

Particles, intonation and the sentential type-force mapping: the case of Japanese ‘ne’ and ‘yo’¹

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1 Introduction

- This talk is about the Japanese sentence-final particles *ne* and *yo*, as shown in the following examples:

- (1) a. Taro-wa odotta-**ne**↑/↓.
Taro-TOP danced-NE
↑: ‘Taro danced?’ / ↓: ‘Taro danced, didn’t he.’
- b. Taro-wa odotta-ka-**ne** ↓
who-TOP danced-Q-NE
‘Indeed, I wonder if Taro danced.’
- (2) a. Taro-wa odotta-**yo**↑/↓.
Taro-TOP danced-YO
↑: ‘Taro danced, and so you should act accordingly.’²
↓: ‘Taro danced, and this settles the question.’
- b. Taro-ga odoru-ka-**yo** ↓
who-TOP dance-Q-YO
‘As if Taro would dance! (No way he will dance)’

² McCready and Davis (to appear) suggest the American English particle *man* as a ‘reasonably close analogue’ of *yo*.

- These particles are interesting because they are in principle compatible with:

- *Declarative* and *interrogative* prejacent;³ and
- *Rising* and *falling* boundary intonation.

³ In this sense, they can be considered as belonging to the class of responsive operators, broadly construed (e.g., Theiler, 2019).

- In this talk, I will focus on the role of intonation, considering only cases where the particles embed a *declarative* clause.⁴

⁴ See Uegaki (to appear) for the analysis of cases where they embed an interrogative clause.

- Especially, I am concerned with the following contrast:

- *ne*+↑ is similar to rising declaratives in English.
- *yo*+↑ has the sentential force similar to a (weak) imperative (‘direction’)

- **Puzzle:** Why does φ -*yo*↑ seem to have the sentential force of direction, although it has the declarative sentence type? Can this fact be analyzed in terms of a *unified* analysis of the rising intonation?

- **Preview:**

- Rising intonation indicates a *contingent* commitment (Gunlogson, 2008; Malamud and Stephenson, 2015)
- Flexible mapping between declarative sentence type and force.
 - * Declarative sentence type *by default* expresses an assertion, i.e., a commitment to a claim about facts (e.g., Stalnaker, 1979; Farkas and Bruce, 2010).

- * But, it can alternatively express a commitment to a claim about *preferences* (Portner, 2018) if the default mapping is impossible.
- Given the default mapping from a declarative sentence type, φ -*ne*↑ expresses a contingent commitment about facts.
- The semantics/pragmatics of φ -*yo*↑ makes it impossible to interpret it as a contingent commitment about facts. Instead, it is interpreted as a contingent commitment about preferences.

2 Data and existing semantic descriptions

2.1 Ne

- Traditionally described as the particle marking ‘hearer-old’ information.⁵
- Compatible with a rising (↑) and falling (↓) boundary intonation.⁶

⁵ See McCready and Davis to appear for a recent review.

⁶ See Moriyama (2001) for the details of the phonetic realization of the boundary intonation with *ne*.

With a falling intonation

- With a fall, *ne* indicates that the addressee already has evidence to believe the prejacent.

- (3) *The addressee was at the party last night with Taro /*
 #*The addressee has no idea what Taro was doing last night.*⁷
 S: Taro-wa kinoo paatii de odotta **ne**↓
 Taro-TOP yesterday party in danced NE
 ‘Taro danced at the party yesterday, didn’t he.’

⁷ Following Northrup (2014), I will mark the utterance by The Speaker (named Souta) with ‘S’ and the response by the Addressee (named Ayaka) with ‘A’.

- (4) *The speaker and the addressee sees the meteor approaching /*
 #*The speaker feels sick from eating too much* (Northrup, 2014)
 S: Owari da **ne**↓
 end COP NE
 ‘This is the end, isn’t it.’

With a rising intonation

- With a declarative complement and the rise, just as in the case with fall, *ne* indicates that the addressee already has evidence to believe the prejacent.

- (5) *The addressee was at the party last night with Taro /*
 #*The addressee has no idea what Taro was doing last night.*
 S: Taro-wa kinoo paatii de odotta **ne**↑
 Taro-TOP yesterday party in danced NE
 ‘Taro danced at the party yesterday?’

