

On Semantic and Tonal Properties of Japanese Negative Polar Interrogatives

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Objective

This work demonstrates that Japanese has two varieties of the negative polar interrogatives (the P-type and the NN-type), which are differentiated information-structurally and, as a consequence, tonally as well.

Negative Polar Interrogatives in English

Ladd (1981) demonstrates that there are two varieties of English negative polar interrogatives (what he calls the OUTSIDE NEG question and INSIDE NEG question).

- (1) Outside NEG
A: You guys must be starving. You want to go get something to eat?
B: Yeah, isn't there a vegetarian restaurant around here?
- (2) Inside NEG
A: I'd like to take you guys out to dinner while I'm here.
B: But, there's not really any place to go in Hyde Park.
A: Oh, really. Isn't there a vegetarian restaurant around here?
- In outside NEG questions, "the speaker believes a proposition **P** and wants confirmation" and "what is being questioned is the speaker's belief **P**".
 - In inside NEG questions, "the speaker has just inferred a proposition **¬P**" and "what is being questioned is the inference **¬P**".
 - Outside NEG questions are compatible with positive polarity items (PPIs) but not with negative polarity items (NPIs), and the opposite pattern holds for the inside NEG questions.

Büring and Gulløksen (2000) distinguish three kinds of contexts: (i) a context where there is contextual evidence (evidence that has just become mutually available to the participants in the current discourse situation) for (the core proposition) **P**, (ii) a context where there is contextual evidence against **P**, and (iii) there is not contextual evidence toward either direction.

- A positive polar question is compatible with (i) and (iii) but not with (ii).
- An outside NEG question is compatible with (ii) and (iii) but not with (i).
- An inside NEG question is compatible with (ii) only.

Romero and Han (2004)

- With an outside NEG question, the speaker tries to "confirm or 'double-check' the positive proposition **P**" (in (1), "that there is a vegetarian restaurant around here"), and with an inside NEG question, the speaker "wants instead to double-check **¬P**" (in (2), "that there is not a vegetarian restaurant around here").
- In both kinds of biased negative interrogatives (outside NEG and inside NEG), the speaker "starts with the positive belief or expectation that **P**".
- While negative polar interrogatives with preposed negation (e.g., 'Won't he come?') always convey an epistemic bias, ones with non-preposed negation (e.g., 'Will he not come?') do not necessarily raise a bias.

kinds of epistemic bias	positive	negative	no bias
Ladd's label	outside NEG	inside NEG	(inside NEG)
NPI licensing	no	yes	yes
PPI licensing	yes	no	no
preposed negation	OK	OK	*
non-preposed negation	OK	OK	OK

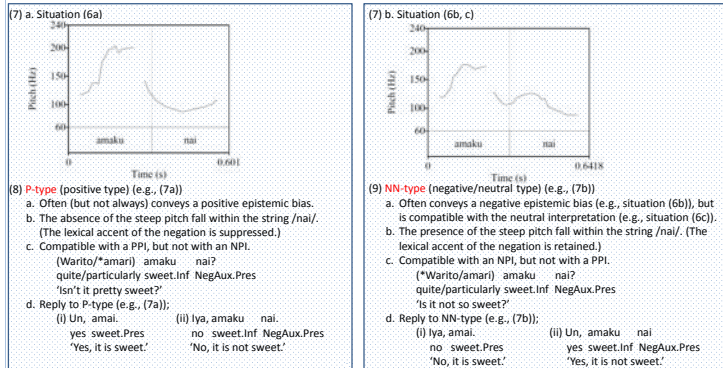
Tentative definitions of epistemic biases:

- (3) **Positive epistemic bias:** Speaker considers **P** to be likely, where **P** is the proposition denoted by the radical of the negative polar interrogative minus the negation.
- (4) **Negative epistemic bias:** Speaker considers **P** to be likely, where **P** is the proposition denoted by the radical of the negative polar interrogative.

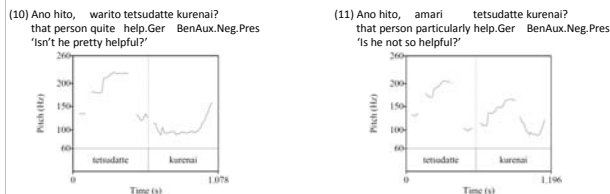
Two Varieties of Japanese Negative Polar Interrogatives

Japanese has two tonally differentiated varieties of the negative polar interrogatives.

- (5) Amaku nai?
Sweet.Inf NegAux.Pres
'Isn't it sweet?'
- (6) a. A is eating an orange. B has heard that oranges this year are exceptionally sweet (though he has not eaten one so far).
B utters (5).
b. A eats a piece of orange and makes a grimace. B utters (5).
c. A and B are sorting out beverage cans into the "sweet" and "not sweet" groups. A says, 'this one and this one are not sweet'.
B asks, 'Kore-wa?' ('How about this one?') Amaku nai?



