

Japanese Free Choice “Items” as Unconditionals

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1 Introduction

- Free choice items (FCIs) have received much attention in the semantic literature. (Carlson 1981, Kadmon and Landman 1993, Dayal 1998, von Stechow 2000, Chierchia 2013, Condoravdi 2015 among many others).
- English FC *any* seems to have two types of quantificational interpretations: a universal-like reading as in (1a), and an existential-like interpretation as in (1b).

- (1) a. Any student can solve the problem.
≈ Every student, even a dull one, can solve the problem.
- b. Pick any card.
≈ Pick a card, whatever it is.

- What characterizes FCIs compared to universal and existential quantifiers is the “intensionality”: FCIs are licensed only in intensional contexts and FCIs have intensional interpretations.
- It is well known that unlike genuine universal quantifiers or indefinite articles, FCIs are licensed in intensional contexts such as under the scope of modals, but not in episodic contexts, as shown in (2).¹

- (2) a. Any student **can** solve the problem. (intensional)
- b. * Any student solved the problem **yesterday**. (episodic)
- c. Every student solved the problem yesterday. (Non-FCI)

- The intensionality in interpretation can be further decomposed into three components: counterfactuality, ignorance inference, and indifference inference.²

1. Counterfactuality: FCIs quantify over individuals that are not in the extension of the restrictor at the actual world (cf. (2a) vs. (2c)).

2. Ignorance inference: it is implicated that the speaker does not know the identity of the individuals in the domain: in the case of (2a), if the speaker is talking about students in a university, s/he does not (have to) know each student in that university.
3. Indifference inference: it is implicated that the speaker does not care about the identity: this is found in (1b), where the speaker does not care about what card the hearer picks up.

⇒ The literature has tried to understand where these FC properties come from.

- In this paper, I will examine how these FC properties are encoded in the Japanese FCIs.
- Japanese FCIs are morphologically more complex than English *any*, because they are typically composed of wh-items and a scalar focus particle *-demo*, as shown in (3).

- (3) **Dono-gakusei-demo** sono-mondai-ga tok-eru.
which-student-EVEN that-problem-NOM solve-can
'Any student can solve the problem.'

- Japanese FCIs then require us to investigate how the FC-ness is derived in a compositional way.

⇒ This indicates that whatever analysis has been proposed to indefinite FCIs like English *any* (e.g., Dayal 2013, Chierchia 2013) cannot be extended to Japanese FCIs, because Japanese FCIs are not single lexical items but are built up from parts that are also used outside of FCIs.

- Interestingly, FCIs are morphologically very similar to universal quantifiers (UQs) in Japanese: Japanese UQs are composed of wh-items and an additive particle *mo*, as in (4).

- (4) **Dono-gakusei-mo** sono-mondai-ga tok-eru.
which-student-ALSO that-problem-NOM solve-can
'Every student can solve the problem.'

¹Here I put aside so-called sub-triggering, which licenses FCIs even in episodic contexts.

²The ignorance inference and the indifference inference are not always both present, though.

- The only surface morphological difference between FCIs and UQs in Japanese is whether *de* is present or not.

⇒ I will argue that *de* in Japanese *wh-demo* is a copula which is tied with subjunctive mood, which contributes to the FC interpretation, especially the counterfactuality.

- In this sense, *wh-demo* is not a free choice “item”, but a free choice “clause”, since it involves a clausal structure and hence not a single item.

⇒ I will thus argue that the whole sentence which involves *wh-demo* is essentially an unconditional construction.

→ This is similar to Kim and Kaufmann’s (2006) analysis of Korean FCIs, which consist of a *wh*-item and a disjunctive particle: They propose under the dynamic semantics framework that Korean FCIs involve a conditional semantics.

→ However, our proposal derives the conditional semantics in a more compositional way.

- In addition, I will discuss a phrase *ii-kara*, which is used with *wh-demo* to obtain an existential-like interpretation.

⇒ I will argue that this phrase ‘closes’ the domain of quantification of *wh-demo* and gives rise to an existential-like interpretation as a default option. I will also propose that this phrase contributes to the indifference inference of *wh-demo* somewhat directly.

2 *Wh-demo* as an FC Expression in Japanese

- In this section, I show basic properties of *wh-demo* in Japanese and argue that *wh-demo* is indeed a Japanese counterpart of an FCI.

- In section 2.1, I review Oda’s (2013) work on the distribution of *wh-demo* and show that *wh-demo* shows (almost) the same distribution as FCIs in other languages. This means that *wh-demo* is sensitive to intensionality in terms of licensing contexts.

- In section 2.2., I show that *wh-demo* has a counterfactual implication like FCIs in other languages.

⇒ These two points lead us to conclude that *wh-demo* is a genuine FC expression in Japanese.

2.1 Licensing contexts of *wh-demo*

- Oda (2013) observes that *wh-demo* is licensed in intensional contexts like FCIs in other languages: *wh-demo* is licensed by ability modals (5), future tense (6), habituais

(7), generics (8), and stative verbs (9), and has a universal-like reading.³

(5) *Dono-gakusei-demo sono-mondai-ga tok-eru.* (= (3))
which-student-DEMO that-problem-NOM solve-can
‘Any student can solve the problem.’

(6) *Dono-otoko-demo kono-tsukue-o mochiageru daroo.*
which-student-DEMO this-table-ACC lift will
‘Any man will lift this table.’ (Oda 2013)

(7) *Taro-wa taitei dono-hon-demo chuuibukaku yomu.*
Taro-TOP usually which-book-DEMO carefully read
‘Taro usually reads any book carefully.’ (Oda 2013)

(8) *Dono-fukurou-demo nezumi-o karu.*
which-owl-DEMO mouse-ACC hunt
‘Any owl hunts mice.’ (Oda 2013)

(9) *Dono-seito-demo sono-sensei-o sonkeishiteiru.*
which-student-DEMO that-teacher-ACC respect
‘Any student respects the teacher.’ (Oda 2013)

- Unlike FCIs in other languages, however, *wh-demo* is not licensed in comparatives (10). Instead, a UQ has to be used in comparatives as in (11).

(10) * *Taro-wa (hokano) {dono-kurasumeeto yori demo}*
Taro-TOP other which-classmate than DEMO
/dono-kurasumeeto-demo yori} hayaku hashiru.
/which-classmate-DEMO than fast run
‘Taro runs faster than any other classmate.’ (Adapted from Oda 2013)

(11) *Taro-wa (hokano) {dono-kurasumeeto yori mo}*
Taro-TOP other which-classmate than MO
*/*dono-kurasumeeto-mo yori}* hayaku hashiru.
/which-classmate-MO than fast run
‘Taro runs faster than any other classmate.’

⇒ I will argue in section 3 that the unavailability of *wh-demo* in comparatives stems from the syntactic properties of *wh-demo* and *yoru*, so that the argument for *wh-demo* being an FC expression is intact.

- For diagnostics of the universal-like reading, see Appendix.

- There is another context which licenses FCIs in other languages: imperatives. As shown in (12), which is repeated from (1b), imperatives host an FC *any*.

³To be precise, stative verbs are not (necessarily) intensional contexts, but can be understood as a sort of generic context. Here I simply follow Oda (2013), who adopts the classification of licensing contexts in the literature.

(12) Pick any card.

- *Wh-demo*, however, is degraded in imperatives, as shown in (13).

(13) ?? *Dono-kaado-demo tori-nasai.*
which-card-DEMO take-IMP
'Pick any card.' (Oda 2013)

- Interestingly, (13) becomes perfectly acceptable when a phrase *ii-kara* 'good-because' is added, as in (14).