- The contrast between *ne*↓ and *ne*↑ is made clearer by comparing them to English tag-interrogatives and rising declaratives.
- *ne*↓ behaves like an English tag-interrogative while *ne*↑ behaves like a rising declarative.

- The contrast between tag-interrogatives and rising declaratives in English (Malamud and Stephenson, 2015; Farkas and Roelofsen, 2017):

(6) *Belinda is going through a pile of job applications. Chris has not seen any of them yet. Belinda hands Chris the application that she just finished reading, and tells him to have a look at it. Chris to Belinda:*

- a. This is a good one↑?
- b. #This is a good one, isn't it.

(7) *Belinda and Chris are looking at a sunset together. Belinda to Chris:*

- a. #It's a beautiful sunset↑?
- b. It's a beautiful sunset, isn't it.

(8) *Context: same as (6), except between Souta and Ayaka.*

S: Kore-wa ii kooho da **ne** #↓/↑
 this-TOP good candidate COP NE
 With ↑: 'This is a good candidate?'

(9) *Context: same as (7), except between Souta and Ayaka.*

S: kireena yuuhi da **ne** ↓/#↑
 beautiful sunset COP NE
 With ↓: 'This is a beautiful sunset, isn't it.'

- Following Gunlogson (2008); Malamud and Stephenson (2015), I take the data in (6-7) to indicate that tag-interrogatives require the speaker's commitment as a SOURCE⁸ while rising declaratives require the speaker's CONTINGENT COMMITMENT.⁹
- The difference between *ne*↓ and *ne*↑ similarly lies in types of commitment. *Ne*↓ requires the speaker's self-sourced commitment while *ne*↑ indicates a contingent commitment.

Summary: ne

- φ -*ne*↓: The addressee's prior belief of φ + the speaker's *self-sourced* commitment to *p*.
- φ -*ne*↑: The addressee's prior belief of φ + the speaker's *contingent* commitment to *p*.

2.2 Yo

- Traditionally described as the particle marking 'hearer-new' information.
- Compatible with a rising and falling boundary intonation.

With a falling intonation

- The traditional description: *yo* indicates that the prejacent conveys new information for the addressee.

⁸ At this point, Gunlogson's notions of source and contingent commitment are used as descriptive notions. Below is a definition from Gunlogson: An agent α is a SOURCE for a proposition *p* in a discourse *d* iff:

- a. α is committed to *p*; and
- b. According to the discourse context, α 's commitment to *p* in *d* does not depend on another agent's ratification that *p* in *d*. (Gunlogson, 2008: 113)

⁹ An agent α has a CONTINGENT COMMITMENT to a proposition *p* in a discourse *d* iff α is committed to *p* provided that *p* is ratified by the addressee.

- (10) Taro-wa kinoo paatii-de odotta-**yo**↓.
 Taro-TOP yesterday party-in danced-YO
 'Taro danced yesterday at the party, man.'

- The hearer-newness indeed is in line with the following typical examples for *yo*↓:

- (11) (McCready and Davis, to appear: 8)

S: sakki Jon-ga kaetta
 just.now John-NOM went.home
 'John just went home.'

A: 'No way!'

S: Kaetta #(yo)↓
 went.home YO
 'He DID go home'

- (12) (Northrup, 2014: 70, adapted)

A: Jon, kaetta-no?
 John went.home-Q
 'Did John go home.'

S: Un, kaetta #(yo)↓
 yeah went.home YO
 'Yeah, he went home'

- But, the infelicity of the following example with *yo* suggests that the hearer-newness is not a sufficient condition for the felicity of *yo*↓.

- (13) *Souta sees Ayaka for the first time today and compliments her new bag.*

S: Sono baggu ii to omou #(yo)↓
 that bag good COMP think YO
 'I think that bag looks nice.' (intended)

- Rather, following Davis (2011), I take the data to suggest that *yo* indicates that the prejacent resolves a contextually salient Question-under-Discussion (QUD) (cf. McCready, 2008).¹⁰
- In addition, just as in the case of φ -*ne*↓, φ -*yo*↓ conveys the speaker's self-sourced commitment to φ .

With a rising intonation

- With a rising intonation, *yo* functions as a *guide to action* (Davis, 2009, 2011):

- (14) *In a sushi place:*

A: Which sushi should I get?

