

Constructional Status of *Mizen* and *Izen* Conditionals in Late Middle Japanese

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1 Introduction

In this paper, I will examine two types of conditionals in Late Middle Japanese (henceforth, LMJ) and see how they are distinct from each other in the network of conditionals from the cognitive and functional perspectives (cf. Goldberg, 1995, 2006). The conditionals have been distinguished based on the conjugation of the predicate in the protasis:

- (1) a. Hana saka-ba mi-n.
flower bloom.IRR-BA see-VOL
'If Cherry blossom blooms, I will go see them'
- b. Sake-o nome-ba you.
liquor-ACC drink.REAL-BA get drunk
'Whenever a person drinks alcohol, he gets drunk.'

(Matsushita, 1928, 545)

In (1a), a hypothetical conditional meaning is expressed as we can see with 'if' in the English equivalent. On the other hand, (1b) is an example of generic

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conditional as ‘whenever’ in the translation. Different conjugational patterns of the subordinate predicate are used in each case, namely irrealis (*mizen*) form in the former case and realis (*izen*) form for the latter. We see the correspondence of *mizen* form with hypothetical conditional meaning on the one hand and that of *izen* form with generic conditional meaning on the other hand. We call each set MCC (MIZEN CONDITIONAL CONSTRUCTION) and ICC (IZEN CONDITIONAL CONSTRUCTION). Previous studies have mainly focused on the correspondence of conjugational form of the subordinate predicate with its meaning mentioned above and it is not well explored into what other properties were at work to distinguish them as distinct constructions. In this study, I will show that mood and modality expressed in the apodosis of a conditional, the stativity of state of affairs in the protasis, and animacy of the subject of the protasis played roles to distinguish them in LMJ based on conditional inference tree (cf. Tagliamonte and Baayen, 2012) and random forest (cf. Breiman, 2001) analysis.

2 Data and Methodology

The attested examples of MCC and ICC in Muromachi period (16-17th century) were retrieved from Christian Materials (Kirishitan Shiryo) in the Historical Corpus of Japanese (National Institute for Japanese Language and Linguistics, 2018) and noises were removed manually¹. As a result, 202 cases of MCC and ICC (142 and 60 cases respectively) were obtained.

The data were annotated according to six parameters: mood and modality of the predicate in apodosis (MOOD/MODALITY); stativity of the event/situation expressed in the apodosis (SUB_PRED_STAT); animacy of the subject in protasis (SUB_ANIM); part of speech of the main predicate (MAIN_POS); auxiliary adjacent to the subordinate predicate (SUB_L1_AUX); part of speech of the subordinate predicate (SUB_POS). The annotated data were then submitted to conditional inference and random forest analysis².

3 Results

The result of conditional inference³ shows that three of the six parameters are significant predictors for the speaker’s choice of MCC and ICC: mood and modality, animacy of the subordinate subject, and stativity of the subordinate predicate. The figure is the output of conditional inference and shows the significant predictors in the order of their importance in the choice from the top.

¹I consulted the translation (Eguchi, 2009) for cases from *Feiqe no Monogatari* (*Amakusaban Heike Monogatari*).

²Statistical software R and its packages, ‘ctree’ and ‘randomForest’, were used for the analysis.