(14) *Dono-kaado-demo ii-kara tori-nasai.*
which-card-DEMO good-because take-IMP
'Pick any card.' (Oda 2013)

- In the case of imperatives, *wh-demo* seems to have an existential-like interpretation like FCIs in other languages, in the sense that the hearer can pick up at least one card and does not have to (but can) pick up all the cards.
- Oda (2013) points out that an existential quantifier can co-occur with *wh-demo* in this case, as shown in (15).

(15) *Dono-kaado-demo ii-kara doreka tori-nasai.*
which-card-DEMO good-because something take-IMP
'Pick any card; lit. Pick some, whichever card it is.'
(Adapted from Oda 2013)

- In addition, numeral 'one' can co-occur with *wh-demo* as shown in (16).

(16) *Dono-kaado-demo ii-kara ichi-mai tori-nasai.*
which-card-DEMO good-because one-CL take-IMP
'Pick any card; lit. Pick one, whichever card it is.' (Oda 2013)

- Note that neither an existential quantifier nor numeral 'one' can co-occur with *wh-demo* in contexts where *wh-demo* has a universal-like interpretation, as illustrated in (17) and (18).

(17) a. * *Dono-gakusei-demo dareka sono-mondai-ga tok-eru.*
which-student-DEMO someone that-problem-NOM solve-can
'Any student can solve the problem.'
b. * *Dono-otoko-demo dareka kono-tsukue-o mochiageru daroo.*
which-student-DEMO someone this-table-ACC lift will
'Any man will lift this table.' (Oda 2013)
c. * *Taro-wa taitei dono-hon-demo doreka chuuibukaku yomu.*
TARO-TOP usually which-book-DEMO something carefully read
'Taro usually reads any book carefully.' (Oda 2013)

d. * *Dono-fukurou-demo doreka nezumi-o karu.*
which-owl-DEMO something mouse-ACC hunt
'Any owl hunts mice.' (Oda 2013)
e. * *Dono-seito-demo dareka sono-sensei-o sonkeishiteiru.*
which-student-DEMO someone that-teacher-ACC respect
'Any student respects the teacher.' (Oda 2013)
(18) a. * *Dono-gakusei-demo hito-ri sono-mondai-ga tok-eru.*
which-student-DEMO one-CL that-problem-NOM solve-can
'Any student can solve the problem.'
b. * *Dono-otoko-demo hito-ri kono-tsukue-o mochiageru daroo.*
which-student-DEMO one-CL this-table-ACC lift will
'Any man will lift this table.' (Oda 2013)
c. * *Taro-wa taitei dono-hon-demo is-satsu chuuibukaku yomu.*
TARO-TOP usually which-book-DEMO one-CL carefully read
'Taro usually reads any book carefully.' (Oda 2013)
d. * *Dono-fukurou-demo ichi-wa nezumi-o karu.*
which-owl-DEMO one-CL mouse-ACC hunt
'Any owl hunts mice.' (Oda 2013)
e. * *Dono-seito-demo hito-ri sono-sensei-o sonkeishiteiru.*
which-student-DEMO one-CL that-teacher-ACC respect
'Any student respects the teacher.' (Oda 2013)

⇒ These data thus show that *wh-demo* can have an existential-like reading in imperatives like FCIs in other languages (but only in the presence of *ii-kara*).

- Moreover, *ii-kara* cannot be used in contexts where *wh-demo* receives the universal-like reading, as shown in (19).

(19) a. * *Dono-gakusei-demo ii-kara sono-mondai-ga tok-eru.*
which-student-DEMO good-because that-problem-NOM solve-can
'Any student can solve the problem.'
b. * *Dono-otoko-demo ii-kara kono-tsukue-o mochiageru daroo.*
which-student-DEMO good-because this-table-ACC lift will
'Any man will lift this table.' (Oda 2013)
c. * *Taro-wa taitei dono-hon-demo ii-kara chuuibukaku yomu.*
TARO-TOP usually which-book-DEMO good-because carefully
read
'Taro usually reads any book carefully.' (Oda 2013)
d. * *Dono-fukurou-demo ii-kara nezumi-o karu.*
which-owl-DEMO good-because mouse-ACC hunt
'Any owl hunts mice.' (Oda 2013)
e. * *Dono-seito-demo ii-kara sono-sensei-o sonkeishiteiru.*
which-student-DEMO good-because that-teacher-ACC respect
'Any student respects the teacher.' (Oda 2013)

→ Thus, the presence of *ii-kara* correlates with the existential-like reading of *wh-demo*.

⇒ In section 4, I will argue that actually *wh-demo* itself does not have an existential-like reading (i.e., *wh-demo* is always universal quantificational), and that *ii-kara* introduces two clauses, in one of which quantification of *wh-demo* is completed and in the other of which there is an existential/singular interpretation as a default option.

- Lastly, *wh-demo* cannot be used in episodic contexts, as shown in (20).

- (20) a. * *Watashi-wa kinoo dono-hon-demo yon-da.*
I-TOP yesterday which-book-DEMO read-PST
'* I read any book yesterday.' (Oda 2013)
- b. * *Watashi-wa kinoo dono-hon-demo yoma-nakat-ta.*
I-TOP yesterday which-book-DEMO read-not-PST
'* I didn't read any book yesterday.' (Oda 2013)

⇒ Thus, *wh-demo* shows the same distribution with FCIs in other languages except for comparatives: *wh-demo* is licensed in intensional contexts, but not in episodic contexts, and the interpretations that *wh-demo* receives vary depending on the contexts (i.e., imperatives vs. the others).

2.2 Counterfactuality

- As we saw in section 1, English FC *any* carries a counterfactual implication, as illustrated in (21). This counterfactual implication is not observed with a UQ as in (22).

- (21) Any student can solve the problem.
↪ If there were more students, they would also be able to solve the problem.

- (22) Every student can solve the problem.
↪ If there were more students, they would also be able to solve the problem.

- Crucially, Japanese *wh-demo* also carries the same implication. Thus, in (3), which is repeated as (23) here, it is implicated that if there were more students, they would also be able to solve the problem.

- (23) **Dono-gakusei-demo** sono-mondai-ga tok-eru.
which-student-DEMO that-problem-NOM solve-can
'Any student can solve the problem.'
↪ If there were more students, they would also be able to solve the problem.

- This counterfactual implication is not observed with a universal quantifier *wh-mo*, as shown in (24), which is repeated from (4).

- (24) **Dono-gakusei-mo** sono-mondai-ga tok-eru.
which-student-MO that-problem-NOM solve-can
'Every student can solve the problem.'
↪ If there were more students, they would also be able to solve the problem.

- It is worth noting here that *demo* can be attached to non-wh items.
- As shown in (25a), *demo* can be attached to non-wh items, and can be translated as 'even', which has a concessive interpretation. This contrasts with *mo* in (25b), which can also be attached to non-wh items but does not involve concessiveness.

- (25) a. **Taro-demo** sono mondai-ga tok-eru.
Taro-DEMO that problem-NOM solve-can
'Even Taro can solve the problem.'
- b. **Taro-mo** sono mondai-ga tok-eru.
Taro-MO that problem-NOM solve-can
'Taro can solve the problem, too.'

- Crucially, (25a) does not involve FC-ness in that it does not talk about all possible individuals: rather the statement is about *Taro*.

⇒ This in combination with (24) means that neither wh-items nor *demo* is responsible for FC-ness by themselves. It should rather be concluded that **wh-items and demo conspire to derive the FC-ness of wh-demo**.

- In the following sections, I will propose a compositional semantics that captures the conspiracy of these elements.

