

# 日本語接続詞「だから」と「だって」の 関連性理論による分析

## A Relevance Theoretic Analysis of the Japanese Connectives DAKARA and DATTE

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### ABSTRACT

接続詞「だから」は「P だから Q」という形で使われた場合、「P が Q の原因、理由」であることを表し、「だって」は「P だって Q」の形で使われ、「結論 P に対して Q において理由を提示する」接続詞である、と考えられている。しかし、実際には、「だから」には前になされた発話を「繰り返し」たり「換言」したりする際のマーカーとしての用法、「だって」には相手の発言に対して「反対」の気持ちを表す用法があることが指摘されている。本稿では、まず、上述のような複数の「意味」に関連性理論の枠組みを使って、意味論的、語用論的説明を与える。この中でこれら 2 つの接続詞はいずれも「手続き的意味」をもつ言語表現、つまり、これらによって導かれる発話がいかに関連性を達するのか、についての手続きをエンコードしていると主張する。具体的には、「だから」はそれが導く発話が「解釈的」に使われていることを示唆する情報を、「だって」はその発話が 2 つの認知効果によって関連性を達することを示唆する情報をエンコードすると分析する。さらに、これらの接続詞の使用にはメタ表象能力が関わっているという仮説から、メタ心理能力（心の理論）が発達するといわれる 4 歳以前の子供たちの接続詞の使用を観察した。その結果、それぞれの接続詞について「メタ伝達能力」を要する用法は 4 歳以前に習得されるが、「メタ心理能力」を必要とする用法は習得が遅れるだろう、という仮説が支持された。

## Introduction

This study is concerned with two Japanese connectives, DAKARA and DATTE, which have traditionally been analysed as encoding causal relations: DAKARA encodes causality in the way in which it introduces a consequence/conclusion for a statement expressed in the preceding utterance as in (1) and DATTE, in the way it introduces a reason for a conclusion given in the preceding utterance as in (2):

- (1) Taro: I didn't have breakfast this morning.  
          DAKARA [So], I am getting hungry.
- (2) Mari: I'm going to bed now. DATTE  
          [Because] I have to get up early tomorrow morning.

However, these connectives have other uses than expression of a causal relation. DAKARA is used to introduce a reformulation of a previously made utterance as in (3) and DATTE is used to express opposing attitudes towards the partner's utterance as in (4). A question is how these meanings are conveyed.

- (3) Mari: Let's meet at the usual place.  
      Taro: At the usual place?  
      Mari: DAKARA [In other words, I mean]  
          in front of Starbucks.  
          (adopted from Matsui et al. 2001)
- (4) Mari: I heard that Mr. Yamada is sick.  
      Taro: DATTE [But] I saw him jogging this morning.

The goals of this study are twofold: first to propose a semantic and pragmatic analysis of the meanings conveyed by DAKARA and DATTE adopting Sperber and Wilson's

(1985/1995) relevance theory as a framework; and second to test the hypotheses the relevance-theoretic analysis of these connectives may put forward about the acquisition and the use of these connectives by young children.

## Meanings of DAKARA and DATTE

### Relevance Theory

Relevance theory is a pragmatic theory based on assumptions about our cognition. The fundamental idea is that our cognitive system as a whole is geared for greater cognitive efficiency — a positive function of cognitive effects and a negative function of processing effort expended to gain those effects — and that this universal orientation governs all our cognitive activities including utterance comprehension. In processing an utterance, Sperber and Wilson claim, a hearer looks for an interpretation that is *optimally relevant*, which is defined in (5).

- (5) An utterance on a given occasion is optimally relevant if and only if:
- (a) it achieves enough effects to be worth the hearer's attention;
  - (b) it puts the hearer to no gratuitous effort in achieving those effects.

The *principle of relevance* states that every act of ostensive communication conveys a presumption of its own optimal relevance; the speaker, by the very act of addressing someone, guarantees the relevance of her own utterance. This then entitles the hearer to use the following comprehension procedure:

- (6) Relevance-theoretic comprehension procedure.

Follow the path of least effort in computing cognitive effects.

- (a) Consider interpretations in order of accessibility.
- (b) Stop when the expected relevance is achieved.