³ $C=0.91$, $D_{xy}=0.83$

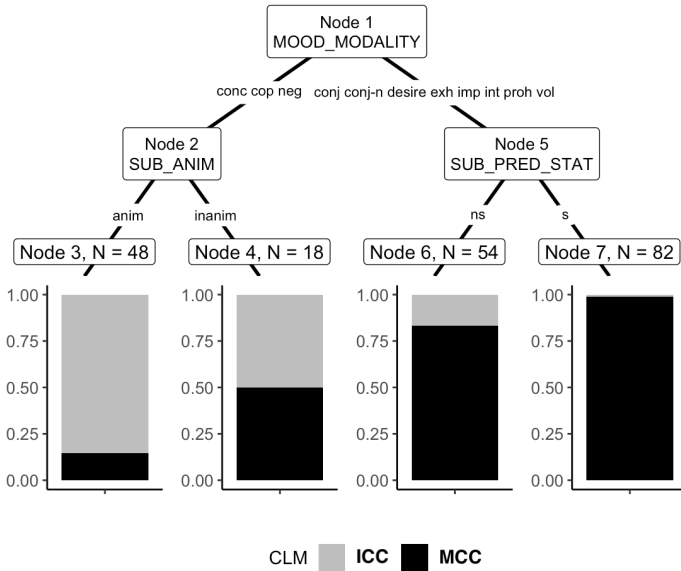


FIGURE 1 Conditional inference tree of MCC and ICC

It shows that the types of mood/modality⁴ (Node 1) is the most significant in the choice of ICC and MCC. As we can see from the graph in the bottom, the mood/modality types (i.e. conclusive form, copula, negation) in the right branch prefers ICC and the left branch ((negative) conjecture mood, desire, exhortatives, imperatives, interrogatives, and volitives) MCC. Animacy (Node 2) and stativity of the subordinate predicate (Node 5) below Node 1 signifies that each predictor is the second important predictors of the choice following each splitting of mood/modality types. The left branch divides animate (Node 3) and inanimate (Node 4) subordinate subjects. It illustrates that those conditional sentences with either one of mood/modality types with an animate subordinate subject are often expressed with ICC and those with an inanimate subject with MCC.

In the same way, the splitting of non-stative (Node 6) and stative (Node 7) event or state of affairs expressed in the subordinate clause in the right branch illustrates that the former environment with the mood/modality types above prefers ICC and the latter MCC significantly.

The FIGURE 2 displays the importance of each predictor obtained from ran-

⁴Abbreviations are as follows: **ns**: non-stative, **s**: stative; **concl**: conclusive form, **cop**: copula, **neg**: negation, **conj**: conjecture, **conj-n**: negative conjecture, **exh**: exhortatives, **imp**: imperatives, **int**: interrogatives, **proh**: prohibitives, and **vol**: volitive.

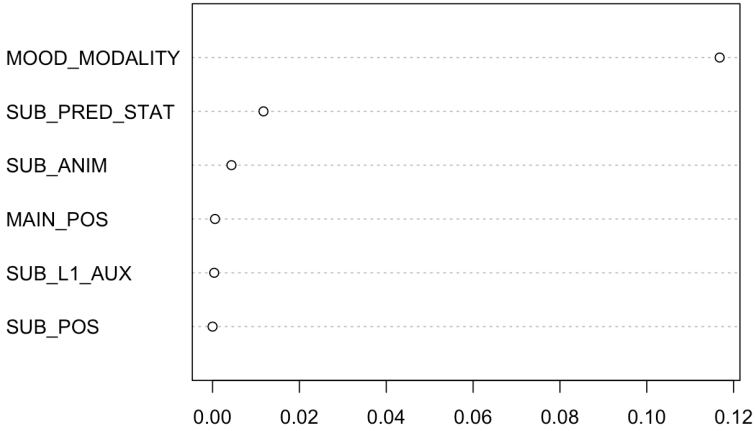


FIGURE 2 Variable importance of predictors from random forest

dom forest analysis. This illustrates how important each factor is for the choice of MCC and ICC including those which were discarded from the conditional inference. Its result accords with the result of conditional inference tree with respect to significant predictors; the mood is by far the most significant predictor followed by the stativity of the subordinate event and animacy of the subordinate subject. The last two predictors have less predictive power compared to the mood/modality types for the choice of ICC and MCC. In the next section, we will examine specific properties of each construction with these predictors.

4 Discussion

We have seen that mood/modality, animacy of the subject in the protasis, and stativity of the event in the protasis have the effect on the choice of ICC and MCC. In this section, we will examine each construction in each node. Due to the limitations of space, we will discuss the cases with mood/modality types with more than ten cases in either ICC or MCC (i.e. CONC, CONJ, COP, IMP, INT, VOL).

	CONC	CONJ	CONJ-N	COP	DESIRE	EXH	IMP	INT	NEG	PROH	VOL
ICC	28	6	1	14	0	0	0	3	8	0	0
MCC	6	27	2	6	1	4	44	14	4	1	33

TABLE 1 Token frequency of mood/modality types with ICC and MCC

4.1 Node 3

In the former section, it was shown that the speakers are likely to choose ICC more often than MCC significantly when the predicate in the apodosis is in conclusive form or with a copula and that animacy of the subject in the protasis is relevant with the choice of a construction with those mood and modality types; the speakers tend to choose ICC with an animate subordinate subject and MCC with an inanimate one. This distinction with respect to the animacy derives from their functions as a conditional: ICC is likely to express the causal relationship between two general events. On the other hand, MCC is likely to express the causality between two specific events referring to the usage-event in which an interaction is occurring between the speaker and the hearer.

