

Japanese *dare-mo* has been widely acknowledged to be an NPI, furthermore, a “strict” NPI in the sense of Giannakidou (2011) as it seems to be licensed only in an “antiveridical” environment, specifically, with a clausemate negation. However, there is a type of positive sentences in which *dare-mo* can appear, i.e. non-episodic sentences, which indicates that *dare-mo* is in fact not an NPI and its NPI-like distribution is an epiphenomenon due to *dare-mo*’s lexical meaning and the resulting interpretational properties of *dare-mo* sentences. In the current work, based on novel data we will propose that *dare-mo* is a “non-restrictive” universal quantifier and demonstrate that the proposed meaning of *dare-mo* and a reasonable assumption about episodic predicates predict that positive episodic *dare-mo* sentences will be contradictory while negative episodic ones and non-episodic ones, positive or negative will be contingent, nicely characterizing the grammaticality facts of *dare-mo* sentences.

Here, a word is in order about *dare-mo*’s notation. As *dare-mo* turns out to be not a genuine NPI, which is demonstrated later, its usual notation, *dare-mo*_{NPI} is not appropriate; we will denote it ***dare-mo*** in contrast with the so-called non-NPI *dāre-mo*, which has accent on *dare*, can appear in sentences, positive or negative, episodic or not, and unambiguously means ‘everyone’.

- (1) a. ***Dare-mo** paatii-ni ki-ta. b. **Dare-mo** paatii-ni ko-nakat-ta.
 who-MO party-Dat come-Past who-MO party-Dat come-Neg-Past
 ‘Nobody (whatsoever) came to the party.’

Based on data like (1) and the fact that it is not licensed in the restrictor of EVERY, the antecedent of a conditional, or a polar interrogative unlike English NPI *any* CN, ***dare-mo*** has been commonly considered to be a strict NPI. However, although this has been hardly discussed in the literature, ***dare-mo*** can actually occur in positive sentences, as in (2), where the number in the braces following each example is that of the native speakers of Japanese who judged the example to be perfectly acceptable among the total fifteen informants in our preliminary research.

- (2) a. Hito-wa **dare-mo** itsukawa shinu. {13}
 humans-Top who-MO someday die
 ‘Everyone (whatsoever) will die someday.’
 b. Hito-wa **dare-mo** jibun-ni amai. {9}
 humans-Top who-MO self-Dat lenient
 ‘Everyone (whatsoever) is lenient to herself.’
 c. Hito-wa **dare-mo** yume yabure, furikaeru. {15}
 humans-Top who-MO dream break reflect
 ‘Everyone (whatsoever) will lose in her dream and reflect on herself.’

The obvious difference between (1) and (2) is that the predicates involved in (1) are episodic while those in (2) are non-episodic, or “tenseless”. Data like (1) and (2) and their contrast simply indicate that ***dare-mo*** is in fact NOT an NPI and its NPI-like distribution manifested in (1) should be analyzed as a result of the interaction of the lexical semantics of ***dare-mo***, (non-)episodic predicates and sometimes, negation, not as a direct effect of, say, a syntactic, configurational constraint on ***dare-mo*** in relation to negation. Following is such analysis, in which ***dare-mo*** is assumed to denote a universal quantifier; that is, the basic logical structure of (1b) is $\forall$ - instead of $\neg\exists$, as has been independently argued by Kataoka (2006, 2007) and Shimoyama (2008, 2011), neither of whom, however, has an account of ***dare-mo***’s NPI-like distribution.

First, we propose that ***dare-mo*** is a “non-restrictive” universal quantifier, by which we mean a universal quantifier that does not have a restrictor part (although the variable is sorted to humans) in terms of “tripartite structure” of quantification, specifically, a sortal, non-restrictive universal quantifier denoted as in the following:

- (3) Meaning of ***Dare-mo***

dare-mo: $\lambda Q\forall x^h[Q(x^h)]$ where x^h is a sortal variable for humans.

There is evidence for the non-restrictiveness. For example, a partive, which is considered to be a prototypical construction for a restrictor of quantifier, as in “every one of the students”, does not sit well with ***dare-mo*** as in “**gakusei-no* ‘(the) students-of’ ***dare-mo*** + negative (episodic) predicate” while it is perfectly compatible with *dāre-mo* as in “*gakusei-no dāre-mo*-case-marker + (episodic) predicate,

positive or negative”. Furthermore, consider (4) for more decisive, interpretational evidence.

- (4) [Paatii-ni kita gakusei]-wa **dare-mo** i-nakat-ta.
[party-Dat came student(s)]-Top who-MO be/exist-Neg-Past

If the topical nominal, *paatii-ni kita gakusei* ‘students who came to the party’ were a restrictor of **dare-mo**, the predicted reading of (4) would be expected to be something like (5), but the actual reading is (6). By contrast, the *dare-mo* counterpart of (4) with **dare-mo** replaced with *dare-mo-ga* ‘nominative marker’ has the reading, (5) instead of (6).

