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1 Introduction

This paper presents a semantic-pragmatic analysis of the sentence-final particle sa (also pronounced as $s\bar{a}$) in Hokkaido Japanese. Since this particle is also present in standard Japanese, many native speakers of Hokkaido Japanese are unaware that there are indeed many differences between sa as used in that dialect versus standard Japanese. For example, while in standard Japanese, sa is stereotypically restricted to male speech, in Hokkaido Japanese, sa is used in both male and female speech, as seen below (1).

(1) Raishū no getsuyōbi, kateika-no tesuto da sa.
next.week gen Monday homemaking.course-gen test cop sa
"We have a test in the homemaking course next Monday."

(Speaker: female, age14, from Sapporo) (Izutsu and Izutsu 2013)

Moreover, in Hokkaido Japanese, sa can be attached after a copula (see (1))

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or an evidential (see (2)), while neither is possible in standard Japanese. ¹

(2) Yamada-san nara kyō-kara kyōikujisshū rashii sā.

Ms. Yamada cond today-from teaching practice Hearsay sa

"I heard that Ms. Yamada is on teaching practice today."

(Matsuura and Kishimoto 2016)

In addition, the discourse function of *sa* in Hokkaido Japanese differ from those of *sa* in standard Japanese. This paper develops an analysis on these discourse functions. We propose that *sa* in Hokkaido Japanese basically encodes instructions for the hearer, so that, there is no need to match the information denoted by the utterance with information stored in the hearer's long-term memory, and there is no need for the hearer to induce an inference or decide to do any action based on the utterance.

This paper is structured as follows. In Section 2, we introduce the basic characteristics of sa in Hokkaido Japanese. In Section 3, we discuss how the utterance with sa refers to information that is hearer-new and that which is hearer-unrelated. In Sections 4 and 5, we examine sa as used in directive speech acts and the connotations carried by utterances with sa. In Section 6, we provide a semantic analysis of sa and formalize it in terms of Kratzer's (1991, a.o.) modal logic, and then we present our conclusions in Section 7.

2 Basic Characteristics of sa in Hokkaido Japanese

In this section, we introduce basic characteristics of *sa* in Hokkaido Japanese based on Ono (1993) and Izutsu and Izutsu (2013). As in standard Japanese, there are various sentence-final particles in Hokkaido Japanese: for example, *syo*, *ya*, *na*, *ne*, and so on (Ono 1993).

Sa is widely used among all ages in both male and female speech,² yet it is used only in casual speech, rather than formal speech (Ono 1993), and it cannot be attached to polite forms. In most cases, sa sounds unnatural in soliloquy. Regarding its phonology, sa and its prolonged form $s\bar{a}$ usually occur with a falling intonation.³ In this paper, we do not discuss differences between sa and $s\bar{a}$.





¹ A detailed comparison of *sa* in Hokkaido Japanese versus standard Japanese is beyond the scope of this paper. See Izutsu and Izutsu (2013). For a discussion of the characteristics of *sa* in standard Japanese, see e.g. Noda (2003).

² For examples taken from spontaneous speech by various speakers, see Izutsu and Izutsu (2013).

³ Ono (1993) presents some examples of wh-question-sa with rising intonation, written with the symbol \mathcal{L} . We need more data about its phonetic realization.





3 Previous Studies

3.1 Hearer-new and Hearer-unrelated

Previous studies have noted that in Hokkaido Japanese, *sa* is a marker of information that is new and "unrelated" to the hearer. First, let us consider data showing *sa* as a marker of hearer-new information (Ono 1993, Izutsu and Izutsu 2013, Matsuura and Kishimoto 2016). The utterance in example (3) would be inappropriate in a situation when the hearer obviously knows the facts being conveyed; for example, after the speaker and hearer have watched the game together. On the other hand, (3) is appropriate if the speaker assumes that the hearer knows nothing about the game. Examples in (4) demonstrate the same point.

- (3) Ōtani kyō ippon mo utanakatta sā.
 Otani today 1.hit even hit.neg.pst sa
 "Otani [= a famous baseball player] got no hits today."
- (4) a. (The hearer saw the speaker being scolded by a teacher yesterday, and the speaker knows it.)