S: koko-no maguro wa umai #(yo)↑
 here-GEN tuna TOP good YO
 'The tuna here is good.'

¹⁰ Davis (2011) further argues that the falling intonation with *yo* indicates a call for revision of the addressee's beliefs. (For McCready (2005), this is not a contribution of the falling intonation, but the contribution of the semantics of *yo* itself.) However, following Northrup (2014), I take the felicity of *yo*↓ in (12) to suggest that *yo*↓ does not always call for the addressee's belief revision.

(15) *In front of a broken down car*"

A: I'm out of gas.

S: magatta tokoro ni gasorinsutando-ga arimasu #(yo↑)
 turned place at gas.station-NOM exist YO
 'There's a gas station up there around the corner.'

(16) *Souta sees Ayaka hasn't noticed her train has arrived.*

S: Densya kita #(yo↑)
 train came YO
 'The train is here.'

- Here, the preajcent of *yo* can be said to resolve a question regarding how the addressee should act (Davis, 2009, 2011).
- A minimal pair between φ -yo↓ and φ -yo↑:

(17) (Northrup, 2014: 70, adapted)

A: Jon, kaetta-no?
 John went.home-Q
 'Did John go home.'

S: Un, kaetta yo↓/↑
 yeah went.home YO
 'Yeah, he went home.'

- With ↓, S's utterance simply resolves A's question.
- With ↑, there is an implication that the fact that John is going home determines A's future actions (e.g., that John was supposed to give A a ride back home, but the fact that John is already gone requires her to look for an alternative transportation).

Summary: yo

- φ +yo↓: φ resolves the QUD + the speaker's self-sourced commitment to φ .
- φ +yo↑: φ is a guide to action / φ resolves a question about how the addressee should act.

2.3 Yone

- The two particles can be combined to form the combination *yone*.
- In φ -*yone*, *yo* indicates resolution of a QUD and *ne* indicates hearer-oldness.¹¹

(18) Taro-wa odotta **yo ne**↓/↑.

Taro-TOP danced YO NE.

↓: 'Taro danced, didn't he, and this should settle the question.'

↑: 'Taro danced? If so, it would settle the question.'

- Below are the contexts in which (18) is felicitous.

¹¹ The particle combination *yone* has been a puzzle for the 'traditional' description, along the lines of hearer-newness and hearer-oldness, as pointed out by McCready and Davis (to appear). See Takubo and Kinsui (1997); McCready (2008); Northrup (2014) for other existing accounts of *yone*.

- (19) a. *Souta is talking with Ayaka and Hanako about the party last night. Hanako, who wasn't there at the party, doesn't believe that Taro danced, but Souta saw him danced. Since Ayaka was there too, Souta assumes that Ayaka also knows that Taro danced. Souta says to Ayaka...*
- b. *Souta is talking with Ayaka about the party last night and trying to remember whether Hanako danced. They both know that Taro danced and furthermore that whenever Taro dances, Hanako also dances. Souta says to Ayaka...*

Summary: yone

- φ -yone↓: φ resolves the QUD + the addressee's prior belief of φ + the speaker's self-sourced commitment to φ .
- φ -yone↑: φ resolves the QUD + the addressee's prior belief of φ + the speaker's contingent commitment to φ .

3 Components of the analysis

- The semantic analysis of *ne* and *yo*.
- The pragmatics of sentential forces: *assertion* and *direction*.
- The analysis of the rising intonation as an operation on the sentential force.
- A flexible mapping between sentence types and sentential forces.

3.1 The semantic analysis of the particles

(20) $\llbracket\varphi$ -ne \rrbracket

- presupposes that the addressee believes $\llbracket\varphi\rrbracket$;
- If the presupposition is met, $\llbracket\varphi$ -ne \rrbracket = $\llbracket\varphi\rrbracket$

(21) $\llbracket\varphi$ -yo \rrbracket

- presupposes that $\llbracket\varphi\rrbracket$ resolves a salient Question under Discussion;¹²
- If the presupposition is met, $\llbracket\varphi$ -yo \rrbracket = $\llbracket\varphi\rrbracket$

