

# Contexts, Decisions, and the Japanese Particle *yo*

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## A conversation relying on the Maxim of Relation (i.e. *Be Relevant!*)

Context: A is standing by an obviously immobilized car and is approached by B.

A: I am out of petrol.

B: There is a garage around the corner.

*In this example, . . . the unstated connection between B's remark and A's remark is so obvious that, even if one interprets the supermaxim of Manner, "Be perspicuous," as applying not only to the expression of what is said but to the connection of what is said to adjacent remarks, there seems to be no case for regarding that supermaxim as infringed in this example. [Grice(1975)]*

Replicating this dialogue in Japanese brings the obviousness of the connection between B's assertion and A's problem into doubt.

B: kono miti-o      zutto   it-ta      tokoro ni  
this road-ACC straight go-PAST place at  
gasorinsutando-ga ari-masu #(yo)  
gas.station-NOM be-HON

**“There’s a gas station straight down the road  
#(yo).”**

- The bare declarative is infelicitous in this context.
- The sentence becomes felicitous if the particle *yo* is used.

## Some More Examples

A: aa, mayot-ta. dono susi-ni si-you ka  
Oh at.a.loss-PAST which sushi-DAT do-HORT Q  
na.

PRT

**“I’m stuck - I wonder which sort of sushi I should get?”**

B: koko-no maguro-wa oisi-i #(yo)  
here-GEN tuna-TOP tasty-NONPAST #(yo)

**“The tuna here is good #(yo).”**

## Some More Examples

A: *tabe-te-kara eiga-o mi ni ik-ou ka na*  
eat-INF-from movie-ACC see to go-HORT Q PRT

**“I wonder if I should eat before going to the movie?”**

B: *mou 7-ji sugi deshou? eiga-wa 8-ji*  
already 7-o'clock past right movie-TOP 8-o'clock  
*kara hajimar-u #(yo)*  
from start-NONPAST #(yo)

**“It’s already 7, right? The movie starts at 8  
#(yo).”**

## Felicity Conditions Require a Particle

- These examples show cases in which a bare declarative is pragmatically infelicitous.
- The assertion becomes felicitous with the addition of the sentence final particle *yo*.
- The purpose of the assertion in each of these examples is not simply the transmission of the information encoded by the declarative.
- Instead the purpose of the assertion is to *guide the hearer's action*.

## The Particle *yo* as a Guide to Action

I argue that the use of *yo* in assertions tells the addressee that the information conveyed by the assertion, along with information in the common ground, is sufficient to resolve the addressee's contextual *decision problem*.

# Decision Problems

## Structure of the decision problem

- 1 A set of actions  $\mathcal{A} = \{a_1, a_2, \dots, a_n\}$
  - 2 A utility function  $U : \mathcal{A} \times W \rightarrow \mathbb{R}$
- The set  $\mathcal{A}$  represents the set of relevant alternative actions for the agent.
  - The utility function represents the agent's preferences by (partially) ordering the elements of  $\mathcal{A}$  at each world.

# Action Propositions

## Action Propositions [van Rooy(2003)]

- $\mathcal{A}^* = \{a_1^*, a_2^*, \dots, a_n^*\}$  such that
- $a_i^* = \{w \mid U(a_i, w) \geq U(a_j, w)\}$  for all  $a_j \in \mathcal{A}$
- Each  $a_i \in \mathcal{A}$  gives rise to a proposition  $a_i^*$  that collects together all the worlds in which  $a_i$  is optimal.
- Thus the action set  $\mathcal{A} = \{a_1, a_2, \dots, a_n\}$  has an associated set of *action propositions*  $\mathcal{A}^* = \{a_1^*, a_2^*, \dots, a_n^*\}$ .

## Action Propositions in Action

van Rooij uses the structure of  $\mathcal{A}^*$  to explain what counts as a resolving answer to questions in a given context.

Where can I buy an Italian newspaper?

Context: The sentence is uttered in a context in which there are just three relevant possibilities (worlds):

- Italian newspapers can be bought only at the station ( $u$ )
- Italian newspapers can be bought only at the palace ( $v$ )
- Italian newspapers can be bought at both the station and the palace ( $w$ )

# Action Propositions in Action

## Decision Problem

The decision problem for the questioner is whether to go to the palace ( $p$ ) or the station ( $s$ ).

