

## The Japanese negative *totemo* ‘very’: toward a new typology of negative sensitive items

**Introduction:** The Japanese intensifier *totemo* ‘very’ can intensify the degree associated with a gradable predicate:

- (1) Kono ie-wa totemo ookii.  
This house-TOP very big  
‘This house is very big.’

However, *totemo* can also intensify a negative modal statement:

- (2) a. Tetuya-nado totemo {deki-nai/\*dekiru}.  
Staying up all night-NADO very can-NEG/can  
‘Staying up all night is impossible.’ (Implication: I am emphasizing the impossibility.)  
b. Ame-wa totemo yami-soo{-ni nai/\*-da}.  
Rain-TOP totemo stop-seem-to NEG/PRED  
‘The rain does not seem to stop.’ (Implication: I am emphasizing the unlikelyhood.)

In (2a), *totemo* emphasizes the negative statement that “I can’t stay up all night.” In (2b), *totemo* also emphasizes the negative modal statement that “the rain does not seem to stop.” A crucial point of this use of *totemo* is that it can only appear in a negative environment (e.g., Watanabe 2001). If there is no negation, the sentence (2) becomes ill-formed. Therefore, *totemo* in (2) behaves like a negative polarity item (NPI). However, the “negative modal” use of *totemo* has several puzzling properties with regard to the NPI-hood. First, it cannot be within the scope of negation. This is supported by the fact that (2a) cannot mean that I am not emphasizing possibility of staying up all night. Second, unlike typical NPIs (e.g., minimizer NPIs, *any*-type NPIs), the meaning of *totemo* is not part of “what is said.” This is supported by the fact that if an addressee says ‘No, that’s not true’ after either statement in (2), the denial cannot target the emphasis part triggered by *totemo*.

In this paper, I will investigate the meaning and distribution of the negative *totemo* and consider what a negative *totemo* suggests for theories of NPIs. I argue that the negative *totemo* is not a logical NPI (which is licensed by negation and non-veridical operators, such as questions (e.g. Klima 1964; Ladusaw 1979; Giannakidou 1998)). Rather, it is a conventional implicature (CI)-inducing expression/expressive (e.g. Grice 1975; Potts 2005), which intensifies the unlikelyhood or impossibility of a given proposition and refuses to update the common ground (the context set) with the at-issue proposition. It will be shown that the pragmatic function of refusal forces the at-issue proposition to occur in a negative environment. This paper proposes a new class of NPIs —discourse-oriented NPIs.

**Formal analysis:** As for the meaning of semantic *totemo*, we can say that it intensifies the degree of an adjective (e.g. *ookii* ‘big’;  $\lambda d \lambda x \lambda t \lambda w. big(x)(t)(w) = d$ ) at the at-issue (semantic) level:

- (3)  $[[totemo_{SEM}]] = \lambda G_{ADJ} \lambda x \lambda t \lambda w \exists d [d > !!STAND \wedge G(d)(x)(t)(w)]$

On the other hand, I claim that the negative *totemo* intensifies a negative modal statement. Theoretically, I claim that it is mixed content (McCready 2010; Gutzmann 2011) that takes a “negative modal predicate” (e.g., *deki-nai* ‘impossible’:  $\lambda d \lambda p \lambda t \lambda w. impossible_{ABILITY}(p)(t)(w) = d$ ), *soo-ni-nai* ‘unlikely’,  $\lambda d \lambda p \lambda t \lambda w. unlikely(p)(t)(w) = d$ ) in both at-issue and CI levels but intensifies the degree only at the CI level. (The left side of  $\blacklozenge$  is an at-issue domain, and the right side of  $\blacklozenge$  is a CI domain. “ $>!!STAND$ ” means “much greater than a standard” (Kennedy and McNally 2005)):

- (4)  $[[totemo_{NEG}]] = \lambda G_{NEG.MODAL} \lambda p \lambda t \lambda w \exists d [d > STAND \wedge G(d)(p)(t)(w)] \blacklozenge$   
 $\lambda G_{NEG.MODAL} \lambda p \lambda t \lambda w \exists d [d > !!STAND \wedge G(d)(p)(t)(w)]$  (where  $p(t) \cap (\cap cg) = \emptyset$  and  $p$  is currently activated in the discourse)

