

# Prosody and the Syntax of Indeterminates\*

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I will extend Kitagawa and Deguchi's prosodic study of wh-question constructions to indeterminate constructions in general. I will generalize the Watanabe paradigm originally defined for wh-interrogatives to indeterminates in general. I will show that the Watanabe paradigm once lost in a narrower perspective is regained in a broader perspective.

*Keywords:* indeterminate, prosody, *mo*, additional-wh effect

## 1. Introduction and background

### 1.1. The objective of the paper

Yoshihisa Kitagawa and Masanori Deguchi have in recent work developed an analysis of the prosody associated with "focus" sentences in Japanese.<sup>1</sup> Wh-interrogative sentences are focus sentences; applying their analysis to wh-interrogatives, Kitagawa and Deguchi account for the possible scope and scope ambiguity of wh-phrases. In particular, Kitagawa and Deguchi claim that if adequate prosody is taken into consideration we can show that wh-island effects do not exist in Japanese. As a consequence, they deny the grammaticality contrast illustrated by (1) below that Akira Watanabe claimed to exist:<sup>2</sup>

- (1) a. John-wa [Mary-ga nani-o katta-kadooka] dare-ni tazuneta-no?  
          what bought whether who asked-Comp  
          'What did John ask whom whether Mary bought?'

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<sup>1</sup> Ishihara (2003) contains material much similar to that contained in Kitagawa and Deguchi's work. For the sake of space and consistency, however, I will make references only to Kitagawa and Deguchi's work in this paper.

<sup>2</sup> The following particles and grammatical morphemes are glossed once and for all here:

wa	Topic
ga	Nominative
o	Accusative
ni	Dative
to	Quote

- b. ??John-wa [Mary-ga nani-o katta-kadooka] Tom-ni tazuneta-no?  
what bought-whether asked-Comp  
'What did John ask Tom whether Mary bought]?' (Watanabe (1992: 263))

As is well known, Japanese "wh"-words/morphemes such as *dare* 'who' and *nani* 'what' can function with quantificational force other than the interrogative. For this reason, I called those words/morphemes indeterminates. (Kuroda 1965) In earlier work I considered the analogy of the paradigm illustrated by (1) for indeterminates with quantificational force other than the interrogative.

In this paper, I will first extend the Kitagawa-Deguchi analysis of prosody to indeterminates in general. Indeterminates are divided into two classes: those with initial accent and those without accent. The former have the pitch contour *HL*..... and the latter *LH*..... I will call the former Falling Indeterminates (FI) and the latter Rising Indeterminates (RI). Interrogative indeterminates are all FIs. The Kitagawa-Deguchi analysis in terms of Emphatic Prosody (EPD) will be shown to extend to FIs in general directly. To account for the prosody of RI constructions, I will introduce another type of prosody, Rising Prosody (RPD). I will show that for a full account of prosody with RIs we need to recognize secondary EPD that may be superimposed on RPD.

With the analysis of prosody for RIs at hand, I will examine an extension of the Watanabe paradigm to RI indeterminates. I will show that the Watanabe type of paradigm holds for RIs if they are associated with RPD without superimposed EPD. I then claim that island effects are absent if the RPD associated with the RI construction is accompanied by secondary EPD superimposed on it.

I suggest then that a unified account of the generalized Watanabe paradigm indicates that EPD is not a component required in the syntax of the wh-question. But EPD, which is the proper prosody for independent wh-questions and also may be superimposed on default RPD prosody, can override island effects. The Watanabe paradigm is lost as an epi-phenomenon in independent wh-questions, but it is regained in embedded wh-questions and RI constructions.

In conclusion I maintain that this work demonstrates the importance of the study of prosody in syntactic analysis. After all, careful examination of prosody is indispensable even for identifying syntactic issues as such.

## 1.2. The Morphology of Indeterminates

There are five types of non-interrogative indeterminates to consider. Of these, four are associated with adnominal particles, *-mo* for negative concord, *-mo* for universal quantification, *demo* for free choice and finally *ka* for indefinite/existential. Let us call these adnominal particles Q-particles or Q-elements, following Nishigauchi (1990). The remaining case is indeterminates with concessive force. They are used bare, with no particle attached to them; they must however be c-commanded by the concessive subordinate conjunctive ending *-temo/demo* 'though' attached to a verb stem.

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	wh- Intr	-ever Cncssv	no- NegCon	every- Univ	any- FreeChoice	(some) Ext
who	DAre	DAre/daRE	daRE-MO	DAre-mo	daRE-DEmo/DAre-demo	(DAre-ka)
what	NAni	NAni/naNI	naNI-MO	NAni-mo	naN-DEmo/NAn-demo	(NAni-ka)
which	DOre	DOre/doRE	doRE-MO	DOre-mo	doRE-DEmo/DOre-demo	(DOre-ka)
where	DOko	DOko/doKO	doKO-MO	DOko-mo	doKO-DEmo/DOko-demo	(DOko-ka)
what	DONna	DONna/doNNA	doNNA..mo	DONna..mo	doNNA..DEmo/DONna.demo	(*)
how	DOo	DOo/doO	doO-MO	DOo-demo	doO-DEmo/DOo-demo	(DOo-ka)
why	(NAze)	*	*	*	*	(NAze-ka)

**Table 1** Indeterminates

A couple of remarks are in order before we continue the main theme of this paper. First, as seen in Table 1, the particles for negative concord and universal quantification are segmentally homophonous, *-mo*, but the accent patterns they induce on the indeterminates they attach to are different; for example, compare *daRE-MO* vs. *DAre-mo*.<sup>3</sup> Secondly, bare concessive indeterminates and free choice indeterminates with *-demo*, in my dialect, have two alternative accent patterns, apparently in free variation.

Now, more substantive remarks. I separate indefinite/existential indeterminates with *ka*, and the adjunct *naze* from the other indeterminates, for different reasons. First of all, *ka* is different from the other Q-particles in that it cannot be separated from its host indeterminates. In this paper, I cannot go into full details about this fact, but we will have a glimpse of separated Q-elements shortly. I take this fact as a symptom of the fundamental difference between *ka*-attached indeterminates and the others. Secondly, *NAze* is an interrogative, but it does not participate in the paradigm of indeterminates as shown in the table; besides its interrogative use, it can take only the particle *ka* and functions as indefinite meaning *for some reason*. To sum up, I exclude those items put in parentheses in Table 1 from indeterminates in the narrower sense we are concerned with here.

The universal *DAre-mo*, *NAni-mo* etc. tend to sound from awkward to unacceptable in various contexts to varied degrees for obscure reasons. They become quite acceptable with an affix *kamo* attached after *-mo*: *DAre-mo KAmo*, *NAni-mo KAmo*: for example, *DAre-mo-ga hasitta* (awkward but acceptable) vs. *DAre-mo KAmo-ga hasitta* (good) 'whosoever ran.'; *\*kare-wa NAni-mo mita* (unacceptable) vs. *kare-wa NAni-mo KAmo mita* (good) 'he saw whatever was there'.

There are differences among indeterminates with respect to occurrence with case particles. For example, the nominative *-ga* co-occurs with universal *DAre* as seen above, but not with negative concord *daRE*: *daRE-MO (\*-ga) hasiranakatta* I will not make note of these small points in the examples below.

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<sup>3</sup> I assume the basic facts about the Japanese word accent; see McCawley (1968). I use capitals to indicate high pitch moras where this information is relevant.

### 1.3. The Syntax of indeterminates

#### 1.3.1. Negative concord indeterminate *mo*

A negative concord indeterminate must be c-commanded by NEG. Let us call NEG an I-probe and *-mo* an I-goal. This probe/goal relationship is clause bound, which I describe as the Q-particle *-mo* having to be m-governed by NEG:

- (2) Hanako-wa nani-mo yom-anai  
           anything read-not  
       'Hanako does not read anything'
- (3) \*Hanako-wa dare-mo hometa hon-o yom-anai  
           anyone praise book read-not  
       \*'Hanako does not read any book that anyone praised'
- (4) \*Masao-wa Hanako-ga nani-mo yomu-to iw-anai  
           anything read say-not  
       \*'Masao does not say that Hanako read anything'

Pied-piping, however, allows an indeterminate to be associated with NEG that c-commands but does not m-govern it:

- (5) Hanako-wa dare-ga hometa hon-mo yom-anai  
           anyone praise book read-not  
       'Of anyone, Hanako does not read any book they praised'<sup>4</sup>
- (6) Masao-wa Hanako-ga nani-o yomu-to-mo iw-anakatta  
           anything read said-not  
       'Of anything, Masao did not say that Hanako read them'

#### 1.3.2. Universal *mo* and free choice *demo*

For universal indeterminates with the Q-particle *mo* and free choice indeterminates with the Q-particle *demo* there is no overt probe element that c-commands them:

- (7) Hanako-wa nani-mo(-kamo) yomu  
           what (soever) read  
       'Hanako reads anything (whatsoever)'

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<sup>4</sup> In order to be neutral about gender in English translation, I will use plural anaphor for a singular antecedent following the practice observed in the colloquial speech.

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- (8) Hanako-wa nan-demo yomu  
          everything read  
'Hanako reads anything'

However, we observe the same pied-piping effect as with negative concord indeterminates:

- (9) Hanako-wa dare-ga hometa hon-mo yomu  
          who     praised book     read  
'Hanako reads any book anyone praised'
- (10) Masao-wa Hanako-ga nani-o yomu-to-mo yuu  
  read            say  
'Of anything Masao says that Hanako reads them'
- (11) Hanako-wa dare-ga hometa hon-demo yomu  
                          praise book     read  
'Of anyone, Hanako reads books they praised'
- (12) Masao-wa Hanako-ga nani-o yomu-to-demo yuu  
'Of anything, Masao says Hanako reads them'

Hence, we hypothesize the existence of empty probe-elements that m-govern universal and free-choice Q-particles *mo* and *demo*, *UNV* and *FCH*, respectively:

- (13) Hanako-wa nani-mo(-kamo) yomu-UNV
- (14) Hanako-wa nan-demo yomu-FCH
- (15) Hanako-wa [dare-ga hometa hon]-mo yomu-UNV
- (16) Masao-wa [Hanako-ga nani-o yomu-to]-mo yuu-UNV
- (17) Hanako-wa [dare-ga hometa hon]-demo yomu-FCH
- (18) Masao-wa [Hanako-ga nani-o yomu-to]-demo yuu-FCH

Note that if we replace negative concord *mo* in (3) and (4) by universal *mo* or free choice *demo*, we get acceptable form:

- (19) Hanako-wa dare-mo-ga hometa hon-o yomanai  
'Hanako does not read any books that everyone praised'
- (20) Masao-wa Hanako-ga nani-mo(-kamo) yomu-to iwanai  
'Masao does not say Hanako reads everything'
- (21) Hanako-wa dare-demo-ga hometa hon-o yomanai  
'Hanako does not read books that everyone praised'