More generally, the two varieties of Japanese negative polar interrogative contrast in the size of pitch movements within the phrase containing the negation that are caused by a phrase tone and/or a lexical accent (but not by an utterance-final intonation, namely a question rise).



Tonal compression serves as a means of information-structural coding (information-packaging).

Tonal Compression and Focus/ground Configuration

Post-focus reduction in Japanese (Kori 1997, Sugahara 2003)

- Compression of pitch movements (due to phrase tones/lexical accents) within the phrases following the focus, which is mandatory.

Given the obligatoriness of post-focus reduction, for the last phrase of an utterance (an intonation phrase, to be more precise), retention of pitch movements guarantees its focushood (its being a focus or part thereof), while total compression guarantees its groundhood (its not being focus or part thereof).

The negation is not part of the focus in P-type, and it is part of the focus in NN-type.

When a **negative predicate** consists of a main predicate and an auxiliary (the latter of which contains the negation morpheme), both components usually retain pitch movements.

- (12) (In reply to: "Why don't you ask John for help?")
Ano hito-wa kitto tetsudatte kurenai-yo.
that person-Topp probably help.Ger BenAux.Neg.Pres-PP
'He probably won't give me a hand.'
... [tetsuda'tte] [kurena'i]yo

The auxiliary of a **positive predicate**, in contrast, tends to be part of the ground and be tonally compressed.

- (13) (In reply to: "Were you able to finish your work by yourself?")
Iya, Hiroshi-ga tetsudatte kureta-yo.
no H-Nom help.Ger BenAux.Pres-PP
'No, Hiroshi had given me a hand.'
... [tetsuda'tte] [kureta'i]yo

The negation in the NN-type patterns the same as the negation in a declarative in two respects:

- It is, or at least tends to be, part of the focus, and
 - It can license an NPI while it is not compatible with a PPI.
- The negation in the NN-type is "genuine" or "true" negation (in a pretheoretical sense), while that in the P-type is "fake".

Tonal Neutralization

The tonal contrast is observed between the P-type and NN-type when negation is grammatically expressed on the auxiliary (i.e., adjectives, complex verbs with auxiliary *kureru*, the copular construction where the copula *da* follows a noun or a nominal adjective, and complex verb constructions with an auxiliary other than *kureru*).

Constructions with "simple" verbs, whose negative form, as well as positive forms, do not involve an auxiliary. For these constructions, the retention of pitch movements within the phrase containing the negation does not guarantee the NN-interpretation (while the tonal compression does guarantee the P-interpretation).

- (14) (iwashi) tabenakatta?
sardine eat.Neg.Pst
'Didn't she eat (the sardine)?'
... [tabe'nakatta]

(15) **Situation 1 (P-type is expected)**

In the morning, Mrs. Abe tells her husband that she will give sardine to their new cat, who has been fussy about her food. Later in the day, Mr. Abe came across the previous owner of the cat and learns that the cat loves sardine and never refuses to eat it. He comes home in the evening and asks his wife (14). (→ **No tonal compression in (14)**)

(16) **Situation 2 (NN-type is expected)**

Mrs. Abe gave sardine to their cat. 10 minutes later, Mr. Abe notices that the sardine is still in her food bowl. He asks her (14). (→ **No tonal compression in (14)**)

The negative form of a simple verb has, as its semantic components, the meaning of the verb stem and the negation, among others; tonal compression happens only when both components are ground as in (17).

(17) **Situation 3**

Mrs. Abe says that her cat had mackerel yesterday. Mr. Abe thinks she is mistaken and asks:
Iwashi-o tabenakatta?
sardine-Acc eat.Neg.Pst
'Didn't she eat sardine?'
[iwashi-o] [tabe'nakatta]

Attachment of *no/noda*

In the case of NN-type, typically *no/noda* follows the negated predicate.

- (18) Amaku nai-no(-ka)?
'Isn't it sweet?' (the NN-interpretation)
[ama'ku] [na'i no(-ka)]

In the case of P-type, negation must appear on the auxiliary *noda*, rather than on the main predicate.

- (19) Amai [noda]wa/nja nai?
Sweet.Prs-noda.Inf NegAux.Pres
'Isn't it sweet?' (the P-interpretation)
[amai] [noda]wa/nja [na'i] [no']

In cases where a polar interrogative with negated *noda* to be further followed by *no* or (another instance of) *noda*:

- (20) Kore-ga ichiban amai [noda]wa/nja nai-no?
this-Nom most sweet.Prs-noda.Inf NegAux.Pres
'Is it not the case that this is the sweetest?'
a. ... [na'no] → the NN-interpretation
b. ... [na'no] → the P-interpretation

More on the Meaning of the NN-type Interrogative

A closer look at data reveals that the NN-type on the "negative bias" interpretation conveys more than what (4) says.

