A mirative evidential in exclamative: A semantics of nodaroo

Introduction: Nodaroo in Japanese has an evidential use (1a) as well as an exclamative use (1b), but other evidentials do not have exclamative use (1b). The pronunciation of roo is optional and the exclamative use is possible only when a wh-phrase nante is combined (cf. Ono 2006). The goal of this paper is to propose a semantics of nodaroo which explains why only nodaroo can have an exclamative interpretation though it is an evidential marker. The result of this study suggests that exclamative wh-phrase nante is responsible for the degree meaning of exclamatives and that nodaroo is a so-called mirative evidential.

Data: What differentiates nodaroo from other evidentials such as daroo or sooda is that nodaroo(p) requires a potential result of p to be in the common ground (CG). As shown in (1c), daroo (inferential) nor sooda (hearsay) cannot be felicitously uttered when the speaker and hearer perceive a potential result of p (In this case, there are a lot of empty wine bottles is a potential result of John drank a lot of wine and the former is in CG. Thus, nodaroo is felicitous (1a).) Conversely, nokamo and yooda are felicitous (1c) in context (1) like nodaroo (1a). Nokamo is distinguished from nodaroo in that nokamo suggests the speaker is quite uncertain about the truth of p. This is observed by the fact that nokamo is incompatible with kitto ‘certainly’, which requires a high degree of certainty by the speaker (2). The difference between nodaroo and yooda is presented in (3): Unlike nodaroo, yooda is compatible with hearsay contexts.

Analysis: We propose (4) as a semantics of nodaroo. Adopting Gutzmann (2011), we assume that evidentiality contributes to use-conditional meanings, and treat nodaroo as a use-conditional item. RESULT is a function which takes a proposition p as its argument and gives a proposition p_{BE} which can be a result of p. The definition of p_{BE} is (5). Informally, the use-condition of nodaroo(p) is that (i) a potential result of p is in CG and (ii) the likelihood of p is higher than a relevant threshold. In an exclamative context, (i) is satisfied because a certain situation which surprises the speaker plays a role of p_{BE} (cf. ex2 in (5)), and (ii) is fulfilled due to the factivity of exclamative; the likelihood of p is always 100 percent in exclamative contexts.

Predictions: Our analysis correctly predicts that only nodaroo can be used as an evidential marker as well as an exclamative marker. Daroo nor sooda cannot have the semantics of (4) since they are infelicitous when a potential result of p is in CG (1c). The denotation of yooda also cannot be (4), since yooda is felicitous in hearsay contexts (3), where a potential result is not in CG. The reason why nokamo cannot have the semantics of (4) is that it marks the speaker’s uncertainty (2) and the likelihood of the proposition does not exceed the threshold.

On exclamative wh-phrase: We adopt Ono’s (2006) analysis and assume that a nante phrase undergoes covert wh-movement. The semantics of nante in (1b) is (6). The function μS is a measure function which maps a property P to the unique degree d on the relevant scale S. The LF for (1b), for example, is (7). Nante takes a property P (‘a lot of’ in 1b), an individual x (‘wine’ in 1b), an abstracted proposition Q (‘John drank x’ in 1b), a degree d, and a world w. Following Rett (2011), we assume that a degree d is supplied from the context. In (7), STANDARD is introduced as a degree argument. As a result, the at-issue meaning (i.e. truth-condition) of (1b) becomes ̂λw_S. μQUANT(much) ≥ STANDARD /

much(wine) /

drank(John)(wine) in w. This becomes the argument of nodaroo at not-at-issue level and nodaroo gives the use-condition in (4). Assuming a denotation like (6) for an exclamative wh-phrase relies on the assumption that the lexical entries of the exclamative wh-phrase and interrogative wh-phrase are different. This assumption is supported morphologically as well as syntactically (Zanutini & Portner 2003, Ono 2006).