- (22) Masao-wa Hanako-ga nan-demo yomu-to iwanai  
'Masao does not say Hanako reads everything'

But that is because they can be interpreted as forms with UNV and FCH inside embedded clauses:

- (23) Hanako-wa dare-mo-ga hometa-UNV hon-o yomu  
(24) Masao-wa Hanako-ga nani-mo(-kamo) yomu-UNV to yuu  
(25) Hanako-wa dare-demo-ga hometa-FCH hon-o yomu  
(26) Masao-wa Hanako-ga nan-demo yomu-FCH to yuu

The same forms as (19)-(22) are unacceptable with the interpretations that are associated with the the following representations where *mo* and *demo* are not m-governed by UNV or FCH:

- (27) Hanako-wa dare-mo-ga hometa hon-o yomu-UNV  
(28) Masao-wa Hanako-ga nani-mo(-kamo) yomu-to yuu-UNV  
(29) Hanako-wa dare-demo-ga hometa hon-o yomu-FCH  
(30) Masao-wa Hanako-ga nan-demo yomu-to yuu-FCH

### 1.3.3. Interrogative indeterminates

An interrogative indeterminate must be c-commanded by an interrogative Comp, *ka* in formal speech and writing, and an empty Comp accompanied by a rising intonation in informal speech. Since we are interested in prosody, I use examples with the empty interrogative Comp as much as possible. I let the question marker ? stand for the empty Comp. I use examples with *ka* in polite speech style or in indirect questions in formal style only where it is necessary to do so in the context of discussion. However, I may use *ka* (in place of ?) as a generic symbol for referring to the interrogative Comp in general in the text of exposition.<sup>5</sup>

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<sup>5</sup> In the literature of Japanese generative linguistics, it is often the case that interrogative forms are illustrated by sentences with final particle *no*. Some linguists warn against this practice. The reason is that they are afraid that the *no*-question sentence form is not a plain question but a question form corresponding to the *no-da/no-de aru* construction, a construction with a subtle pragmatic presupposition, somewhat similar to the English construction "it is that ..." The fact is not clear. Perhaps, in colloquial speech, the opposition between the plain form and the *no da/de aru* is neutralized in interrogative forms, namely, the *no* interrogative form is ambiguous, or vague, between the plain and the presuppositional interrogative functions. But even that is the case, it is prudent not to exploit the *no* form for testing and illustrating empirical hypotheses concerning interrogative sentences. So, I will avoid using the *no* question forms for examples below.

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Interrogative indeterminates appear bare, without any overt Q-elements that govern them. Nevertheless, the paradigm corresponding to (7), (9) and (10) holds valid for interrogative indeterminates; they do not have to be m-governed by *an interrogative complementizer*. In other words, the pied-piping effect is observed in this case as well:

- (31) Hanako-wa nani-o yomu?  
'What does Hanako read?'
- (32) Hanako-wa dare-ga hometa hon-o yomu?  
'Hanako reads books that who praised?'
- (33) Masao-wa Hanako-ga nani-o yomu-to yuu?  
'Masao says Hanako reads what?'

Two alternative analyses are conceivable. First, we may assume that there is a clause-bound I-goal in this case, too; namely, we assume the existence of an empty Q-element as an I-goal corresponding to a segmentally empty I-probe,  $\bar{?}$ . Let us denote it by WH. Then we have an account of interrogative indeterminates similar to the account of universal and free choice indeterminates:

- (34) Hanako-wa nani-WH-o yomu?
- (35) Hanako-wa [dare-ga hometa hon]-WH-o yomu?
- (36) Masao-wa [Hanako-ga nani-o yomu-to]-WH yuu?

According to this analysis, the interrogative indeterminate has the same syntax as the other indeterminates; it is associated with the I-probe *ka* or  $\bar{?}$  with the intermediary of a clause-bound I-goal WH. Secondly, the other alternative is to assume that there is no Q-element for interrogative indeterminates, and no I-goal for the interrogative complementizer  $\bar{?}$  or *ka*. Then, interrogative indeterminates are directly bound by its licenser,  $\bar{?}$  or *ka*, without clause-bound intermediary I-goals.

I maintain that the latter is the right alternative. There are some adjunct clauses that do not allow the pied-piping of a Q-particle. For example,

- (37) Masao-wa Hanako-ga syatyoo-ni naru nara kaisya-ni todomaru  
CEO become if company-at stay  
'Masao will stay with the company if Hanako becomes CEO'
- (38) \*Masao-wa dare-ga syatyoo-ni naru nara-mo kaisya-ni todomar-arani
- (39) \*Masao-wa dare-ga syatyoo-ni naru nara-demo kaisya-ni todomaru

The unacceptability of (38)-(39) must be syntactic and may not be attributed to semantic anomaly: if we replace the subordinate conjunction *nara* with *to-yuu zyooken no moto de*

'under the condition that' in (37)-(39), we get wordy and somewhat awkward but acceptable sentences:

(40) Masao-wa Hanako-ga syatyoo-ni naru *to-yuu zyooken-no moto-de* kaisya-ni todomaru  
'Masao will stay with the company under the condition that Hanako becomes CEO.'

(41) Masao-wa dare-ga syatyoo-ni naru *to-yuu zyooken-no moto-de-mo* kaisya-ni todomar-  
arani  
'Of anyone, Masao will not stay with the company under the condition that they  
become CEO.'

(42) Masao-wa dare-ga syatyoo-ni naru *to-yuu zyooken-no moto-de-demo* kaisya-ni  
todomaru  
'Of anyone, Masao will stay with the company under the condition that they become  
CEO.'

Now, if interrogative indeterminates were bound to empty Q-elements, we should expect the same acceptability pattern for interrogative indeterminates as for negative concord and free choice indeterminates as shown in (38)-(39)/(41)-(42). Instead, we have grammatical sentences both with the subordinate conjunction *nara* and the nominal phrase *to-yuu zyooken no moto de*:

(43) Masao-wa dare-ga syatyoo-ni naru *nara* kaisya-ni todomaru?  
'Masao stays with the company if who becomes CEO?'

(44) Masao-wa dare-ga syatyoo-ni naru *to-yuu zyooken-no moto-de* kaisya-ni todomaru?  
'Masao stay with the company under the condition that who becomes CEO?'

From these observations I conclude that interrogative bare indeterminates are not governed by an I-goal but directly bound by an interrogative Comp.<sup>6</sup>

#### 1.3.4. Concessive indeterminates

A concessive indeterminate must be c-commanded by a concessive subordinate conjunction *-temo/demo*. Concessive indeterminates appear bare like interrogative indeterminates. Observe the following forms that correspond to (43)-(44):

(45) Masao-ga dare-ga syatyoo-ni naru *nara* kaisya-ni todomat-temo  
'whoever it is that Masao will stay with the company if they become CEO....'

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<sup>6</sup> In Old Japanese, interrogative indeterminates may either be bare or governed by the particle *ka*. Bare interrogative indeterminates were bound directly by an interrogative Comp, as in Modern Japanese and they are free of island constraints. The syntax of interrogative indeterminates governed by *ka* was much like the syntax of indeterminates associated with Q-particles in Modern Japanese; see Kuroda (forthcoming).

- (46) Masao-wa dare-ga syatyoo-ni naru to-yuu zyooken-no moto-de kaisya-ni  
 todomat-temo  
 'whoever it is that Masao will stay with the company under the condition that they  
 becomes CEO....'

(45) is somewhat awkward but not nearly as unacceptable as (38)-(39). I assume, then, that concessive indeterminates are, like interrogative indeterminates, directly bound by the I-probe (*temo/demo*) without any intermediate clause-bound Q-element.

## 2. The Watanabe phenomenon lost

Watanabe, starting from his seminal work in 1992, has taken the following paradigm as crucial evidence for wh-movement in Japanese.

- (47) (Watanabe (1992: 263))  
 a. John-wa [ Mary-ga nani-o katta -*kadooka* ] dare-ni tazuneta-no?  
     what bought whether who asked-Comp  
     'What did John ask whom *whether* Mary bought?'  
 b. ??John-wa [ Mary-ga nani-o katta -*kadooka* ] Tom-ni tazuneta-no?  
     what bought whether asked-Comp  
     'What did John ask Tom *whether* Mary bought?'

According to Watanabe, the a-version is grammatical as wh-agreement is satisfied locally by the matrix wh-phrase *dare-ni* 'to whom', while the b-version is ungrammatical due to a subjacency violation.

Kitagawa and Deguchi (2003), henceforth referred to as KD, dispute this claim on the basis of their prosodic approach in syntactic analysis. They point out that by choosing types of prosody one can make the a- and b-versions either acceptable or unacceptable. On the one hand, (47a) with the intended reading must be accompanied by two independent Short EPD (Short Emphatic Prosody), and on the other, the sentence form (47b) is acceptable, with the intended reading, if it is accompanied by "Long EPD" (Long Emphatic Prosody):

- (48) a. John-wa [ Mary-ga **N**Ani-o katta-kadooka] **D**Are-ni tazuneta-no?  
     what bought-whether whom asked-Comp  
     'What did John ask t whom Mary bought?' (KD:(33a)/(36))  
 b. John-wa [ Mary-ga **N**Ani-o katta-kadooka] Tom-ni tazuneta-no?  
     what bought-whether asked-Comp  
     'What did John ask Tom whether Mary bought?'

Kitagawa and Deguchi further point out that a "subjacency violation" reading is possible with an embedded multiple wh-clause such as (49), with Long EPD:

- (49) John-wa [**D**Are-ga **N**Ani-o katta-kadooka] Tom-ni tazuneta -no?  
     who what bought-whether asked -Comp  
     'Who did John ask Tom whether bought what? (KD:(35))'

As Kitagawa and Deguchi emphasize, the correlation between acceptable scopes and prosody patterns is independent of whether *wh*-islands are involved or not; only the structure of embedding is relevant. I refer the reader to Kitagawa and Deguchi's work for details; I will explain the prosodic types they define below in section 3.1. For the moment, it suffices to take note of what Kitagawa and Deguchi conclude:

"as long as each of the [above] sentences [in question] is properly accompanied by the required prosody, they do not yield a subjacency violation, and this situation holds whether or not an "additional *wh*-phrase" may appear, or wherever it may appear in the sentence. Based upon this observation, we would like to point out that "additional-*wh* effect" for Subjacency amelioration in Japanese as a syntactic generalization is questionable..." (KD:25)

For the sake of reference, let me repeat (47a/b) above with the judgment according to Kitagawa and Deguchi with minor adaptations:

- (50) a. John-wa [Mary-ga nani-o katta *-kadooka*] dare-ni *kiita*?  
           what bought whether who asked  
           'Whom did John ask whether Mary bought what?'  
    b. John-wa [Mary-ga nani-o katta *-kadooka*] Tom-ni *kiita*?  
           what bought whether asked  
           'What did John ask Tom *whether* Mary bought?'