??Kinō ore sensei ni shikararechatta sā. today I teacher by scold.pass.pst sa

"I was scolded by a teacher yesterday." (M and K 2016, (13))⁵

b. (The speaker and the hearer meet at the school in the morning.)

Kyō ore shukudai wasurechatta sā.

today I homework forgot s "I forgot my homework today."

(M and K 2016, (14))

Izutsu and Izutsu (2013) illustrate this point with a spontaneous example. By (5), it is clear that the hearer knows that the speaker clapped her hands a lot, since the hearer witnessed the scene. However, she was unable to know whether the speaker's hands ached or not based on merely seeing the scene. Therefore, *sa* is used in the second sentence. In contrast, this sentence would become less natural if *sho* were substituted with *sa*. It is because the sentence-final particle *sho* functions as request for confirmation by the hearer, which





⁴ The particle *nen* in Osaka Japanese exhibits similar characteristics to Hokkaido Japanese *sa*. Hara and Kinuhata (2012) and Kinuhata and Hara (2012) argue that *nen* requires its prejacent proposition to be part of the speaker's knowledge, and that the use of *nen* is infelicitous when the speaker makes a suggestion for the hearer (We would like to thank Tomohide Kinuhata for drawing our attention to these studies). At the same time, these particles differ in several respects. For example, *nen* is not a sentence-final particle, and does not attach to any sentence-final particle, whereas the Hokkaido Japanese *sa* can be attached after other sentence-final particles such as *wa*. Further research is needed on this topic.

⁵ For reasons of space, we write Matsuura and Kishimoto (2016) as "M and K 2016", and Izutsu and Izutsu (2013) as "I and I 2016" in the following examples.





presupposes the prejacent proposition is in the mutual knowledge base.

(5) Sakki sa, hora, miteta kke sa, sugoi hakushu little.while.ago sa_{int j} dm see.cont.pst cond ptl awfully clap shimakutta *sho*. Sugoi te jinjinshiteta sa.⁶ do.a.lot sho/sa awfully hand ache.cont.pst sa "As you saw, I clapped my hands a lot. My hands were aching awfully then!" (Speaker: female, age20, from Sapporo) (I and I 2013, (17))

Moving on to the second point regarding hearer-unrelatedness. Matsuura and Kishimoto (2016) propose that sa does not easily attach to an utterance that refer to the hearer. Therefore, in the example below, even if the information conveyed is hearer-new and the hearer was previously unaware that he dropped his wallet, the use of sa in (6) is inappropriate. If the speaker wants to convey the information without any special nuance, another sentence-final particle yo is required, rather than sa.

(6) ??Saifu otoshiteru sā.

wallet drop.res sa

"You dropped your wallet." (res= resultative) (M and K 2016, (16a))

In section 5, we discuss how the examples such as (6) is acceptable if the speaker trying to ridicule or "making a fool" of the hearer.

Example (7) illustrates another type of hearer-new information. In (7), it is clear to both A and B that B forgot that he had made the phone calls; therefore, the information denoted by A's second utterance is not technically a part of B's knowledge base. Nonetheless, *sa* cannot be used in (7) even though the propositional content is "new" information for B at the time of the conversation.

- (7) (B got drunk and called A many times last night, but B forgot it.)
 - A: Stop calling me when you get drunk!
 - B: Oh, did I call you?
 - A: Sōda yo. Yonaka ni omae nandomo denwa kaketekita yes yo midnight in you many.times phone call.pst {*sā/yo}.

{sa/yo}

"Yes. You called me many times last night!"

(Based on M and K 2016, (17))

⁶ As in standard Japanese, Hokkaido Japanese, include the interjective particle sa (glossed as $sa_{int\,i}$); however a discussion of such is beyond the scope of this paper.