The meaning and function of those conditionals with an animate subordinate subject and a main predicate in conclusive form or with a copula depends on whether the sentence is expressed with ICC (n=22) or MCC (n=4). When a speaker chooses ICC in the context, it often expresses a generic conditional meaning as we saw in (1b):

- (2) Sukoshi-no aku-o korasa-ne-ba ookina aku-ga
 small-GEN evil-ACC punish-NEG.REAL-BA large evil-NOM
 yo-ni habikoru.
 world-DAT spread.CONC

‘Whenever people do not punish small evil acts, more evil acts spread all over the world.’

(Feiqe no Monogatari)

(2) expresses a causality between neglecting the punishment of trivial evil and accumulation and spreading of the evil acts in and all over the world. This example describes a general causal relationship in which no specific spatiotemporal setting and referent is specified.

When the speaker chooses MCC in this environment, it typically expresses a hypothetical conditional meaning which involves a specific spatiotemporal setting:

- (3) Sukoshi-no ohima-o kudasa-re-ba soubun-mousa-uzuru
 a little-GEN time-ACC give-HON.IRR-BA say-HON-CONJ
 koto-ga gozaru.
 NMZ-NOM exist.CONC

‘If you give me a little time, I will have something to tell you about.’

(Feiqe no Monogatari)

(3) is uttered in a situation where the speaker is talking with a king negotiating for time for an agenda. Its protasis expresses a specific event where the speaker is permitted time to complete the assigned task and the apodosis shows the prediction of providing a report as the result of the hypothesized event in the protasis. As we have seen, ICC and MCC are distinct in that the former expresses a generic conditional meaning and the latter a hypothetical one. When the main predicate is in conclusive form and an animate subject in the protasis, the speaker typically chooses ICC to express a generic causal relationship whereas they tend to choose MCC for the expression of a conditional relationship in specific spatiotemporal setting. However, it is not always the case an easy task to determine whether a conditional refers to specific or generic events. The following example is an instance of such ambiguous cases:

- (4) Sashiage-ba tori-mo ue-ni agari sage-ba tori-mo
 hold up.IRR-BA bird-also up rise hold down.IRR-BA bird-also
 mata sagaru
 also go down.CONC

'If they hold up their hands, the birds will also go up, and if they hold down their arms the birds will go down.'

(4) is a case of MCC in form but it is undeterminable whether it is a case of generic or that of specific conditional relationship. A procedure of how to make a certain birds fly is explained in this sentence and the speaker appears to have a certain specific time, location and participants in mind. In this sense, it is a case of specific conditional relationship. However, the relationship between the movement of hands and birds is also interpretable as a description of a habit of a certain type of a bird. In this sense, we can regard it as a conditional with a generic causal meaning. Ohori (1998) explains that (4) expresses the speaker's high confidence in the universality of the causal relation described in the sentence and it functioned to close the gap between MCC and ICC. This kind of intermediate example suggests that this is a case of semantic extension of MCC.

When a copula occurs with the main predicate in ICC (n=11) and MCC (n=1), we do not observe a striking semantic difference from (2) and (3) respectively:

- (5) a. Sukoshi-no ayamari-o fusega-ne-ba ookina
 small-GEN mistake-ACC avoid-NEG.REAL-BA large
 toga-o suru mono-zya.
 mistake-ACC do thing-COP
 ‘When a person does not try to avoid making a small mistake,
 they will make a big mistake after all.’

(Esopo no Fabulas)

- b. Iu-majii koto-o iwa-ba youyou shiryō
 say-should not thing-ACC say.IRR-BA gradually thought
 shouzuru koto-zya.
 occur thing-COP
 ‘When a person say something to others that you shouldn’t say,
 they will have some idea against it.’

(Feiqe no Monogatari)

Each example expresses a generic conditional meaning and does not specify any referent or event. We can attribute it to the complex form, ‘mono-zya’ and ‘koto-zya’ in each example. Tamaji (2007) explains that ‘mono-da’⁵ is a polysemous form with epistemic (‘naturalness’) and deontic modal meanings (‘imperative’). The epistemic use of the marker provides a quite similar meaning with the generic causal semantics expressed with those conditionals without a copula (i.e. a conclusive form in this study), and we can infer that ‘mono-zya’ and ‘koto-zya’ has the identical function with ‘monoda’ in modern Japanese. Thus, we can posit that the fundamental distinction between those with and without copula is that the former expresses the speaker’s commitment to the causality explicitly and the latter necessarily so. They are all categorized into content conditionals (Sweetser 1990, 113-116) in which a causal relationship between the events in the protasis and apodosis is expressed.

