

On *nai* and *no(da)* questions in Japanese*

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1 Introduction

There are various ways to construct biased questions in Japanese.

▷ Using inner negation (*nai*₁), outer negation (*nai*₂), and discourse particles (*no(da)*).

- (1) a. Ima ame futteru?
now rain falling
'Is it raining?'
- b. Ima ame futte **nai**₁?
now rain falling NEG
'Is it not raining?'
- c. Ima ame **futte** *nai*₂?
now rain falling NEG
'It is raining, isn't it?'
- d. Ima ame futteru no?
now rain falling *no(da)*
'(Oh), is it raining?'

In this paper, I will discuss

- Discourse effects of questions with outer negation: *nai*₂ questions (1c) and the contrast between (1a) and (1c).
- Discourse effects of *no(da)* questions: (1d).
- The combination of negative morphemes and *no(da)*

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2 Nai_2 (Outer negation) questions in Japanese

2.1 Background

As pointed out in the literature (Ito and Oshima 2014), nai_2 has features of outer negation.

- nai_2 cannot license NPIs and can occur with PPIs.
- The behavior of polarity particles: *hai/un* ‘yes’ and *iie/uun* ‘no’ to nai_2 questions are the same as that to positive polar questions.

NOTE: Japanese has [AGREE/REVERSE] system (Roelofsen and Farkas 2015)

- (2) a. Ima ame **futte** nai_2 ?
now rain falling NEG
‘It is raining, isn’t it?’
- b. hai, futte masu. / iie, hutte mas.en.
yes, falling COP no falling COP.NEG
Yes, it is raining. / No, it is not raining.’

2.2 Discourse effects

(3) *The discourse effect of nai_2 questions*

- a. The speaker has private bias that the likelihood that p is true is not 0, which based on some evidence that supports p .
i.e. p is an evidenced possibility (Farkas and Roelofsen to appear, 19)
▷ This contrasts with polar interrogatives (PIs) in Japanese, which require the speaker’s bias to be neutral.
- b. The speaker’s credence in the highlighted alternative should not be rooted in contextual evidence.
▷ The context should be neutral.

(4) Private bias: bias that is only accessible to a speaker

(5) Contextual evidence: evidence that is accessible to discourse participants

▷ The context must be neutral.

(6) a. Positive Context

A is in a windowless room. A friend just comes in with a wet rain coat.

A: #Ima ame **futte** nai_2 ? ‘It’s raining, isn’t it?’

b. Negative Context

A is in a windowless room. A friend just comes in with a wet rain coat.

A: #Ima **harete** nai_2 ? ‘It’s sunny, isn’t it?’

c. Neutral Context

A in the US is Skyping with B in Japan.

A: ✓ Ima ame **futte** nai ? ‘It’s raining, isn’t it?’

▷ The speaker should have positive epistemic bias (Sudo 2013), which is supported by some evidence that the speaker has.

(7) *A is sitting in a windowless room. B is in a different room with a window.*

- a. A: Nee, soto, ame futte nai₂? ‘It is raining outside, isn’t it?’
 → **This is felicitous only if A has a private bias.**
 B: Un, futteru yo. ‘Yup, it is raining.’
 A: Yappari ne. ‘As expected.’ / ?? Soo nan da. ‘I see.’
- b. A: Nee, soto, ame futteru (futtemasuka)? ‘Is it raining outside?’
 → **A should not be biased. Her epistemic state is completely neutral.**
 B: un, futteru yo. ‘Yes, it is raining.’
 A: ??Yappari ne. ‘As expected.’ / Soo nan da ‘I see.’

▷ It is not necessary that the speaker thinks the sentence radical is more likely to be true than its complement.

(8) a. Situation: *The speaker is looking for her friend Yamada. She has been informed that Yamada is visiting one of the 10 residents on the second floor of the dormitory, but does not know in which room he actually is. She decides to check the rooms one by one. She first goes to room #201, and asks the resident:*

Nee, Yamada-kun kite-nai₂? Intended: ‘Is Yamada here?’

b. #Yamada is here, isn’t he?

(9) The revised table from Sudo (2013)

Q-type	Contextual evidence	Epistemic Bias
PI-(ka)	-negative & -positive	none
nai ₂ Q	-negative & -positive	+ positive

NOTE: [+positive] in Epistemic Bias means it **requires** positive epistemic bias (cf. (7))

Special effects of nai₂:

- ▷ The speaker’s bias must be supported by evidence that the speaker has.
 ▷ The evidence should be only accessible to the speaker, since the context must be neutral.

3 *no(da)*

3.1 *no(da)* in declarative sentences

In the literature, *no(da)* is said to mark new information (Ijima 2010), but a more precise definition is needed.

(10) *Contribution of no(da) in declarative sentences*

By uttering a *no(da)* sentence, the speaker is signaling that she has confirmation that *p* is true, facing contextual evidence that supports *p*.