3.2 Previous Analyses of Sa

The works of Izutsu and Izutsu (2013) and Matsuura and Kishimoto (2016) are among only a few studies that have provided a theoretical analysis of the function of sa. Izutsu and Izutsu (2013) argue that in Hokkaido Japanese, sa represents the speaker's desire for the hearer to know the propositional content of the utterance; therefore, it is infelicitous to attach sa to hearer-old information. They further propose that sa functions to manage joint attention. Ways of managing joint attention are classified into four types based on two criteria, namely (i) whether they are attention-initiating or attentionresponding, and (ii) strength of intention to joint attentive interactions. Izutsu and Izutsu (2013) posit that sa is attention-initiating but shows weak intention for joint attentive interactions. Thus, by using sa, the speaker guides the hearer's attention to new information in order to establish joint attention, but she/he does not require the hearer's interaction with the information provided. For example, if the speaker uses yo in (8), she expects the hearer's continuous interaction; that is, the hearer should not be making a great deal of noise. In contrast, sa does not require the hearer's reaction.

(8) Yappa, shita iru ppoi sa/yo.
as.suspected below be evid sa/yo
"As we suspected, it seems that someone lives in the room down-stairs."
(I and I 2013, (18))

This is an intriguing proposal, but the exact nature of "joint attentive interactions" seem to be unclear; i.e., what types of interpersonal relations are concerned with joint attention, and which are not?

Now, let us review Matsuura and Kishimoto's (2016) analysis, which is the first to give much attention to the fact that in Hokkaido Japanese, *sa* only attaches to hearer-unrelated information. In the context of Kamio's "territory of information theory" (Kamio 1997), based on the two characteristics mentioned in section 3.1, Matsuura and Kishimoto posit that *sa* attaches to the information outside hearer's territory.

Although Matsuura and Kishimoto's (2016) generalization about hearer-unrelatedness is important, it is still unclear why the use of *sa* would be considered inappropriate in the utterances (6) through (7). Let us use (6) to better understand their point. Matsuura and Kishimoto argue that the use of *sa* in (6) would be inappropriate because the information that the hearer lost his wallet is *not* outside the hearer's territory. Yet, in our view, this conclusion seems incorrect based on theoretically and empirically derived reasons.

For one, in Kamio's (1997: pp.17–18) description of the general conditions that determine the location of information, information is considered to be close to the hearer if: (i) it is obtained through the hearer's internal direct









experiences; (ii) it is concerning the hearer's profession; (iii) it is obtained through testimony by someone whom the hearer considers reliable; and/or (iv) it concerns person(s), objects, or facts close to the hearer. According to these conditions, it seems possible that the information in (6) could be considered as being outside of the hearer's territory.

Second, empirical data also demonstrate that the information in (6) can be located outside the hearer's territory. Kamio (1997) proposed that in order to refer to information within the hearer's territory, the speaker would have to use a non-direct form, such as "I believe" or a tag question in English, or an inferential/hearsay evidential in standard Japanese. For example, if the hearer were a president of a company and the speaker were an outside business associate, the direct form used in (9-a) would sound unnatural⁷.

- (9) a. ??Syatyoo wa 3-zi kara kaigi ga arimasu kara. president тм o'clock from meeting мм have since Lit. 'Since the president has a meeting from three.'
 - b. Syatyoo wa 3-zi kara kaigi ga aru-yoo desu kara. president TM o'clock from meeting NM have-appear is-F since 'Since it appears that the president has a meeting from three.'

 (standard Japanese, Kamio 1997: p.15, (22) and (21a))

As shown in (10), however, in standard Japanese, the information denoted by (6) can be in fact stated in a direct form.

(10) Saifu otoshiteru yo.
wallet drop.res yo
"You dropped your wallet."

(standard Japanese)

The information that the hearer dropped her wallet can be considered outside of the hearer's territory, and the same goes with the example (7). We conclude that Matsuura and Kishimoto's (2016) analysis is not quite accurate, and we provide an alternative interpretation in Section 6. First, however, we point out two types of previously unfocused data: (i) *sa* in directive utterances; and (ii) connotations of utterances with *sa*.

4 Sa in directives

In this section, we examine the use of sa in orders (commands) and requests. Sa cannot be attached to the imperative form expressing a strong order ((11-a)), but, it can be attached to the te-form to express a weak order or request, as in (11-b). However, (11-b) is not a usual order or request, but rather implies that the speaker is tired stating the order since she is now repeating





⁷ We use Kamio's (1997) original Romanization (Kunrei-shiki) and glosses in (9).





the same thing. In other words, the speaker does not fully expect the order to be obeyed.

