

On the Acquisition of Causatives in Japanese*

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1. Introduction

In Japanese, there is a productive causative form, that is, a typical Japanese morphological causative involving the causative morpheme *-(s)ase*, as shown in (1).¹

- (1) Taroo-ga Hanako-ni hon-o yom-(s)ase-ta
Taroo-NOM Hanako-DAT book-ACC read-CAUS-PAST
'Taroo made Hanako read the book'

It has been assumed that Japanese morphological causatives are biclausal. Matsumoto (1998, 2000a, 2000b, 2000c), however, argues that there are causative sentences that exhibit mono-clausal properties, 'the lexical *-(s)ase* causative' in a term coined by Matsumoto. The following example is of this type:

- (2) Sono onnanoko-ga ningyoo-ni kutu-o hak-(s)ase-ta
That girl-NOM doll-DAT shoes-ACC put on-CAUS-PAST
'The girl put shoes on a doll.'

In studies of the acquisition of Japanese causatives, it has been reported that the morpheme *-(s)ase* is used at a relatively early period and at this point children can create sentences that have biclausal structures. However, if we closely look at the interpretation of the early utterances of causative sentences, we find that they are lexical causatives not syntactic causatives. Accordingly, we can posit that the lexical *-(s)ase* causative is acquired earlier than "regular" causatives.

In this paper, we will investigate the acquisition process of the Japanese causative construction which employs the morpheme *-(s)ase*. We will show that the lexical *-(s)ase* causative is acquired early, and provide support for Matsumoto's hypothesis that causative constructions with the morpheme *-(s)ase* are structurally ambiguous: they may have a complex structure with *-(s)ase* as an independent verb as generally assumed in the literature, but they may also have a simple structure with a non-agentive causee and *V-(s)ase* as the predicate. In the following section, we will survey morphological causatives in Japanese and introduce Matsumoto's proposal about the lexical *-(s)ase* causative. In section 3, based on a five-year-longitudinal-observational study with a Japanese speaking child, we will show that Japanese morphological causatives are acquired in three steps. First, causative sentences are produced without the morpheme *-(s)ase*, and then sentences with a non-agentive causee are observed. Finally, children acquire more "regular" causatives with an agentive causee. Here we will point out that the acquisition of syntactic causatives, which are widely assumed to have an embedded structure, is in fact rather late. Section 4 concludes this paper.

2. Japanese Morphological Causatives

2.1. Morphological Causatives

In Japanese, causative verbs are productively formed by attaching the causative morpheme *-(s)ase* to verb stems. The examples (3) and (4) show the possible patterns in Japanese morphological causatives.

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¹ The first consonant of the causative morpheme *-(s)ase* is dropped when it is attached to verbs that end with a consonant.

- (3) a. Taroo-ga Hanako-o (niwa-de) asob-(s)ase-ta
 Taroo-NOM Hanako-ACC (garden-in) play-CAUS-PAST
 ‘Taroo made Hanako play (in the garden).’
- b. Taroo-ga Hanako-ni (niwa-de) asob-(s)ase-ta
 Taroo-NOM Hanako-DAT (garden-in) play-CAUS-PAST
 ‘Taroo let Hanako play (in the garden).’
- (4) Taroo-ga Hanako-ni/*-o tegami-o kak-(s)ase-ta
 Taroo-NOM Hanako-DAT/*-ACC letter-ACC write-CAUS-PAST
 ‘Taroo let/made Hanako write a letter.’

As shown in (3), when the embedded verb is intransitive (unergative), the causee can be marked either with the accusative or dative case. As is indicated in the English translation, the interpretations differ between (3a) and (3b). The coercive interpretation is easy to arrived at when the causee is in the accusative, while it is said that the permissive interpretation is easily obtained when the causee is dative.

The distinction in the case marker on a causee does not appear when the embedded verbs are transitive as shown in (4). This is because of the Double-*o* Constraint (Harada, 1973; Inoue, 1976; Kuroda, 1965; Shibatani, 1973), which prohibits more than one NP marked with *-o* in one tensed clause.

It has been assumed that Japanese morphological causatives are biclausal (Kuroda, 1965; Kuno, 1973; Shibatani, 1976; Inoue, 1976 etc.). We have some evidence for the biclausality of causative sentences: the reflexive pronoun *zibun* ‘self’ and Condition (B) of the binding theory, for example.