This implies that there should be only one interpretation that is consistent with the principle of relevance and that the first interpretation that satisfies the hearer's expectation of relevance is the most plausible interpretation that the speaker could have intended.

Relevance theory assumes a modular view of the mind and makes a basic distinction between input systems and the central inferential system. Linguistic decoding is assumed as one of the input systems, and thus supplies input to the inferential phase, where the abstract semantic representation is combined with information from other sources, and (i) is enriched to the proposition intended by the speaker (explicatures), (ii) is embedded under the higher-level representations about the speaker's attitudes toward it (higher-level explicatures), and (iii) gives rise to intended implicatures. Sperber and Wilson's claim is that the identification of both explicatures and implicatures<sup>1)</sup> should be governed by a single pragmatic criterion—the criterion of the consistency with the principle of relevance and that the relevance-guided comprehension procedure presented in (6) applies to all these processes.

Inferential comprehension involves two elements: construction and manipulation of mental representations. Based on this assumption, the theory claims that an utterance can encode two types of information: one that forms part of the conceptual representations and one that provides information about the

manipulation of those representations (Sperber and Wilson, 1986/1995; Blakemore 1987; Sperber and Wilson, 1993). The former semantic type is called *conceptual* and the latter *procedural* encoding.

Procedural information constrains the hearer's inference at the inferential phase of comprehension. It indicates the type of inference that the speaker intends the hearer to go through so that the hearer can attain the right interpretation. The idea of procedural encoding was first put forward in the work of Blakemore (1987) in characterizing the function of English discourse connectives such as *so*, *therefore*, *after all*, and so on. She claims that many of the English discourse connectives encode procedural information constraining the hearer's inference involved in implicature (implicated premises) derivation. Blakemore claims that this encoded procedural information makes certain contextual assumptions more accessible. To illustrate, suppose you hear someone say (7):

- (7) (a) Mary is British. (b) She cooks well.

On hearing (7), you may probably wonder what the speaker's intention is. This should partly be because you don't know what assumption the speaker holds and intends you to construct about English people and their ability to cook. Interpretation of the immediately preceding utterance typically provides the hearer with the assumptions in which a certain utterance is to be interpreted. However, here, segment (a) can give the hearer access to various sorts of assumptions. Blakemore claims that discourse connectives, by highlighting a particular inferential route, make the hearer's selection of contextual assumptions easier: so by instructing the hearer that the utterance it

introduces will achieve relevance as a contextual implication of the first segment, *but* by suggesting that it will achieve relevance by denying some contextual assumption made manifest by the first segment, and *after all* by indicating that it is relevant as evidence for the first segment (8a-c).

- (8) (a) Mary is English; so she cooks well.
- (b) Mary is English; but she cooks well.
- (c) Mary is English; after all, she cooks well.

The questions to be discussed will include whether Blakemore's analysis of English discourse connectives can be applied straightforwardly to the analyses of the Japanese connectives, or whether there may be different types of discourse connectives. I will propose in the next section that DAKARA might encode a procedural constraint on the construction of explicature rather than implicature.

## DAKARA

While it is recognized that DAKARA has at least two functions (i.e., as a causal marker and a reformulation marker), the majority of past analyses have maintained that it encodes a causal relation between two discourse segments as its core meaning. Maynard (1993), for example, defines the 'semantic source' of DAKARA as the following:

DAKARA in [X DAKARA Y] connects discourse segments [X] and [Y] in that [X]<sup>(ii)</sup> provides semantic and/or interactional reason for [Y] to naturally follow.

She argues that the causal reading is recovered when DAKARA functions on the semantic level and the reformulation (or 'explanatory'

as Maynard calls it) reading is recovered when it functions on the interactional level. In this framework, DAKARA used by Mari in (3) is taken as relating Mari's two utterances causally at the 'interactional level'; it suggests that Mari's second utterance should be communicating that 'a relevant conversational move X [Let's meet at the usual place] is already mentioned, so I add an explanatory statement Y [in front of Starbucks]<sup>(iii)</sup>'.

