

## ON QUANTIFICATION OVER QUESTIONS: A CASE STUDY OF EXHAUSTIFICATION IN JAPANESE\*

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### Abstract

This paper supports the idea that the exceptive meaning denoted by the Japanese exhaustive particle *dake* is a conventional implicature, and shows that the Contrastive-marked (*wa*-marked) element takes scope higher than the proposition. I also provide an explanation for the unavailability of *dake-wa* in *wh*-questions using Krifka's (2001b) non-Boolean algebra of Speech Acts.

### 1 Introduction

As observed by Portner and Yabushita (1998), an embedded subject under an attitude predicate obtains different scope interpretations depending on whether the subject is Nominative-marked or Contrastive/Topic-marked. In (1-a), the embedded subject, *John-dake* 'only John' receives a narrow-scope interpretation with respect to the attitude predicate *omot* 'think'. Hence, the exhaustive meaning of *dake* 'only' yields the interpretation 'Mary thought that people other than John did not come.' In contrast, in (1-b), *John-dake* 'only John' receives a wide-scope interpretation. That is, 'John is the only person such that Mary thought he would come and Mary didn't have any opinions about other people.'

- (1) a. JOHN-dake-**ga** kuru to Mary-ga omot-tei-ta.  
John-only-Nom come Comp Mary-Nom think-Prog-Past  
'Mary thought that only John would come.'  
b. JOHN-dake-**wa** kuru to Mary-ga omot-tei-ta.  
John-only-Con come Comp Mary-Nom think-Prog-Past  
'Mary thought that as for only John, he would come.'

Another contrast between *dake-wa* and *dake-ga* is found in question formation. It is possible to use *dake-ga* in a *wh*-question as in (2-a) and it is interpreted as 'What is the thing x such that John bought x and others didn't buy x?'. On the other hand, *dake-wa* in a *wh*-question is not acceptable (2-b).

- (2) a. JOHN-dake-**ga** nani-o kai-mashi-ta-ka?  
John-only-Nom what-Acc buy-Hon-Past-Q  
'What did only John buy?'  
b. \*JOHN-dake-**wa** nani-o kai-mashi-ta-ka?  
John-only-Con what-Acc buy-Hon-Past-Q

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In this paper, I connect these two observations. In a nutshell, as (1) shows, the *wa*-marked element takes scope out of the embedded clause; hence the *dake-wa* construction in a matrix *wh*-question results in exhaustification over Question Acts, which is disallowed according to Krifka's (2001b) non-boolean algebra of Speech Acts.

This paper is structured as follows. In section 2, I go over Yoshimura's (2005) argument that the Japanese exhaustive particle *dake* yields a conventional implicature, which contributes to a non-propositional level of meaning. Section 3 reviews works showing that a Topic/Contrastive-marked element takes scope higher than the propositional level. Section 4 goes back to the Japanese data above and accounts for the unavailability of the *dake-wa* construction in *wh*-questions using Krifka's (2001b) proposal on the computation of Speech Acts. Section 5 presents data of *dake-wa* in embedded questions, which demonstrates a contrast between intensional and extensional verbs (Groenendijk and Stokhof 1984). The data shows a further parallel to Krifka's (2001b) argument. Section 6 concludes the paper and highlights some ramifications of the proposal.

## 2 Levels of Meaning Contributed by *dake*

Let us start by looking at the denotation of the particle *dake*. Kuno (1999) observes that "*dake* primarily asserts the affirmative proposition while secondarily asserting the negative one."

- (3) JOHN-dake-ga kita.  
John-dake-Nom came.  
primary: (affirmative) John came.  
secondary: (negative) No one else came.

Yoshimura (2005) provides an explanation for Kuno's (1999) observation, modeling her analysis after Horn's (2002) analysis of English *only*. Yoshimura (2005) proposes that Japanese *dake* asserts the prejacent (affirmative) proposition and entails the exceptive meaning<sup>1</sup>

I equate the notion of 'entailment' in Horn (2002) and Yoshimura (2005) to 'conventional implicature' in the sense of Potts (2005). Hence, (3) is analyzed as having two independent meanings. One is an assertion 'John came' and the other is a conventional implicature 'no one else came':

- (4) JOHN-dake-ga kita.  
John-only-Nom came.  
a. Assertion: John came.  
b. conventional implicature ('entailment' in Horn 2002 and Yoshimura 2005):  
No one else came.