Let me summarize the issue. Substitute *itta* 'said' for *kiita* 'asked' and the simple quotative conjunction *to* for *kadooka* 'whether or not' in (50a/b) and we get (51a/b):

- (51) a. John-wa [Mary-ga nani-o katta *-to*] dare-ni *itta*?  
           what bought that who said  
           'Whom did John tell that Mary bought what?'  
    b. John-wa [Mary-ga nani-o katta-*to*] Tom-ni *itta*?  
           what-ACC that Tom-DAT said  
           'What did John tell Tom that Mary bought?'

Both (51a) and (51b) are grammatical; this fact is non-problematic; we have a bridge verb. (47a/b)[= (50a/b)], in contrast, have the verb that might be expected to introduce a *wh*-island. Watanabe claims that it indeed does. Watanabe judges that (47b) is ungrammatical; but he also notes that (47a) is grammatical: the *wh*-phrase in the matrix clause apparently eliminates the possible island effect of the *wh*-constituent embedded inside the island. In contrast, Kitagawa and Deguchi claim that with proper prosody (50b)[=(47b)] is acceptable and that *kadooka* does not introduce an island. The phenomenon noticed by Watanabe turns out to be an epi-phenomenon due to improper attention to required prosody: the pair (50a/b)[=(47a/b)] is as non-problematic as the pair (51a/b). The Watanabe paradigm is lost.

Let me add here, as an anonymous reviewer of an earlier draft hinted, that the claim that the *wh*-complementizer *kadooka* does not introduce a *wh*-island in Japanese can be

tested by a form simpler than (50b); we may elide the indirect object that intervenes between *kadooka* and the main verb:

- (52) John-wa Mary-ga nani-o katta -kadooka kiita?  
what bought whether  
'What did John ask *whether* Mary bought ?'

To make the same point, we may use a main verb that does not select an indirect object:

- (53) John-wa Mary-ga nani-o katta -kadooka oboeteiru?  
what bought whether remember  
'What does John remember *whether* Mary bought ?'

Kitagawa and Deguchi would claim that (52) as well as (53) are acceptable with proper intonation, that is, these forms are grammatical, and show that no *wh*-island is introduced by *kadooka*.

### 3. Prosody of indeterminate constructions in general

#### 3.1. Deguchi and Kitagawa's EPD

I would like to investigate for the indeterminates with functional force other than the interrogative the analogues of the Watanabe paradigm illustrated by the pair (50a/b)[=(47a/b)]. For this purpose, I need to determine what the proper types of prosody are for indeterminate constructions in general. I will extend the idea of EPD (Emphatic Prosody) introduced by Kitagawa and Deguchi for the prosody of *wh*-interrogatives to the prosody of indeterminate constructions in general.

Let me at this point clarify Kitagawa and Deguchi's idea of EPD. EPD affects a string of words, which let us agree to call its *domain*; the domain begins with a *focus* at the left edge and ends at the right boundary of a clause that contains the focus as a constituent. For the purpose of our restricted study, we can assume that foci are indeterminates, that is, we assume that the domain of EPD is headed by a FI. Prosodically, two factors characterize EPD for *wh*-interrogatives. First, the focus (which is an interrogative *wh*-indeterminate for Kitagawa and Deguchi, and a FI in general for us) is pronounced with an *emphatic accent*. Secondly, the lexical accents in the domain of EPD that follow its focus is *curtailed*: "when one or more of lexical accents follow an emphatic accent [put on the focus], the phonetic effect of their H tones (of H\*L) is significantly curtailed..." (KD:3). Let us call the part of the domain of EPD that corresponds to its focus the *head*, and the part that follows the focus the *tail*. Thus, the head of EPD is where emphatic accent is put and the tail of EPD is where lexical accents are curtailed.

In examples below, emphatic accents are indicated by bold-face and the tail of EPD, where lexical accents are curtailed, is indicated by an underline. The moras that are



Long Complex EPD:

(57) John-wa [**DAre-ga** <**NAAni-o** kaTTA-to TOM-ni oMOWAseta no?>] [=KD (35)]  
           who      what  bought                  make-believe  
       'John made Tom believe that who bought what?'

(58) John-wa [**DAre-ga** <**NAAni-o** kaTTA-ka DOoka TOM-ni taZUneta no?>] [=KD (34a)]  
           who      what  bought whether                  asked  
       'John made Tom believe whether who bought what?'

Short Complex EPD:

(59) John-wa [**DAre-ga** <**NAAni-o** kaTTA-ka>] Tom-ni taZUneta no? [=KD fn20 (i)]  
           who      what  bought                  asked  
       'John asked Tom who bought what'

### 3.2. Preliminary remarks

Having summarized Kitagawa and Deguchi's account of prosody associated with wh-questions, we are now in a position to proceed to constructions with indeterminates other than interrogatives. Let us take a look at Table 1 again. Observe the difference in the lexical accents of indeterminates. The pitch pattern of bare indeterminates with interrogative force is "falling"; it starts with a high pitched mora and continues with low pitch: *DAre*, *NAAni* etc. In contrast, the pitch pattern of negative concord indeterminates is "rising"; it starts with low pitch and continues with high: *daRE-MO*, *naNI-MO*, etc. Indeterminates with concessive force and those with free choice force are doublets, with falling and rising pitch. For ease of reference, let us group indeterminates into *Falling Indeterminates* (FI), with the falling pitch pattern, and *Rising Indeterminates* (RI), with the rising pitch pattern. To summarize:

Falling Indeterminates (FI):

*DAre* (intr); *DAre-mo(-kamo)* (unvsl); *DAre-demo* (FrChc); *DAre..temo/demo* (Cncssv)

Rising Indeterminates (RI):

*daRE-MO* (NgtvCncrd); *daRE-DEMO* (FrChc); *daRE..TEmo/DEmo* (Cncssv)

Concessive and Free Choice indeterminates are prosodically ambiguous.

I will first deal with the prosody associated with Falling Indeterminates. We will see that Kitagawa and Deguchi's EPD can be directly extended to FIs in general. In contrast, we will encounter some complication with the prosody associated with RIs.

### 3.3. Prosody of FIs: Concessive, free choice and universal indeterminates as FIs

Both concessive and free choice indeterminates exist in doublets, as FIs and RIs. In this section, we deal with concessive and free choice indeterminates as FIs.

I believe that the same prosody pattern applies to universal *mo* indeterminates as to FI concessive and free choice indeterminates, but I will not illustrate this point. For, as noted above, universal indeterminates with *mo* sound one way or other awkward in many contexts. Later, however, I will claim that pied-piping in negative concord sentences provides contexts where universal *mo* appear rather happily.

The interrogative indeterminates are FIs; hence, we predict that the Kitagawa-Deguchi characterization of the prosody pattern for wh-sentences should also apply to the FI allomorphs of the concessive and the free choice indeterminates. In fact this prediction is upheld.

(60) FI Concessive:

- a. Mary-ga **NAni-o** katTEmo [Short EPD]  
       what buy  
       'whatever Mary buys..'
- b. John-ga [Mary-ga **NAni-o** kaTTA-to] TOm-ni itTEmo □ [Long EPD]  
       what bought say  
       'whatever John tells Tom that Mary bought ...'
- c. John-ga [Mary-ga **NAni-o** kaTTA-to] DAre-ni itTEmo [CmplxEPD] □  
       what bought who say  
       'Whomever John tells that Mary bought whatever ...'

(61) FI Free choice:

- a. Mary-ga **NAni demo** katta [Short EPD]  
       what bought  
       'Mary bought anything'
- b. John-wa [Mary-ga **NAni-o** kaTTA-to]-demo TOm-ni yuu □ [Long EPD]  
       what bought say  
       'John tells Tom that Mary bought whatever it is that she did'
- c. John-wa [Mary-ga **NAni-o** kaTTA-to]-demo DAre-ni-demo yuu [CmplxEPD]  
       what bought who  
       'John tells whomever that Mary bought whatever it is that she did'

Free choice Indeterminates are different from interrogative and concessive indeterminates in that they are bound by Q-particle *demo*. In (61c) we observe pied-piping: *demo* is attached not directly to *nani*, but to the phrase *Mary-ga nani o katta to*. But the head of the EPD does not extend to the entire host of *demo*; it is limited to *nani*.

For FI concessives, the same paradigm for the Watanabe epi-phenomenon holds as for interrogatives:

(62) FI Concessive: The Watanabe paradigm

- a. John-ga [Mary-ga **NAni-o** kaTTA-kaDOoka] DAre-ni kiiTEmo... [CmplxEPD] □

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b John-ga [Mary-ga **NAni-o** kaTTA-kaDOoka] Tom-ni kiiTEmo□□□□□ [Long EPD]

Both forms are grammatical.

The discussion about the Watanabe (epi-)phenomenon with indeterminates that require Q-particles involves pied-piping and this matter is better first discussed with negative concord indeterminates. I assume that the later description of the Watanabe phenomenon with negative concord indeterminates also holds with free choice and universal indeterminates *mutatis mutandis*, but for the interest of space I have to leave the Watanabe phenomenon with free choice and universal indeterminates aside in this paper.

An additional remark is in order here. For (60c) and (61c), we have Complex EPD. According to the definition of Complex EPD, the second focus is structurally subordinated to the first focus, and its emphatic accent can be phonetically suppressed. However, for the forms segmentally identical with (60c) and (61c), the second focus may take an emphatic accent as strong as or even stronger than that put on the first focus, with a pause preceding it. In such cases, it would be fair to assume that the prosody of these forms consists of two independent instances of Short EPD, sharing the same stretch of words as their tail. I call this type of prosody Split EPD.

For that matter, forms with two instances of interrogative indeterminates are also susceptible to the same type of prosodic ambiguity. For example, consider the following multiple wh-question:

(63) dare-ga nani-o katta?  
who what bought  
'who bought what?'

In this form the second focus may be uttered with a suppressed accent or with a full emphatic accent, possibly with a pause between the two foci. Thus, presumably (63) may have Short Complex EPD or Split EPD:

(64) [**DAre-ga** <**NAni-o** kaTTA>?] [Complex Short EPD]

(65) [**DAre-ga** // **NAni-o** kaTTA?] [Split Short EPD]

In the case of interrogative indeterminates, there seems to be a functional difference between the two prosodic alternatives: (64) is ambiguously either a multiple wh-question or a pair-list question, while (65) seems more likely to be interpreted as a pair-list question. In contrast, with concessive and free choice indeterminates, the prosodic ambiguity in question does not result in a functional difference, since the two occurrences of concessive or free choice indeterminates are scope-wise mutually free.

To sum up, we may conclude that FI indeterminates, interrogative as well as concessive and free choice (and universal as well) are prosodically equivalent. Their prosody can be accounted for in terms of Kitagawa and Deguchi's EPD.

### 3.4. Prosody of RIs

#### 3.4.1. Prosody of negative concord indeterminates

In this section I take up negative concord indeterminates as representatives of RIs and try to determine the patterns of prosody associated with RIs.