3 A Compositional Analysis of *Wh-demo* in Japanese

3.1 Clausal structure of *wh-demo*

- In this section, I propose a compositional analysis of *wh-demo*.
- In order to do so, we start from decomposing *wh-demo* morpho-syntactically.
- Apparently, *wh-demo* has two ingredients: wh-items and the scalar focus particle *demo*. It seems that *demo* is responsible for *wh-demo* having to be licensed in intensional contexts, because *demo* as a scalar focus particle, which is translated as 'even' in English, cannot be licensed in episodic contexts either just like FCIs, as shown in (26).

- (26) a. **Dono-gakusei-demo** sono-mondai-ga tok-eru.
which-student-DEMO that-problem-NOM solve-can
'Any student can solve the problem.' (FC, intensional)

- b. * Kinoo **dono-gakusei-demo** sono-mondai-o toita.
yesterday which-student-DEMO that-problem-ACC solved
'Any student solved the problem yesterday.' (FC, episodic)
- c. John-**demo** sono-mondai-ga tok-eru.
John-DEMO that-problem-NOM solve-can
'Even John can solve the problem.' (scalar *demo*, intensional)
- d. * Kinoo John-**demo** sono-mondai-o toita.
yesterday John-DEMO that-problem-ACC solved
'Yesterday even John solved the problem.' (scalar *demo*, episodic)

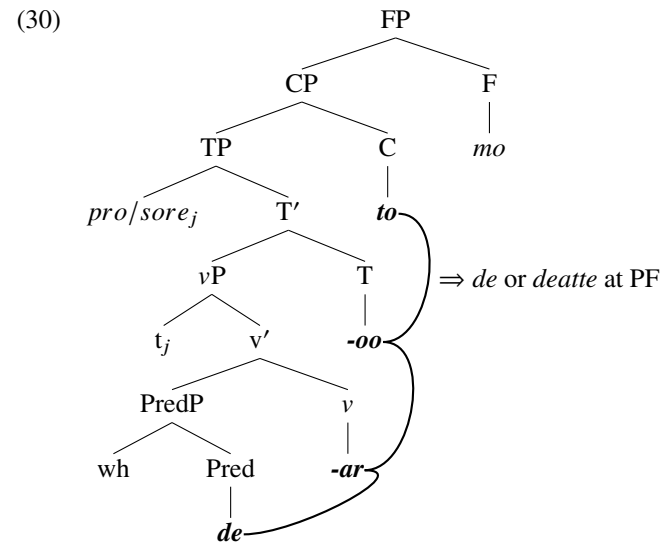
- *-Te* is the infinitival ending of the verb, and *-oo* is a morpheme that encodes mood/modality, which Oda (2016) assumes is a subjunctive mood, comparing Japanese with Italian and Spanish (29).

- (28) a. dono-gakusei-**deat-te-mo** sono-mondai-ga tok-eru.
which-student-COP-INF-MO that-problem-NOM solve-can
'Any student can solve the problem.'
- b. dono-gakusei-**dear-oo-to-mo** sono-mondai-ga tok-eru.
which-student-COP-SUBJ-C-MO that-problem-NOM solve-can
'Any student can solve the problem.'

- (29) a. Quali che **siano** le sue protezioni, dovrà scontare la pena.
which that be.3PL.SUBJ the his protections must.FUT serve the sentence
'Whatever his protections are, he will have to serve his sentence. (Haspelmath 1997:137)
- b. No abras la puerta, quien-quiera que **sea**.
Not open.IMP the door, who-want that be.3SG.SUBJ
'Don't open the door, whoever it may be.' (Haspelmath 1997:137)

- Here I adopt an analysis by Oda (2016), who proposes, based on Nishiyama (1999), Miyama (2011), and Watanabe's (2013) analysis of the Japanese copula under the Distributed-Morphology framework (Halle and Marantz 1993), that *wh-de-mo* is a morpho-phonologically contracted form of *wh-deat-te-mo* or *wh-dear-oo-to-mo*.

- The structure is illustrated in (30), where *dear-oo-to* is contracted as *deat-te* or *de* at PF.



- Thus, one might conclude that the scalar focus particle *demo* as a single morphological unit plays an important role in compositional semantics of *wh-demo*.
- However, I would like to take a step further. More specifically, I propose that **the *demo*-part should be further decomposed into two ingredients, the copula *de* and the additive particle *mo*, and that the copula *de* (or its non-contracted form as we will see below) is crucial for the FC/intensional interpretation.**⁴
- There are two pieces of evidence to support this proposal.

1. When *demo* is replaced with an additive (focus) particle *mo* in (26), even episodic sentences are grammatical and do not have the FC interpretation, as shown in (27).

- (27) a. **Dono-gakusei-mo** sono-mondai-ga tok-eru. (UQ, intensional)
which-student-MO that-problem-NOM solve-can
'Every student can solve the problem.'
- b. Kinoo **dono-gakusei-mo** sono-mondai-o toita. (UQ, episodic)
yesterday which-student-MO that-problem-ACC solved
'Every student solved the problem yesterday.'
- c. John-**mo** sono-mondai-ga tok-eru. (additive *mo*, intensional)
John-MO that-problem-NOM solve-can
'John can solve the problem, too.'
- d. Kinoo John-**mo** sono-mondai-o toita. (additive *mo*, episodic)
yesterday John-MO that-problem-ACC solved
'Yesterday John solved the problem, too.'

- Since the only morphological difference between the FCI/scalar focus particle in (26) and the UQ/additive particle in (27) is the presence/absence of *de*, it is not implausible that the *de*-part contributes to the FC/intensional nature.

2. *De* can be replaced with other forms of copula without changing the truth condition, as in (28a) and (28b).⁵

⁴To be more precise, *de* is a non-finite variant of the copula *da*.

⁵Here *deat* and *dear* are treated as a single morphological unit, but Oda (2016) posits a further decomposition (*de* + *at* or *ar*, probably the choice being phonologically determined). This detail does not matter for the purpose of the main text, so I will treat *deat* and *dear* as single units.

- In (30), the *wh*-phrase is a complement of Pred *de*, and *pro*, which can be optionally realized as a demonstrative pronoun *sore*, is base-generated in Spec,*v*P and then moves to Spec,TP as a subject.
- Under this proposal, all the three forms share the same syntactic structure so that there should be no syntactic or semantic difference.
- As for semantics, we have already seen that the three forms have the same FC interpretation.⁶
- In addition, neither *wh-deat-te-mo* nor *wh-dear-oo-to-mo* are licensed in episodic contexts, as shown in (31).

- (31) a. * kinoo dono-gakusei-**deat-te-mo** sono-mondai-o toita.
yesterday which-student-COP-INF-MO that-problem-ACC solved
'Yesterday any student solved the problem.'
- b. * kinoo dono-gakusei-**dear-oo-to-mo** sono-mondai-o toita.
yesterday which-student-COP-WILL-C-MO that-problem-ACC solved
'Yesterday any student solved the problem.'

⇒ This indicates that these three forms share the same semantic properties, and hence the same licensing conditions.

- As for syntax, Oda (2016) shows that these two long forms can host an additional subject, as illustrated in (32).

- (32) a. **Sore-ga** dono-gakusei-deat-te-mo sono-mondai-ga tok-eru.
that-NOM which-student-COP-INF-MO that-problem-NOM solve-can
'Any student can solve the problem.'
- b. **Sore-ga** dono-gakusei-dear-oo-to-mo sono-mondai-ga tok-eru.
that-NOM which-student-COP-MO that-problem-NOM solve-can
'Any student can solve the problem.'

- Crucially, **an additional subject is also allowed with *wh-demo***, as shown in (33). **This additional subject is not allowed with a universal quantifier, which has a *wh*-item and *mo* but lacks *de***, as shown in (34).