(22) $\llbracket\llbracket\varphi$ -yo \rrbracket -ne \rrbracket

- presupposes that $\llbracket\varphi\rrbracket$ resolves a salient Question under Discussion and the addressee believes $\llbracket\varphi\rrbracket$;
- If the presupposition is met, $\llbracket\llbracket\varphi$ -yo \rrbracket -ne \rrbracket = $\llbracket\varphi\rrbracket$

- The semantic analysis of *ne* captures the fact that it indicates the addressee's prior belief.
- However, it still doesn't capture the fact that it indicates the speaker's commitment as a source or a contingent commitment, depending on the intonation.
- Similarly, the semantic analysis of *yo* captures the fact that it indicates that the prejacent resolves a QUD.

¹² This notion will be made more precise later as I introduce the formal model of context.

- However, it still doesn't capture the fact that φ -yo is used as an assertion or guidance depending on the intonation.
- These missing aspects of the functions of *ne* and *yo* will be analyzed as resulting from
 - the *pragmatics of sentential forces*, as well as
 - the role of the rising intonation as an *operation on sentential forces*.

3.2 The formal model of discourse context

- I will follow Farkas and Bruce (2010) and Farkas and Roelofsen (2017) in the basic model of the discourse context although I will expend this later to deal with imperatives and rising intonation, following Malamud and Stephenson (2015); Portner (2018).

(23) A discourse context is a triple $\langle \text{participants, table, commitments} \rangle$, where:

- a. *participants* is the set of discourse participants;
- b. *table* is a stack of propositions,¹³ representing the proposals made so far.
- c. *commitments* is a function that maps every participant $x \in \text{participants}$ to a set of possibilities, those possibilities that x is publicly committed to.

(Farkas and Roelofsen, 2017: 255)

¹³ Here, a PROPOSITION is modeled as a set of set of worlds, which may represent the meaning of a declarative sentence or an interrogative sentence (Ciardelli et al., 2013, 2018) while a POSSIBILITY is a set of worlds.

- The COMMITMENT SET, CS, of a participant is the set of worlds that are compatible with all the possibilities that x is publicly committed to: $\text{CS}(x) = \bigcap \text{commitments}(x)$
- We can reconstruct the Stalnakerian context set CG from the commitments, as follows: $\text{CG} = \bigcap \{ \text{CS}(x) \mid x \in \text{participants} \}$

(24) $\llbracket \varphi\text{-ne} \rrbracket$

- a. is defined in context C iff CG_C entails that the addressee believes $\llbracket \varphi \rrbracket$;
- b. If defined, $\llbracket \varphi\text{-ne} \rrbracket = \llbracket \varphi \rrbracket$

(25) $\llbracket \varphi\text{-yo} \rrbracket$

- a. is defined in context C iff $\llbracket \varphi \rrbracket$ resolves $\text{top}(\text{Table}_C)$;
- b. If defined, $\llbracket \varphi\text{-yo} \rrbracket = \llbracket \varphi \rrbracket$

3.3 Analysis of sentential forces

Assertion

- ASSERTION is analyzed as a commitment to one's claim about facts. That is, assertion of a declarative sentence φ commits the speaker to the claim that the actual world belongs to the possibility expressed by φ .

(26) If a discourse participant x carries out an **ASSERTION** by uttering a sentence φ , the discourse context is affected as follows:¹⁴

1. $\llbracket\varphi\rrbracket$ is added to the table.
 2. $\cup \llbracket\varphi\rrbracket$ is added to $\text{commitments}(x)$.
- The effect of the first step is to steer the conversation toward a context such that for some member s of $\llbracket\varphi\rrbracket$, the conversational participants mutually agree that the actual world belongs to s .
 - The second step commits x , the speaker, to the claim that the actual world is a member of $\cup \llbracket\varphi\rrbracket$.