(66) Hanako-wa naNI-MO yoMANakatta  
          anything read-not  
      'Hanako did not read anything'

(67) Hanako-wa naNI-MO kaWANAkatta  
          anything bought-not  
      'Hanako did not buy anything'

(68) daRE-MO HOn-o yoMANakatta  
      anyone book read-not  
      'no one read books'

(69) daRE-MO HOn-o kaWANAkatta  
      anyone books bought-not  
      'no one bought books'

(66)-(69) are simple sentences that show that negative concord indeterminates *dare-mo* and *nani-mo* behave like atonic nouns. The difference between the accent patterns of the predicates in these sentences is due to the fact that *yomu* 'read' is an accented verb while *kau* 'buy' is atonic.

The intriguing part of the prosody of RIs concerns pied-piping. Consider the following sentence:

(70) Hanako-wa dare-ga kaita hon-mo yomanakatta  
          who wrote book read-not  
      'Of anyone, Hanako did not read books that they wrote'

I take the following four forms all acceptable:

- (71) a Hanako-wa daRE-GA KAITA HON-MO yoMANakatta
- b Hanako-wa daRE-GA KAITA **HOn-mo** yoMANakatta
- c Hanako-wa daRE-GA **Kaita** HOn-mo yoMANakatta
- d Hanako-wa **DAre-ga** KAIta HOn-mo yoMANakatta

Let me first note that *DAre-ga* is pronounced in (71d) as a FI, contrary to the assumption that the negative concord *dare* is a RI. Let us leave (71d) aside for the moment. In (71a) the pied-piped noun phrase as a whole is treated as if it is an atonic prosodic word; pitch is

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raised at the second mora and stays high through the end of the noun phrase. In (71b) the word sequence *dare-ga kaita* is made a prosodic word; pitch is raised at the second mora and stays high through the end of the word *kaita*. The distinction between (71a) and (71b) is subtle in natural flow of pronunciation: in the former, pitch is lowered after *HON MO*, while in the latter after *HON*. The difference can be exaggerated in deliberate pronunciation where one can put a pause between *kaita* and *hon* in (71b), but not in (71a). In (71c) the lexical accents of each word is kept in tact.

Note that in (71a) the lexical accents of *KAita* and *HOn o* are removed; one needs to sustain high pitch with a prolonged stretch of breadth through the end of the pied-piped phrase, which makes this form phonetically quite loaded. (71b) is less loaded, but the lexical accent of *KAita* is removed and high pitch must be sustained beyond a morphological word boundary. Nonetheless functionally (71b) and (71c) sound more marked or loaded than (71a); some emphasis, perhaps with contrastive effect, seems to be put on *hon* 'book' and *kaita* 'write', respectively. I would not predict that (71a) would be the most readily accepted form among (71a-c) by the native speaker judgment, if it is given for acceptability test without any natural contexts; nor would I expect (71a) to be the most likely form that one might find in a naturally collected corpus. But I take (71a) as analytically a neutral, unmarked representation of the RI prosody with pied-piping. (71b/c), I assume, are derived on the basis of (71a) with an effect of an extra-emphasis put on *hon* and *kaita*, respectively.

I propose that the idea of the Kitagawa-Deguchi analysis of prosody by means of EPD can be extended to the analysis of the RI prosody associated with negative concord RIs. Let us call the prosody associated with a RI *Rising Prosody*, in sort *RPD*. The *domain* of the RPD associated with a negative concord RI is by definition the part of the negative clause that starts with the RI and ends at the end of the clause. Recall that the domain of EPD consists of two parts: a *head* with the *emphatic accent* put on a FI and a *tail*. I assume that the domain of RPD also consists of a head and a tail.

In the case of EPD, a head is determined as the morphological word which carries a lexical accent and is headed by a FI. For the RPD associated with a negative concord RI, I assume that the head extends from the RI to the Q-particle *mo* and this head is the locus of the rising pitch pattern LHH...of an atonic prosodic word. The stretch of this rising pitch in effect constitutes a prosodic word. With pied-piping, the head of RPD can thus stretch over a long range, theoretically presumably unlimited. It is important to note that the lexical accents in the thus extended *head* of RPD are removed, rather than only suppressed to lesser or greater degree. I suggest to use the term *eradicated* as a technical term for this removal of lexical accents inside the *head* of RPD; in contrast we should reserve the term *curtailed* to characterize the suppression of accents such as happens inside the *tail* of EPD.

The *tail* of RPD is by definition the part of the domain that follows its head; thus, the domain of RPD is partitioned into its head and tail. I assume that the lexical accents inside the *tail* of the RPD are *curtailed*, as is the case with EPD.

What I have described above is the analytically unmarked prosody associated with a RI. (71a) exemplifies this case. Onto this prosody pattern, RPD, may additional emphatic

prosody be imposed. This secondary prosody associated with RPD is an instance of EPD and consists of its own head and tail. Let us call the original head of the RPD its *primary head* and the head of this secondary EPD the *secondary head* of the RPD. Any morphological word inside the primary head of the RPD that follows the RI may be a secondary head. It is *hon mo* in (71b) and *kaita* in (71c). The secondary head bears emphatic lexical stress, which, however, can be attenuated as in the case of the secondary head of the Complex EPD. The domain of the secondary prosody (EPD) extends to the end of the domain of the primary prosody (RPD). The *tail* of the secondary prosody is the part of the domain of the primary prosody that follows the secondary head. It can be equal to the original tail of the RI prosody, as *yomanakatta* in (71b), or can properly contain it, as *hon-o yomanakatta* in (71c). The range of the primary head, that is, the range of the rising pitch LHH.. is terminated at the left of the secondary head, thus we have the shortened head of the RPD *daRE-GA KAITA* in (71b) and *daRE-GA* in (71c). The lexical accents in the tail of the secondary EPD are curtailed, as is the case with the tail of the EPD as defined by Kitagawa and Deguchi.

Let us recapitulate the Kitagawa-Deguchi Analysis Adapted for RIs (KDA-RI):

Simple RPD:

- (a) RPD consists of a *head* and a *tail*.
- (b) The head is headed by a RI and extends to the Q-particle *mo*.
- (c) The lexical accents inside the head are eradicated.
- (d) The lexical accents in the tail are curtailed.

RPD with secondary EPD:

- (e) Secondary prosody, EPD, may be superimposed on RPD.
- (f) Any morphological word in the head of RPD may be the head of secondary EPD.
- (g) The domain of the secondary EPD is the part of the domain of the primary RPD to the right of the secondary head inclusive.

With this analysis in mind, I give more adequate representations of sentences in (71a-c) as follows:

- (72) a. Hanako-wa *daRE-GA KAITA HON-MO yoMANakatta*
- b. Hanako-wa *daRE-GA KAITA **HOn-mo** yoMANakatta*
- c. Hanako-wa *daRE-GA **KAita** HOn-mo yoMANakatta*

The head of the primary prosody (RPD), which is terminated at the position of the head of the secondary prosody, if there is one as in (72b/c), is indicated by italic. The head of the secondary prosody (EPD) is indicated by bold-face; it is assumed to bear a suppressed emphatic accent. The tail of the primary or of the secondary prosody, where lexical accents are curtailed, is indicated by underline.

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Before testing the proposed analysis with more examples, let me at this point return to (71d), which previously I put aside. I presume that the lexical accents that follow *DAre-ga* in (71d) are curtailed in natural pronunciation. I assume that we have here an instance of EPD. In conformity with the improved transcriptions given in (72a-c), let me also replace (71d) by the following:

(72) d. Hanako-wa **DAre-ga** KAita HOn-mo yoMANakatta

It might be tempting to assume that the prosodic pattern is accounted for as a limit case where the secondary EPD prosody is superimposed on the entire domain of the primary RID, thus completely overriding the primary prosody. The suggestion is that the negative concord rising *daRE* is prosodically, but not functionally, converted to falling *DAre*. But I argue against this hypothesis.

Recall that negative concord indeterminates are segmentally, though not prosodically, homophonous with universal indeterminates. Thus, *prima facie* the *DAre* in (72d) can be an instance of universal *DAre*. And I claim indeed that is the case. If so, negation must take narrower scope than *DAre* for the intended interpretation. We can in fact show that negative concord *daRE* takes narrow scope but *DAre* in forms like (72d) takes wide scope. On the ground of this fact, I maintain that *DAre* in (72d) is universal quantifier, not a prosodically aberrant occurrence of the negative concord indeterminate. Compare the following forms; they differ only in prosody:

(73) a. Hanako-wa daRE-GA KAITA HON MO kaTTE yoMANakatta

b. Hanako-wa DAre-ga KAita HOn-mo kaTTE yoMANakatta  
who wrote book buy read-not

With *katte yomanakatta* uttered naturally without a pause, both (73a) and (73b) can mean 'For books written by anyone, Hanako did not buy and read them'. We can put a pause between *katte* and *yomanakatta* in (73b) and mean 'for books written by anyone, Hanako bought them but did not read them'. In contrast, we cannot put a pause between *katte* and *yomanakatta* in (73a). We can account for this contrast, if we assume that *daRE* in (73a) is semantically associated with negation (and interpreted as negative concord indeterminate), while *Dare* in (73b) is associated with *mo* and interpreted as a universal quantifier

Among the four alternatives given in (71a-d), (71d) is likely to be the most, and (71a) the least, readily and easily accepted one by the native judgment if these forms are given for acceptability judgment without any particular pragmatic context. This fact needs an account. Functionally, (71a) is unmarked in comparison with (71b) and (71c), since the latter two bear an added factor of emphasis, entailing the existence of a certain pragmatic presupposition. For the intended interpretation, neither the negative concord as in (71a) nor the universal quantifier as in (71d) should have functional advantage in the given syntactic context. Hence, from the functional perspective, (71a) and (71d) are less loaded than (71b) and (71c) and should be at the same level of acceptability. However, in the prosodic perspective, (71a) is very loaded; it demands unnaturally sustained articulatory tension. We can expect that this tension contributes to making its acceptability degree low.