- (33) **Sore-ga** dono-gakusei-de-mo sono-mondai-ga tok-eru.
that-NOM which-student-COP-MO that-problem-NOM solve-can
'Any student can solve the problem.'

⁶This being said, there is a stylistic difference among *wh-demo*, *wh-deat-te-mo*, and *wh-dear-oo-to-mo*: *wh-demo* can be used colloquially or formally, but *wh-deat-te-mo* has a more formal flavor, and *wh-dear-oo-to-mo* sounds even more formal, or even a little archaic. An investigation of this difference is beyond the scope of this paper, but it is worth mentioning here that non-contracted forms in general have a more formal flavor than their contracted counterparts (e.g., *cannot* vs. *can't*).

- (34) * **Sore-ga** dono-gakusei-mo sono-mondai-ga tok-eru.
that-NOM which-student-MO that-problem-NOM solve-can
'Every student can solve the problem.'

- Note that this additional subject is not a subject of the matrix verb *tok(u)* 'solve'. *Tok(u)* takes a human subject, but *sore* is inanimate, so that *sore* itself cannot occur as a subject of *tok(u)*, as shown in (35).

- (35) * **Sore-ga** sono-mondai-ga tok-eru.
that-NOM that-problem-NOM solve-can
'That can solve the problem.'

→ This means that *sore* in (32) and (33) is hosted by *wh-demo*, i.e., is licensed by the copular structure involved in *wh-demo*.

⇒ We can thus conclude with Oda (2016) that ***wh-demo* involves a clausal structure composed of a *wh*-item, the additive particle *mo*, the copula *de*, and the subjunctive mood *-oo***, which is contracted at PF and gives rise to the FC interpretation.⁷

- It is worth mentioning here that this pattern regarding the additional subject is also observed with *N + demo*.
- (36) shows that the inanimate demonstrative *sore* can be optionally used with *N + demo*. Note that *N + mo* does not allow this additional subject as in (37), which pattern with the contrast between *wh-demo* and *wh-mo* discussed above.

- (36) **Sore-ga** Taro-de-mo sono-mondai-ga tok-eru.
that-NOM Taro-COP-MO that-problem-NOM solve-can
'Even Taro can solve the problem.'

- (37) * **Sore-ga** Taro-mo sono-mondai-ga tok-eru.
that-NOM Taro-MO that-problem-NOM solve-can
'Taro can solve the problem, too.'

⇒ This indicates that *wh-demo* and *N + demo* share the same clausal structure, the difference being the element combined with the copula.

⁷To be more precise, Oda (2016) observes that there are two accent patterns with *wh-demo*: one with a falling accent after *de*, and the other with a flat intonation (no accent). Oda argues that only the former involves a clausal structure, and the latter is a grammaticalized form which has *demo* as a single morphological unit attached to *wh*-items. He shows that only the former accent pattern allows an additional subject, as illustrated in (i) (The apostrophe in the *wh*-item means a falling accent).

- (i) a. Sore-ga **da're**-demo sono-mondai-ga tok-eru. (falling accent)
that-NOM who-DEMO that-problem-NOM solve-can
- b. * Sore-ga **dare**-demo sono-mondai-ga tok-eru. (flat intonation)
that-NOM who-DEMO that-problem-NOM solve-can
'Anyone can solve the problem.'

Throughout this paper, I focus on *wh-demo* with the falling accent and I do not indicate the accent pattern.

- I argue that the structural analysis given in (30) explains two idiosyncratic properties of *wh-demo* as an FC expression.

1. Case-marking: *wh-demo*, unlike the universal quantifier *wh-mo*, resists case marking, as illustrated in (38).

- (38) a. Dare-de-mo(*-ga) sono mondai-ga tok-eru. (FC)
 who-COP-MO-NOM that problem-NOM solve-can
 ‘Anyone can solve the problem.’
 b. Dare-mo*(-ga) sono mondai-ga tok-eru. (UQ)
 who-MO-NOM that problem-NOM solve-can
 ‘Everyone can solve the problem.’

- Case particles in Japanese are typically attached to nominal elements, but not a CP headed by *to*, as in (39).

- (39) John-wa [CP Mary-ga kita to](*-o) omotteiru.
 John-TOP Mary-NOM came C-ACC think
 ‘John thinks that Mary came.’

⇒ Since *wh-demo* involves a CP headed by *to* under the current proposal, it follows that case particles cannot be attached to *wh-demo*.⁸

2. As noted in section 2, *wh-demo* cannot be licensed in comparatives unlike FCIs in other languages. Recall from section 2 that *demo* cannot be used as a complement of *yor* ‘than’, as repeated in (40).

- (40) a. *Taro-wa (hokano) dono-kurasumeeto-demo yori hayaku hashiru.
 Taro-TOP other which-classmate-DEMO than fast run
 ‘Taro runs faster than any other classmate.’
 b. *Taro-wa (hokano) dono-kurasumeeto yori demo hayaku hashiru.
 Taro-TOP other which-classmate than DEMO fast run
 ‘Taro runs faster than any other classmate.’

- Although it has been controversial whether the Japanese counterpart of ‘than’, which is *yor*, takes a clausal complement or just a nominal complement, Beck et al. (2004) and more recently Sudo (2015) argue that *yor* only takes a nominal complement.
- If this is on the right track, the current proposal for the structure of *wh-demo* can explain the unacceptability of (40).

⁸The same holds for *N + demo*, as shown in (i).

- (i) *Taro-demo(*-ga) sono-mondai-ga tok-eru.
 Taro-DEMO-NOM that-problem-NOM solve-can
 ‘Even Taro can solve the problem.’

This reinforces our argument that *wh-demo* and *N + demo* share the same clausal structure.

- Let us first consider (40a). In this case, the complement of *yor* is *dono-kurasumeeto-demo*, which is clausal (FP which dominates CP), not nominal. Thus, the sentence is ungrammatical.

- Turning to (40b), the complement of *yor* is *dono-kurasumeeto*, which is nominal, so that there is no problem in terms of selection by *yor*. However, the remaining part of the FCI, *demo* is separated from the *wh*-part and takes *yor* as its complement, and as (41) shows, *yor* cannot be a complement of a copula. Consequently, (40b) is ungrammatical.⁹

- (41) *John-wa Bill yori da.
 John-TOP Bill than COP.PRES
 ‘*John is than Bill.’

⇒ Thus, the present analysis of the structure of *wh-demo* combined with Beck et al.’s (2004) and Sudo’s (2015) claim that *yor* only takes a nominal complement explains the observation that *wh-demo* cannot be licensed in comparatives unlike FCIs in other languages.

→ This means that the unavailability of *wh-demo* in comparatives is deduced from its internal structure and hence it does not serve as a counterexample of *wh-demo* being an FC expression.

- To summarize this subsection, I have introduced Oda’s (2016) analysis of the internal structure of *wh-demo*, which involves a clausal structure: more precisely, the specificational copula *de* and the subjunctive mood *-oo*, which is contracted at PF.
- I have then argued that this analysis explains the optional presence of the demonstrative pronoun *sore*, the incompatibility of case particles with *wh-demo*, and the unavailability of *wh-demo* in comparatives despite that *wh-demo* is an FC expression.

3.2 Compositional semantics of *wh-demo*

- Based on the structural analysis proposed above, I propose a compositional semantic analysis of Japanese FCIs.