Direction

- **DIRECTION** is analyzed as a commitment to one's claim about priorities for the addressee's actions (Portner, 2007, 2018).
- To model this, we expand the model of discourse to include the **todolist**, as follows:¹⁵

(27) A discourse context is $\langle \text{participants, table, commitments, todolist} \rangle$, where:

- a. **participants** is the set of discourse participants;
 - b. **table** is a stack of propositions *or properties*, representing the proposals made so far.
 - c. **commitments** is a function that maps every participant $x \in \text{participants}$ to a set of possibilities, those possibilities that x is publicly committed to.
 - d. For any participant $a \in \text{participants}$, todolist_a is a function that maps every participant $x \in \text{participants}$ to a set of properties restricted to a , those properties that represent the actions that x publicly prefers a to carry out.¹⁶
- Portner's (2007) notion of mutually agreed To Do List, tdl , can be reconstructed as follows: For every participant $a \in \text{participants}$, $\text{tdl}_a = \bigcap \{ \text{todolist}_a(x) \mid x \in \text{participants} \}$

(28) If a discourse participant x carries out a **DIRECTION** by uttering a sentence φ to another participant y , the discourse context is affected as follows:

1. $\llbracket\varphi\rrbracket$ is added to the table.
 2. $\llbracket\varphi\rrbracket$ is added to $\text{todolist}_y(x)$.
- The effect of the first step is to steer the conversation toward a context such that the conversational participants mutually agree that tdl_y includes $\llbracket\varphi\rrbracket$.
 - The second step commits x , the speaker, to the claim that $\llbracket\varphi\rrbracket$ is preferred as an action by y , the addressee.

¹⁴ In Farkas and Roelofsen (2017), this convention of use also applies to the case where φ is an interrogative sentence. In other words, questions (as a speech act) can be analyzed exactly in the same manner.

¹⁵ This formal model of direction follows the analysis of imperatives by Portner (2007) and Portner (2018), but it is modified to fit Farkas and Roelofsen's (2017) formal architecture.

¹⁶ Specifically, $\text{todolist}_a(x)$ defines a pre-order over the context set. x deems an action by a rational and cooperative if it tends to make it the case that the actual world is maximally highly ranked according to $\text{todolist}_a(x)$.

3.4 The role of rising intonation

Rising declaratives

- (29) *Belinda is going through a pile of job applications. Chris has not seen any of them yet. Belinda hands Chris the application that she just finished reading, and tells him to have a look at it. Chris to Belinda:*
- a. This is a good one↑?
 - b. #This is a good one, isn't it.
- (30) *Belinda and Chris are looking at a sunset together. Belinda to Chris:*
- a. #It's a beautiful sunset↑?
 - b. It's a beautiful sunset, isn't it.

- As stated above, following Gunlogson (2008) and Malamud and Stephenson (2015), I take a rising declarative to express a contingent commitment, a commitment that depends on the addressee's ratification.¹⁷

Rising imperatives

- (31) a. Have a seat!↓
b. Have a seat!↑

- In contrast to (31a), which directly expresses the speaker's commitment that 'having a seat' is included in the addressee's ToDoList, (31b) is tentative, in the sense that the commitment is dependent on the addressee's agreeing that 'having a seat' is to be included in her ToDoList.
- This captures the fact that (31a) is typically used if there is an asymmetric power relationship between the speaker and the addressee. If there is power asymmetry, what the speaker prefers automatically becomes the mutual preference between the participants, without the need for the addressee's agreement.
- (31b) is typically used if there is no such power asymmetry. If the speaker does not possess power over the addressee, the speaker seeks the addressee's agreement first before committing to a claim about preferences for the addressee's actions.
- Thus, we can state the role of the rising boundary intonation, as follows:¹⁸

(32) **The role of the rising boundary intonation**

The rising boundary intonation converts a sentential force into its *contingent* counterpart.

- To model the contingent assertion and direction, we add the *projected* commitments and projected ToDoLists to the model, as follows (Malamud and Stephenson, 2015):

¹⁷ There are two kinds of criticisms to this line of analysis of English rising declaratives. One is based on the cases of rising declaratives that do not commit the speaker to the proposition at all (Farkas and Roelofsen, 2017; Jeong, 2018). The other is based on the 'non-inquisitive' cases that indicate, e.g., the speaker's uncertainty regarding the relevance of the utterance (Malamud and Stephenson, 2015; Westera, 2017). Here, I do not intend to defend the line of analysis by Gunlogson (2008) in general, but I believe that it is a good candidate for the analysis of the relevant class of *Japanese* rising declaratives because the two kinds of problematic examples are non-existent in Japanese according to my observation.