▷ Note that there are two patterns:

(11) *A is watching the weather forecast and says:*

A, ame furu **nda**. ‘Oh, it is going to rain.’

a. A had no idea how the weather will be like.

b. A had a feeling that it would be going to rain from smell in the air.

(i.e. it can occur with *yappari* ‘as expected’)

3.2 *no(da)* in interrogative sentences

(12) *The discourse effect of no(da) interrogatives*

a. The speaker has no prior expectation and faces a brand-new event that supports the truth of the sentence radical: (14) OR

b. The speaker has a private epistemic bias about the truth of a proposition, which is based on evidence that supports it, and asks for confirmation that it is indeed true: (15)
Note that unlike *nai*₂ questions, the bias should be based on evidence that is potentially accessible to the addressee.

▷ Common to (a) and (b): There should be contextual evidence for *p*.

c. In both cases, the sentence radical (*p*) should not be a member of discourse commitment of the speaker, and she is requesting the addressee to be the implicit source of the information.

(13) *Implicit source* (Gunlogson 2008, (43))

An agent α is an *implicit source* for ϕ iff:

a. α is not committed to ϕ ; and

b. It is inferable in the discourse context that if α commits to α , α will be a source for α

(14) *A is sitting in a windowless room. B comes in the room with a wet rain coat.*

Ame futteru **no**? ‘Is it raining **no**?’

(15) *Caller had looked at the flight schedule, but called Schiphol information to make sure if she looked at a right schedule.*

Sono huraito wa 2 zikan kakaru n desu ka?

that flight TOP 2 hours takes no be Q

‘The flight takes two hours?’

Some comparisons with raising declaratives in English

Just like rising declaratives in English, *no(da)* questions can convey surprise to something unexpected (cf. Farkas and Roelofsen to appear).

The context could be one where a person who has more deontic authority witnesses an unexpected event: (16) or where a person could not accommodate a presupposition, as in (17).

(16) *Context: Mother sees her child putting on cleats*

E? Sakkaa si-ni iku no? Dame-yo. Ie-de syukudai sinasai!
 what soccer play-to going **no** no way house-LOC homework do.IMP

‘What? You are going to play soccer? No way! Do your homework at home!’

(17) *Context: A told B that A’s husband who lives abroad would visit her during the break.*

B: Matte. Kekkon site-ta no?
 wait married be-PERF **no**

‘Wait. You are married?’

(18) The comparison of question types

Q-type	Contextual evidence	Epistemic Bias
PI-(<i>ka</i>)	-negative & -positive	none
<i>no(da)</i> -Q	+positive	+ positive
<i>nai</i> ₂ Q	-negative & -positive	+ positive

Special effects of *no(da)*:

- ▷ There is positive evidence in the context that supports *p* (i.e. *p* is evidenced possibility), and asking the addressee to be an implicit source of *p*.
- ▷ The speaker can have positive bias beforehand, but she does not have to.

4 Interaction between *nai* and *noda*

Both inner negation and outer negation occur with *no(da)*.

▷ Depending on the order of these items, possible interpretations vary.

The patterns I need to explain are:

1. *nai* + *noda* → *nai*₁ + *noda* [*nai*₁ interpretation only]
2. *noda* + *nai* → *noda* + *nai*₂ [*nai*₂ interpretation only]
3. *noda* + *nai* + *noda* → *noda* + *nai*_{1/2} + *noda* [Both interpretations are available]

I will show these possible patterns are compositionally predictable from discourse effects of each expression.

4.1 Pattern 1: *nai* + *noda* → *nai*₁ + *noda*

▷ *Nai*₂ interpretation is avoided because of inconsistency

Let's see what we would be supposed to get if *nai*₂ interpretation were available.

- *p-noda*
There is positive evidence in the context that supports *p*, and the speaker is asking the addressee to be an implicit source for *p*.
- *p = p'-nai*₂
The speaker has bias for *p'*, which is based on her private evidence.
- In all, *nai*₂ + *noda*:
The speaker just faces contextual evidence that shows she has private evidence for *p'*, and asking the addressee for confirmation whether she does have such bias.
→ This question is infelicitous because the addressee cannot confirm the speaker's mental state is as such.

4.2 Pattern 2: *noda* + *nai* → *noda* + *nai*₂

- The unavailability of *nai*₁ is due to the interpretation of the negated *noda*:
▷ **There should be some other contextually salient and true proposition.**

(19) Taro-wa gakusee na nja nai. (Kare-wa kaishain da.)
Taro-TOP student NL no NEG he office worker COP
'Taro is not a student, but an office worker.'

- This would hold when *noda* is used in interrogative with *nai*₁, too.
→ There should be a salient alternative that the speaker is assuming to be true.
▷ If that is the case, it is more cooperative to ask if that proposition is true. Actually, when the negative question is conjoined with the positive alternative, we can get *nai*₁ interpretation after *noda*.