- $\mathcal{A} = \{s, p\}$

## Action Propositions

The questioner wants to get an Italian newspaper, and so the actions are ranked on the basis of where Italian newspapers are sold in a given world. Thus it is optimal to go to the station in worlds  $u$  and  $w$ , and it is optimal to go to the palace in  $v$  and  $w$ .

- $\mathcal{A}^* = \{s^*, p^*\}$ , where
  - $s^* = \{u, w\}$
  - $p^* = \{v, w\}$

## Action Propositions in Action

van Rooij proposes that an optimal answer to a question will pick out exactly *one* proposition from  $\mathcal{A}^*$ .

### Optimal Answers

- The optimal answers to the question given  $\mathcal{A}^* = \{s^*, p^*\}$  are:
  - $s^* = \{u, w\} = \textit{at least at the station}$
  - $p^* = \{v, w\} = \textit{at least at the palace}$

Thus the following answer is interpreted with a mention-some reading in this context.

At the station.

(=*at least at the station* =  $\{u, w\} = s^*$ )

## Back to Japanese

Replicating this dialogue in Japanese, we find that the answer is more natural with *yo* than without:

- A: itaria-no sinbun doko de ka-e-ru?  
Italy-GEN newspaper where at buy-can-NONPAST  
'Where can I buy an Italian newspaper?'
- B: eki de ka-e-ru (*yo*)  
station at buy-can-NONPAST (*yo*)  
'You can buy one at the station (*yo*).'

## Back to Japanese

If the question is left implicit, then the bare declarative becomes completely infelicitous:

- A: itaria-no sinbun yomi-tai na  
Italy-GEN newspaper read-want PRT  
'I really want to read an Italian newspaper.'
- B: eki de ka-e-ru #(yo)  
station at buy-can-NONPAST #(yo)  
'You can buy one at the station #(yo).'

# Proposal

- Based on these facts, I argue that *yo* functions as an indication of the way in which an utterance is expected to relate to the addressee's contextually salient decision problem.
- Unlike English, where the relationship between an assertion and the addressee's decision problem can be left implicit, in Japanese it must often be made explicit with the use of a particle like *yo*.

I propose that  $yo(S)$  contributes a meaning, separate from the main asserted content of the sentence, that indicates that there is a particular action that is optimal for the addressee after updating the context with  $S$ .

### Semantics of *yo*

$$\llbracket yo(S) \rrbracket^c =$$

a.  $\llbracket S \rrbracket^c$

b.  $\exists a \in \mathcal{A} \forall w \in W [w \in \cap CG(c') \rightarrow w \in a^*]$   
where  $c' = \llbracket S \rrbracket^c$

## *yo* in Action

A: aa, mayot-ta.      dono susi-ni      si-you      ka  
Oh at.a.loss-PAST    which sushi-DAT    do-HORT    Q

na.

PRT

“I’m stuck - I wonder which sort of sushi I should get?”

B: koko-no      maguro-wa oisi-i      #(yo)  
here-GEN    tuna-TOP    tasty-NONPAST    #(yo)

“The tuna here is good #(yo).”

# *yo* in Action

## Decision Problem

$$\mathcal{A} = \{t(\text{una}), s(\text{almon})\}$$

## Possible worlds $\{u, v, w\}$

- Only the tuna tastes good in  $u$
- Only the salmon tastes good in  $v$
- Both the tuna and the salmon taste good in  $w$

## Action Propositions $\mathcal{A}^* = \{t^*, s^*\}$

- $t^* = \{u, w\}$
- $s^* = \{v, w\}$

## *yo* in Action

B: koko-no maguro-wa oisi-i #(*yo*)  
here-GEN tuna-TOP tasty-NONPAST #(*yo*)  
“The tuna here is good #(*yo*).”

### Context Change

- Preupdate Context Set =  $\{u, v, w\}$
- Postupdate Context Set =  $\{u, w\} \subseteq t^*$

## Implicit Decision Problems

- In previous examples an overt question gave rise to a salient decision problem.
- But *yo* is also used to reference completely implicit decision problems.