¹⁸ This analysis is different from that of Portner (2018), who analyzes the conversational effect of a rising imperative as addition of the property denoted by the sentence to the addressee's ToDoList that the addressee is publicly committed to.

- (33) a. commitments^* , is a function that maps every participant $x \in \text{participants}$ to a set of possibilities, those possibilities that x will publicly commit to, if they are publicly committed also by the addressee.
- b. todolist_a^* , is a function that maps every participant $x \in \text{participants}$ to a set of properties restricted to a , those properties that represent actions that x will publicly prefer a to carry out, if they are publicly preferred also by the addressee.
- (34) If a discourse participant x carries out a CONTINGENT ASSERTION by uttering a sentence φ , the discourse context is affected as follows:
1. $\llbracket \varphi \rrbracket$ is added to the table.
 2. $\cup \llbracket \varphi \rrbracket$ is added to $\text{commitments}^*(x)$.
- (35) If a discourse participant x carries out a CONTINGENT DIRECTION by uttering a sentence φ to another participant y , the discourse context is affected as follows:
1. $\llbracket \varphi \rrbracket$ is added to the table.
 2. $\llbracket \varphi \rrbracket$ is added to $\text{todolist}_y^*(x)$.

3.5 The sentential type-force mapping

- There is a default correspondence between the sentence type and the sentential force:¹⁹
 - Declarative sentences: assertion
 - Imperative sentences: direction
 - However, this is only a default mapping, and there are cases that go beyond the default mapping. For example, declaratives can sometimes be used to *direct* (e.g., *It might help to open the door*) (Gazdar, 1981; Levinson, 1983).
 - I won't be able to provide a general theory about when such a non-default mapping is possible.
 - However, at least in Japanese, there seem to be cases where a declarative sentence form has a directive force, when it is trivially false as an assertion.
- (36) *The addressee is not running; neither did she run in the recent past.*
- a. hashir-u.
run-DECL.NONPAST
 - b. hashit-ta.
run-DECL.PAST
 - c. hashir-e/inasai
run-IMP
- The declarative forms in (36a) and (36b) can be used as a direction if there is an asymmetric power relationship between the speaker and the addressee.

¹⁹ The sentential force of assertion as defined in (26) can also be used as the force associated with an interrogative sentence (Farkas and Roelofsen, 2017). In other words, (26) offers a unified analysis of the default sentential force associated with declaratives and interrogatives.

4 Application to Japanese

4.1 Sentences without the particles

- Similarly to English, while the falling imperative simply states the speaker's preference, the rising imperative seeks agreement by the addressee.

- (37) a. Hashir-inasai↓
 b. Hashir-inasai↑
 run-IMP

- However, the picture so far has difficulty capturing the basic rising declaratives in Japanese.

- (38) a. Taro-wa odot-ta↓
 b. Taro-wa odot-ta↑
 Taro-TOP dance-DECL.PAST

- (38b) functions as a plain polar question. It does not commit the speaker to the claim that Taro danced (even contingently), nor does it require a context where the addressee is expected to believe that Taro danced.
- I analyze this fact by assuming that the Japanese question particle *ka* is optionally realized as the rising intonation when it is unembedded (Uegaki and Roelofsen, 2018).
- In other words, the rising boundary intonation is a phonological realization of two independent things in Japanese:
 1. The operation on the sentential force;
 2. An unembedded question particle.
- With *ne/yo*, the rising intonation can only be the former of the two because *ne/yo* syntactically sits higher than the question particle (Masuoka and Takubo, 1992; McCready and Davis, to appear).

4.2 Sentences with *ne* and *yo*

Ne

- φ -*ne*↓
 - the semantics of *ne* \rightsquigarrow the presupposition of addressee belief
 - default mapping from the decl. sentence type \rightsquigarrow assertion
 - \Rightarrow the presup. of addressee belief + self-sourced commitment
- φ -*ne*↑
 - the semantics of *ne* \rightsquigarrow the presupposition of addressee belief
 - default mapping from the decl. sentence type \rightsquigarrow assertion
 - Rising intonation \rightsquigarrow Contingency
 - \Rightarrow Presupposition of addressee belief + contingent commitment