From the discussion so far, we can summarize that the prototypical construction in Node 3 is ICC with a predicate in conclusive form in apodosis with the function to express a generic causal relationship between the events in the protasis and apodosis. Some cases of MCC in Node 3 are peripheral members in that they express a specific hypothetical meaning. The cases with a copula in the apodosis also express a generic causal meaning, but they are distinct from those with the predicate in conclusive form in the apodosis in that they express the speaker’s commitment to the causality explicitly.

⁵Copula marker, ‘zya’, developed into ‘da’ diachronically.

4.2 Node 4

When an inanimate subject is in the protasis and a predicate in conclusive form (ICC: n=6; MCC: n=2) or with a copula (ICC: n=3; MCC: n=5) in the apodosis, the speakers are likely to choose MCC more often than in the case where an animate subject is in the protasis.

- (6) a. Ma warushikere-ba teki-ni ushiro-o misuru.
 situation bad.REAL-BA enemy-DAT back-ACC show
 ‘When situation is not good, people will show their back to the enemy (in battle).’
- b. Kayou-ni nare-ba kokoro-wa kawaru narai-zya.
 this-DAT become.REAL-BA mind-TOP change way-COP
 ‘When the situation is like this, people will change their mind.’
 (Feiqe no Monogatari)
- c. Kono asa-ga seichoushi-te wana-to nari ami-to
 this hemp-NOM grow-and trap-DAT become net-DAT
 nara-ba warera-ga hateguchi-zya.
 become.IRR-BA 1PL-GEN sign of death-COP
 ‘If this hemp grows and is made into traps and net, we will die.’

(Aesop’s Fables)

In this environment, ICC typically expresses generic conditional meaning as we saw in Node 3. (6a) and (6b) are distinct from the cases in Node 3 in that the protasis expresses the occurrence or change of a situation (i.e. inanimate) whereas that in Node 3 expresses an action or change of an animate referent. A copula in the protasis functions as a cue of the expression of the speaker’s subjectivity as we already saw above. The same scenario applies to the case of MCC as well and (6c), a case of MCC, expresses the speaker’s (a bird) conviction about the causality between specific events in the protasis and apodosis explicitly. We found no case of MCC corresponding with (6a) with a conclusive form in the apodosis.

However, the prototypical function that MCC plays in this environment is distinct from ICC in that its protasis is discourse oriented and the apodosis expresses the speaker’s judgment about the event or situation in the protasis:

- (7) Sara-ba sono ue-de-wa chikara-ni
 that is.IRR-BA that condition-DAT-TOP strength-DAT
 oyoba-nu-koto-zya.
 achieve-NEG-NMLZ-COP

‘If that is the case, I cannot do anything about it.’

(Feiqe no Monogatari)

The protasis of (7) contains a stative predicate, ‘sari’, developed from the complex form of a deixis, ‘sa’ (‘that’), and a verb, ‘ari’ (‘exist’). It, however, does not specify the existence of a particular entities but a preceding context. The speaker concludes that he cannot do anything about a problem based on the information given in the preceding context. This is a case of epistemic conditional (Sweetser 1990, 116-117, Dancygier 1998, 86-88) in which the apodosis expresses a logical conclusion from the content of the protasis. Most of the cases of MCC in Node 4 are instances of this epistemic conditionals and refers to the information obtained from the preceding context in the protasis and makes a logical conclusion from it.

The function that ICC and MCC are quite different in that the former can be categorized into content conditionals as in Node 3 and the latter into epistemic conditionals.

4.3 Node 6

The right branch from Node 1 is characterized with a wide range of mood/modality types. FIGURE 2 shows that the speakers generally prefer MCC to ICC overall with those mood and modality types. It also shows that ICC occurs more often significantly when the protasis expresses a non-stative state of affairs. Put differently, MCC is more closely related to a state in the protasis. First, we will look at instances of ICC, a peripheral construction in this environment. The attested mood types are conjecture (n=6) and interrogatives (n=2) with a non-stative event in the protasis:

- (8) a. Rokudai-ga otoko-ni nare-ba matsuou-mo
 Rokudai-NOM adult-DAT become.REAL-BA Matsuou-too
 urayamashikara-u.
 jealous-CONJ

‘When Rokudai comes of age, Matsuou will be jealous of it.’