- (11) a. *Asonde naide gohan tabere sā. play-te neg.te meal eat.imp sa [Intended] "Do not play. Eat."
 - b. Asonde naide gohan tabete sā. play-te neg.te meal eat.te sa "Do not play. Please eat."

A similar point can be made concerning prohibitions. Examples (12-a) and (12-b) illustrate that while *sa* can be used in indirect prohibitions with deontic modality, it cannot be attached to V-*na*. Example (12-b) is used in a situation whereby the hearer has already come near the speaker.

- (12) a. *Kotchi kuru-na sā. here come-proh sa [Intended] "Do not come here."
 - b. Atchi ika-nai-ba dame sā.
 there go-neg-cond bad sa
 [lit.] "It is bad if you do not go over there."

To summarize, *sa* can be used to convey weak orders or requests, only if the speakers has a low expectation that the order/request will be fulfilled.

5 Unexpectedness and Making a Fool

In this section, we focus on two types of connotations carried by declarative sentences with *sa*, namely, unexpectedness and ridicule, or "making a fool".

5.1 Unexpectedness

Declarative sentences using *sa* usually refer to *unexpected* or *surprising* information, as indicated by (13) and (14). Example (13) is a spontaneous utterance from Matsuura and Kishimoto (2016), while the dialogue in (14) suggests that A and B almost always have some homework.

- (13) Kinō arubaito-ni itta-kke, masaka-no yesterday parttime.job-to went-cond unbelievable-gen tannin-ga kita sā. class.teacher-nom came sa "When I was working part-time yesterday, unbelievably, our class teacher came (to the store)." (M and K 2016: (25a))
- (14) (A was absent from the last class. She asks her classmate B.)









- A: Shukudai-tte nanka atta? homework-comp something be.pst "Have we got any homework?"
- B: Iya, nanmo denakatta sā.
 no anything come.out.pst sa
 "No, nothing." → It's surprising. (M and K 2016: (25b))

Attaching *sa* makes a sentence sound unnatural, if the speaker regards the information as unsurprising. ⁸ Therefore, using *sa* in (15-a) is unnatural. On the other hand, (15-b) is acceptable because the speaker treats the information as surprising.

- (15) (A and B are discussing Mr. Yamada, who is good at speaking English.)
 - A: Yamada is really a good speaker of English!
 - B: a. Sorya sō sa. Aitsu kikokushijo da {??sā/mono}. it.top so sa. he returnee *cop* sa/*mod* "It's no wonder. He is a returnee."
 - b. Sore ga sa, aitsu hāfu da sa. it NOM SA_{intj} he half *cop sa* "Actually, he is half English and half Japanese!"

5.2 Making a Fool

In this section, we discuss utterances with sa used to ridicule the hearer. As mentioned in section 3.1, it is difficult to use utterances with sa to refer to information about the hearer, but it is possible in some contexts. For example, as shown in (16) (=(6)), the use of sa is appropriate if the speaker is making a fool of the hearer or ridiculing his/her mistake.

(i) (B's home is far from the nearest train station.)

A: How do you usually go to university?

B: Harete tara jitensha sā. sunny.te cond bicycle sa 'On a fine day, by bicycle.' → Of course.

(M and K 2016, (28))

If we regard all instances of sentence-final sa are one lexical item and they have the same semantics, it seems difficult to explain why sa carries two such opposite meanings. We suspect, however, that there are two different sentence-final sa forms in Hokkaido Japanese. Note that sa in (i) is directly attached to the NP. In the case of (i), it is impossible to put an overt copula between jitensha and sa. This suggests that the sa used in (i) is a different item than that on which we focus in this paper. As Izutsu and Izutsu (2013) argue, this use of sa in Hokkaido Japanese might be affected by sa as used in standard Japanese.





⁸ Matsuura and Kishimoto (2016) point out that some utterances with *sa* imply that the information is *unsurprising*, *a matter of course*. For example, consider (i).