Let us now test the above analysis with a couple of other sentences. I will first substitute *eRAnDa* 'chose' for the verb *KAiTa* 'write', the penultimate accented *TAKo* 'octopus' and the ultimate accented *niKU* 'meat' for the noun *HOn* 'book', and *taBEnakatta* 'did not eat' for *yoMAnakatta* 'did not read'. We confirm the same patterns of possible prosodic patterns as above:

- (74) a. Masao-wa *daRE-GA ERANDA TAKO-MO taBEnakatta*  
 b. Masao-wa *daRE-GA ERANDA TAKo-mo taBEnakatta*  
 c. Masao-wa *daRE-GA eRAnDa TAKo-mo taBEnakatta*  
 d. Masao-wa **DAre-ga** *eRAnDa TAKo-mo taBEnakatta*  
 'Of anybody, Masao did not eat any octopus that they chose'

- (75) a. Masao-wa *daRE-GA ERANDA NIKU-MO taBEnakatta*  
 b. Masao-wa *daRE-GA ERANDA niKU-mo taBEnakatta*  
 c. Masao-wa *daRE-GA eRAnDa niKU-mo taBEnakatta*  
 d. Masao-wa **DAre-ga** *eRAnDa niKU-mo taBEnakatta*  
 'Of anybody, Masao did not eat any meat that they chose'

If we substitute the atonic *iKA* 'squid' for the ultimate accented *niKU*, we get the following paradigm:

- (76) a. Masao-wa *daRE-GA ERANDA IKA-MO taBEnakatta*  
 b. Masao-wa *daRE-GA ERANDA iKA-MO taBEnakatta*  
 c. Masao-wa *daRE-GA eRAnDa iKA-MO taBEnakatta*  
 d. Masao-wa **DAre-ga** *eRAnDa iKA-MO taBEnakatta*  
 'Of anybody, Masao did not eat any squid that they chose'

Note the difference between (75b) and (76b), a subtle difference both prosodically and semantico-functionally. The particle *mo* is enclitic: it preserves the accent of the word it attaches to. The noun *niKU* has a ultimate accent and hence when *mo* is attached to it, we get the accented *niKU-mo*. In contrast, *iKA* is atonic and when the enclitic *mo* is attached to it, we get atonic *iKA-MO*, not *iKA-mo*. Note, further, that *IKA-MO* in (76a) is part of the elongated prosodic word with a rising pitch pattern *daRE-GA ERANDA IKA-MO*; in contrast, *iKA-MO* in (76b-d) is an instance of an atonic morphological word. The word *iKA-MO* in (76b) is supposedly the head of the secondary prosody, EPD, but due to the fact that *ika* is an atonic noun the semantico-functional emphasis of the secondary prosody must be borne by this atonic phrase. Prosodically, *iKA-MO* must be emphatic, but how prosodic emphasis is actualized in an atonic phrase is a question that I am not in a position to speculate and have to leave open for experimental inquiries. In contrast to *iKA-MO* in (76b), *iKA-MO* in (76c) is supposed not to be prosodically emphatic. The experimental comparison, if possible, between (76b) and (76c) should be instructive for finding the phonetic and functional character of the paradigm we are concerned with here. But the contrast in question may be too subtle to be tested experimentally.

If an atonic verb, for example, *tuTTA* 'fished/caught' substitutes for the accented verb *eRAnada* 'choose', a situation similar to (76b) obtains this time with the c-alternative:

- (77) a. Masao-wa *daRE-GA TUTTA IKA-MO taBEnakatta*  
 b. Masao-wa *daRE-GA TUTTA **iKA-MO** taBEnakatta*  
 c. Masao-wa *daRE-GA **tuTTA** iKA-MO taBEnakatta*  
 d. Masao-wa **DAre-ga tuTTA iKA-MO taBEnakatta**

Here, too, semantico-functional emphasis must be borne by an atonic phrase, **tuTTA** in (77c).

I conclude that these examples substantiate the analysis of the RI prosody worked out with (71a-d) [= (72a-d)] above.

### 3.4.2. Prosody of free choice and concessive RI indeterminates

To recall, free choice and concessive indeterminates are prosodically ambiguous, either FIs or RIs. The Kitagawa-Deguchi Analysis Extended for RIs, which was worked out above with negative concord indeterminates, also accounts for the prosody of RI free choice and concessive RI indeterminates, as shown below. A couple of remarks may be in order. First, for concessive indeterminates, since they are bare, the right edge of the head of RPD is not overtly marked by a Q-particle. Secondly, the indeterminates in the d-alternatives below are the FI variants of free choice and concessive indeterminates.

- (78) a. Masao-ga *daRE-GA ERANDA TAKO-O TAbetemo*  
 b. Masao-ga *daRE-GA ERANDA **T**Ako-o TAbetemo*  
 c. Masao-ga *daRE-GA **eR**Anda TAko-o TAbetemo*  
 d. Masao-ga **DAre-ga eRAnda TAko-o TAbetemo**
- (79) a. Masao-ga *daRE-GA ERANDA NIKU-O TAbetemo*  
 b. Masao-ga *daRE-GA ERANDA **ni**KU-o TAbetemo*  
 c. Masao-ga *daRE-GA **eR**Anda niKU-o TAbetemo*  
 d. Masao-ga **DAre-ga eRAnda niKU-o TAbetemo**
- (80) a. Masao-**ga** *daRE-GA ERANDA IKA-O TAbetemo*  
 b. Masao-ga *daRE-GA ERANDA **i**KA-O TAbetemo*  
 c. Masao-ga *daRE-GA **eR**Anda iKA-O TAbetemo*  
 d. Masao-ga **DAre-ga eRAnda iKA-O TAbetemo**
- (81) a. Masao-wa *daRE-GA ERANDA TAKO-DEMO TAbeta*  
 b. Masao-wa *daRE-GA ERANDA **T**Ako-demo TAbeta*  
 c. Masao-wa *daRE-GA **eR**Anda TAko-demo TAbeta*  
 d. Masao-wa **DAre-ga eRAnda TAko-demo TAbeta**
- (82) a. Masao-wa *daRE-GA ERANDA NIKU-DEMO TAbeta*  
 b. Masao-wa *daRE-GA ERANDA **ni**KU-demo TAbeta*  
 c. Masao-wa *daRE-GA **eR**Anda niKU-demo TAbeta*  
 d. Masao-wa **DAre-ga eRAnda niKU-demo TAbeta**

- (83) a. Masao-wa *daRE-GA ERANDA IKA-DEMO* TAbeta  
 b. Masao-wa *daRE-GA ERANDA* **iKA-DEMO** TAbeta  
 c. Masao-wa *daRE-GA* **eRAnda** iKA-DEMO TAbeta  
 d. Masao-wa **DAre-ga** eRAnda iKA-DEMO TAbeta

#### 4. Generalized Watanabe phenomena

With the prosody associated with both FIs and RIs having been worked out, we are now prepared to deal with the Watanabe paradigms for indeterminates in general. We are interested in the paradigm illustrated by (47a/b), or by the amended (50a/b), but I now wish to replace the interrogative force of indeterminates by those with other functional force.

##### 4.1. Generalized Watanabe phenomena with negative concord indeterminates

###### 4.1.1. Subordinate clauses with quotative *to*

Let us first consider the non-problematic pair with a bridge verb. We replace *itta* 'said' by its negative *iwanakat-ta* 'did not say' in (50a/b) and interpret the indeterminates *nani* and *dare* in them with negative concord instead of interrogative force. To begin with, *dare* must be bound by *mo*; we must have *dare-ni-mo* instead of *dare-ni*. Next, the syntax of indeterminates described in section 1.3 requires that I-probe NEG *m*-governs I-goal *mo* attached to the *to*-phrase, pied-piping the indeterminate *nani* in it. We get the following forms:

- (84) a. John-wa [Mary-ga nani-o katta-to]-mo dare ni-mo iwanakatta  
           anything bought that anyone say-neg-past  
       ◆John did not say to **anyone** [that Mary bought anything]'  
       'Of **anything**, John did not say to **anyone** [that Mary bought them]'  
 b. John-wa [Mary-ga nani-o katta-to]-mo Tom-ni iwanakatta  
           anything that Tom say-neg-past  
       ◆John did not say to Tom that Mary bought anything'  
       'Of **anything**, John did not say to Tom that Mary bought them'

In each example, I inserted a line marked with ◆ between a gloss and an English translation. ◆ indicates that an English form is more or less a word-by-word rendition and not only may not be a grammatical English form but also may not accurately correspond to the intended meaning of the Japanese example. Thus, for example, in (84a) both *nani-o* and *dare-ni-mo* are negative concord terms; this fact is not reflected in the ◆marked form in (84a). In contrast, the English sentences given between a pair of quotation marks as translations, syntactically awkward though they are, are intended to be accurate representations of the intended meanings of the Japanese original. Incidentally, *them* in these English translations is understood as coreferential with *anything*, following the convention already introduced. I continue to use ◆forms below when advisable in order for the reader to get a feel on the structure of Japanese forms that may not be obvious from English translations.

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Both (84a/b) are grammatical, as expected. Indeed, all the prosodic patterns predicted by the KDA-RI are acceptable. In order to display those patterns, we first need to give underlying representations of (84a/b) that contain morphological information sufficient for the derivation of the lexical accents in the sentences in question.<sup>8</sup>

- (85) a. John-wa Mary-ga # nani>o' # kaw>ta' #/>to'>mo # dare>ni'>mo # iw>ana'kat>ta'  
 b. John-wa Mary-ga # nani>o' # kaw>ta' #/>to'>mo # To'm>ni' # iw>ana'kat>ta'

Due to prosodic ambiguity of *to'*, (85a/b) each contain two representations, which I separate below:

- (86) a1 John-wa Mary-ga # nani>o' # kaw>ta' >to'>mo # dare>ni'>mo # iw>ana'kat>ta'  
 a2 John-wa Mary-ga # nani>o' # kaw>ta' #to'>mo # dare>ni'>mo # iw>ana'kat>ta'  
 b1 John-wa Mary-ga # nani>o' # kaw>ta' >to'>mo # To'm>ni' # iw>ana'kat>ta'  
 b2 John-wa Mary-ga # nani>o' # kaw>ta' #to'>mo # To'm>ni' # iw>ana'kat>ta'

From these representations, we can derive the lexical accents in (86a/b) actualized as shown below:

- (87) a1 John-wa Mary-ga # naNI-O # kaTTA-to-mo # daRE NI-MO # iWANAKatta  
 a2 John-wa Mary-ga # naNI-O # kaTTA # TO-mo # daRE-NI-MO # iWANAKatta  
 b1 John-wa Mary-ga # naNI-O # kaTTA-to-mo # Tom-ni # iWANAKatta  
 b2 John-wa Mary-ga # naNI-O # kaTTA # TO-mo # Tom-ni # iWANAKatta

Now, (84a) contains two RIs, *nani* and *dare*. Recall that a sentence form that contains two interrogative indeterminates, or two FIs in general, are prosodically ambiguous; it may have Complex EPD or Split EPD. It seems that the same situation obtains for sentences that contain two negative concord indeterminates like (84a); it may have Complex RPD or Split RPD. The prosodic ambiguity is probably correlated with functional ambiguity similar to the ambiguity we have associated with double FI sentences, but more research is needed to confirm this point. In the following presentation, I disregard this possible ambiguity and present examples in the forms with Split RPD.