However, this explanation may go against the native speakers' intuition. Consider what can be an interactional reason (= a sufficient cause) for Mari's adding the explanatory statement in (3). Did Mari decide to add the explanatory statement because she has already mentioned a relevant topic or did she do so because Taro expressed his uncertainty about her preceding utterance? An intuitive judgement may probably be the latter. More appropriately, Mari added the explanatory statement to her prior utterance because Taro did not understand what she meant by her mention of 'the usual place'. So, if DAKARA really communicates, as Maynard claims, the interactional reason for uttering [Y], then it should anaphorically refer to Taro's conversational move, not to Mari's previous utterance. This may suggest an adjustment of interpretation, in which Mari's utterance in (3) should be interpreted as communicating that 'a relevant conversational move X [Taro expressed his uncertainty about the identification of 'the usual place'] was made, so I add an explanatory statement Y [in front of Starbucks]. But, then, what becomes of a case like (9) where Mari reformulates her utterance where no conversational move has been made by her conversational partner?

- (9) Mari: Let's meet at the usual place.

DAKARA, in front of Starbucks.

The problem seems to lie in her claim that DAKARA encodes ‘causality’ as its core semantics. As long as one persists in holding the causal view of DAKARA, he/she has to create a separate place for it to function when it does not seem to function on the semantic level.

The first approach to the semantics of DAKARA that challenged the traditional causality-centred view is the analysis by Hamada (1997). She claims that DAKARA does not encode a causal relation in itself but it introduces an ‘interpretation (*kaishaku*)’ of an assumption previously made and that the causality often associated with the use of the connective is in fact one way to present an ‘interpretation’ of an assumption. Hamada argues that DAKARA presents Y (used in the form X DAKARA Y) as an ‘interpretation’ of a premise X, where ‘interpretation’ of X means ‘reformulation’, ‘abstraction’, ‘deduction’, or ‘the presentation of consequence’ of X.

Hamada’s analysis of DAKARA seems to be on the right track. She suggested for the first time that the identification of causality might depend on context. Her analysis shed light on the single semantics of DAKARA. However, Hamada’s analysis lacks persuasiveness for it fails to define the notion ‘interpretation’ sufficiently. Her definition of ‘interpretation’ sounds rather ad hoc; the term ‘interpretation’ is just a summary of those various functions. Interestingly and coincidentally, the notion of ‘interpretation’ specifically defined in relevance theory seems to be useful in describing the function of DAKARA, though the sense in which it is used in relevance theory is fundamentally different from what Hamada suggests.

Utterances and thoughts are representations; they represent something. Depending on what they represent, Sperber and Wilson claim, they are differentiated into *descriptive* and *interpretive* use of representations. When an utterance or a thought is used to represent a state of affairs by virtue of its propositional content being true of that state of affairs, they say that the representation is a *description* of the state of affairs, or that it is used *descriptively*. When an utterance or a thought is used to represent some other representation — other utterances or thoughts — by virtue of resemblance between two propositions, they say that the representation is an *interpretation* of that original representation or that it is used *interpretively*. Consider Mari’s utterance in (10).

(10) Taro: What did the professor say?

Mari: I’m sorry. I’m busy at the moment.

Mari’s utterance can be understood in two ways; one possibility is that she is talking about her own situation that she is busy. In this case, according to the distinction above, she used her utterance as a *description* of the state of affairs. The other possibility is that Mari is reporting the professor’s words and in that case, we say, her utterance is an *interpretation* of the professor’s utterance.

A representation is used *interpretively* (as a representation of another representation) by virtue of resemblance. According to Sperber and Wilson’s account, two representations resemble each other to the extent they share logical and contextual implications<sup>iv</sup>). Resemblance is a matter of degree. When an utterance shares all logical and contextual implications with the original representation, it becomes a *literal interpretation* of the original,

and when it shares only some logical or contextual implications with the original representation, the utterance becomes a *less than literal interpretation*. Suppose that Mari's utterance in (10) is a direct quotation of the professor's utterance. Then, it is a case of literal interpretation. Mari could have presented a less than literal interpretation of the professor's utterance by saying (11), for example.

(11) He doesn't have time to talk to me now.