Yoshimura's (2005) proposal is based on Horn's (2002) assumption:

- (5) Only the assertional content can be a complement of a higher functor.

For example, (6-b) would be infelicitous if the exceptive meaning were embedded under a conditional as in (6-b-ii). (6-b) is felicitous only under the interpretation where the affirmative proposition 'you can speak English' is embedded (6-b-i).

- (6) a. In order to make an around-world trip,

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<sup>1</sup>In Horn (2002), the meaning contribution of the English *only* is the reverse of *dake*, i.e., it asserts the negative proposition and entails the affirmative proposition.

- b. EIGO-dake hanas-er-eba ii  
 English-dake speak-able-if good  
 (i) ‘It’s enough if you can speak English.’  
 (ii) #‘It’s enough if you cannot speak any other languages.’ (Yoshimura 2005)

Given the assumption in (5), the data shows that the affirmative proposition ‘you can speak English’ is the assertional content of the sentence in (6), while the negative proposition ‘you cannot speak any other languages’ is a conventional implicature which is independently projected.

In contrast, if the context prefers leads to an interpretation where the negative proposition is an argument, the use of *dake* turns out to be infelicitous as in (7).<sup>2</sup>

- (7) #Nihongo-dake dekiru node, shuushoku deki-nakat-ta.  
 Japanese-dake capable because, getting.employed capable-Neg-Past  
 a. #‘I couldn’t get a job because I can speak Japanese.’  
 b. Intended (unavailable): ‘I couldn’t get a job because I cannot speak any other languages.’ (Satoshi Tomioka, p.c.)

Again with the assumption in (5), (7) shows that the affirmative content, ‘I can speak Japanese’, is the assertional content which should go under the scope of the *because*-clause, while the negative content, ‘I cannot speak any other languages’, is the conventional implicature which cannot be embedded under a higher operator.

In summary, following Kuno (1999) and Yoshimura (2005), I take (7) to be the lexical entry of the Japanese exhaustive particle *dake*.

- (8) Interpretation of *dake*  $\alpha$ :  
 a.  $\alpha$  holds; and (assertion)  
 b. No other alternatives from the set of relevant contrasts C other than  $\alpha$  hold.  
 (conventional implicature)

In other words, a sentence containing *dake* involves two commitments: the positive one expressed by the preajcent proposition and the negative one expressed by the exhaustive semantics of *dake*.

In the next section, I consider the case where *dake* is used with the Topic/Contrastive-marker *wa*.

### 3 Wide-Scope Exhaustification

Now, let us turn to the case with Contrastive-marking. It has been observed that a Contrastive-marked element takes scope higher than the propositional level. In Hara (2006a), I claim that the use of *wa* introduces the operator CON that is linked to an attitude holder, and induces a conventional implicature which indicates some attitude-holder’s limitation of knowledge.

<sup>2</sup>Following is Yoshimura’s example that makes the same point:

- (i) #Ie-no roon-dake zeikin menjo nano-wa zannenna koto-da.  
 home-Gen loan-dake tax deductible Comp-Top too.bad thing-Cop  
 a. #‘It is too bad that home loans are tax-deductable.’  
 b. Intended (unavailable): ‘It is too bad that nothing else is tax-deductable.’ (Yoshimura 2005 adapted from Horn 2002)

This claim is motivated by the following fact. The implicature induced by Contrastive *wa* can be relativized to an attitude-holder other than the speaker if *wa* is embedded under an attitude predicate. In (9-a), CON is relativized to the agent of the actual speech act, the speaker, generates a set of alternatives, {Mary believes John came, Mary believes Peter came, etc.}, and induces the speaker's implicature. In (9-b), CON is relativized to the agent of the attitude predicate, Mary, generates a different set of alternatives, {John came, Peter came, etc.}, and induces Mary's implicature.