We can apply KDA-RI to the two RIs in (84a) independently. Let us first keep *dare-ni-mo* invariant as a RPD head *daRE-NI-MO* and apply KDA-RI to *nani-o*. We derive three and four forms from (87a1) and (87a2), respectively:

- (88) 1 John-wa Mary-ga *naNI-O KATTA-TO-MO daRE-NI-MO iWANAKatta*  
 2 John-wa Mary-ga *naNI-O kaTTA-to-mo daRE-NI-MO iWANAKatta*  
 3 John-wa Mary-ga **NAni-o** kaTTA-to-mo *daRE-NI-MO iWANAKatta*

---

<sup>8</sup> I use the following notations and conventions. High pitch in speech forms is indicated by capital letters, low pitch by lower case letters. The quotation mark ' indicates the place of accent in underlying representations. It is put after the vowel of the "accented" mora, that is, the mora after which pitch is to shift from high to low. For example, *ho'n* is pronounced as HOn. The "larger than" sign > indicates that the morpheme that follows it is enclitic, that is, it loses its accent if preceded by an accented morpheme. #/> indicates prosodic ambiguity between a possible word boundary and an enclitic morpheme boundary.



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'After all'

- 5 John-wa Mary-ga naNI-O kaTTA TO-mo TOM-ni iWANAKatta.  
what bought said-not  
'John did not tell Tom that she bought anything'

In this context, (92.5) [= (91.3)] may indeed be taken as a kind of meta-statement: it does not simply state that, of anything, John did not tell Tom that Mary bought them, but at the same time it summarizes what has preceded it in the discourse, which serves the role of a pragmatic presupposition for (91.3) in the context.

In contrast, those forms with RPD without secondary EPD [(i.e., (88.1) - (91.1)] are assumed to be unmarked; grammatically they are free from any pragmatic presupposition; they could be associated with, but do not entail the existence of, such a pragmatic presupposition as indicated in the discourse of (92).

So far, we have kept the second indeterminates in (88)-(89) invariant as *daRE-NI-MO*. According to KDA-RI, we may substitute *DAre-ni-mo* for it. Corresponding to each of the forms in (88) and (89), we have a variation with *DAre-ni-mo*, a universal quantifier:

- (93) 1 John-wa Mary-ga naNI-O KATTA-TO-MO **DAre-ni-mo** iWANAKatta  
2 John-wa Mary-ga naNI-O **kaTTA-to-mo** **DAre-ni-mo** iWANAKatta  
3 John-wa Mary-ga **NAAni-o** kaTTA-to-mo **DAre-ni-mo** iWANAKatta
- (94) 1 John-wa Mary-ga naNI-O KATTA TO-MO **DAre-ni-mo** iWANAKatta  
2 John-wa Mary-ga naNI-O KATTA **TO-mo** **DAre-ni-mo** iWANAKatta  
3 John-wa Mary-ga naNI-O **kaTTA TO-mo** **DAre-ni-mo** iWANAKatta  
4 John-wa Mary-ga **NAAni-o** kaTTA TO-mo **DAre-ni-mo** iWANAKatta

However, I feel somewhat uncomfortable with (93.1-2) and (94.1-3). In these forms, *DAre-ni-mo* must be interpreted as a universal quantifier and must take with scope wider than negation, but at the same time *naNI*, which precedes *DAre*, must take narrower scope than negation. This conflict perhaps causes processing difficulty. If *DAre-ni-mo* is put before the *to*-clause, I get sentences that sound much better than (93.1-2) and (94.1-3):

- (93') 1 John-wa **DAre-ni-mo** Mary-ga naNI-O KATTA-TO-MO iWANAKatta  
2 John-wa **DAre-ni-mo** Mary-ga naNI-O **kaTTA-to-mo** iWANAKatta  
3 John-wa **DAre-ni-mo** Mary-ga **NAAni-o** kaTTA-to-mo iWANAKatta
- (94') 1 John-wa **DAre-ni-mo** Mary-ga naNI-O KATTA TO-MO iWANAKatta  
2 John-wa **DAre-ni-mo** Mary-ga naNI-O KATTA **TO-mo** iWANAKatta  
3 John-wa **DAre-ni-mo** Mary-ga naNI-O **kaTTA TO-mo** iWANAKatta  
4 John-wa **DAre-ni-mo** Mary-ga **NAAni-o** kaTTA TO-mo iWANAKatta

To sum up, with bridge verbs, the KDA-RI analysis works well; we have confirmed that we have no island problem with negative concord indeterminates as we do not with interrogative indeterminates.

#### 4.1.2. Subordinate clauses with *kadooka*

Next, we consider the case with a verb that selects a *kadooka* complement. With pied-piping taken into consideration, we would expect the following paradigm corresponding to (50a/b) for the negative concord construction:

- (95) a. ◇John-wa [Mary-ga nani-o katta -kadooka]-mo dare-ni-mo kikanakatta  
 anything bought whether anyone ask-neg-past  
 ◆John did not ask anyone whether Mary bought anything'  
 'Of anything, John did not ask anyone whether Mary bought it'
- b. ◇John-wa [Mary-ga nani-o katta-kadooka]-mo Tom-ni kikanakatta  
 anything bought whether Tom ask-neg-past  
 ◆John did not ask to Tom whether Mary bought anything'  
 'Of anything, John did not ask Tom whether Mary bought it'

I put ◇ here to indicate that for the moment I proceed in suspending the grammaticality judgments on these forms. If *kadooka* does not have an "island effect" for negative polarity indeterminates as well, (95)b should be acceptable. For that matter, the island effect could be tested with simpler forms:

- (96) ◇John-wa Mary-ga nani-o katta -kadooka-mo kikanakatta  
 anything bought whether ask-neg-past  
 'Of anything, John did not ask pro whether Mary bought it'
- (97) ◇John-wa Mary-ga nani-o katta-kadooka-mo oboete-inai  
 anything remember be-neg  
 'Of anything, John does not remember whether Mary bought it'

(96) does not contain an overt indirect object; the indirect object is understood. (97) has a predicate that does not select indirect object.

Let us consider (97). The underlying lexical accents in (97) must be shown. The word *kadooka* is a Complementizer and a unit in syntax but morphologically it is analyzed as follows:

- (98) >ka' #/>do'o #/>ka'.

From (98), we can determine four prosodic alternants for the phrase *katta-ka-doo-ka-mo*:

- (99) a. kat >ta' >ka' >do'o >ka' >mo = kaTTA-ka-doo-ka-mo  
 b. kat >ta' >ka' #do'o >ka' >mo = kaTTA-ka DOo-ka-mo  
 c. kat >ta' >ka' >do'o #ka' >mo = kaTTA-ka-doo KA-mo  
 d. kat >ta' >ka' #do'o #ka' >mo = kaTTA-ka DOo KA-mo

The morphological structure of *oboete-inai* is

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(100) obo'e >te' #/>i >na' >i.

For the interest of space, however, it suffices for our purposes to consider only one prosodic possibility: *oBOete-inai*. We can apply KDA-RI to (97) with each of the alternants in (99) and get the following forms:

- (101) a1 ◇John-wa Mary-ga *naNI-O KATTA-KA-DOO-KA-MO oBOete-inai*  
 a2 ◇John-wa Mary-ga *naNI-O **kaTTA-ka-doo-ka-mo** oBOete-inai*  
 a3 ◇John-wa Mary-ga **NAni-o** *kaTTA-ka-doo-ka-mo oBOete-inai*  
 b1 ◇John-wa Mary-ga *naNI-O KATTA-KA DOO-KA-MO oBOete-inai*  
 b2 ◇John-wa Mary-ga *naNI-O KATTA-KA **DOo-ka-mo** oBOete-inai*  
 b3 ◇John-wa Mary-ga *naNI-O **kaTTA-ka** DOo-ka-mo oBOete-inai*  
 b4 ◇John-wa Mary-ga **NAni-o** *kaTTA-ka DOo-ka-mo oBOete-inai*  
 c1 ◇John-wa Mary-ga *naNI-O KATTA KA-DOO-KA-MO oBOete-inai*  
 c2 ◇John-wa Mary-ga *naNI-O KATTA-KA-DOO **KA-mo** oBOete-inai*  
 c3 ◇John-wa Mary-ga *naNI-O **kaTTA-ka-doo** KA-mo oBOete-inai*  
 c4 ◇John-wa Mary-ga **NAni-o** *kaTTA-ka-doo KA-mo oBOete-inai*  
 d1 ◇John-wa Mary-ga *naNI-O KATTA-KA DOO KA-MO oBOete-inai*  
 d2 ◇John-wa Mary-ga *naNI-O KATTA-KA DOO **KA-mo** oBOete-inai* [=c2]  
 d3 ◇John-wa Mary-ga *naNI-O KATTA-KA **DOo** KA-mo oBOete-inai*  
 d4 ◇John-wa Mary-ga *naNI-O **kaTTA-ka** DOo KA-mo oBOete-inai*  
 d5 ◇John-wa Mary-ga **NAni-o** *kaTTA-ka DOo KA-mo oBOete-inai*

(101a1), (101b1), (101c1) and (101d1) are phonetically identical; they are associated with RPD without secondary EPD. (101c2) and (101d2) are also identical. For each of (101a)-(101d), the last entry is associated with EPD with *nani* interpreted as a universal quantifier. The rest have RPD with secondary EPD. I would say that the 16 forms in (101) are all "morphologically" well-formed, that is, they sound like good Japanese sentence forms if one does not attend to what it might mean.

We can enumerate all the possible prosodic patterns for (95a/b) in a similar manner. For (95a), we will have altogether 32 entries, 16 with the indirect object given as *daRE-NI-MO*, and 16 as *DAre-ni-mo*. For each of these groups the form with RPD without secondary EPD is counted four times, just as in (101); there are 4 forms associated with EPD, with *nani* taken as a universal quantifier; the remaining eight have RPD with secondary EPD, of which two are identical. All these forms, I again maintain, are morphologically well-formed. In all, then, (95a) is prosodically 26 ways ambiguous. For (95b), we have essentially the same paradigm as for (101); one with RPD without secondary EPD, seven with RPD with secondary EPD, four with EPD. Of these alternative forms for (97) and (95a/b), it would be hard to differentiate some from others if they are given with the natural flow of speech. But I maintain that they can be distinguished from each other in introspection, or even in speech form, if we pronounce them deliberately enough to distinguish them.

It is quite difficult to make grammaticality judgments on all of these forms. Nonetheless, we can try to make some sense out of as much judgment as we can make on

these forms. First of all, I would tentatively rule out as ungrammatical all the forms with EPD where *nani* is taken as universal *NAni*:

(102) \*John-wa Mary-ga **NAni-o** kaTTA-ka-doo-ka-mo oBOete-inai

(103) \*John-wa Mary-ga **NAni-o** kaTTA-ka-doo-ka-mo daRE-NI-MO kiKANAKatta  
 \*John-wa Mary-ga **NAni-o** kaTTA-ka-doo-ka-mo DAre-ni-mo kiKANAKatta

I would also rule out tentatively as unacceptable the forms associated with RPD without secondary EPD, although relevant judgments are somewhat elusive:

(104) \*John-wa Mary-ga *naNI-O* *KATTA-KA-DOO-KA-MO* oBOete-inai

(105) \*John-wa Mary-ga *naNI-O* *KATTA-KA-DOO-KA-MO daRE-NI-MO* kiKANAKatta

(106) \*John-wa Mary-ga *naNI-O* *KATTA-KA-DOO-KA-MO DAre-ni-mo* kiKANAKatta

(107) \*John-wa Mary-ga *naNI-O* *KATTA-KA-DOO-KA-MO Tom-ni* kiKANAKatta

I will return to discuss the judgment on these forms shortly.