⁹*N + demo* patterns with *wh-demo* in this respect, too, as in (i). Instead of *demo*, *mo* has to be used as in (ii)

- (i) a. *Taro-wa Hanako-demo yori hayaku hashiru.
 Taro-TOP Hanako-DEMO than fast run
 ‘Taro runs faster than Hanako.’
 b. *Taro-wa Hanako yori demo hayaku hashiru.
 Taro-TOP Hanako than DEMO fast run
 ‘Taro runs faster than Hanako.’
 (ii) Taro-wa Hanako yori mo hayaku hashiru.
 Taro-TOP Hanako than MO fast run
 ‘Taro runs faster than Hanako.’

1. **The wh-item:** Following Kratzer and Shimoyama (2002), Shimoyama (2006), I assume that **wh-phrases such as *dare* ‘who’ denote a set of individuals as in (42) and the semantic composition proceeds with the *Pointwise Functional Application* (Kratzer and Shimoyama 2002, Shimoyama 2006).**

$$(42) \llbracket dare \rrbracket = \{x \in D_e : x \text{ is a human}\}$$

2. **The copula *de*:** I argue that **the copula *de* involved in the FC clause is a specificational copula** rather than a predicational one.

- Mikkelsen (2005) shows that in the case of specificational clauses the animate DP in the dislocated/preverbal position can be referred to by an inanimate personal pronoun (*it*) or demonstrative (*that*), as shown in (43).¹⁰

- This contrasts with a predicational clause, in which the dislocated/preverbal animate DP can be referred to by an animate personal pronoun but not by an inanimate personal pronoun or demonstrative, as shown in (44).

- (43) a. (As for) the tallest girl in the class, **{it/that}** is Molly.
b. The tallest girl in the class is Molly, isn't **it**?

- (44) a. (As for the tallest girl in the class, **{she/*it/*that}** is Swedish.
b. The tallest girl in the class is Swedish, isn't **{she/*it}**?

- Crucially, the same effect is observed in the Japanese FC clause. As shown in (45), the human third person pronouns *kare* and *kanojo* are incompatible with the FC clause. Rather, the optional subject has to be the inanimate demonstrative *sore*.

- (45) a. * **Kare/kanojo-ga** dono-gakusei-de-mo sono-mondai-ga tok-eru.
he/she-NOM which-student-COP-MO that-problem-NOM solve-can
'Any student can solve the problem.'
- b. * **Kare/kanojo-ga** dono-gakusei-deat-te-mo sono-mondai-ga
he/she-NOM which-student-COP-INF-MO that-problem-NOM
tok-eru.
solve-can
'Any student can solve the problem.'
- c. * **Kare/kanojo-ga** dono-gakusei-dear-oo-to-mo sono-mondai-ga
he/she-NOM which-student-COP-MO that-problem-NOM
tok-eru.
solve-can
'Any student can solve the problem.'

→ This indicates that the copula in *wh-demo* is specificational rather than predicational.

¹⁰Mikkelsen (2005) observes that an animate personal pronoun is marginally possible in (43). But she suggests that in this case the clause is an equative clause, not a specificational clause (see Mikkelsen 2005 for discussion).

- Regarding the semantics of the specificational clause, I adopt Romero's (2005) and Arregi et al.'s (2018) analysis and propose that **the specificational copula in *wh-demo* takes the wh-item as its first argument and the demonstrative pronoun as its second argument.** The denotation of *de* is given in (46).¹¹

$$(46) \llbracket de_{\text{specificational}} \rrbracket = \{\lambda y_e. \lambda g_{\langle s, e \rangle}. \lambda w_s. [g(w) = y]\}$$

3. **The demonstrative pronoun *sore*:** I propose that ***sore*, which can be optionally pronounced, denotes an individual concept, being a pronoun that refers to a property of type $\langle s, \langle e, t \rangle \rangle$ in the matrix clause.** This is illustrated in (47), where *f* is a variable whose referent is a property of type $\langle s, \langle e, t \rangle \rangle$ in the matrix clause.¹²

$$(47) \llbracket sore \rrbracket = \{\lambda w_s. [\lambda x_e. f(x, w)]\}$$

4. **The subjunctive mood *-oo*:** I propose, following Izvorski (2000), that **this subjunctive mood contributes a presupposition that individuals denoted by the wh-item in the FC clause vary across worlds.**

→ This presupposition ensures the counterfactual reading of *wh-demo*, which is not observed with *wh-mo* that lacks the copula *de*, in that *wh-demo* quantifies over individuals in different possible worlds.

- Here I implement this idea as in (48), where *-oo* takes a set of propositions (νP) and adds the presupposition that there are at least two propositions that are not identical to each other.

$$(48) \text{ For } \llbracket \alpha \rrbracket \subseteq D_{\langle s, t \rangle}, \\ \llbracket \alpha -oo \rrbracket = \exists p_{\langle s, t \rangle}, q_{\langle s, t \rangle} [p \in \llbracket \alpha \rrbracket \wedge q \in \llbracket \alpha \rrbracket \wedge p \neq q]. \llbracket \alpha \rrbracket$$

→ Since different propositions involve different sets of individuals, this implementation of the presupposition has the same effect as the one proposed by Izvorski (2000).

- Interestingly, this sort of presupposition is similar to the one proposed by von Stechow (2000) for the ignorance inference of the English FCI *whatever*. Since individuals vary across worlds (modal base for von Stechow), the speaker cannot specify the exact identity of the individual.

⇒ Thus, both the counterfactuality and the ignorance inference of *wh-demo* are derived from the same presupposition, which is encoded by the subjunctive mood *-oo*.

¹¹See Romero (2005) and Arregi et al. (2018) for arguments against Mikkelsen's (2005) and Moro's (1997) predicate-inversion analysis.

¹²In fact, this optional subject can be a non-pronominal noun phrase that denotes an individual concept, as illustrated in (i). (The optional subject in (i) sounds redundant, though.)

- (i) **Tok-ootosuru hito-ga** dare de-mo sono-mondai-ga tok-eru.
solve-try person-NOM who COP-MO that problem-NOM solve-can
'Whoever the person who tries to solve the problem is, he can solve the problem.'

- At this point, it is worth discussing [Izvorski's \(2000\)](#) analysis of *wh-ever* adjunct free relatives: according to her, a set of alternatives has to be involved in *wh-ever* adjunct free relatives to derive the FC interpretation.

- Crucially, she argues, based on languages such as Bulgarian, Greek, Spanish, English, Polish, and Hebrew, that *either* an interrogative wh-item *or* subjunctive mood has to be used, but *not both at the same time*.

→ This is obviously incompatible with the current proposal on *wh-demo*, which involves *both* an interrogative wh-item *and* subjunctive mood.

- Recall from the previous subsection that both *wh-demo* and *wh-mo* in Japanese have a wh-item. However, only the former have the FC interpretation. Note also that wh-items in Japanese are used in interrogatives.

→ This means that **interrogative wh-items themselves are not sufficient to derive the FC interpretation**. If wh-items were to suffice to derive the FC interpretation, UQs in Japanese, which also involve wh-items, would carry a counterfactual implication.

- In fact, what the wh-items themselves contribute is a set of *individuals*, not a set of *worlds* or *propositions*.

- Recall also from section 2.2 that ***demo* by itself is not sufficient to derive an FC interpretation either**, since it can co-occur with a non-wh-item and does not have an FC interpretation, as in (49).

(49) Taro-**de-mo** sono mondai-ga tok-eru.
Taro-COP-MO that problem-NOM solve-can
'Even Taro can solve the problem.'

- Since *demo* includes a copula and subjunctive mood, [Izvorski's \(2000\)](#) proposal predicts that (49) would involve an FC-interpretation, which is not borne out.

⇒ Thus, from the view point of Japanese *wh-demo*, we are led to conclude that [Izvorski's \(2000\)](#) original theory of the typological distribution of wh-items for FCIs is untenable, and that **both interrogative wh-items and subjunctive mood are necessary for the FC-interpretation**.