(16) Saifu otoshiteru sā.

wallet drop.res sa

"You dropped/lost your wallet!' → You are stupid!

In this case, it is natural to use a discourse marker $y\bar{a}i$, which is often used to ridicule the hearer. This suggests that we cannot directly encode hearer-unrelatedness into the semantics of sa. In addition, it is inappropriate to encode "making a fool" into the semantics, since most utterances with sa do not carry such a nuance. In Section 6.2, we provide an account of unexpectedness and "making a fool" from the pragmatic perspective.

6 Proposals

6.1 Semantics of Sa

In this section, we propose a semantic-pragmatic analysis of the Hokkaido Japanese *sa*. Our basic idea is that P-*sa* is used to convey the speaker's knowledge without expecting a reaction from the hearer. We propose (17).

- (17) ' φ -sa' encodes instructions for the hearer; that is,
 - a. the discourse participants need not begin the verification procedure to check whether the information referred to in φ matches other information (e.g. information obtained by inference or information in the hearer's knowledge base); and
 - b. the hearer needs not take an action based on φ , such as inducing new inferences or adding any actions to his/her plan.

This analysis is motivated by previous studies on the standard Japanese sentence-final particles *yo* and *ne* (Takubo and Kinsui 1997; Davis 2011; Oshima 2011; among others).

Takubo and Kinsui (1997) propose Discourse Management Theory and give an account of proper nouns, the demonstratives *ano* and *sono*, and the sentence-final particles *ne* and *yo*. In brief, Discourse Management Theory divides discourse-based information into two domains: the direct experience domain (D-domain) and the indirect experience domain (I-domain). The sentence-final particles are characterized as markers for operations on information. In Takubo and Kinsui's analysis, the sentence-final particle *ne* in standard Japanese indicates that the speaker is in the process of confirming a prejacent proposition, through either the hearer's knowledge or another source of information (e.g. information gained by inference, calculation, looking at a clock, etc.). On the other hand, *yo* is a marker of the speaker setting proposition in the I-domain (temporary information in the discourse) for further inference.

Let us now return to the Hokkaido Japanese sa. First, unlike ne in standard









Japanese, sa is neither used to request confirmation from the hearer, nor to express that the speaker is in the process of self-confirmation. Second, unlike the standard Japanese yo, φ -sa seems not to initiate further inference by the hearer. These two characteristics are demonstrated in (17-a) and (17-b).

Next, let us formalize (17) based on modal logic (Kratzer 1991, a.o.) and dynamic semantics (Heim 1982). We propose that the utterance of φ -sa adds φ into the common ground but does not substantially change the modal base. The idea of using Kratzer-style modal logic in analyzing sentence-final particles is derived from Oshima (2011), who proposes that the "guide to action" (Davis 2011) use of the standard Japanese yo with rising intonation has semantics as seen in (18).

- (18) The discourse function of a declarative with yo \nearrow Where C is a context of the form $\langle CG, f, g \rangle$,
 - (i) $C + [\varphi_{decl} \text{ yo}]$ is defined only if f and g are concerned with priority modality relativized to the hearer;
 - (ii) If defined, $C + [\varphi_{decl} \text{ yo } \nearrow] = \langle CG', f', g \rangle$, where $CG' = CG \cup \{ \llbracket \varphi_{decl} \rrbracket \}$ and $f' = f \cup \{ \llbracket \varphi_{decl} \rrbracket \}$. (Oshima 2011, (17))

According to Kratzer-style modal logic, we use two types of conversational background in interpreting modals and conditionals and making inferences; modal base f and ordering source g, whereby each conversational background is defined by a set of propositions. Modal base corresponds to information about the fact or relevant situation, and ordering source denotes information determining what is likely or not (epistemic modality) or what is good, required, or desirable (priority modality). Priority modality is a category encompassing deontic modality (concerning laws, rules, etc.), bouletic modality (concerning desires), and teleological modality (concerning goals) (Portner 2009). (18) captures the two functions of yo?: informing the hearer of the information and suggesting that the information is relevant for what the hearer should (or hopes or aims to) do.

Our analysis of sa in Hokkaido Japanese is shown in (19).