- b. Kono nochi shichihachijuu-o sugosa-se-raruru-tomo
 this after seventy eighty-ACC spend-HON-HON-even if
 omoe-ba hodo-ya gozarou.
 think.REAL-BA degree-INT exist
 ‘If you think about it, what is the use of living seventy or eighty
 more years?’

(Feiqe no Monogatari)

(8a) is a content conditional in which the speaker’s prediction is expressed hypothesizing the realization of a specific event in the protasis. All of the instances of ICC with conjectural markers in Node 6 express this meaning. (8b) is also an instance of ICC with its predicate in the apodosis in interrogative mood, and its function is quite distinct from those in (8a) in that (8b) is a case of speech-act conditionals (Sweetser 1990, 118-121, Dancygier 1998, 89-93). Speech-act conditionals are characterized in that there is no direct relationship between the proposition of the protasis and apodosis and the protasis functions as in content conditionals:

- (9) a. If you buy a house, will you redecorate it yourself?
 b. If I may ask, where were you last night?

(Dancygier, 1998, 89)

(9a) is an instance of content conditionals: the speaker first set up a hypothetical event of the hearer’s purchasing a house and whether they will redecorate the house. In other words, the speaker incorporates the hypothesized event into the content of the question (i.e. the speaker asks whether the hearer has the intention of redecorating a house based on the supposition of the hearer’s purchase of a house). On the other hand, we see no such supposition in the content of the question in the apodosis of in (9b) and there is no radical difference in its meaning even if the sentence does not include the protasis unlike content conditionals. The protasis functions as a hedge expression of the question in the apodosis. We likewise see no relationship between the contents of the clauses in (8b) and there is no apparent difference in the function of the speech-act expressed with its apodosis even without its protasis.

When MCC occurs in the same environment, conjecture (n=18), imperatives (n=9), interrogatives (n=4) and volitives (n=10) occur in the apodosis. Following are attested examples:

- (10) a. Kono fumi kantou-ni mie-ba hito-mo ushinawa-uzu.
 this letter East-DAT appear.IRR-BA person-too lose-CONJ
 ‘If people in the East find this letter, some will perish.’

- b. Haru-ni nara-ba o-nobori-are.
spring-DAT become.IRR-BA come up-exist.IMP
'When spring comes, please come visit me.'
(Feiqe no Monogatari)
- c. Nani-to se-ba kono kuse-o naoso-u-zo.
what-QUT do.IRR-BA this habit-ACC fix-CONJ-INT
'How can I fix this bad habit? (lit. If I do what, will this bad habit stop?)'
- d. Kamaete naka-ba ookami-ni yaro-uzu.
certainly cry.IRR-BA wolf-DAT give-VOL
'If you cry, I will let a wolf eat you.'
(Aesop's Fables)

These are all instances of content conditionals and the event in the apodosis is based on the event expressed in the protasis. For example, the intention of letting a wolf eat someone is based on the supposition that the potential victim cries in (10d).

4.4 Node 7

When we look at Node 7 in which the protasis expresses a state, we see only one attested example of ICC with interrogative mood:

- (11) Sa gozare-ba soregashi-o-ba daihyou-to
that exist.REAL-BA 1SG-ACC-TOP elite warrior-QUO
oboshi-mesaru-ru-ka.
think-HON-HON-INT
'If you say so, do you think I am an elite warrior?'

(Feiqe no Monogatari)

(11) is a case of ICC with an epistemic conditional meaning. Preceding the utterance of (11), the interlocutor asked how many arrow shooters there are with as a good skill as the speaker where the speaker lives. In (11), the speaker takes up the interlocutor's comment in the protasis and asks whether the interlocutor regards him as a 'daihyou', an elite warrior, based on the comment in the form of a question in the apodosis. To make a logical conclusion from the content of the protasis is a core cognitive process with epistemic conditionals, and the mechanism is at work in this example.