- (9) JOHN-**wa** kita-to Mary-ga **shinjite**-iru  
 John-**Con** come-Comp Mary-Nom **believe**-Prog
- a. Global: The speaker knows [Mary believes John came]  
 Implicature: The speaker doesn't know [whether Mary knows that Peter came]
- b. Local: The speaker knows [Mary believes John came]  
 Implicature: Mary doesn't know whether Peter came

Furthermore, *wa* cannot appear if there is no local attitude predicate. That is, it is not possible to *wa*-mark a noun phrase that is embedded under a so-called island construction as in (10).

- (10) a. \*Itsumo CHOMSKY-**wa** kai-ta hon-ga shuppan-sa-re-ru.  
 always Chomsky-**Con** write-Past book-Nom publish-do-Pass-Present  
 'The book which at least Chomsky wrote is always published.'
- b. \*Itsumo uchi-ni JOHN-**wa** kita **toki**, inu-ga hoe-ru.  
 always house-Dat John-**Con** come when, tea-Acc offer-Present  
 'When (at least) John comes to our house, the dog always barks.'

In Hara (2005) and Hara (2006b), I explained the ungrammaticality of (10) as follows. The local implicature computation is not available due to a type mismatch. The argument of *wa* needs to be (at least) type *t*, since it indicates a limitation of knowledge with respect to an instantiated event/situation. However, the local clause is of type  $\langle e, t \rangle$  (property of individuals) in (10-a), and  $\langle s, t \rangle$  (property of events) in (10-b). The global implicature is not possible because of island constraints. It is beyond the scope of this paper to discuss the details of the syntactic distribution of *wa* (see Hara (2005) and Hara (2006b) for discussion), but the point crucial to the current issue is that the function of *wa* is not just to create alternative propositions. Rather, it indicates a partition in epistemic knowledge/attitude of some attitude-holder.<sup>3</sup>

The connection between attitudes and *wa*-marking becomes even clearer when we look at the *dake-wa* construction embedded under an attitude predicate. As we have seen in (1) (repeated here as (11)), Portner and Yabushita (1998) observe that in (11-a), *JOHN-dake* 'only John' with a nominative marker receives a narrow scope interpretation with respect to the attitude verb. That is, the exhaustive particle *dake* operates over a set of alternative propositions, i.e., {Peter came, Bill came, etc.} and yield the implicature 'others didn't come'. Hence, the interpretation of (11-a) is that Mary thought John came and others didn't come. On the other hand, the interpretation of (11-b) is a lot weaker. The particle *dake* operates over Mary's epistemic knowledge, i.e., {Mary thought that Peter came, Mary thought that Bill came, etc.}. Hence, the implicature of (11-a) merely indicates that Mary didn't have any thought regarding whether individuals other than John came or not.<sup>4</sup>

<sup>3</sup>See also Tomioka (2006) who claims that contrastiveness operates on speech acts, not on propositions.

<sup>4</sup>Portner and Yabushita's (1998) explanation is different from mine. Portner and Yabushita (1998) claim that the *wa*-marked element serves as a link to the information expressed by the sentence. Hence, it takes wider scope with respect to everything else in the sentence. If their analysis were correct, it would predict that (1-b) only yield the speaker's implicature, not Mary's. Portner and Yabushita's (1998) original examples used the first person pronoun

- (11) a. JOHN-dake-**ga** kuru to Mary-ga omotte-ita.  
 John-only-Nom come Comp Mary-Nom thought  
 ‘Mary thought that only John would come.’ (thought > only)
- b. JOHN-dake-**wa** kuru to Mary-ga omotte-ita.  
 John-only-Con come Comp Mary-Nom thought  
 ‘Mary thought of only John that he would come.’ (only > thought)