Japanese reflexive pronoun *zibun* can only take a subject as its antecedent:

- (5) Taroo_i-ga Hanako_j-ni zibun_{i/*j}-no hon-o age-ta
 Taroo-NOM Hanako-DAT self-GEN book-ACC give-PAST
 ‘Taroo gave Hanako his/*her book.’

In (5), where the ditransitive verb is used, the subject *Taroo* can behave as the antecedent of *zibun* but the indirect object *Hanako* cannot.

In morphological causatives, however, the interpretation of *zibun* is ambiguous:

- (6) Taroo_i-ga Hanako_j-ni zibun_{i/j}-no namae-o kak-(s)ase-ta
 Tao-NOM Hanako-DAT self-GEN name-ACC write-CAUS-PAST
 ‘Taroo made Hanako write his/her name.’

(6) shows that both *Taroo* and *Hanako* can behave as the antecedent of *zibun*. This means that both *Taroo* and *Hanako* function as a “subject”. On the assumption that a clause has one and only one regular “subject”, this fact shows that the morphological causatives have a biclausal structure.

Binding Condition (B) also provides evidence for the biclausality of causative sentences.

- (7) a. * Hanako_i-ga kanozyo_i-o hihansi-ta
 Hanako-NOM she-ACC criticize-PAST
 ‘Hanako criticized her.’
- b. Hanako_i-ga Taroo-ni kanozyo_i-o hihans-(s)ase-ta
 Hanako-NOM Taroo-DAT she-ACC criticize-CAUS-PAST
 ‘Hanako made Taroo criticize her.’

In (7), *Hanako* and *kanozyo* ‘she’ – cannot refer to the same person. This is due to Condition (B) of the binding theory, which prohibits coreference between a name and a pronoun that are clause-mates. On the other

hand, this type of coreference is allowed in the case of the causative sentence (7b). This shows that the name and the pronoun are not clause-mates in (7b), that is, the example has a structure with embedding.

From these facts presented above, it has become generally accepted that all morphological causatives in Japanese have biclausal structures.

2.2. The Lexical *-(s)ase* Causatives

Because of productivity, it has been said that all morphological causatives have biclausal structures. However, Matsumoto has argued in recent articles that there are sentences that do not exhibit biclausal properties. When the following verbs are followed by *-(s)ase*, the sentence is ambiguous:

(8)	<i>haku</i>	‘put ... on one’s own body’	<i>matou</i>	‘put ... on, wrap oneself in’
	<i>taberu</i>	‘eat’	<i>kuu</i>	‘eat’
	<i>nomu</i>	‘drink’	<i>suu</i>	‘suck’
	<i>siru</i>	‘come to know’	<i>kiku</i>	‘hear’
	<i>motu</i>	‘come to have’	<i>nigiru</i>	‘grip’
	<i>ou</i>	‘carry ... on one’s back’		

(Matsumoto, 2000c:144)

- (9) a. Taroo-ga Hanako-ni kutu-o hak-(s)ase-ta
 Taroo-NOM Hanako-DAT shoes-ACC put on-CAUS-PAST
 ‘Taroo made Hanako put on the shoes.’
- b. Taroo-ga Hanako-ni miruku-o nom-(s)ase-ta
 Taroo-NOM Hanako-DAT milk-ACC drink-CAUS-PAST
 ‘Taroo made Hanako drink milk.’

(9a-b) are ambiguous, as shown in (10) and (11) respectively.

- (10) a. Taroo gave an order to Hanako and made her put on shoes.
 b. Taroo put shoes on Hanako’s feet.
- (11) a. Taroo ordered Hanako to drink milk.
 b. Taroo feed Hanako milk.

In (10a) and (11a), *Hanako* is interpreted as an agent, while in (10b) and (11b), *Hanako* does not seem to be an agent but instead a goal.

The two interpretations, however, are disambiguated in the case of (12).

- (12) a. Sono onnanoko-ga ningyoo-ni kutu-o hak-(s)ase-ta
 that girl-NOM doll-DAT shoes-ACC put on-CAUS-PAST
 ‘The girl put shoes on a doll.’
- b. Sono onnanoko-ga ningyoo-ni miruku-o nom-(s)ase-ta
 that girl-NOM doll-DAT milk-ACC drink-CAUS-PAST
 ‘The girl fed a doll with milk.’