We see the cases of MCC expressing conjectural (n=9), imperative (n=35), interrogative (n=10) and volitional (n=23) meanings in their apodoses:

- (12) a. Kono nan-o o-tasuke ara-ba mizu-to
 this difficulty-ACC HON-help exist.IRR-BA water-and
 sakana-no gotoku shitashimi-marasho-u.
 fish-GEN like familiarize-HON-CONJ
 ‘If you help me out of this difficulty, we will build good relation-
 ship like water and fish.’
- b. Shikara-ba shokushi-ta hito-wa kanarazu
 that is.IRR-BA eat-PST person-TOP certainly
 araware-marase-uzuru.
 appear-come-CONJ
 ‘If it is the case (If you do that), the person who ate it will cer-
 tainly appear.’

Both (12a) and (12b) express the speaker’s prediction about an event follow-
 ing the event expressed in the protasis. In this sense, they both instantiate
 content conditionals. However, they are distinct with respect to how it ex-
 presses the hypothetical event based on which the predicted event expressed
 in the apodosis is considered to happen. In (12a), the existence of a situation
 in which the interlocutor helps the speaker is directly expressed in the prota-
 sis whereas (12b) refers to the event indirectly with a predicate with a deictic
 function. The former is a prototypical content conditional in that both the pro-
 tasis and apodosis express the event in causal relationship explicitly whereas
 the latter is a peripheral one in that its protasis expresses a hypothetical event in
 an indirect way. The use of an anaphor *is*, in fact, is prototypical in the protasis
 of MCC in Node 7 with 45 cases out of 78 examples containing an anaphoric
 expression in its protasis as in the following:

- (13) a. Sara-ba kake.
 that is.IRR-BA write.IMP
 ‘If that is the case, write (a letter).’
- b. Naze-ni sara-ba sou-wa mousa-nan-da-zo.
 why-DAT that is.IRR-BA so-TOP say-NEG-COP-INT
 ‘If that is the case, why didn’t you say so?’
- c. Sara-ba katari-marasho-u.
 that is.IRR-BA talk-HON-VOL
 ‘If that is the case, I will talk about it.’

(Feiqe no Monogatari)

4.5 Functions of ICC and MCC

We have examined formal and semantic patterns that affect the choice of ICC
 and MCC based on the result of conditional inference and random forest anal-

ysis. We will now summarize and propose how they compose a network structure in LMJ.

We have seen that the prototypical function of ICC is the expression of content conditional meaning with general causal events in both clauses in Node 3 and 4. Since we observe more instances of ICC in Node 3 than in Node 4, we can suppose that ICC that contains a predicate with a conclusive form or a copula in its apodosis and an animate subject in its protasis are the most typical features for the expression of the meaning. On the other hand, the most prototypical MCC contains a stative element in the protasis and its apodosis expresses a speech-act such as ordering, asking a question and showing one's intention for an action as we saw in Node 7. It, therefore, is closely tied with the usage-event in which the conditional occurs. MCC also often expresses a content conditional meaning in which a specific hypothetical event are expressed in its protasis and apodosis as well. We saw these instances in Node 6 with a non-stative event in its protasis and conjectural marker in its apodosis. MCC also expresses an epistemic conditional meaning as we saw in Node 4. As we can see here, MCC is characterized with its high productivity in its use than ICC.

It is also noteworthy that the speakers do not choose ICC to express a certain mood and modality types in the apodosis: imperatives and volitives. Neither of them was not attested with ICC. We can attribute it to the incompatibility of ICC with those mood types. Since those mood and modality markers are used for the expression of speech-act, it is possibly the case that its function is too discrete from the function of ICC, a generic causal meaning. In the same vein, we can account for the fact that we see some attested examples of ICC in a hypothetical conditional meaning as we saw in (8a) in Node 6. It is due to the fact that a generic conditional meaning is similar with the meaning of a hypothetical conditional meaning in that they both instantiate a content conditional and are distinct only with respect to the specificity of the setting and participant involved in the events.

These cases illustrate that ICC and MCC compose a network structure in continuum with its one pole with generic conditional meaning and the other with those expressing the speech-act in its apodosis. The other conditionals such as epistemic conditionals and speech-act conditionals are situated between the poles.

5 Conclusion

We examined two conditional constructions, ICC and MCC and showed that three types of properties, namely, mood/modality types, animacy of the subject in the protasis, and stativity of the content of the apodosis are significant predictor of the choice of a construction in LMJ from conditional inference

and random forest analysis. By examining the properties of each construction based on the result of the analysis, we showed that each construction has a prototypical function as well as overlapping functions.

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