- (20) # Taro-wa gakusee na nja nai₁?
 Taro-TOP student NL no NEG
 ‘Is Taro not a student?’
- (21) Taro-wa gakusee na nja naku₁-te kaishain?
 Taro-TOP student NL no NEG-and office worker
 ‘Is Taro not a student but an office worker?’

• By contrast, *noda+nai₂* could be meaningful.

- *p-nai₂*: The speaker has bias for *p*, which is based on her private evidence.
- *p: p'-noda*: there is contextual evidence that *p'* is true, and the speaker is asking the addressee to be an implicit source of *p'*.
- ▷ In all, *p'-noda-nai₂* is interpreted as: The speaker has private evidence for that there is contextual evidence that *p'* is true.
- Since basically the speaker believes that there is contextual evidence that supports the sentence radical, the whole sentence indicates that the speaker has the moderate to high credence in that *p* is true.

(22) Hannin-wa Hanako ja nai₂? [nai₂]

(23) Hannin-wa Hanako na nja nai₂? [noda+ nai₂]
 ‘Hanako is a suspect, isn’t she?’

(21) can be followed by something like ‘well, this is just a guess, though.’ or ‘I have no evidence, though.’, but not (22).

- This intuition is supported by the incompatibility of a *noda+nai₂* question in the context of visiting 10 residents.

(24) a. Situation: *The speaker is looking for her friend Yamada. She has been informed that Yamada is visiting one of the 10 residents on the second floor of the dormitory, but does not know in which room he actually is. She decides to check the rooms one by one. She first goes to room #201, and asks the resident:*

✓ Nee, Yamada-kun kite-nai₂? [nai₂]

#Nee, Yamada-kun kiteru-nja-nai₂? [noda-nai₂]

Intended: ‘Is Yamada here?’

b. #Yamada is here, isn’t he?

4.3 Pattern 3-1: $[[p+noda+nai_2]+noda]$

- $[[p+noda+nai_2]+noda]$
→ There is contextual evidence that the speaker has private evidence for that there is contextual evidence that p is true, and the speaker is asking for the addressee to be an implicit source for p .
- The speaker is seeking a confirmation about it is fair to think p is true based on the contextual evidence.

In (25), Mariko is asking:

if it is fair to consider the kiss mark as evidence for that Taro is cheating on Hanako, based on Hanako's story

(25) *Hanako reports to Mariko that she found a kiss mark on Taro's shirt. Mariko says:*

Taroo, uwaki siteru nja nai no?
Taro cheat doing noda nai₂ noda
'Taro is cheating on you, isn't he?'

4.4 Pattern 3-2: $[[p+noda+nai_1]+noda]$

- There is contextual evidence that supports $\neg p$, and the speaker is asking the addressee to an implicit source for it.

(26) *(Continuing the previous context) Afterwards, Hanako asks Taro about the kiss mark, and Taro tells her that some stranger just bumped on him in a crowded train. Hanako reports Mariko about it and Mariko can ask Hanako:*

Jaa, Taroo, uwaki siteru nja nai₁ no?
Then Taro cheat ing noda nai₁ noda
'Then, Taro is not cheating you, is he?'

4.5 Summary

Q-type	Contextual Evidence	Epistemic Bias
nai ₂ Q	-negative & -positive	+ positive (likelihood is not 0)
noda Q	+ positive	+ positive
noda+ nai ₂ Q	-negative & -positive	+ positive (moderate to high credence)
noda+nai ₂ +noda Q	+positive	+ positive (moderate to high credence)
noda+nai ₁ +noda Q	+negative	+ positive (moderate to high credence)

5 Conclusion and future research

5.1 Conclusion

- In this paper, I proposed an analysis of discourse effects of Japanese outer negation:*nai*₂ and a particle *no(da)*.
 - In differentiating them, I showed that it is necessary to distinguish evidence that is accessible to all discourse participants and private epistemic bias, which is only accessible to the speaker herself.
- Furthermore, I showed that the discourse effects of the combination of those two can be derived compositionally.

5.2 Future research

- There is an interesting contrast between rising declaratives in English and *no(da)* questions in Japanese.

(27) *Context: A student just said the square root of 9 is 2.*

Teacher: #kyuu-no heihookon-wa ni na no?
9-GEN square root-TOP 2 COP **no?**

‘The square root of 9 is 2?’

- According to my intuition, this sounds marked even I imagine the teacher is expressing her surprise to a wrong answer and trying to tell the student to correct the answer indirectly.
- The most natural utterance would be
 - * Rising polar questions (with or without *ka*)
 - * *kana* questions
 - * *noda+kana* questions
- There are many other discourse particles in Japanese such as *desho* (Sudo 2013).
 - ▷ We can have *noda+nai+noda+desho* questions and more...

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