→ This is even desirable when we think about English *wh-ever* adjunct free relatives, which [Izvorski](#) assumes involve only interrogative wh-items.

- Although English has lost a distinct form of subjunctive unlike other Germanic languages, we can still observe some versions of subjunctive. As illustrated in (50), an infinitival form and so-called “concessive *may*” can be used in *wh-ever* adjunct free relatives.

(50) a. Wherever he **be**, I will find him.
b. Whichever you **may** choose, you will like it.

⇒ Thus, it is not implausible to conclude that even English *wh-ever* adjunct free relatives involve subjunctive mood, and that this subjunctive mood combined with a wh-item is crucial to derive the FC interpretation, just like in Japanese.

5. **The additive particle *mo***: I follow [Shimoyama \(2006\)](#) in proposing that *mo* is a sort of universal quantificational determiner that takes a set of alternatives as its first argument.

- In terms of the technical detail, however, I propose, following [Kratzer and Shimoyama \(2002\)](#) and [Rawlins \(2013\)](#), that *mo* for *wh-demo* takes a set of *propositions* as its restrictor, unlike *mo* for *wh-mo* which takes a set of *individuals* as its restrictor. Thus, the denotation of *mo* for *wh-demo* is given in (51).

(51) For $\llbracket \alpha \rrbracket \subseteq D_{\langle s,t \rangle}$,
 $\llbracket \alpha \text{ mo} \rrbracket = \{ \lambda q_{\langle s,t \rangle} . \lambda w_s . \forall p_{\langle s,t \rangle} [p \in \llbracket \alpha \rrbracket \rightarrow (p > q)(w) = 1] \}$

⇒ This means that **the whole sentence is an unconditional**.

- Now, let us look at how the semantic composition proceeds. Let us take the sentence (52) as an example.

(52) (Sore-ga) dare-de-mo sono mondai-ga tok-eru.
that-NOM who-COP-MO that problem-NOM solve-can
'Anyone can solve the problem.'

1. The copula *de* and the wh-item *dare* are combined via Pointwise Functional Application, which gives (53).

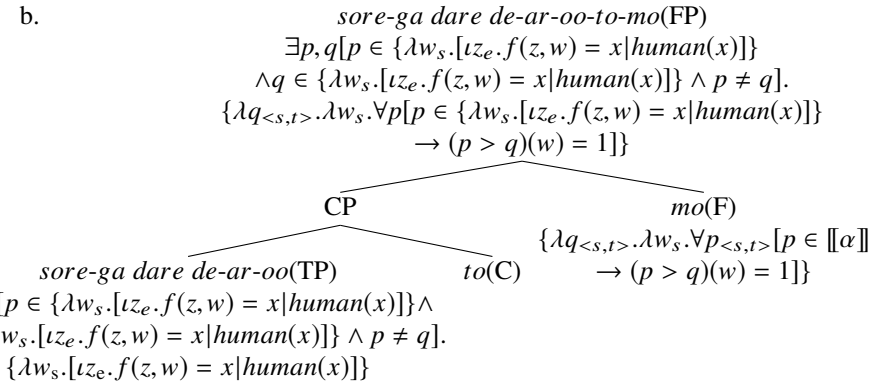
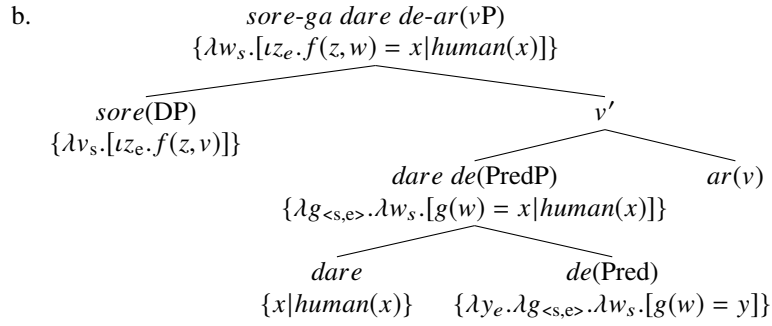
(53) a. $\llbracket \text{dare de} \rrbracket = \{ \lambda g_{\langle s,e \rangle} . \lambda w_s . [g(w) = x | \text{human}(x)] \}$
b.

$$\begin{array}{c} \text{dare de(PredP)} \\ \{ \lambda g_{\langle s,e \rangle} . \lambda w_s . [g(w) = x | \text{human}(x)] \} \\ \swarrow \quad \searrow \\ \text{dare} \quad \text{de(Pred)} \\ \{ x | \text{human}(x) \} \quad \{ \lambda y_e . \lambda g_{\langle s,e \rangle} . \lambda w_s . [g(w) = y] \} \end{array}$$

2. The pronoun *sore* is combined with (53), which returns (54). (I assume that *ar* is semantically vacuous. I also assume that *sore* is reconstructed into the base position for simplicity.)¹³

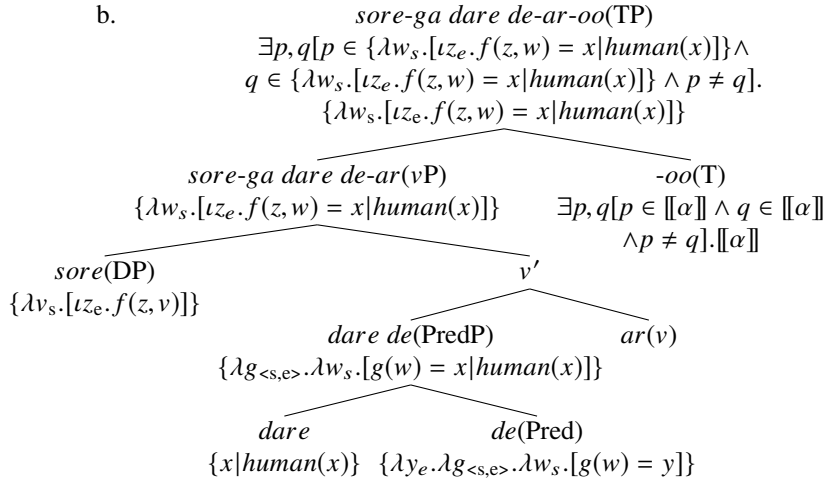
(54) a. $\llbracket \text{sore-ga dare de-ar} \rrbracket = \{ \lambda w_s . [\iota z_e . f(z, w) = x | \text{human}(x)] \}$

¹³It should be noted that there can be more than one individual who has the property *f*, but those individuals are checked one by one.



3. The subjunctive mood *-oo* is combined, which adds the presupposition on the variation of individuals across worlds, as in (55).

(55) a. $\llbracket \textit{sore-ga dare de-ar-oo} \rrbracket$
 $= \exists p, q [p \in \{\lambda w_s. [\iota z_e. f(z, w) = x | \textit{human}(x)]\} \wedge q \in \{\lambda w_s. [\iota z_e. f(z, w) = x | \textit{human}(x)]\} \wedge p \neq q]. \{\lambda w_s. [\iota z_e. f(z, w) = x | \textit{human}(x)]\}$



4. (55) is combined with *mo*, which gives (56). (I assume that *to* is semantically vacuous.)