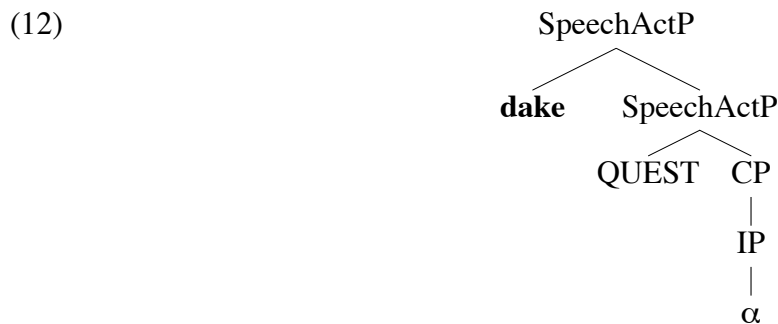
In summary, given these observations, I assume here that Contrastive-marking forces *dake* to take scope higher than the propositional level. The next section will go back to the initial puzzle that *dake-wa* cannot appear in a matrix *wh*-question.

#### 4 Quantification over Speech Acts

Now, remember from section 1 that *dake-wa* construction is not acceptable in a *wh*-question:

- (2-b) \*JOHN-dake-**wa** nani-o kai-mashi-ta-ka?  
 John-only-Con what-Acc buy-Hon-Past-Q

Section 2 showed that *dake* yields a conventional implicature which excludes members of the alternative set. Furthermore, as we have seen in the last section, the use of *-wa* forces the exhaustification by *dake* to take place somewhere higher than the level of the proposition. Hence, *dake-wa* in a matrix question triggers negation of alternative question acts. That is, if *dake* is used in a Contrastive-marked sentence, the sentence has LF structure in (12), and *dake* exhaustifies over assertion speech acts as formulated in (13).



- (13)  $\forall a[[a \in \text{Alt}(\text{QUEST}(\alpha)) \& a \neq \text{QUEST}(\alpha)] \rightarrow \neg a]$

The gist of this paper is that the computation in (13) causes a theoretical problem. Namely, (13) involves negation over speech acts, which is not a valid operation in the computation of speech acts as argued by Krifka (2001b).

- (14) Intended Interpretation of (2-b)
- a. As for John, what did he buy and
- b. #It is not the case that as for other people, what did they buy?

In the following subsection, I go over Krifka’s (2001b) proposal that conjunction is the only operation permissible in the computation of Speech Acts.

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(i.e., the speaker) as the subject of the attitude predicate, hence the implicatures were indistinguishable.

## 4.1 Non-Boolean Algebra of Speech Acts

Krifka (2001b) considers speech acts as moves in conversational games in the sense of Wittgenstein (1958). In other words, speech acts lead from one set of social commitments to another set. Given this assumption, Krifka (2001b) claims that the only operation involved in speech acts is conjunction.

Krifka (2001b) motivates his proposal by the fact that a pair-list reading of a *wh*-question is possible only with a universal quantifier. The pair-list reading of (15) is derived by universal quantification over the question act, which is possible since universal quantification is reduced to conjunction.

- (15) Which dish did every guest make?  
⇔ For every guest *x*: Which dish did *x* make?  
⇔ Which dish did Al make,  
**and** which dish did Bill make,  
**and** which did Carl make?

On the other hand, other quantifiers like *most*, which involve disjunction, cannot operate over question acts; hence, fail to have a pair-list reading (16).

- (16) #Which dish did most guests make?  
⇔ For most guests *x*: Which dish did *x* make?  
⇔ Which dish did Al make and which dish did Bill make,  
**or** which dish did Al make and which dish did Carl make,  
**or** which dish did Bill make and which dish did Carl make?

Krifka (2001b) gives the following explanation for why the only operation allowed for speech act computation is conjunction.

Conversational games are characterized by a set of states, and transitions between those states. If *s* is the current state in a conversational game, then the performance of an appropriate act *A* leads to a new state, *s'*.

Performing conjoined acts [*A* & *A'*](*s*) results in the **union** of the commitments that the consecutive acts of *A* and *A'*, i.e. *A'*(*A*(*s*)), would have led to, namely *A*(*s*) ∪ *A'*(*s'*). For example, the resulting state of the consecutive utterances in (17-a) is equivalent to the resulting state of the conjoined acts in (17-b). Hence, we can maintain the same semantic type of commitment states.