Now, what I wanted to show is that the meaning of DAKARA might be defined by using this relevance-theoretic notion of *interpretation*. Following the pioneering analysis by Matsui (2000)<sup>v)</sup>, I maintain that the utterance introduced by DAKARA is used *interpretively*, and that DAKARA overtly marks that the utterance it introduces is an interpretive representation of some other representation that is mutually manifest<sup>vi)</sup> in context. Consider (12) below;

(12) Mari: Professor, I need to talk to you.  
Professor: I'm sorry I'm terribly busy at the moment.  
Mari: I've been thinking about a topic of my thesis and ...  
Professor: DAKARA, I'm terribly busy at the moment.

Here, I claim, the utterance introduced by DAKARA in the professor's second utterance is intended to achieve relevance as an *interpretation*, in this case a literal interpretation, of his original utterance. The professor could indicate clearly that the original representation is his own utterance by saying;

(13) DAKARA, I said/I'm saying I'm very

busy at the moment.

Or, he might present a less than literal interpretation of his utterance as Mari did in interpreting the professor's utterance in (11).

(14) DAKARA, (I'm saying) I don't have time to talk to you right now.

(14) is a case of reformulation (rather than a replication); the professor reformulated his utterance perceiving that Mari did not understand the intent of his previous utterance. Since the relevance of *interpreting* another representation should include a confirmation of the relevance of the original representation, reformulation, in many cases, may achieve the goal better than a mere replication.

It is also possible that the professor presents reformulation soon after his first utterance as in (15).

(15) Mari: Professor, I need to talk to you.  
Professor: I'm terribly busy at the moment. DAKARA, I don't have time to talk to you right now.

In (15), DAKARA may give rise to a causal reading. But, in this case, too, I argue that what DAKARA communicates is the information that the proposition that follows is an interpretive representation of an assumption that the professor believes his first utterance has made manifest. The causality, if it is recovered, might be recovered as a result of the way the hearer's mind organizes information in a relevant way.

There are cases where the source representation that DAKARA should be used to introduce an interpretation of is not expressed in the immediate context. Consider (16) and (17).

(16) Mother: Eat your dinner quickly.

Child: DAKARA, I'm eating it now—  
*desho?*

(17) Taro: What shall we do today?

Mari: DAKARA, we are going shopping  
—*desho?*

In these cases, though there is no source representation verbally expressed, the employment of DAKARA suggests that there is a source representation that the speaker believes is manifest to both the speaker and the hearer, and by overtly saying that, the speaker might express her disapproving attitude towards the indifferent partner. In (16), the child is communicating that she believes that the fact that she is eating dinner should be manifest to the mother as she is doing that in the mother's visual environment, and thereby expressing her attitudes of irritation or complaint towards the mother. In the same way, Mari in (17), by introducing her utterance by DAKARA, communicates that the idea that they are going shopping on that day should be manifest to Taro, probably because they have agreed to do so sometime in the past. Mari's utterance may achieve relevance not only by reminding Taro of the content of their promise but also by expressing a disapproving attitude about the fact that he didn't remember the promise.

Whether an utterance is used *descriptively* or *interpretively* is the information concerning the representation at the higher-level explicature. The hearer of an utterance with a proposition Q that is used as an *interpretation* of a representation P will construct a higher-representation of the form 'The speaker believes that Q is a faithful representation of P' rather than the form 'The speaker believes Q' (Blakemore, 1996, p.340). So, if DAKARA

is a marker of interpretive use of the utterance, then it suggests that it contributes to the higher-level explicature construction rather than the implicature derivation.

The characterization of DAKARA as a marker of interpretive use of an utterance may approximate it to English apposition markers such as *in other words*, or *in short* rather than to the discourse connectives. These apposition markers are analysed by Blakemore (1996) as encoding *conceptual* information marking the interpretive use of the utterance. An expression with conceptual meaning should be susceptible to semantic compositional rules; it should combine with other concepts to form larger, semantically and syntactically complex conceptual representations. The English apposition markers given above are themselves composed of a combination of concepts, and, moreover, they are productive; they can produce more complex expressions such as *to put it in other words*. On the other hand, DAKARA does not seem to combine with any other concept to make a larger concept. Also, in the case of English apposition markers, you know exactly how the speaker presents an interpretation of the original representation: e.g. by introducing an utterance by *in other words*, the hearer knows that the utterance will be an other, alternative, way to communicate what she wanted to communicate. Humans can bring to consciousness the meaning of conceptual expressions. However, the meaning of DAKARA is extremely difficult to bring into consciousness as may be proved by the fact that many attempts to analyse the meaning of the connective in the past have been refuted one after another. Such evidence supports the procedural analysis of DAKARA.

