kratzer, A. 2012. *Modals and Conditionals: New and Revised Perspectives*. Oxford University Press.
- Kroeger, P. 2017. Frustration, Culmination, and Inertia in Kimaragang Grammar. *Glossa: a journal of general linguistics*, 2(1). <https://doi.org/10.5334/gjgl.146>
- Kroeger, P. 2024. Frustratives in St’át’imcets vs. Kimaragang: Parameters of Variation. *Glossa: a journal of general linguistics*, 9(1). <https://doi.org/10.16995/glossa.10162>
- Kuno, S. 1973. The Structure of the Japanese Language. *Foundations of Language*, 13(3).
- Lauer, S. 2013. *Towards a Dynamic Pragmatics*. Doctoral dissertation, Stanford University.
- Lee, C.-B. 1996. *Conditionals as a Discourse-Bound Entity: Pragmatics of Korean Conditionals*. Doctoral dissertation, University of Pennsylvania.
- Matthewson, L. 2016. Modality. In M. Aloni & P. Dekker (Eds.), *Cambridge handbook of formal semantics* (pp. 726–775). Cambridge University Press.
- Nadathur, P., & Everdell, M. 2025. Reanalyzing Frustration: Event Maximality and Inertia in Two O’dam Frustratives. Manuscript.
- Ogihara, T. 1995. Non-Factual ‘Before’ and Adverbs of Quantification. *Semantics and Linguistic Theory*, 273–291. <https://doi.org/10.3765/salt.v5i0.2698>
- Oshima, D. Y., & McCready, E. 2017. Anaphoric Demonstratives and Mutual Knowledge: The Cases of Japanese and English. *Natural Language & Linguistic Theory*, 35(3), 801–837. <https://doi.org/10.1007/s11049-016-9356-6>
- Overall, S. 2017. A Typology of Frustrative Marking in Amazonian Languages. *The Cambridge handbook of linguistic typology*, 477–512.
- Pelletier, F. J., & Asher, N. 1997. Generics and Defaults. In *Handbook of logic and language* (pp. 1125–1177). Elsevier.
- Portner, P. 2007. Imperatives and Modals. *Natural Language Semantics*, 15(4), 351–383. <https://doi.org/10.1007/s11050-007-9022-y>
- Portner, P. 2009. *Modality*. Oxford University Press.
- Potts, C. 2005. *The Logic of Conventional Implicatures*. Oxford University Press.

- Roberts, C. 1996. Information Structure in Discourse: Toward a unified theory of formal pragmatics. *Ohio State University Working Papers in Linguistics*, 49, 91–136.
- Roberts, C. 2012. Information Structure: Towards an Integrated Formal Theory of Pragmatics. *Semantics and pragmatics*, 5, 6–1. <https://doi.org/10.3765/sp.5.6>
- Schwenter, S. 2001. Expectations and (In)sufficiency: Spanish *como* Conditionals. *Linguistics*, 39(4), 733–760. <https://doi.org/doi:10.1515/ling.2001.030>
- Shioiri, S. 1997. *tewa* Jookkenbun no Seiyaku ni Tsuite [On the Constraints of *tewa*]. *Handai Nihongo Kenkyu*, 5, 61–81.
- Stalnaker, R. 2014. *Context*. Oxford: Oxford University Press.
- Tahar, C. 2021. Apprehensive and Frustrative Uses of *before*. *Semantics and Linguistic Theory* 31, 606–628. <https://doi.org/10.3765/salt.v31i0.5073>
- Takubo, Y. 2020. Conditionals in Japanese. *Handbook of Japanese semantics and pragmatics*, 451–493.
- Takubo, Y., & Kinsui, S. 1997. Discourse Management in Terms of Mental Domains. *Journal of Pragmatics*, 28, 741–758. [https://doi.org/10.1016/S0378-2166\(97\)00073-8](https://doi.org/10.1016/S0378-2166(97)00073-8)
- Theiler, N. 2021. Denn as a Highlighting-Sensitive Particle. *Linguistics and Philosophy*, 44(2), 323–362. <https://doi.org/10.1007/s10988-019-09290-7>
- Tsubomoto, A. 1993. Jookken to Toki no Renzokusei: Toki Keiretsu to Haikeika no Shosoo [The Continuity of Condition and Time: The Various Aspects of the Temporal Type and Backgrounding]. In *Nihongo no jookken hyoogen [Conditional expressions in Japanese]* (pp. 99–130). Tokyo: Kurosio.
- Veltman, F. 1996. Defaults in Update Semantics. *Journal of philosophical logic*, 25, 221–261. <https://doi.org/10.1007/BF00248150>
- Yang, M. 2023. *Varieties of Conditionals as Definite Descriptions*. Doctoral dissertation, University of Connecticut.
- Yoon, J.-H. 1996. *Temporal Adverbials and Aktionsarten in Korean*. Doctoral dissertation, The Ohio State University.