- (19) The discourse function of an utterance with sa (in Hokkaido Japanese) Where C is a context of the form $\langle CG, f, g \rangle$,
 - (i) $C + [\varphi \text{ sa}]$ is defined only if (A) f and g are concerned with epistemic modality relativized to the hearer, or (B) f and g are concerned with priority modality relativized to the hearer;
 - (ii) If defined, $C + [\varphi \text{ sa}] = \langle CG', f', g' \rangle$, where $CG' = CG \cup \{ \llbracket \varphi \rrbracket \} \}$, $\cap f' = \cap f$ and g' = g.

As mentioned above, the utterance with sa instructs that there is no need for









further inference or reaction based on its content, which is captured by (ii) of (19). In a nutshell, (ii) represents that the utterance of ' φ -sa' causes no substantial change in conversational backgrounds as long as concerning the discourse participants' inference. Regarding the ordering source, we simply suggest that the two ordering sources before and after the utterance are identical, in that they include the same propositions. Regarding the modal base, we use a slightly more complicated condition. We think there are two cases where the utterance of ' φ -sa' cause no substantial change in modal base: one case being when the sets f and f' are identical, and the other being when f and f' cause no difference in modal interpretation, inference, etc. Both cases can be generalized as $\cap f' = \cap f$.

As for (i), unlike Oshima (2011), we assume that updating by sa can operate on conversational backgrounds concerning the epistemic modal. ⁹ In addition, φ is not restricted to declaratives, so (19) can be applied to non-declarative sentences such as 'V-te'.

Let us illustrate how (19) works. If φ is declarative, the modal base f and the ordering source g are concerned with either epistemic modality or priority modality. In relation to epistemic modality, f is usually an epistemic modal base that corresponds to the hearer's knowledge, while g is "natural course of events" ordering source. (19-ii) indicates that the hearer cannot infer any new information by adding the propositional content of φ into the modal base. A similar explanation can be applied when f and g are concerned with priority modality, whereby f is a circumstantial modal base and g is an ordering source including laws/rules, desires, goals, and so on. Uttering " φ -sa" updates the common ground and the modal base with $\llbracket \varphi \rrbracket$, but the hearer acquires no new information about what he/she should or may do.

What about the case that φ is directives? Following Portner (2007), we assume that imperatives contribute to 'To-Do List'. The To-Do List of an agent α is defined as a set of properties, and the imperative φ_{imp} adds the action denoted by φ into the addressee's To-Do List, which in turn helps in determining the ordering source. We further assume that the weak order or request denoted by 'V-te' and the indirect order connoted by the modal statement as shown in (12-b) operate on the ordering source as well. Given these assumptions, let us consider the directive utterance using sa. If φ is a directive, then

(i) A: Is it raining?

B: Minna kasa sashiteru yo.
everyone umbrella open.cont yo
"Everyone has an umbrella up." (cont = continuative aspect)





⁹ We also think that *yo* in standard Japanese can update the epistemic modal base, as well as the modal base concerned with priority modality. (i) seems to be an example of *yo* adding the proposition into the modal base concerning epistemic modality.





f and g are concerned with priority modals. By the semantics of sa in (19), the proposition determined by φ is not added to the hearer's priority ordering source, and only the information about the speaker's making an order/request φ is added into the common ground. As a result, the directive with sa indicates the speaker's low expectation for the order/request to be fulfilled. We think that sa cannot be attached to imperative forms or prohibitive 'V na' because they express strong orders. It seems natural to assume that we cannot make a strong order without expecting its fulfillment, and that the condition is less strict in case of weak/indirect orders and requests.

6.2 Pragmatic explanation of the Data

Our analysis also explains the remaining three characteristics of φ -sa; hearer-unrelatedness, unexpectedness, and the function of "making a fool". First, let us consider hearer-unrelatedness and the function of making a fool. In normal cases, the speaker conveys something about the hearer because he/she intends for that information to affect the hearer. It is unnatural to convey the hearer-related information while at the same time not expecting him/her to make a further inference and/or reaction based on the information. Therefore, an utterance with sa that states hearer-related information sounds odd because it is suggested that he/she is ignoring the hearer's ability to make inferences or decisions. This connotes a nuance of ridicule.