## DATTE

DATTE is also recognized to have two functions—‘to provide a reason/cause for the preceding statement and to express feelings of opposition toward one’s partner’s words (Yokobayashi & Shimomura, 1988, pp. 38–39)’. Examples (2) and (4) below are illustrations of the two functions, respectively.

(2) Mari: I’m going to bed now. DATTE  
[*Because*] I have to get up early  
tomorrow morning.

(4) Mari: I heard that Mr. Yamada is sick.

Taro: DATTE [*But*] I saw him jogging  
this morning.

In the traditional view that DATTE basically encodes a causal (conclusion-reason) relation, the use of DATTE in (2) is considered as basic and the use of it in Taro’s utterance in (4) is explained as a case in which a conclusion statement is omitted (not expressed linguistically) (See (18) in which a probable conclusion of Taro’s utterance in (4) is recovered). This way, by attributing a conclusion-omitting function to the turn-initial DATTE, researchers (e.g., Oki, 1996, 1997) have maintained the causal semantics of the connective.

(18) (Mr. Yamada cannot be sick) DATTE  
[*Because*] I saw him jogging this morning.

If DATTE encodes a causal relation as many researchers claim, where does the opposition sense come from? There are basically three views on this. The first view is that the opposition sense is not essential to the use of DATTE; the second is that opposition is in the context; and the third view suggests that

opposition is in the meaning the connective expresses.

Oki (1996, 1997) takes the first view. She claims that the connective’s single semantics is ‘reason explanation’ and that the opposition is a pragmatically recovered sense taking ‘non-linguistic situation’ into consideration. However, her analysis does not explain why DATTE used in a fragmentary utterance (as in (19)) always gives rise to an opposition reading. Mari’s fragmentary DATTE utterance below is not understood to indicate her agreement to Taro’s invitation.

(19) Taro: Will you make a date with me?  
Mari: DATTE [*But*].

The second view is put forward by Maynard (1993). She claims that DATTE is used with the intention to support the position [P] in the context of opposition/contrast against [P]. In other words, she claims that DATTE is used where there is a dispute of opinions between the speaker and the hearer. She argues that the connective’s “raison d’être lies in the speaker’s intention to declare his or her own speech action in conversation, i.e., supporting the position the speaker is associated with, with the intention to justify one’s own position (p. 99)” suggesting that the meaning of DATTE is a ‘residual’ of the propositional meaning. Her analysis may be on the right track in describing the function of DATTE. Also, she may be right in that she argues that the meaning of DATTE is not explained truth-conditionally, but is insufficient without alternative semantic justification.

Hasunuma (1995) attempts to include the opposition element in the meaning that DATTE expresses. She proposes that underlying DATTE is a three-term-logical relation



[X but P because Q] where X is the addressee's position, P is the speaker's own position and Q is the reason/cause that justifies P. She claims that the differences of interpretation depend on whether the contrast relation [X but P] part is tangible or not.

However, Hasunuma's analysis is insufficient in that she fails to present a clear position as to what information DATTE semantically encodes. She herself expresses her dilemma as the following: "...the problem is where to draw a dividing line between semantics and pragmatics. In other words, it is a problem whether the 'objecting' sense identified in the uses of DATTE should be analysed as a 'semantic' meaning or a 'pragmatic' meaning. My analysis of the problem is still on-going and I have not yet come to present a clear theoretical standpoint ... (Hasunuma, 1997, pp.211-212)". I believe relevance theory can provide the framework. Part of Hasunuma's problem seems to lie in her attempt to define the meaning of the connective conceptually.

Using the framework of relevance theory, I argue that DATTE is more appropriately defined in procedural terms. The function of DATTE is to constrain the relevance of an utterance that it introduces. But unlike many English discourse connectives, I argue that DATTE constrains the relevance of the utterance by virtue of two constraints, which are spelled out below;

#### (20) Semantics of DATTE

Constraint 1: The proposition Q conveyed by the utterance following DATTE is relevant as evidence that justifies and thus strengthens the assumption P that the speaker holds.