(56) a. $\llbracket \textit{sore-ga dare de-ar-oo-to-mo} \rrbracket$
 $= \exists p, q [\{\lambda w_s. [\iota z_e. f(z, w) = x | \textit{human}(x)]\}(p) \wedge \{\lambda w_s. [\iota z_e. f(z, w) = x | \textit{human}(x)]\}(q) \wedge p \neq q]. \{\lambda q_{\langle s, t \rangle}. \lambda w_s. \forall p [p \in \{\lambda w_s. [\iota z_e. f(z, w) = x | \textit{human}(x)]\} \rightarrow (p > q)(w) = 1]\}$

5. Finally, the matrix sentence *sono mondai-ga tok-eru* is combined with (56). Here I assume that **the matrix clause *sono mondai-ga tokeru* ‘can solve the problem’ involves a null pronominal subject which refers to the subject in the FC clause.**

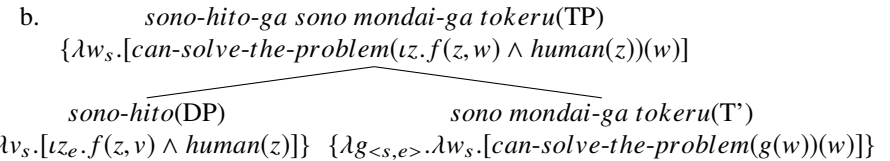
• In fact, Nishigauchi (1990) and Oda (to appear) observe that a demonstrative pronoun that (roughly) refers to the FC clause can optionally appear in the matrix clause, as illustrated in (57).

(57) [*Sore-ga dare de-mo*]_i **sono-hito-wa**_i *sono mondai-ga tok-eru.*
that-NOM who COP-MO that-person-TOP that problem-NOM solve-can
‘lit. Whoever_i it is, that person_i can solve the problem.’

• I give the denotation of *sono-hito* in (58), and that of the matrix clause in (59).

(58) $\llbracket \textit{sono-hito} \rrbracket = \{\lambda v_s. [\iota z_e. f(z, v) \wedge \textit{human}(z)]\}$

(59) a. $\llbracket \textit{sono-hito-wa sono mondai-ga tokeru} \rrbracket$
 $= \{\lambda w_s. [\textit{can-solve-the-problem}(\iota z. f(z, w) \wedge \textit{human}(z))(w)]\}$



• The demonstrative in the FC clause refers to the predicate in the matrix clause, which is ‘solve the problem’ in this example.¹⁴ Now, the semantic composition of the entire sentence is given in (60).

¹⁴In Japanese, the non-past/perfective form of the verb can be interpreted as future. Thus, here *mondai-o toku* ‘solve the problem’ is interpreted as ‘attempts to solve the problem/tackles the problem’.

(60) a. $\llbracket \text{sore-ga dare de-ar-oo-to-mo sono-hito-ga sono mondai-ga tokeru} \rrbracket$
 $= \exists p, q [p \in \{\lambda w_s. \iota z_e. \text{tackle-the-problem}(z, w) = x | \text{human}(x)\} \wedge$
 $q \in \{\lambda w_s. \iota z_e. \text{tackle-the-problem}(z, w) = x | \text{human}(x)\} \wedge p \neq q].$
 $\{\lambda w_s. \forall p [p \in \{\lambda w_s. \iota z_e. \text{tackle-the-problem}(z, w) = x | \text{human}(x)\}$
 $\rightarrow (p > \text{can-solve-the-problem}(\iota z_e. \text{tackle-the-problem}(z, w) \wedge$
 $\text{human}(z))(w))(w) = 1]\}$

b. *sore-ga dare de-ar-oo-to-mo sono mondai-ga tokeru*
 $\exists p, q [p \in \{\lambda w_s. \iota z_e. \text{tackle-the-problem}(z, w) = x | \text{human}(x)\} \wedge$
 $q \in \{\lambda w_s. \iota z_e. \text{tackle-the-problem}(z, w) = x | \text{human}(x)\} \wedge p \neq q].$
 $\{\lambda w_s. \forall p [p \in \{\lambda w_s. \iota z_e. \text{tackle-the-problem}(z, w) = x | \text{human}(x)\}$
 $\rightarrow (p > \text{can-solve-the-problem}(\iota z_e. \text{tackle-the-problem}(z, w) \wedge$
 $\text{human}(z))(w))(w) = 1]\}$

sore-ga dare de-ar-oo-to-mo(FP) *sono-hito-ga*
 $\exists p, q [p \in \{\lambda w_s. [\iota z_e. f(z, w) = x | \text{human}(x)]\}$ *sono mondai-ga tokeru*(TP)
 $\wedge q \in \{\lambda w_s. [\iota z_e. f(z, w) = x | \text{human}(x)]\} \wedge p \neq q].$ $\{\lambda w_s. [\text{can-solve-the-}$
 $\text{problem}(\iota z. f(z, w) \wedge \text{human}(z))(w)]\}$
 $\{\lambda q_{<s, t>. \lambda w_s. \forall p [p \in \{\lambda w_s. [\iota z_e. f(z, w)$
 $= x | \text{human}(x)]\} \rightarrow (p > q)(w) = 1]\}$

- This result is somewhat similar to Shimoyama's (2006) analysis of *wh-mo*, which is given in (61).

(61) a. *Dare-mo-ga sono mondai-ga tok-eru.*
 who-MO-NOM that problem-NOM solve-can
 'Everyone can solve the problem.'
 b. $\llbracket (61a) \rrbracket = \{\forall x [x \in \{y | \text{human}(y)\} \rightarrow \text{can-solve-the-problem}(x)]\}$

- Notice, however, that what is involved in *wh-mo* is quantification over *individuals*, not *propositions*, unlike *wh-demo*.

⇒ It is now obvious that this difference between *wh-demo* and *wh-mo* follows from the presence or absence of the copula with the subjunctive mood, which contributes the presupposition that there are at least two non-identical propositions and hence individuals denoted by the *wh*-item vary across worlds.

4 On *Ii-kara*

- In section 2, we saw that when *wh-demo* occurs in environment where FCIs typically receive an existential-like interpretation, it requires a phrase *ii-kara*, which is composed of *ii* 'good' and *kara* 'so/because', as repeated in (62).

(62) *Dono-kaado-demo ??(ii-kara) tori-nasai.*
 which-card-DEMO good-because take-IMP
 'Pick any card.'

→ Two questions to be addressed here:

1. Why can *wh-demo* itself not have the existential-like reading?
2. Why does the presence of *ii-kara* give rise to the interpretation in question?

- The answer to the first question is self-evident under the current proposal in this paper: **the particle *mo* contributes universal quantification over propositions, and there is no element that contributes existential quantification, so that *wh-demo* cannot have the existential-like interpretation alone.**

→ Thus, the fact that *wh-demo* by itself cannot have the existential-like interpretation follows from the current proposal.

- As for the second question, I argue that the domain of quantification of *mo* is 'closed' at the point where *ii-kara* is merged with *wh-demo*.
- As mentioned above, *ii-kara* is composed of the adjective *ii* and the subordinating complementizer *kara* 'so/because'.
- In Japanese, a class of adjectives (so-called *i-adjectives*, or *keiyoushi* in the traditional Japanese grammar,) are used as a predicate of a sentence without an overt copula, as shown in (63).¹⁵

(63) *Kono hon-wa ii.*
 this book-TOP good
 'This book is good.'

→ It is, then, natural to analyze (62) as involving two sentences: one is *dono-kaado-demo ii* 'Any card is good' and the other is *tori-nasai* 'pick (one)'. Then these two sentences are combined by means of *kara*. So (62) can be translated as 'Any card is good, so pick one.'

- In fact, the numeral 'one' can be optionally used after the *ii-kara* clause, as repeated from section 2 in (64), which supports the argument that there are two sentences involved in the presence of *ii-kara*.