We adopt relevance theory (Sperber and Wilson 1986) in our interpretation of the unexpectedness requirement. Since an utterance using φ -sa does not induce further inferences, in that there is no contextual implication from φ , its cognitive effect is quite small unless the propositional content of the utterance itself is sufficiently surprising.

7 Conclusion

This paper examined the distribution and interpretation of the sentence-final particle sa in Hokkaido Japanese and presented a sematic-pragmatic analysis of its functions. Declaratives using sa serve to add the prejacent proposition to the common ground without deriving further inferences or deciding actions based on the information. The semantics, along with the pragmatic inferences, create a situation in which sa cannot refer to the hearer-related information unless the speaker is ridiculing the hearer. Moreover, directives with sa cannot express strong orders due to semantics of this particle.

In this paper, we do not consider examples of sa used with other particles, but the topic is worth noting because sa displays many different characteristics in such cases. For example, the modal particle be (similar to "I guess that..." or "it should be...") + sa (i) can be used in soliloquy, (ii) can express a request for confirmation by the hearer, and (iii) can refer to hearer-related information, all of which are impossible for sa used alone. We leave such









considerations to future research.

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References

- Davis, C. 2011. Constraining Interpretation: Sentence final particles in Japanese. PhD thesis, University of Massachusetts.
- Hara, Y. and Kinuhata, T. 2012. Osaka Japanese Nen: One-sided Public Belief and Paratactic Association. Sprache und Datenverarbeitung: International Journal for Language Data Processing, 2:49–70.
- Heim, I. 1982. *The Semantics of definite and Indefinite Noun Phrases*. PhD thesis, University of Massachusetts.
- Izutsu (Narita), M. and Izutsu K. 2013. 'Kore tte Hōgen Datta sa': Kyōdō Chūi no Kanten kara Mita Hokkaidō Hōgen no Shūjoshi *Sa* (An analysis of the sentence-final particle *sa* in Hokkaido Japanese in terms of joint attention). *Syakai Gengo Kagakukai Dai 31-kai Happyō Ronbunshū*, 146–149.
- Kamio, A. 1997. Territory of Information. Philadelphia: John Benjamins.
- Kinuhata, T. and Hara, Y. 2012. Discourse Update and Semantic Composition of Particles: the Case of Nen in Osaka Japanese. Proceedings of Sinn und Bedeutung, 16: 349–362.
- Kratzer, A. 1991. Modality. *Semantik: Ein Internationales Handbuch der Zeitgennössischen Forschung.* eds. by von Stechow, A. and Wunderlich, D. Berlin: Walter de Gruyter.
- Matsuura, T. and Kishimoto, Y. 2016. Hokkaido Hōgen niokeru Bunmatsushi *Sa* no Bunpu to Imi (Distribution and Meaning of the Sentence-final Particle *Sa* in Hokkaido Japanese). *Hokkaidō Hōgen Kenkyūkai*.
- Miyazaki et al. 2002. Shin Nihongo Bunpō Sensho 4: Modariti (New Selected Works on Japanese Grammar 4: Modality), chapter 8. Tokyo: Kurosio Syuppan.
- Ono, Y. 1993. *Hokkaidō Hōgen no Kenkyū (Studies of Hokkaidō Dialects)*. Tokyo: Gakugei Tosho.
- Oshima, D. Y. 2011. The Japanese Particle *yo* in Declaratives: Relevance, Priority, and Blaming. *JSAI-isAI 2011: New Frontiers in Artificial Intelligence*, 40–53.
- Portner, P. 2007. Imperatives and Modals. Natural Language Semantics, 15: 351-383.
- Portner, P. 2009. Modality. Oxford and New York: Oxford University Press.
- Sperber, D. and Wilson, D. 1986/1995. Relevance: Communication and Cognition. Oxford and Cambridge: Wiley-Blackwell (2nd edn 1995).







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Takubo, Y. and Kinsui, S. 1997. Discourse Management in Terms of Mental Spaces. *Journal of Pragmatics*, 28: 741–758.