The important point of the above analysis is that the negative *totemo* has several use conditional constraints as shown in the parenthetical in (4). First, the negative *totemo* has to be used in a context where the speaker assumes that there is no overlap between the common ground and the at-issue proposition (“I stay up all night” in the case of (2)). (Note: I am assuming that  $p(t)$  is the set of worlds in that the tensed proposition  $p(t)$  is true (Stalnaker 1978) and  $\cap cg$  is the set of worlds that are compatible with all of the shared propositions.) This naturally explains why the negative *totemo* cannot be combined with a positive gradable modal. If it arises in a positive modal sentence, it violates the use condition. The negative *totemo* also has a use condition that  $p$  is currently activated in the discourse. This requirement is supported by the fact that the sentence with the negative *totemo* cannot appear in an out-of-the blue context. As the following example shows, it is unusual to use *ga*, which conveys new information:

- (5) Tetuya {nado/??ga} *totemo* deki-nai-desu.  
 Staying up all night NADO/-NOM TOTEMO can-NEG-PRED.POLITE  
 ‘Staying up all night is impossible.’ (CI: I am emphasizing the impossibility.)

On the other hand, it is natural to use *totemo* with the particle *nado*. *Nado* in (5) signals that the given proposition/event is currently under discussion and that the speaker construes it negatively.

**Relationship to modality:** Why is it that the negative *totemo* has to occur with a modal? I would argue that this is because *totemo* is a degree adverb (a degree head) which combines with a gradable predicate; therefore, it cannot directly intensify a whole (negative) proposition. This implies that if a modal is not a gradable predicate, the sentence with the negative *totemo* becomes ill-formed. This prediction is borne out as shown in (6). *Hazuda* is a sentential modal (not a gradable modal), thus it cannot interact with *totemo*.

- (6) \*Taro-wa gakusei-de-wa *totemo* nai-hazuda.  
 Taro-TOP student-PRED-TOP TOTEMO NEG-must  
 ‘Taro must not be a student.’

**Theoretical implication:** The negative *totemo* suggests that there is a new class of NPIs—discourse-oriented NPIs (see Table 1).

Table 1: Typology of Negative Sensitive Items

|                                  | Contribute to<br>“what is said” (= at-issue)       | Not contributing to<br>“what is said” (=CI)                       |
|----------------------------------|----------------------------------------------------|-------------------------------------------------------------------|
| Within the scope of negation     | Minimizer NPIs, <i>any</i><br>(Class 1)            | None                                                              |
| Not within the scope of negation | wh- <i>mo</i> , Greek emphatic n-word<br>(Class 2) | The negative <i>totemo</i> (Discourse-oriented NPIs)<br>(Class 3) |

Class 1 and Class 2 negative sensitive items in Table 1 have been extensively studied in the literature of negative polarity items/negative concord. The typical examples of Class 1 items are *any*-type NPIs and minimizer NPIs; the typical examples of Class 2 negative sentence items are emphatic n-words in Greek (Giannakidou 2000), Hungarian n-words (Szabolcsi 1981), Japanese *sika* (e.g., Kataoka 2006), or wh-*mo* NPIs (e.g., Shimoyama 2011). These expressions are different in terms of scope, but their meanings are all part of “what is said.” They contribute to the truth condition of a given sentence. However, the Japanese negative *totemo* neither belongs to Class 1 nor Class 2; it is beyond the scope of negation and does not contribute to “what is said.” I propose that it belongs to a new (third) class of negative sentence expression, which I call “discourse-oriented NPIs”; they have a discourse pragmatic function of rejection of an at-issue proposition. (Note: Logically there cannot be expressions that are within the scope of negation and do not contribute to “what is said.”) I suggest that the expressive use of the Japanese *nani-mo* ‘what-MO’ also belongs to Class 3. The expressive wh-*mo* emphasizes the non-necessity of updating an at-issue proposition. This paper proposes a new typology of negative sensitive expressions.

**Selected references:** Shimoyama, J. 2011. Japanese indeterminate negative polarity items and their scope. *Journal of Semantics* 28. Potts, C. 2005. *Logic of conventional implicatures*. Oxford.