(64) *Dono-kaado-demo ii-kara ichi-mai tori-nasai.*
 which-card-DEMO good-because one-CL take-IMP
 'Pick any card.' (Oda 2013)

¹⁵Alternatively, this class of adjectives in Japanese include a copula which is morpho-phonologically contracted: see Nishiyama (1999) and Watanabe (2013) for discussion.

5 Concluding Remarks

- In (64), the first clause *dono-kaado-demo ii-kara* sets up a context in which any card is good (for the purpose of picking one).
 - Then the second clause *ich-mai tori-nasai* expresses that the addressee must pick up one out of any card.
- ⇒ Thus, the reason why the presence of *ii-kara* gives rise to the existential-like interpretation is that **the sentence with *ii-kara* involves two clauses, one being a clause in which universal quantification by *mo* is completed and it is expressed that anything is fine for the purpose of the action after this clause, and the other being a clause which gives a command that involves the numeral ‘one’.**
- This analysis leaves the possibility that **the second clause can in principle have other numerals like ‘two’ or ‘three’, since the clause after *ii-kara* is independent of the clause before it in terms of quantification, and there is no constraint that prohibits numerals larger than ‘one’ from occurring in the second clause.**
 - In fact, those numerals can be used under specific contexts. For example, in a context of a game where the addressee is required to take two cards, the numeral ‘two’ can be used, as shown in (65).

(65) *Dono-kaado-demo ii-kara ni-mai tori-nasai.*
 which-card-DEMO good-because two-CL take-IMP
 ‘Pick any two cards.’

- Moreover, even a universal quantifier ‘all’ can be used in the presence of *ii-kara* under a specific context. Suppose that the addressee is required to take each card that is presented one by one, whatever card it is. In this case, (66) is felicitous.

(66) *Dono-kaado-demo ii-kara subete tori-nasai.*
 which-card-DEMO good-because all take-IMP
 ‘Pick all cards, whatever they are.’

⇒ Thus, these data support the current proposal that there are two clauses involved in the presence of *ii-kara*, which are independent of each other in terms of quantification.

→ **The reason why the presence of *ii-kara* gives rise to the existential-like interpretation would, then, be that the default interpretation of an empty argument in the second clause is singular rather than plural or ‘all’.**

- It is worth mentioning here that sentences like (62) carry the indifference inference: the speaker does not care about the identity of the card, so any card ‘suffices’ for the purpose of picking a card.
- This is not surprising once we consider the meaning of *ii-kara*: as noted above, *ii* means ‘good’, so the clause *dono-kaado-demo ii* means ‘any card is good’, which obviously expresses that any card is ‘sufficient’ for the purpose of picking a card.

→ Thus, we can directly see the element that contributes the indifference inference with *wh-demo*.

- I have argued that the FC interpretation of *wh-demo* can be derived in a compositional way.
 - More specifically, I have shown that *wh-demo* involves a clausal structure, in which *de* is a copula and there is a morpho-phonologically contracted subjunctive marker, which is *-oo* in a non-contracted variant.
 - I have then proposed that this subjunctive mood combined with *wh*-items give rise to the FC interpretation in the way that the subjunctive mood poses a requirement that there be at least two non-identical propositions, which results in individuals denoted by a *wh*-item varying across worlds.
- Under the current proposal, a sentence with *wh-demo* is an unconditional construction.
- In the course of discussion, I have also claimed that Izvorski’s (2000) proposal that *either* (interrogative) *wh*-items *or* subjunctive is necessary for FC-ness is untenable and that actually *both* of them are necessary to derive FC-ness.
 - In addition, I have discussed the phrase *ii-kara*, which gives rise to an existential-like interpretation with *wh-demo*.
 - What is crucial is that *wh-demo* itself does not have an existential-like reading even in the presence of *ii-kara*: rather, *ii-kara* introduces two clauses, one being the domain of universal quantification over propositions by *wh-demo* and the other being an independent clause that involves a null argument which is by default understood as singular.
- Thus, there is no need to add special interpretational mechanism to derive the existential-like reading to the proposed semantics of *wh-demo*.

Appendix: On Diagnostics of the Universal-like Reading

- The universal reading of *wh-demo* is diagnosed with *hotondo* ‘almost’. It has been remarked in the literature (e.g., Horn 1972, Dayal 1998 a.o.) that FC *any* but not NPI *any* can be modified by *almost*, as exemplified by (67).

(67) a. **Almost any** student can solve the problem. (FC *any*)
 b. * I don’t like **almost anyone**. (NPI *any*)

- As shown in (68), *hotondo*, which is the Japanese counterpart of ‘almost’, is compatible with *wh-demo* in the environment of ability modals, future tense, habituals, generics and stative verbs.¹⁶

(68) a. **Hotondo** *dono-gakusei-demo sono-mondai-ga tok-eru.*
 almost which-student-DEMO that-problem-NOM solve-can
 ‘Almost any student can solve the problem.’

- b. **Hotondo** dono-otoko-demo kono-tsukue-o mochiageru daroo.
almost which-student-DEMO this-table-ACC lift will
'Almost any man will lift this table.' (Oda 2013)
- c. Taro-wa taitei **hotondo** dono-hon-demo chuuibukaku yomu.
Taro-TOP usually almost which-book-DEMO carefully read
'Taro usually reads almost any book carefully.' (Oda 2013)
- d. **Hotondo** dono-fukurou-demo nezumi-o karu.
almost which-owl-DEMO mouse-ACC hunt
'Almost any owl hunts mice.' (Oda 2013)
- e. **Hotondo** dono-seito-demo sono-sensei-o sonkeishiteiru.
almost which-student-DEMO that-teacher-ACC respect
'Almost any student respects the teacher.' (Oda 2013)

- One might say that the 'almost' diagnosis for the universal reading has been challenged by many authors (e.g., Giannakidou 2001, Horn 2005 a.o.) and hence that it is not a valid diagnosis. The argument against the validity of the diagnosis comes from the fact that *almost* is compatible with numerals and predicates, as shown in (69).

- (69) a. He has **almost two hundred** friends.
b. He is **almost an idiot**.

- However, Oda (2013) points out that Japanese *hotondo* is incompatible with numerals or predicates, as illustrated in (70). Instead, other lexical items specific to numerals and predicates have to be used as in (71).

- (70) a. *Kare-ni-wa **hotondo ni-hyaku-nin-no** tomodachi-ga iru.
he-DAT-TOP almost two-hundred-CL-GEN friend-NOM exist
'He has almost two hundred friends.' (Oda 2013)
- b. *Kare-wa **hotondo baka** da.
he-TOP almost idiot is
'He is almost an idiot.' (Oda 2013)
- (71) a. Kare-ni-wa **hobo ni-hyaku-nin-no** tomodachi-ga iru.
he-DAT-TOP almost two-hundred-CL-GEN friend exist
'He has almost two hundred friends.' (Oda 2013)

¹⁶In fact, *hotondo* is compatible with genuine universal quantifiers like *wh-mo* and 'all', as in (i) and (ii).

- (i) **Hotondo dare-mo-ga** sono-mondai-o toita.
almost who-MO-NOM that-problem-ACC solved
'Almost everyone solved the problem.'
- (ii) **Hotondo minna/zen'in-ga** sono-mondai-o toita.
almost all/all-NOM that-problem-ACC solved
'Almost all (of them) solved the problem.'

- b. Kare-wa **baka douzen** da.
he-TOP idiot almost is
'He is almost an idiot.' (Oda 2013)

⇒ Thus, Oda (2013) concludes that the *hotondo* diagnosis for the universal reading of Japanese FCIs is not invalidated.¹⁷

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- ¹⁷Oda (2013) observes that 'all' is compatible with *wh-demo*, which he takes to be another diagnostic for the universal reading of *wh-demo*. See Oda (2013) for the data.

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