The remaining are the forms with RPD with secondary EPD. They come in a great variety, as the locus of emphatic stress shifts. Judgments over forms of this category are inevitably subtle. Nonetheless, some forms seem to be susceptible to more secure judgments than others. Consider (101d4). This form seems quite adequate in a discourse context similar to (92) such as follows:

(108) John-wa Mary-ga TAko-o kaTTA-ka DOo-ka oBOete-inai  
 octopus bought whether rememver is-neg  
 'John does not remember whether Mary bought octopus.  
 iKA-O kaTTA-ka DOo KA-mo oBOete-inai  
 squid bought whether remember is-neg  
 'Nor whether she bought squid or not'  
 saBA-O kaTTA-ka DOo KA-mo oBOete-inai  
 mackerel bought whether remember is-neg  
 'Nor whether she bought mackerel or not'

Kekkyoku

'After all,'

John-wa Mary-ga *naNI-O* kaTTA ka DOo KA-mo oBOete-inai [= (101d4)]

anything bought whether remember is-neg

'of anything, John does not remember whether Mary bought it or not.'

In this context, as in (92), (101d4) counts as a meta-statement which summarizes what has preceded it in the discourse. Here a pragmatic, contextual presupposition is given to (101d4) by the statements that precede it. An emphatic focus is put on *kaTTA-ka*, which is a common predicate that is attributed to the contrastive objects, octopus, squid and mackerel. The choosing of the form *kaTTA-ka DOo KA-mo* where *KA-mo* is

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morphologically separated implies putting some degree of emphasis on *KA-mo*. But the acceptability seems to be further enhanced if emphatic stress is also put on **KA-mo**:

- (109) John-wa Mary-ga TAko-o kaTTA-ka DOo-ka oBOete-inai  
           iKA-O kaTTA-ka DOo **KA-mo** oBOete-inai  
           saBA-O kaTTA-ka DOo **KA-mo** oBOete-inai  
       kekkyoku  
       John-wa Mary-ga *naNI-O* kaTTA ka DOo KA-mo oBOete-inai

This form with more emphatic stress is possible on the basis of (101d4), because a "curtailed" lexical accent can be revoked, or even enhanced, to start a new token of Short EPD.

For reasons I am not going to elaborate for the sake of space, (101d4) is, I think, about the most suited for us to concoct a suitable context for enhanced acceptability. For other forms with secondary EPD in (101) it is not so easy to construct contexts in which the head of the secondary EPD gets contrasted. But it seems sensible to assume that forms associated with secondary EPD are all acceptable if proper contexts can be provided. For this reason, I decide to count them as theoretically grammatical.

I make the same assumption for forms related to (95a/b): the forms with secondary EPD are acceptable if they are provided proper contexts. For the benefit of the reader I will display all such forms related to (95a) on the model of (101):

- (110) a2 J-wa M-ga *naNI-O* kaTTA-ka-doo-ka-mo *daRE-NI-MO* kiKANAKatta  
       b2 J-wa M-ga *naNI-O* *KATTA-KA* DOo-ka-mo *daRE-NI-MO* kiKANAKatta  
       b3 J-wa M-ga *naNI-O* kaTTA-ka DOo-ka-mo *daRE-NI-MO* kiKANAKatta  
       c2 J-wa M-ga *naNI-O* *KATTA-KA-DOO* KA-mo *daRE-NI-MO* kiKANAKatta  
       c3 J-wa M-ga *naNI-O* kaTTA-ka-doo KA-mo *daRE-NI-MO* kiKANAKatta  
       d2 J-wa M-ga *naNI-O* *KATTA-KA-DOO* KA-mo *daRE-NI-MO* kiKANAKatta [=c2]  
       d3 J-wa M-ga *naNI-O* *KATTA-KA* DOo KA-mo *daRE-NI-MO* kiKANAKatta  
       d4 J-wa M-ga *naNI-O* kaTTA-ka DOo KA-mo *daRE-NI-MO* kiKANAKatta

(110) lists forms where the indirect object *dare-ni-mo* is actualized as *daRE-NI-MO*. If we substitute *DAre-ni-mo* for *daRE-NI-MO*, *DAre-ni-mo* must be preposed, in order to resolve the conflict between the narrow scope of *naNI* and the wide scope of *DAre*, as we have seen above with (94)-(95). By analogy with (108), we can concoct a discourse context where (110d4) would be appropriate:

- (111) John-wa Mary-ga TAko-o kaTTA-ka DOo-ka daRE-NI-MO kiKANAKatta  
           octopus bought whether anyone ask-neg-past  
       'John does not ask anyone whether Mary bought octopus or not.  
           iKA-O kaTTA-ka DOo KA-mo daRE-NI-MO kiKANAKatta  
           squid bought whether anyone ask-neg-past  
       'Nor whether she bought squid or not'

saBA-O kaTTA-ka DOo KA-mo daRE-NI-MO kiKANAKatta  
 mackerel bought whether anyone ask-neg-past  
 'Nor whether she bought mackerel or not'

Kekkyoku

'After all,'

John-wa Mary-ga *naNI-O* kaTTA-ka DOo KA-mo *daRE-NI-MO* kiKANAKatta  
 anything bought whether anyone ask-neg-past  
 'of anything, J does not ask anyone whether M bought it or not.'

Let me summarize: I have decided that the forms with RPD accompanied by secondary EPD are acceptable; on the other hand, I have decided tentatively that all the other forms, that is, those with RPD without secondary EPD or those with universal quantifier *NAni* instead of negative concord *naNI* are ungrammatical.

We now proceed, so to speak, to the heart of a matter. What is remarkable is that curiously if we drop the pied-piping *mo* after *kadooka* in (105), we get an acceptable form:

- (112) John-wa Mary-ga *naNI-O* *KATTA-KA-DOO-KA* *daRE-NI-MO* kiKANAKatta  
 anything bought whether ask-neg-past  
 ◆John did not ask anyone that Mary bought anything'  
 'Of anything, John did not ask anyone whether Mary bought it or not'

We can have secondary EPD imposed on RPD without changing grammaticality of (112); that is, in effect, we may also drop *mo* after *kadooka* in (110):

- (113) a2 J-wa M-ga *naNI-O* kaTTA-ka-doo-ka *daRE-NI-MO* kiKANAKatta  
 b2 J-wa M-ga *naNI-O* *KATTA-KA* DOo-ka *daRE-NI-MO* kiKANAKatta  
 b3 J-wa M-ga *naNI-O* kaTTA-ka DOo-ka *daRE-NI-MO* kiKANAKatta  
 c2 J-wa M-ga *naNI-O* *KATTA-KA-DOO* KA *daRE-NI-MO* kiKANAKatta  
 c3 J-wa M-ga *naNI-O* kaTTA-ka-doo KA *daRE-NI-MO* kiKANAKatta  
 d2 J-wa M-ga *naNI-O* *KATTA-KA-DOO* KA *daRE-NI-MO* kiKANAKatta [=c2]  
 d3 J-wa M-ga *naN-* *O* *KATTA-KA* DOo KA *daRE-NI-MO* kiKANAKatta  
 d4 J-wa M-ga *naNI-O* kaTTA-ka DOo KA *daRE-NI-MO* kiKANAKatta

We do not get the same effect with (104) or (107):

- (114) \*J-wa M-ga *naNI-O* *KATTA-KA-DOO-KA* oBOete-inai  
 (115) \*John-wa Mary-ga *naNI-O* *KATTA-KA-DOO-KA* Tom-ni kiKANAKatta

Nor with (106), either; nor does the preposing of *DAre* help:

- (116) \*John-wa Mary-ga *naNI-O* *KATTA-KA-DOO-KA* **DAre-ni-mo** kiKANAKatta  
 (117) \*John-wa **DAre-ni-mo** Mary-ga *naNI-O* *KATTA-KA-DOO-KA* kiKANAKatta.



- (121) Mary-ni *naNI-GO-GA WAKARU-KA-DOO-KA daRE-MO siRANAI*  
 any-language understand whether anyone know-neg  
 'of any language, no one knows whether Mary understands it'

This form has two negative concord RI terms, *naNI-GO* 'what language' and *daRE* 'anyone'. The former is inside a *kadooka* clause. Q-particle *mo* is not attached to *kadooka*. Both RI terms are associated with RPD without secondary EPD: *naNI-GO-GA WAKARU-KA-DOO-KA* and *daRE-MO*. (121) is acceptable. So are the forms obtained by imposing secondary EPD on the first RPD:

- (122) 1 Mary-ni *naNI-GO-GA WAKARU-KA DOO KA daRE MO siRANAI*  
 2 Mary-ni *naNI-GO-GA WAKARU-KA DOo-ka daR-MO siRANAI*  
 3 Mary-ni *naNI-GO-GA waKAru-ka DOo-ka daRE-MO siRANAI*

However, if we affix *mo* to *kadooka* and pied-pipe *naNI-GO* in the embedded clause in (121), we get ungrammatical forms:

- (123) \*Mary ni *naNI-GO-GA WAKARU-KA DOO-KA-MO daRE-MO siRANAI*

In contrast, if we do the same to (122.1-3), we get forms presumably acceptable if given in contexts with adequate pragmatic presuppositions:

- (124) 1 Mary-ni *naNI-GO-GA WAKARU-KA DOO KA-mo daRE-MO siRANAI*  
 2 Mary-ni *naNI-GO-GA WAKARU-KA DOo-ka-mo daRE-MO siRANAI*  
 3 Mary-ni *naNI-GO-GA waKAru ka DOo-ka-mo daRE-MO siRANAI*.

We obtain the Watanabe paradigm without *mo* after *kadooka* in the a-version:

- (125) a. Mary-ni *naNI-GO-GA WAKARU-KA-DOO-KA (\*-MO) daRE MO siRANAI*  
 b. \*Mary-ni *naNI-GO-GA WAKARU-KA-DOO-KA (-MO) John-ga/wa siRANAI*

Let me add a couple of more examples just to illustrate the Watanabe paradigm in question:

- (126) a. *daRE-GA SIKEN-NI UKARU-KA-DOO-KA (\*MO) daRE-NI-MO*  
 anyone exam pass whether anyone  
waKARANai  
 understand  
 'of anyone, no one can tell whether they will pass the exam or not'  
 b. \**daRE-GA SIKEN-NI UKARU-KA-DOO-KA(-MO) JOHn-ni (wa) waKARANai*  
 exam pass whether understand  
 'of anyone, John cannot tell whether they will pass the exam'
- (127) a. *daRE-GA UKARU KA DOO KA (\*MO) daRE MO ki-NI-SI-TE iNAi*  
 anyone pass whether anyone mind do is-neg  
 'of anyone, no one doesn't care if they pass (the exam)'  
 b. \**daRE-GA UKARU KA DOO KA (MO) JOHn-wa/ga ki-NI-SI-TE iNAi*

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anyone pass whether mind do is-neg  
'of anyone, John doesn't care if they pass (the exam)'

Let me summarize the significance of our findings. First of all, the prosodic patterns associated with negative concord RIs can be determined by the revised Kitagawa-Deguchi Analysis, KDA-RI. We have confirmed that we need to distinguish between simple RPD and RPD accompanied by secondary EPD. This distinction, I maintain, is relevant to determining whether *kadooka* introduces island effects for negative concord indeterminates inside *kadooka* clauses. It turned out that if such a negative concord RI is associated with simple RPD an island effect arises, but it does not, if a negative concord indeterminate is associated with RPD accompanied by secondary EPD. However, in the former case, the island effect is removed if, first, the pied-piping *mo* attached to *kadooka* is removed and if, secondly, the *kadooka* clause is followed by another RI which is a matrix argument. This second condition reminds us of the original Watanabe paradigm.