- (21) The NN-type on the "negative bias" interpretation not only conveys that Speaker is biased toward the negative answer, but also indicates (i) that this bias has been formed in the discourse situation, or (ii) that Speaker considers the proposition denoted by the radical desirable.

The NN-type and inference in the discourse situation

It has been claimed that the felicity condition of an inside NEG interrogative involves "inference on the spot". (The negative bias should not be present prior to the discourse.) The NN-type interrogative on the "negative bias" interpretation conveys the same kind of information on when the negative bias was formed.

- (22) Hottodoggu-ya-san, kite (i)nakatta?
hotdog-seller Suffix come.Ger IpfvAux.Neg.Pst
'Wasn't the hotdog vendor there?' (lit. 'Hadn't the hotdog vendor come?')

(23) **Situation 1**

In most days, a hotdog wagon comes to the park near the office where A and B work. One afternoon, A says to B, 'Let's take a break. I'll go get us some hotdogs.' A few minutes later, A came back with a bag of chips, instead of hotdogs, in his hand. B asks (22). → **felicitous to ask (22)**

(24) **Situation 2**

A and B work in the same office. In most days, in the lunch break A goes to a hotdog wagon in the nearby park and eats a hotdog on a park bench for his lunch. B has heard the rumor that the hotdog vendor has been ill. When A comes back to the office after the lunch break, B asks (22). → **infelicitous to ask (22)**

The NN-type and desirability

The NN-type can also be used when the speaker considers the proposition denoted by the radical both likely and desirable, or that the speaker has a negative boletic bias (cf. Reese 2007) in addition to a negative epistemic bias.

- (25) A and B have been working all day in a room without a window. They hope that it is not raining. They believe that it is unlikely to be raining on the basis of what they heard in the morning weather forecast, but still are worried that it might. Around 2pm, A goes out to check the weather and came back. B asks A:
Doo? Futte (i)nakatta?
how fall.Ger IpfvAux.Neg.Pst
'How was it? Was it raining?' (lit. 'Wasn't it raining?')
... [fu'tte] (i) [nakatta]

More on the Meaning of the P-type Interrogative

- (26) The P-type interrogative has several other uses besides the "positive epistemic bias" use. First, it can convey that the speaker considers the core proposition possible on the basis of some information that may not be available to the hearer. Second, it can be used to express the speaker's belief/opinion. Third, it can be used to make a request or invitation.

The P-type and information gaps

The P-type can be felicitous even when the speaker's expectation of the core proposition holding is quite low, as shown in (27). (Note that in the same situation as (27) English outside NEG interrogative "Isn't the back of my shirt dirty?" would be infelicitous because the speaker is not biased toward the positive answer.)

- (27) Speaker has 10 pieces of the same white shirts in her wardrobe. She randomly picks one of them and puts it on. Then, she recalls that one of the shirts had a stain on its back. She goes to her father, who is reading a newspaper in the living room, and asks:
Shatsu-no senaka yogorete nai?
shirt-Ger back become.dirty.Ger NegAux.Prs
'Is the back of my shirt dirty?' (lit. 'Isn't the back of my shirt dirty?')

(28) The P-type interrogative conveys either:

- that speaker considers **P** to be likely, or
 - that Speaker considers **P** possible on the basis of some information that may not be available to Hearer
- Where **P** is the proposition denoted by the radical of the negative polar interrogative minus the negation.

The P-type as a means of expressing one's belief

The P-type has a use whereby the speaker expresses his belief, opinion, or judgment, and which conveys the speaker's wish to avoid being overly assertive.

- (29) A and B are eating cookies that their colleague brought to their office. A finds the cookies distasteful, and says:
a. Kore, mazuku nai? b. Kore, oishiku nai? c. Kore, mazui-nja nai?
this distasteful.Inf NegAux.Prs this tasty.Inf NegAux.Prs this distasteful.Prs-noda.Inf NegAux.Prs
'This tastes bad, don't you think?' 'This isn't tasty, don't you think?' 'I guess this tastes bad.'
... [mazuku] [mazu'ku] [ma'zuku] [no'] ... [oishi'ku] [na'i]

The P-type as a means of making a request or suggestion

- (30) A-to-de tetsudatte kurenai?
later help BenAux.Neg.Prs
'Can you give me a hand later?'
... [tetsuda'te] [kurena'i]yo
- (31) Kafe, yotte ikanai?
café stop.by go.Neg.Prs
'How about stopping by the café?'
... [yotte] [kana'i]yo

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