### Implicit Decision Problem

Context: The addressee is waiting for a train, and wants to get on, but doesn't notice that it has arrived. The speaker knows this, and says:

densha ki-ta            #(*yo*)  
train    come-PAST #(*yo*)  
'The train is here #(*yo*).'

## Implicit Decision Problems

### Another Example

Context: The speaker knows that the addressee must attend a meeting, but even though the meeting time is fast approaching, the addressee is not getting ready to go. The speaker says:

miitingu-wa san-ji kara desu #(yo)  
meeting-TOP 3-o'clock from be.HON #(yo)  
'The meeting starts at 3 #(yo).'

# Implicit Decision Problems

- The use of bare declaratives is especially infelicitous in contexts where the decision problem is not made explicit in the preceding linguistic context.
- The more implicit the decision problem an assertion is meant to address, the more necessary it is to support the assertion with a particle like *yo*.

## Implicit Decision Problems

A: a. itaria-no sinbun doko de  
Italy-GEN newspaper where at  
ka-e-ru?  
buy-can-NONPAST

'Where do they sell Italian newspapers?'

b. itaria-no sinbun yomi-tai na  
Italy-GEN newspaper read-want PRT

'I really want to read an Italian newspaper.'

B: eki de ka-e-ru (*yo*)  
station at buy-can-NONPAST (*yo*)

'You can buy one at the station (*yo*).

## Ordering Actions

### Optimal Action According to the Law

Context: The addressee is driving at a speed of 55 miles per hour.

koko-no seigensokudo-wa jisoku 40-mairu da  
here-GEN speed.limit-TOP per.hour 40-mile COP  
#(*yo*)  
#(*yo*)

'The speed limit here is 40 miles per hour #(*yo*).'

This sentence can be used when the speaker wants to indicate that the addressee *should* slow down, regardless of the addressee's preferences or expected actions.

## Ordering Actions

### Possible Worlds $\{u, v\}$

- Speed limit is 55 mph in  $u$
- Speed limit is 40 mph in  $v$

### Decision Problem $\mathcal{A} = \{f, s\}$

- $f = \text{drive 55 mph}$
- $s = \text{drive 40 mph}$

### Action Propositions *according to the law*

$$\mathcal{A}^{*(\text{law})} = \{f^*, s^*\}$$

- $f^* = \{u\}$
- $s^* = \{v\}$

## Ordering Actions

koko-no seigensokudo-wa jisoku 40-mairu da  
here-GEN speed.limit-TOP per.hour 40-mile COP

$\#(yo)$

$\#(yo)$

'The speed limit here is 40 miles per hour  $\#(yo)$ .'

- Preupdate Context Set =  $\{u, v\}$
- Postupdate Context Set =  $\{v\} \subseteq s^{*(law)}$

## Imperatives with *yo*

### An Imperative with *yo*

Context: A has made dinner for B. A notices that B is not eating, and gets upset, since she worked so hard on the dinner.

A: *tabe-te yo*  
eat-IMP *yo*  
'Eat *yo*.'

- By using *yo* in this context, A indicates to B that he *should* eat.
- The imperative without *yo* does not have this implication.

## Imperatives with *yo*

isshoukenmeini tsukut-ta nda *yo*

with.much.effort make-PAST PRT *yo*

'I put a lot of effort into this *yo*.'

(Implied: 'And therefore you should eat it.')

- The declarative with *yo* explicitly asserts that the addressee went to a lot of trouble to prepare dinner, and the use of *yo* indicates that from this it follows that the addressee should eat.
- The imperative, by contrast, explicitly encodes the action to be performed (eating the food), and the use of *yo* indicates that the addressee should do so, on the basis of obligations, the speakers' desires, etc.

## Another Example

Nobita (N) is talking with Gian (G), and telling him that he can hit a baseball 100 meters. Gian doesn't believe him, so Nobita says the following:

N: uso dat-tara hana de supagetti  
lie be-if nose with spaghetti  
tabe-te-mise-ru!  
eat-INF-show-NONPAST  
'If I'm lying then I'll eat spaghetti through my nose!'

## Another Example

When Nobita tries to demonstrate his ability to hit the baseball 100 meters, he fails. At this point Gian says:

G: oi, Nobita, hana kara supagetti tabe-ro *yo*  
hey, Nobita, nose from spaghetti eat-IMP *yo*  
'Hey, Nobita, eat spaghetti from your nose *yo*.'