Yo

- φ -yo↓
 - the semantics of yo \rightsquigarrow the presup. that φ resolves the QUD
 - default mapping from the decl. sentence type \rightsquigarrow assertion
 - \Rightarrow presup. that φ resolves the QUD + self-sourced commitment
- φ -yo↑
 - the semantics of yo \rightsquigarrow the presup. that φ resolves the QUD
 - default mapping from the decl. sentence type \rightsquigarrow assertion
 - Rising intonation \rightsquigarrow Contingency
 - \Rightarrow presup. that φ resolves the QUD + contingent commitment
 - But there is a problem with this, assuming the following two principles:

(39) **The addressee authority condition for contingent commitment** (Gunlogson, 2008)

A contingent commitment requires that the speaker expects the addressee to be in a position to ratify the commitment to φ . This can happen only if the speaker expects the addressee to have evidence for φ .

(40) **Maximize Presupposition!** (MP) (Heim, 1991)

If φ, ψ are contextually equivalent alternatives, and the presuppositions of ψ are stronger than those of φ , and are met in the context of utterance C , then one must use ψ in C , not φ .

- A context that satisfies (39) is exactly a context that satisfies the presupposition of *ne*.
- But then, uttering φ -yo↑ instead of φ -yo-*ne*↑ in such a context would be a violation of MP.
- A way to rescue the situation is to interpret φ -yo↑ not as a contingent assertion, but as a contingent *direction*.
- A context that licenses a contingent direction φ -yo↑ is where the speaker expects the addressee to prefer φ . Such a context does not automatically license the presupposition of φ -yo-*ne*. So, uttering φ -yo↑ in such a context does not violate MP.

Yone

- φ -yo-*ne*↓
 - the semantics of yo \rightsquigarrow the presup. that φ resolves the QUD
 - the semantics of *ne* \rightsquigarrow the presup. of addressee belief
 - default mapping from the decl. sentence type \rightsquigarrow assertion
 - \Rightarrow presup. that φ resolves the QUD and that the addressee believes φ + self-sourced commitment to φ

- φ -yo-ne \uparrow
 - the semantics of *yo* \rightsquigarrow the presup. that φ resolves the QUD
 - the semantics of *ne* \rightsquigarrow the presup. of addressee belief
 - default mapping from the decl. sentence type \rightsquigarrow assertion
 - rising intonation \rightsquigarrow contingency
- \Rightarrow presup. that φ resolves the QUD and that the addressee believes φ + contingent commitment to φ .
- Note that it is correctly predicted that φ -yo-ne \uparrow is *not* interpreted as a contingent direction, as my analysis of the direction flavor of φ -yo \uparrow rests on the *absence* of *ne* rather than the presence of *yo*.

How to reconstruct the property in φ -yo \uparrow

- **Problem:** the prejacent of φ -yo \uparrow does not represent a property that is assumed to be the semantic value of an imperative in Portner's model:

(41) *In a sushi place:*

A: Which sushi should I get?

S: koko-no maguro wa umai #(yo \uparrow)
 here-GEN tuna TOP good YO
 'The tuna here is good.'

(42) *In front of a broken down car*

A: I'm out of gas.

S: magatta tokoro ni gasorinsutando-ga arimasu #(yo \uparrow)
 turned place at gas.station-NOM exist YO
 'There's a gas station up there around the corner.'

(43) *Souta sees Ayaka hasn't noticed her train has arrived.*

S: Densya kita #(yo \uparrow)
 train came YO
 'The train is here.'

- Intuitively, in these cases, the direction force operates on a property that can in some sense be reconstructed from the context and the prejacent.
 - (41): the property of eating the tuna.
 - (42): the property of going to the gas station around the corner.
 - (43): the property of getting on the train.

5 Conclusions

- φ -yo \uparrow has the force of a contingent direction despite its declarative sentence type due to the interaction of the following factors:
 - The semantics of *yo* and *ne*

- The pragmatics of *contingent* assertion and direction
- The flexible mapping between sentence types and sentential forces
- A unified analysis of the contribution of the rising intonation in *yo/ne*-sentences is possible: it adds *contingency* to the sentential force.
- An analysis of a case where the force of a class of sentences systematically diverges from the default force tied to their sentential type.