- (17) a. Which dish did Al make? –The pasta.  
Which dish did Bill make? –The salad.  
b. Which dish did Al make? And which dish did Bill make?  
Al (made) the pasta, and Bill the salad. (Krifka 2001b)

On the other hand, a disjunction of *A* and *A'* at the state *s* would result in a **set** of commitment states, i.e., {*A*(*s*), *A'*(*s*)}, which is of a higher type than the initial commitment state. Another operation of disjunction would result in an even higher type. Thus, Krifka (2001b) concludes that there is no simple way to form disjoint question acts. To illustrate, if (18) were a case of disjoint questions, the addressee would have a choice of answering one of the questions. Thus, the addressee could choose the first question and answer *I have been to Sweden*, even if the addressee has been to both Sweden and Germany. According to Krifka (2001b), however, this is an incomplete answer. Rather, the questioner asks whether the addressee has been to Sweden

or to Germany; and hence, it should be answered by *yes* or *no*.

(18) Have you ever been to Sweden or have you ever been to Germany? (Krifka 2001b)

Krifka (2001b) further argues that negation is not involved in the algebra of speech acts, since negation would allow us to derive disjunction from the combination of conjunction and negation by De Morgan's law ( $\neg[A\&A'] = \neg A \cup \neg A'$ ).

## 4.2 *Dake-wa* and *wh-Q*

Going back to Japanese exhaustification, as we have seen in Section 2, the use of *dake* involves two commitments: a positive one (assertion) and a negative one (conventional implicature). Since the exhaustification takes scope over speech acts, then the negation must also take scope over speech acts. This is not a legal operation on speech acts. Therefore, if *dake-wa* appears in a matrix *wh*-question as in (2-b), the construction turns out to be unacceptable.

(2-b) \*JOHN-dake-wa nani-o kai-mashi-ta-ka?  
John-only-Con what-Acc buy-Hon-Past-Q

## 5 Intensional vs. Extensional

In the foregoing sections, I have shown, using Krifka's non-boolean algebra of Speech Acts, that exhaustification over question acts is not possible. Krifka (2001b) extends his proposal to embedded questions. Following Groenendijk and Stokhof (1984), Krifka categorizes question-embedding verbs into *intensional* and *extensional* verbs. It has been observed that intensional verbs such as *ask*, *wonder*, or *want to find out* allow a pair-list reading only with a universal quantifier. In contrast, as observed by Szabolcsi (1993), extensional verbs such as *know*, *find out*, and *tell* can have a pair-list reading with other quantifiers as well. In this section, I show that there is a parallel asymmetry with the *dake-wa* construction in embedded questions.

### 5.1 Intensional

Let us start with questions embedded under intensional verbs. Universal quantifiers allow a pair-list reading for embedded questions as shown in (19-a), while non-universal quantifiers cannot (19-b).

(19) a. Doris asked which dish every guest made. (intentional)  
[She asked which dish Al made, which dish Bill made, and which dish Carl made.]  
b. #Doris asked which dish most guests made.  
[Not: She asked which dish Al made and which dish Bill made.]

According to Krifka (2001a), intensional verbs directly embed a question act as schematized in (20).

(20) Doris asked [*Quest* [which dish Bill made]]

Therefore, the questions embedded under intensional verbs pattern like matrix questions. In (19-a), the universal quantifier can take scope out of the question act (21-a), since universal

quantifiers can be reduced to conjunction, which is a permissible operation on speech acts. In contrast, in (19-b) the quantified NP *most guests* attempts to operate over question acts (21-b). *Most guests* involves disjunction, which is not a valid operation for speech acts.

- (21) a. Doris asked [every guest [*Quest* [which dish they made]]] (19-a)  
 b. \*Doris asked [most guests [*Quest* [which dish they made]]] (19-b)

## 5.2 Extensional

Unlike intensional verbs, extensional verbs seem to embed questions in which a non-universal quantifier takes wide scope. In other words, the embedded question can have a pair-list reading even with a non-universal quantifier (22-b).