Constraint 2: The proposition Q con-

veyed by the utterance following DATTE is relevant as evidence for an assumption that is inconsistent with, and thus weakens, an assumption O that the speaker attributes to the hearer (or an indefinite person).

The two constraints given above are not always equally weighted. When a DATTE utterance follows the speaker's expression of her own position as in Example (2), the first effect is foregrounded, giving rise to a *because*-reading, and when it is produced as a response to the conversation partner's expression of his position as in (4), the second effect is foregrounded, giving rise to a *but*-reading. Even in the first case, where there is no challenge expressed by the hearer, I argue that the speaker presumes beforehand the possibility of being challenged (i.e., attributes a challenging assumption to the partner) and presents Q as contradicting evidence against the presumed challenge. This explains the general observation that DATTE in the uses like (2) can give a nuance of defence or excuse.

My analysis of DATTE explains the comprehension of fragmentary DATTE utterances such as (19) above. The causal semantics does not explain why a fragmentary DATTE always gives rise to an opposing sense-why Mari's utterance in (19) is understood as suggesting that Mari is not willing to accept Taro's invitation. In (19), the only assumption that is expressed linguistically is Taro's (the hearer's) position (O) and this is the most accessible context in which Mari's DATTE utterance is intended to achieve relevance. In this context, therefore, the second (Constraint 2) effect is foregrounded and gives rise to a *but*-reading. Here, Mari, by the use of DATTE, suggests that she has some

thought in her mind that is contradictory to the assumption (O). With this suggestion being transmitted to Taro, the relevance of Mari's utterance may be achieved. As Mari does not specify Q by virtue of which O is weakened (and thereby an unstated P is strengthened), Mari's DATTE utterance gives Taro the responsibility to provide Q. Depending on the evidence Taro may supply, an unstated P may be further implied. Thus, P, in this case, constitutes a set of rather weak implicatures. These include the possibility that Mari is not necessarily refusing Taro's invitation as Morita (1983) would claim (Morita explains that when DATTE is used in response to the partner's invitation, it introduces a reason for 'refusing' his invitation). To give one example, the assumption (21) can be within the range of effects constrained by DATTE; it weakens (but not necessarily denies) O and may justify an assumption such as, *I cannot answer right now*.

(21) I need to ask my mother.

In the next section, I will discuss the metarepresentational abilities involved in the uses of DAKARA and DATTE and observe young children's use of them. The semantic analysis of DAKARA and DATTE in this study suggests that the adult uses of these connectives require *metarepresentational abilities* in the individual who uses them.

### **Development of Metarepresentational Abilities of Children: Evidence from the Use of DAKARA and DATTE**

A metarepresentation is a representation of a representation, where a lower-order representation is embedded under the higher-order

representation. The most widely studied metarepresentational ability may be our ability to form a thought about other people's thought. This metapsychological ability is known as 'theory of mind'.

Since Grice, utterance comprehension has been recognised to be ultimately a metapsychological process, too, in which the hearer inferentially retrieves the speaker's intention on the basis of evidence (i.e., the utterance) provided by the speaker. It is the process of forming a higher-order representation of a representation attributed to the speaker. It might be assumed that the attribution of a speaker's meaning is no different from attribution of a thought, which is performed by the theory of mind mechanism. Sperber and Wilson argue that they are different<sup>vii</sup>.

Sperber and Wilson claim that humans have evolved a metapsychological mechanism specialised in communicative stimuli, which they call the *metacommunicative* or *comprehension module* as a sub-module of the general metapsychological ability. This is the ability to attribute the speaker's meaning conveyed by an utterance in communication. Sperber (2000) suggests that the comprehension module of a person automatically detects a communicative intention directed to that person and launches the inferential procedure based on relevance. Sperber suggests that this domain-specific metacommunicative ability might develop earlier than general metapsychological ability.