References

- Ciardelli, Ivano, Jeroen Groenendijk, and Floris Roelofsen. 2013. Inquisitive semantics: a new notion of meaning. *Language and Linguistics Compass* 7(9):459–476.
- Ciardelli, Ivano, Jeroen Groenendijk, and Floris Roelofsen. 2018. *Inquisitive Semantics*. Oxford University Press.
- Davis, Christopher. 2009. Decision, dynamics and the Japanese particle *yo*. *Journal of Semantics* 26:329–366.
- Davis, Christopher. 2011. *Constraining Interpretation: Sentence Final Particles in Japanese*. Ph.D. thesis, University of Massachusetts, Amherst.
- Farkas, Donka F. and Kim B. Bruce. 2010. On reacting to assertions and polar questions. *Journal of semantics* 27:81–118.
- Farkas, Donka F. and Floris Roelofsen. 2017. Division of labor in the interpretation of declaratives and interrogatives. *Journal of Semantics* 34(2):237–289.
- Gazdar, Gerald. 1981. Speech act assignment. In A. Joshi, B. Weber, and I. Sag, eds., *Elements of Discourse Understanding*, 64–83. Cambridge: Cambridge University Press.
- Gunlogson, Christine. 2008. A question of commitment. *Belgian Journal of Linguistics* 22:101–136.
- Heim, Irene. 1991. Artikel und definitheit. In *Semantics: An International Handbook of Contemporary Research*. Berlin: De Gruyter.
- Jeong, Sunwoo. 2018. Intonation and sentence type conventions: Two types of rising declaratives. *Journal of Semantics* 35(2):305–356.
- Levinson, Steve. 1983. *Pragmatics*. Cambridge: Cambridge University Press.
- Malamud, Sophia and Tamina Stephenson. 2015. Three ways to avoid commitments: Declarative force modifiers in the conversational scoreboard. *Journal of Semantics* 32:275–311.

- Masuoka, Takashi and Yukinori Takubo. 1992. *Kiso Nihongo Bunpoo Kaiteiban [Basic Japanese grammar, Revised edition]*. Tokyo: Kuroshio Publishers.
- McCready, Elin. 2005. *The Dynamics of Particles*. Ph.D. thesis, University of Texas, Austin.
- McCready, Elin. 2008. Particles: Dynamics vs. utility. In M. Endo Hudson, P. Sells, and S. Jun, eds., *Japanese/Korean Linguistics 16*. CSLI Publications.
- McCready, Elin and Christopher Davis. to appear. Sentence-final particles in Japanese. In W. Jacobsen and Y. Takubo, eds., *Handbook of Japanese Semantics and Pragmatics*. John Benjamins.
- Moriyama, Yoshiyuki. 2001. Shuujioshi 'ne' no intoneeshon [the intonation of the sentence-final particle 'ne']. In *Bunpoo to Onsei III [Grammar and Phonology III]*. Tokyo: Kuroshio.
- Northrup, Oliver. 2014. *Grounds for commitment*. Ph.D. thesis, University of California, Santa Cruz.
- Portner, Paul. 2007. Imperatives and modals. *Natural Language Semantics* 15:351–383.
- Portner, Paul. 2018. Commitment to priorities. *New Work on Speech Acts* 1–26.
- Stalnaker, Robert C. 1979. Assertion. In P. Cole, ed., *Syntax and Semantics*, vol. 9: *Pragmatics*, 315–32. New York: Academic Press.
- Takubo, Yukinori and Satoshi Kinsui. 1997. Discourse management in terms of mental spaces. *Journal of Pragmatics* 28:741–758.
- Theiler, Nadine. 2019. *Taking a Unified Perspective*. Ph.D. thesis, ILLC, University of Amsterdam, Amsterdam.
- Uegaki, Wataru. to appear. Issue-sensitive discourse particles: the case of Japanese *yo* and *ne*. In *Proceedings of Semantics and Linguistic Theory 29*.
- Uegaki, Wataru and Floris Roelofsen. 2018. Do modals take propositions or sets of propositions? evidence from Japanese *darou*. In *Proceedings of Semantics and Linguistic Theory (SALT 28)*, 809–829.
- Westera, Matthijs. 2017. *Exhaustivity and intonation: a unified theory*. Ph.D. thesis, Institute for Logic, Language and Computation, University of Amsterdam.