- (22) a. Doris found out which dish every guest made. (extensional)  
 [She found out which dish Al made, which dish Bill made, and which dish Carl made.]  
 b. Doris found out which dish most guests made.  
 [She found out which dish Al made, and which dish Bill made.]

Krifka (2001b) proposes that extensional verbs introduce a type-shifting operator **TA**:

- (23) Doris found out [ most guests [ **TA** [*Quest* [which dish they made]]]] (22-b)

TA shifts the question act into the sum of propositions that are true answers to the question act.

- (24)  $TA(\text{QuestionAct}) = \bigoplus \{p : p \text{ is a true answer to QuestionAct}\}$

Consequently, extensional verbs support embedded questions with quantifiers other than a universal quantifier because their complements are Boolean objects.

## 5.3 Japanese

A parallel pattern is observed for Japanese exhaustification. The intentional verb *tazune* ‘ask’ cannot embed a *wh*-question which contains *dake-wa* (25-a), while the extensional verb *wakat* ‘find out’ can (25-b).

- (25) a. \*Mary-wa [ano-mise-de **JOHN-dake-wa** nani-o kat-ta-ka] Bill-ni  
 Mary-Top that-store-at John-only-Con what-Acc buy-Past-Q Bill-Dat  
 tazune-ta  
 ask-Past  
 ‘Mary asked as for only John what he bought at that store.’ (intentional)  
 b. Mary-wa [ano-mise-de **JOHN-dake-wa** nani-o kat-ta-ka] wakat-ta  
 Mary-Top that-store-at John-only-Con what-Acc buy-Past-Q find.out-Past  
 ‘Mary found out as for only John what he bought at that store.’ (extensional)

This Japanese data is straightforwardly explained along the same lines as the above English data. In (25-a), since the matrix verb *tazune* ‘ask’ is an intensional verb, its complement is an embedded question act. Hence, *dake* in (25-a) is quantifying into a question act, which results in negating alternative question acts. As a consequent, (25-a) is predicted to be unacceptable since it involves an illicit operation, i.e. negation, over speech acts.



On the other hand, in (25-b), the **TA** operator shifts the question act into the sum of propositions. Therefore, the operation involved is simply a quantification over the sum of propositions. Hence, the negation introduced by *dake* can licitly operate over the set, and it yields the negative meaning ‘it is not the case that as for other people, Mary found out what they bought.’

## 6 Concluding Remarks

### 6.1 Summary

In this paper, I have explained why the *dake-wa* construction is not available in matrix *wh*-questions using Krifka’s algebra of speech acts. I take Yoshimura’s analysis that the meaning of *dake* involves two commitments; affirmative and negative. The use of *dake-wa* indicates exhaustification at a higher level than the proposition. Hence, when *dake-wa* is used in a matrix question, it attempts to exhaustify over question acts (i.e., negating alternative acts). This operation is not valid since negation cannot take scope over a question act.

Furthermore, there exists a strong parallel between the availability of a pair-list reading in *wh*-questions with a non-universal quantifier, and the distribution of *dake-wa* in *wh*-Q. With matrix *wh*-questions, there is no pair-list reading with a non-universal quantifier, and the *dake-wa* construction is ungrammatical. In the case of embedded *wh*-questions, the pair-list reading with a non-universal quantifier is available only for extensional predicates, and *dake-wa* is grammatical only with extensional predicates. This parallel suggests that there is a substantial constraint with respect to quantification over question acts.

### 6.2 Prospects

Despite the parallel shown in this paper, there are apparent exceptions with other speech acts. For instance, *dake-wa* can appear in a matrix declarative as in (26-b). Moreover, the interpretation of (26-b) suggests that the negation is operating over the assertion act.

- (26) a. JOHN-dake-**ga** kita.  
John-only-Nom came.  
‘Only John came.’ (Others didn’t come; assertion>only)
- b. JOHN-dake-**wa** kita.  
John-only-Top came.  
‘At least John came.’ (I don’t make assertions about other individuals; only>assertion)

Similarly, *dake-wa* can appear in a matrix imperative and trigger exhaustification over commands (27-b).