- (5) ‘No students who came to the party existed/All the students who came to the party didn’t exist (at some unspecified place).’
(6) ‘No students came to the party/Everyone is such that she was not a student or did not come to the party.’

Assuming that the domain for variable x^h is the entire domain of humans in the world denoted $D_{h,w}$, the truth conditions for **dare-mo** sentences are as follows:

- (7) Truth Conditions for **Dare-mo** Sentences $\forall x^h[P(x^h)]$

For a model M , a variable assignment g , a point of time, t , a possible world w , and the domain of humans in world w , $D_{h,w}$,
 $\forall x^h[P(x^h)]$ is true if and only if $D_{h,w} \subseteq \{a : \llbracket P(\dots, x, \dots) \rrbracket^{M,g[x/a],t,w} = 1\}$.

Next, we propose a condition on the extension of an episodic predicate. As events or situations, which are referred to by episodic sentences, are spatio-temporally bounded, it is reasonable to suppose that the extensions of episodic predicates cannot contain the entire domain of individuals of any sort in any world. For illustration, let us take episodic predicate “came to the party” as an example. Referring to a certain coming-to-the-party event at some time in the past, the extension of the predicate cannot contain the entire set of humans in the world, for a spatio-temporally bounded event cannot have as its participants, humans who are dead or to be born at the time of the event. Here is a formal rendition of the condition.

- (8) Spatio-Temporal Boundedness Condition on Extensions of Episodic Predicates

For the domain of sort s in world w , $D_{s,w}$, and episodic predicate P , the following condition holds: $D_{s,w} \not\subseteq \{a : \llbracket P(\dots, x, \dots) \rrbracket^{M,g[x/a],t,w} = 1\}$ where M, g, t are as in (7).

With the lexical meaning of **dare-mo**, the consequent truth conditions for **dare-mo** sentences, and the condition on the extension of an episodic predicate having been set, let us see the consequences. The crucial one here is that positive episodic **dare-mo** sentences will be predicted to be contradictory, for the truth conditions, (7) cannot be true given the condition on the extension of an episodic predicate, (8), while negative episodic **dare-mo** sentences and non-episodic **dare-mo** sentences, positive or negative will be contingent; for instance, (4) and (2a) are interpreted to be “ $\forall x^h\text{--}[\text{student}(x^h) \wedge \text{came-to-the-party}(x^h) \wedge \text{EXISTED}(x^h)]$ ” and “ $\forall x^h[\text{die-some-day}(x^h)]$ ”, respectively.

In the current analysis, the grammaticality facts of **dare-mo** sentences, or the NPI-like distributions of **dare-mo** are now reduced to the logicity, or the contingency/contradiction of **dare-mo** sentences. Giannakidou (1998, 2001, 2011) has strongly opposed to such a pragmatic approach to NPIs pursued in, e.g. Kadmon & Landman (1993), Krifka (1995) and Chierchia (2006), on the basis that pragmatic infelicity is too weak to characterize the categorical nature of the ungrammaticality judgments involving (strict) NPIs. Alternatively, she has argued that strict NPIs are lexicalized, or grammaticalized as such and their distributions are dealt with in syntax; for **dare-mo**, Giannakidou (2007, 2011) and Yoshimura (2007) argued that the characteristic rising tone on **dare-mo** is a marker of the lexicalization of its NPI-ness on a par with, e.g. the accent on Greek emphatic n-word KANENA. Now that there is evidence that **dare-mo** is not a strict NPI or a weak one for that matter, as is indicated by data like (2), the hard-wired, syntax-based account has lost its rationale, while the current pragmatic, semantics-based analysis is empirically better motivated to say the least.

Selected References

- Giannakidou, Anastasia (2011) “Negative and positive polarity items”. In K. von Stechow, C. Maienborn and P. Portner (eds.) *Semantics An International Handbook of Natural Language Meaning* (HSK 33.2), de Gruyter. 1660–1712
Kataoka, Kiyoko (2006) “Neg-sensitive elements, neg-c-command, and scrambling in Japanese”. In T.J. Vance and K. Jones (eds.), *Japanese/Korean Linguistics*. Vol. 14. CSLI Publications: Stanford, CA. 221–33.
Shimoyama, Junko (2011) “Japanese Indeterminate Negative Polarity Items and Their Scope”. *Journal of Semantics*. 28(4): 413-450.
Yoshimura, Keiko (2007) *Focus and Polarity: Even and Only in Japanese*. Ph.D. dissertation. University of Chicago: Chicago, IL.