## Accounting for *yo* in Imperatives

### Generalization

- With assertions, *yo* indicates that the asserted proposition is sufficient, given the common ground, to make some action optimal for the addressee.
- With imperatives, *yo* indicates that the *pre-update* common ground is sufficient to make the action encoded by the imperative optimal, relative to some contextually specified ordering, for the addressee.

## Accounting for the Use of *yo* in Imperatives

The behavior of *yo* in imperatives is accounted for naturally.

- Imperatives do not encode an update to the common ground.
- The semantics of *yo* says that all worlds compatible with the **post**-update common ground are ones in which a particular action is optimal.
- But imperatives do not update the common ground, so the post-update common ground is the same as the pre-update common ground.
- Thus *yo* with an imperative says that all worlds compatible with the **pre**-update common ground are ones in which a particular action, namely the one encoded by the imperative, is optimal.



## Questions with *yo*

But Shirakawa notes that if the question is interpreted rhetorically, it *can* appear with *yo*.

- a. kimi-no kyuuryou de ie-ga  
you-GEN salary with house-NOM  
tate-rare-ru ka (*yo*)  
build-can-NONPAST Q (*yo*)  
'You think you can build a house with your salary!?'
- b. konna hon, dare-ga ka-u ka (*yo*)  
this.kind.of book who-NOM buy-NONPAST Q (*yo*)  
'Who the hell would buy a book like this!?'

## Questions and Decision Problems

Asking a question can be seen as giving rise to an associated decision problem.

- Question  $Q = \{p_1, p_2, \dots, p_n\}$
- Decision Problem  $\mathcal{A} = \{b_{p_1}, b_{p_2}, \dots, b_{p_n}\}$   
where  $b_{p_i}$  is the action of believing the  $i$ th proposition in question  $Q$ .
- Action Propositions  $\mathcal{A}^* = \{b_{p_1}^*, b_{p_2}^*, \dots, b_{p_n}^*\}$  where optimality is determined by truth.

## Accounting for the Behavior of *yo* in Questions

- Asking a question  $Q = \{p_1, p_2, \dots, p_n\}$  serves to introduce the decision problem  $\mathcal{A} = \{b_{p_1}, b_{p_2}, \dots, b_{p_n}\}$ .
- The use of *yo* indicates that all worlds in the post-update context set are ones in which a particular action  $a \in \mathcal{A}$  is optimal.
- But the post-update and pre-update context sets are the same when a question is asked.
- So using *yo* with a question indicates that the **pre-update** context set entails an answer to the question being asked.
- **This is just what we saw with the use of *yo* in rhetorical questions.**

## Crosslinguistic Variation in Particles and Felicity Conditions

We have seen that Japanese requires particles for the felicity of many sentences which in English can be uttered felicitously without a particle.

- Perhaps if a language has a system of pragmatic particles, then failure to use a particle is not free of pragmatic implications.
- In particular, failure to use *yo* in Japanese may give rise to implications not found in English, since English has no particles with which to form comparison classes.

## Comparison with Honorifics

- a. Mary-ga ringo-o tabe-**masi**-ta  
Mary-NOM apple-ACC eat-**perf.hon**-PAST
- 'Mary ate the apple.'
  - 'I am speaking nicely to you.'
- b. Mary-ga ringo-o tabe-ta  
Mary-NOM apple-ACC eat-PAST  
'Mary ate an apple.'

- The non-honorific sentence is felt to be non-polite, since the honorific form is available.
- The plain form has pragmatic implications because of the existence of the honorific form.

## Pragmatics of Particles

Similarly to the situation with honorifics, failure to use an available particle has implications.

- In the English examples in this talk, the relation between the sentence and the context can be dealt with pragmatically (implicitly).
- In Japanese the relationship between the utterance and context must often be explicitly marked with a particle like *yo*.
- Since *yo* conventionally encodes a relationship between the utterance and the context, failure to use *yo* tends to indicate a lack of such a relationship.
- The system of particles thus supports the pragmatics of communicative intent in the same way that the system of honorifics supports the pragmatics of politeness.



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