- (27) a. EIGO-dake-**o** benkyo-siro!  
English-only-Acc study-do.Imp  
‘Study only English!’ (Don’t study other subjects; command>only)
- b. EIGO-dake-**wa** benkyo-siro!  
English-only-Con study-do.Imp  
‘Study at least English!’  
(I don’t make orders about other subjects; only>command)

In Hara (To appear), I utilize Siegel’s (2006) notion of *potential literal acts* in order to derive the interpretations of (26-b) and (27-b).

Siegel (2006) introduces the notion of *potential literal acts* in order to characterize the interpretation of so-called *relevance conditionals* (e.g. (28); also known as *biscuit conditionals*).

(28) If you're hungry, there's pizza in the fridge.

It has been suggested (Grice 1975, Dummet 1973, Bach and Harnish 1979, Horn 1989, Wakker 1992, Geis 1995, Bach 1999) that relevance conditionals restrict the speech act performed by the main clause (29).

(29) If you're hungry, ASSERT (There's pizza in the fridge).

According to Siegel, however, this analysis leads us to an incorrect paraphrase for an example like (30). That is, it predicts that the speaker is performing the assertion at any time *t* at which the addressee is hungry, which is not the correct interpretation of (30).

(30) Whenever you get hungry, there's pizza in the fridge. (Siegel, 2006)

Instead, Siegel proposes that relevance conditionals involve existential quantification over *potential literal acts*, which lack the contextual specifics (speaker, addressee, appropriate context); hence are not necessarily the actual performed act. They are introduced by a context-sensitive meaning-shift rule in order to accommodate the cases where interpretation does not converge (see Siegel (2006) for details).

After the meaning-shift rule, existential closure applies to the variables introduced by the meaning-shift, hence (28) is paraphrased as in (31). As for (30), it merely expresses that there is an abstract potential literal act at each time when the addressee gets hungry.

(31) If you're hungry, there is a (relevant) assertion that there's pizza in the fridge.

Siegel's proposal is appealing in many respects. First, as Siegel notes, it provides intuitively plausible paraphrases for similar conditional constructions with other "speech acts" such as questions and commands (32).

(32) a. If I have your attention now, (there's a relevant question:) what do you want for dinner?  
b. Before you go, (there's a relevant command:) remember to call when you get there.

(Siegel, 2006)

Second, it can account for seeming exhaustification over assertion acts in Japanese. The topic marker *wa* in (26-b) forces the exhaustive particle *dake* 'only' to take scope higher than the assertion act, yielding the negation of alternative assertion acts ('I do not make any other assertions.'). This is puzzling in view of Krifka's (2001b) principle of the computation of speech acts as we have seen in this paper. With Siegel's notion of potential literal acts, however, we can derive the desired interpretation as an instance of exhaustification of potential literal acts without violating Krifka's principle, since potential literal acts are not actually performed acts but abstract semantic objects without the contextual specifics.

Now, as we have seen in this paper, this abstraction does not seem to be available for question acts. Indeed, an overt universal quantification over potential question acts seems impossible as witnessed in (33-b), although Siegel (2006) says that her meaning shift rule can apply to question acts to yield a construction like (32-a).

- (33) a. Whenever you leave, remember to call me.  
 b. ??Whenever I have your attention, what do you want for dinner?

The question is then reduced to why a potential literal act is available for assertions and commands, but not for question acts. In Hara (in progress), I hope to explain this idiosyncrasy of question acts in terms of the context-dependency of the semantics of questions discussed in Ginzburg and Sag (2001) and van Rooy (2003). In particular, van Rooy (2003) shows that the compositional semantics only gives an underspecified meaning to a question, and the context (the decision problem of the speaker) determines the actual interpretation. The semantic meaning of (33-b) and (2-b), therefore, remain undetermined due to the attempt to abstract over questions (i.e. to deprive them of their contextual specifics). In the case of (32-a), in contrast, the speaker is not merely presenting a relevant possible question, but is performing an actual question act and waiting for an answer from the addressee.

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