The claim that DAKARA introduces an *interpretive* representation of a further representation implies that the use of DAKARA requires metarepresentational abilities in the individual who uses it. DAKARA in many cases presents an *interpretation* (representation) of an assumption made manifest by a

prior utterance as is the case in Examples (1) and (2). This is a metarepresentation of an utterance, and thus requires metacommunicative ability. However, DAKARA can also present an *interpretation* of an assumption that the speaker believes is mutually manifest in the context where no utterance has been previously made as Examples (16) and (17) show. This is the process in which the speaker inferentially attributes an assumption to the hearer and it requires metapsychological ability.

DATTE is used to indicate that what follows the connective is intended as evidence to justify an assumption that the speaker commits herself to, and at the same time, as counterevidence against assumptions that the speaker attributes to the hearer. I have suggested that there are two ways in which the speaker attributes to the hearer opposing assumptions: one way, as assumptions that the speaker believes the hearer intended to make manifest by his utterance, and the other way, inferentially, where there is no linguistic or any other communicative sign suggesting opposition. If that is the case, the former use requires metacommunicative, and the latter, metapsychological ability.

In the psychological literature, it is reported that the theory of mind mechanism, i.e., the metapsychological ability, fully develops around age four (e.g., Wellman, 1990). On the other hand, Sperber's (2000) speculation of the domain specificity of metacommunicative ability suggests that it might develop earlier than the development of general metapsychological ability. Based on these assumptions, it can be hypothesized that children before the critical age of four can use DAKARA and DATTE with their metacommunicative use.

Young children's uses of DAKARA and

DATTE were abstracted from two kinds of data - Japanese children's speech corpus JCHAT (Miyata, 1992, 1993, 1995, & 2000) and experimentally elicited data by Matsui et al. (2001) - and studied to see if the above hypothesis was supported<sup>viii</sup>.

The data analysis supported the hypothesis in general. The analysis revealed that children started to use the target connectives between the ages of two and two and a half. Altogether 94 instances of DAKARA and 78 of DATTE were observed. As far as the instances observed in the study are concerned, all instances of DAKARA, and all except one instance of DATTE, were identified as uses that involve metacommunicative ability: DAKARA was used to present an *interpretation* of an utterance the children have produced and DATTE was used in the context where a challenge was linguistically expressed by the conversation partner. A clear case of metapsychological use of the connectives was not observed. A possible speculation about the acquisition of the connectives is that children first learn that the DAKARA utterance is used as an *interpretation* of an utterance and this allows children to understand that DAKARA is a marker indicating the interpretive use of an utterance. Then, being aware that adult interlocutors use the same term to *interpret* an assumption that is manifest in the context even when it is not expressed, they know that DAKARA can represent mental representations as well. With respect to DATTE, by having their beliefs challenged explicitly, children begin to understand that others can have different thoughts than they do. Then later they learn to entertain possible challenges even when they are not overtly communicated.

The present research was a preliminary inves-

tigation of the development of metarepresentational abilities approached through children's use of discourse connectives. More data - collected from longitudinal observation, collected from more children, collected in natural settings and by a more controlled experiment, should to be studied in the future.

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- i) For the relevance-theoretic definitions of the terms, *expliciture*, *higher-level expliciture*, *implicature*, please refer to Sperber and Wilson (1986/1995), Chapter 4.
- ii) This is indicated as [Y] in Maynard's original, but as it is a clear case of a typo, I correct it to [X] in order to prevent confusion.
- iii) Maynard specifies in her definition of the interactional function of DAKARA that it 'provides the general meaning of "[X] is already mentioned in the current discourse, so I add an explanatory statement relevant to [X]" (Maynard, 1993, p.87)'
- iv) The *logical implication* of a representation P is an implication derivable from P by analytical inference using only P as input. On the other hand, the *contextual implication* of a representation P is an implication by synthetic inference from P by the union of the context.
- v) My analysis of DAKARA owes much to Matsui's work. Our differences of opinions are discussed in my Ph D dissertation, Yamamoto (2002).
- vi) In relevance theory, an assumption is said to be *manifest* to an individual to the extent that he/she is capable of constructing and accepting it as true or probably true (i.e., to the extent there is sufficient evidence in a cognitive environment for that person to adopt it).
- vii) See Sperber (2000) and Wilson (2000) for detailed discussion.
- viii) The research method is described in detail in Yamamoto (2002).