Further issues: As Rett & Murray (2013) and Lau & Rooryck (2017) point out, not a few languages have a mirative evidential (i.e. an evidential marker which can also function as a mirative marker). Unlike exclamatives, miratives do not necessarily require degree meanings (cf. Rett 2011). Since we showed that the exclamative wh-phrase is responsible
for the degree meaning of exclamatives, we can say that nodaroo is a kind of mirative evidential. This point becomes more convincing if we decompose nodaroo into noda and roo. As shown in (8), noda (colloquially nda) has a mirative use. We suggest that the use-condition of noda is $\text{RESULT}(p) \subseteq CG$ in (4) and that of roo is $\mu\text{likelihood}(p) > \text{THRESHOLD}$ in (4) respectively. Roop is infelicitous in (8) for pragmatic reasons: In mirative context, the condition $\mu\text{likelihood}(p) > \text{THRESHOLD}$ is vacuously fulfilled, but roo has a role of disambiguation between an evidential use and mirative use. Therefore, when roo is present, evidential interpretation is preferred and (8) is infelicitous. Roop does not play this role in exclamatives like (1b) since exclamative wh-phrase already disambiguates the interpretation. The pronunciation of roo is optional in exclamatives (1b) for this reason.

(1) [The speaker and hearer entered John’s room. There are a lot of empty wine bottles. Neither speaker nor hearer heard about John’s drinking.]
   a. John-wa takusan wain-o nonda nodaroo.
      John-TOP a.lot.of wine drank NODAROO
      ‘I guess John drank a lot of wine.’
   b. John-wa nante takusan wain-o nonda{[noda(roo)]*daroo/*sooda/*nokamo/*yooda}!
      John-TOP wh a.lot.of wine drank NODAROO INFER HEARSAY might seem
      ‘What a lot of wine John drank!’
   c. John-wa takusan wain-o nonda {#daroo / #sooda / oknokamo / okyooda}.
      John-TOP much wine drank INFER HEARSAY might seem

(2) John-wa kitto takusan wain-o nonda{[nodaroo] / *nokamo}.
   John-TOP certainly much wine drank NODAROO might

(3) Kare iwaku, [[kotoshi-no fuyu]-wa samui {#nodaroo / okyooda}].
   he according to this.year-GEN winter -TOP cold NODAROO seem
   ‘According to him, {#I guess this winter is cold / okthis winter seems to be cold}.

(4) [nodaroo] = $\lambda p. \text{RESULT}(p) \subseteq CG \land \mu\text{likelihood}(p) > \text{THRESHOLD}$

(5) A proposition $p_0$ is $p_{RE}$ for $p$ iff $p$ can cause $p_0$.
   (ex.1.) $p_0$: The ground is wet.
   $p$: It is raining.
   In this case, $p_0$ is $p_{RE}$ for $p$ since $p$ can cause $p_0$.
   (ex.2.) $p_0$: John stooped to get on a train.
   $p$: The degree of John’s height is extreme. (⇒exclamative)
   In this case, $p_0$ is $p_{RE}$ for $p$ since $p$ can cause $p_0$.

(6) [nante] = $\lambda \text{P}_c,s, \lambda x, \lambda Q \in c,s, \lambda d, \lambda w, \mu \text{P}(x) \geq d \land P(x) \land Q(x)$ in w

(7) [[nante takusan wain-o]], John-wa t, nonda nodaroo
   = ([nante] ([takusan]) ([wain]) ([t nonda])) [nodaroo]
   = ($\lambda d, \lambda w, \mu\text{QUANT(much)} \geq d \land \text{much(wine)} \land \text{drank}(\text{John})(\text{wine})$ in w) [nodaroo]
   $\Rightarrow$ ($\lambda w, \mu\text{QUANT(much)} \geq \text{STANDARD} \land \text{much(wine)} \land \text{drank}(\text{John})(\text{wine})$ in w) [nodaroo]

(8) [The speaker entered a room and found John, who was usually absent.]
   E, John kita nda (#roo)!
   oh John came NODA ROO