Put succinctly by ignoring complicating details, we might simply state that the Watanabe phenomenon obtains with the negative concord indeterminates if we do not pied-pipe *kadooka* and if we keep prosody straight, i.e., keep RPD simple and pure.

Recall that when we encountered examples with pied-piped *kadooka* like (104) and (105), I *tentatively* ruled them out as ungrammatical. But in the Watanabe paradigm, they contrast sharply, on the one hand, with the forms without pied-piping *mo*, and on the other, with the forms without matrix negative concord indeterminates. Clear and distinct judgments are hard to obtain on examples such as (104) and (105) by pure intuition. Putting them in a proper perspective, we determine that they are ungrammatical. The detailed investigation of possible prosodic patterns associated with RIs helps clear "noises" that can intervene in our acceptability judgment: secondary EPD lets Q-particle *mo* pied-pipe *kadooka* and let RIs override wh-island effects.

To give an exact syntactic account to the above findings is outside of the scope of this paper, but let me add here a few speculative thoughts on this matter. Note that the particle *mo*, besides its function in negative concord, has a basic function as a focus marker with the connotation similar to *also*. Recall the discourse contexts I concocted above in order to make indeterminates inside *kadooka* clauses override an island constraint. The problematic forms are preceded by forms that contain a *kadooka-mo* clause with no indeterminate in it. For example, in (111) *iKA-O kaTTA-ka DOo-KA-mo* 'nor whether she bought squid or not', *saBA-O kaTTA-ka DOo KA-mo* 'nor whether she bought mackerel or not' precedes *naNI O kaTTA-ka DOo KA-mo*. The particle *mo* functions as a focus marker, not as an indicator of negative concord, in these phrases.

I suggest, first, that syntactically *mo* behaves differently with these two different functions. Secondly, the *mo* that follows *naNI-O kaTTA-ka DOo KA-mo* in the context of (111) is an instance of a focus marker, not a negative concord indicator *per se*. The accent patterns corroborate this assumption. Finally, I suggest that the negative concord *mo* cannot attach to *kadooka* but the focus marker *mo* can. This difference may arise from the difference in possible "landing sites" for the focus and the negative concord *mo*.

Finally, let me return to the forms with universal indeterminates like (102)-(103), which I repeat:

(102) \*John-wa Mary-ga **NAni-o** kaTTA-ka-doo-ka-mo oBOete-inai

(103) \*John-wa Mary-ga **NAni-o** kaTTA-ka-doo-ka-mo daRE-NI-MO kiKANAKatta  
 \*John-wa Mary-ga **NAni-o** kaTTA-ka-doo-ka-mo DAre-ni-mo kiKANAKatta

Recall we have here universal FI *NAni* instead of RI *naNI*. If we have the same Watanabe phenomenon with *NAni* as with *naNI* we must have the following paradigms; note that we have negative concord *daRE* in (128) and universal *DAre* in (129):

(128) a. John-wa Mary-ga **NAni-o** kaTTA-ka-doo-ka (\*-mo) daRE-NI-MO kiKANAKatta  
 b. \*John-wa Mary-ga **NAni-o** kaTTA-ka-doo-ka (-mo) Tom-ni kiKANAKatta

(129) a. John-wa Mary-ga **NAni-o** kaTTA-ka-doo-ka (\*mo) DAre-ni-mo kiKANAKatta  
 b. \*John-wa Mary-ga **NAni-o** kaTTA-ka-doo-ka (mo) Tom-ni kiKANAKatta

But it appears to my intuition that the forms with the pied-piping *mo* in both a and b versions are more acceptable than the comparative forms in (119). We seem to have the following paradigm instead:

(130) a. John-wa Mary-ga **NAni-o** kaTTA-ka-doo-ka (mo) daRE-NI-MO kiKANAKatta  
 b. John-wa Mary-ga **NAni-o** kaTTA-ka-doo-ka \*(mo) Tom-ni kiKANAKatta

(131) a. John-wa Mary-ga **NAni-o** kaTTA-ka-doo-ka (mo) DAre-ni-mo kiKANAKatta  
 b. John-wa Mary-ga **NAni-o** kaTTA-ka-doo-ka \*(mo) Tom-ni kiKANAKatta

Now, if we follow the lines of thought above, we might conclude that *mo* functioning as the I-goal associated with universal indeterminates may not attach to *kadooka* as negative concord *mo* may not, and that the occurrences of *mo* after *kadooka* in these examples are the focus marker *mo*. This interpretation is possible. For, since *NAni-o* heads EPD, not RPD, and there is no secondary head inside the *kadooka* phrase in (130) or (131), we can interpret *NAni-o* itself as an emphatic focus. We thus seem to have an account of the paradigm illustrated by (128)-(129).

As a matter of fact, however, we should recognize two paradigms simultaneously; one as illustrated by (128)-(129) and the other by the following, slightly different from the one illustrated by (130)-(131):

(132) a. John-wa Mary-ga **NAni-o** kaTTA-ka-doo-ka \*(-mo) daRE-NI-MO kiKANAKatta  
 b. John-wa Mary-ga **NAni-o** kaTTA-ka-doo-ka \*(-mo) Tom-ni kiKANAKatta

(133) a. John-wa Mary-ga **NAni-o** kaTTA-ka-doo-ka \*(-mo) DAre-ni-mo kiKANAKatta  
 b. John-wa Mary-ga **NAni-o** kaTTA-ka-doo-ka \*(-mo) Tom-ni kiKANAKatta





## Prosody and the Syntax of Indeterminates

I am willing to admit that it would not be impossible to put heavy emphatic stress on *NAni-o* in (143b)/(144b) and accept (143b)/(144b), but I would not take it as "natural prosody." A remark may be in order to substantiate this point. To be sure, one can put emphatic stress on *NAni* in (143b)/(144b). Emphatic stress, however, is a matter of degree. Whether one can put emphatic stress on *nani* is not so much of a problem. The point, rather, is another factor that characterizes EPD that accompanies the interrogative sentence: the raising of pitch at the end of the sentence. The natural prosody that accompanies the *embedded* question lacks this feature. Thus, the last part of (143a) is pronounced smoothly like *kiITA ka to yuU moNDAI*, without noticeable raising of pitch at *ka*.

In order to get "proper" prosody for accepting (143b)/(144b), if we can at all, not only do we put emphatic stress or pitch on *nani*, but also we need to put extra heavy stress on *ka*, possibly with an extra pause after it:

(145) b' John-ga Mary-ga **NAni-o** katta kadooka Tom-ni kiita-**KA** // to yuu mondai  
          what bought whether Tom  
          'the question as to what John asked Tom whether Mary bought'

(146) b' John-ga Mary-ga **NAni-o** katta kadooka Tom-ni kiita-**KA** // to yuu situmon  
          what bought whether Tom  
          'the question as to what John asked Tom whether Mary bought'

Lest the above story should sound like only an apologia for explaining how I was led (or, should I say, misled?) to Watanabe's judgment in my earlier work, let me note that real linguistic issues have yet to be spelled out. Let us grant for the sake of argument that Kitagawa and Deguchi's prosody cannot be imposed on subordinate sentences. Then, one might claim that the ungrammaticality of the b-forms in (143)/(144) is accounted for. But, then, we have to admit also that Kitagawa and Deguchi's prosody is irrelevant to the a-forms; by assumption, we have to claim that we have accepted the a-forms in (143)-(144) without Kitagawa and Deguchi's prosody, without EPD. Thus, the claim that one cannot impose EPD on the b-forms cannot provide an account of the ungrammaticality of such forms. The fact of the matter is that EPD is a natural environment for independent wh-questions, but it is not an indispensable ingredient of the syntax of wh-questions, let alone, of the syntax of indeterminate constructions. The Watanabe phenomenon, on the other hand, is rooted deeply in the syntax of indeterminate constructions in general.

Let us recapitulate and draw conclusions from what we have observed:

(I) EPD is not a required component of the *syntax* of interrogative clauses.

We derive (I) from the fact that EDP is not natural prosody for embedded questions. However,

(II) EPD is proper prosody for independent interrogative clauses.

(III) RPD is proper prosody for RI constructions.

(IV) Secondary EPD may be imposed on RI constructions.

(III) and (IV) together imply that RPD is neutral prosody for RIs. That is, I hypothesize that RPD is default prosody for RIs and RPD with secondary EPD is marked prosody. This is an analytical hypothesis and independent of what prosody may or may not be found predominant in naturally recorded corpus. From these propositions, I draw the following conclusion on the Watanabe paradigm:

(V) The grammatical reality of the Watanabe phenomenon: The syntax of indeterminate constructions sanctions the generalized Watanabe paradigm for indeterminate constructions, and in particular, the original Watanabe paradigm for interrogative clauses.

(VI) EPD overrides the wh-island constraint.

As I have stated above I assume that (II) implies that EPD is natural prosody for independent wh-questions. (II) and (VI) together mean that the wh-island is "naturally" overridden in independent interrogative sentences; EPD is not an extra-device, not a meta- or para-grammatical device, specifically to override the island. To wit, EPD makes the Watanabe paradigm an epi-phenomenon in *natural* environments for *independent* questions.

A syntactic account of the generalized Watanabe phenomenon must be worked out. But it is out of the scope of this paper. I have hypothesized that the Q-particles cannot attach to *kadooka* for pied-piping, but the homophonous focus particles can. Focus particles must be, and can be, licensed by EPD, either primary or secondary. These facts contribute to creating marked environments for non-interrogative indeterminates where the wh-island constraint can be overridden. The empirical data related to the Watanabe phenomenon is inevitably quite complex and confusing.<sup>10</sup>

Let me conclude this paper by stressing that the work on indeterminate constructions developed above, if it is on the right track, demonstrates that the study of prosody must be integral part of the research into the syntactic structures of language.

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<sup>10</sup> Earlier attempts are found in Kuroda (1992, 1997, 2003). Prosody was out of concern of these attempts.

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