Since *ningyoo* ‘doll’ cannot be an agent, (12a-b) only have the interpretation where it is a goal. Matsumoto (1998, etc.) points out that (12a-b) represent the same kind of meaning as (13), where the lexical causative verb or the ditransitive verb *kiseru* ‘put ... on, dress’ is used.

- (13) Taroo-ga manekin-ningyoo-ni sono huku-o kise-ta
 Taroo-NOM mannequin-DAT the clothes-ACC put on-PAST
 ‘Taroo put the clothes on the mannequin.’

Matsumoto goes on to point out that causative sentences like (12) do not have a complex structure with an embedded clause. Instead, it has only one verb of the form *V-(s)ase*. This confirmed by the example in (14).

- (14) Hanako_i-ga umaretabakari-no akatyan_j-ni zibun_{i/*j}-no kutusita-o hak-(s)ase-ta
 Hanako-NOM newly born-GEN baby-DAT self-GEN socks-ACC put on-CAUS-PAST
 ‘Hanako put her socks on the newly born baby.’

As a newly born baby cannot be an agent, the dative phrase in (14) is only interpreted as a goal. *Zibun* in this example unambiguously refers to *Hanako* and not to the newly born baby.

This analysis implies that *-(s)ase* is ambiguous in the adult grammar of Japanese. When it is an independent verb, it takes a *vP*-projection as its complement and yields a complex structure. In this case, the dative phrase is interpreted as an agent. In the other case, it can combine with a verb and yield a morphologically complex verb *V-(s)ase* to yield a simple sentence with no embedding. The dative argument in this case is interpreted as a goal. It implies that the morphologically complex verb *V-(s)ase* can be analyzed as a ditransitive verbs.

(15) summarizes the syntax of Japanese morphological causatives we assume in this paper.

- (15) There are two types of *-(s)ase*:
- a. Syntactic causative *-(s)ase*:
 - (i) It takes a *vP*-projection as its complement.
 - (ii) It makes a complex structure.
 - (iii) The dative phrase is interpreted as an agent.
 - b. Lexical causative *-(s)ase*:
 - (i) It yields a morphological complex verb *V-(s)ase*.
 - (ii) It makes a simplex sentence with no embedding.
 - (iii) The dative phrase is interpreted as a goal.

3. The Acquisition of Japanese Morphological Causatives

In this section, we will show how Japanese morphological causatives are acquired. We will show that some differences are observed between the lexical *-(s)ase* causative and the “regular” syntactic causatives in the acquisition of causatives, and that the lexical *-(s)ase* causative is produced at the same stage as the ditransitive construction.

3.1. The Data

Our data are based on a longitudinal-observational study by Hashimoto and Murasugi with a Japanese-speaking child, Akkun, over the period of five years.

In the following section, we will discuss the early stage in the acquisition of verbs and the process of the actual forms of the verbs. We argue that there are some utterances with no overt verbs but exhibit ditransitive meaning in the very early stage. We then outline the next stage where the light verb *suru* occurs productively in similar utterances. Next, we present some consistent “mistakes” made in this process. Finally, we present data on the acquisition of causatives. Syntactic causatives in Japanese are widely assumed to have embedded structures, and their acquisition is rather late, whereas our data indicate that a specific kind of syntactic causatives, that is lexical *-(s)ase* causatives, show up relatively early.

3.2. The Acquisition of Causatives

3.2.1. Stage I: the acquisition of ditransitive

Akkun's typical utterances around the age 2 are shown in (16)-(18). In all of the following examples, there is no verb. However, the number of arguments and the intended meaning show that the verb *give* is missing.

- (16) Koe, Papa, hai doozyo ∅ (2;0) (theme-goal)
This daddy please
'This one. (I want to give it) to Daddy.'
- (17) Motto, koe, buubu ∅ (2;1)
More this water
'(I will give) more water to this.'
- (18) Koe, Akkun, Mama, hai doozyo ∅ (2;5) (theme-goal-source)
This Akkun mommy please
'Mama, please give this to Akkun(/me).'

In (17), there is no verb, and the verb *give* is missing. In (16) and (18), *hai doozyo* appears at the end of the utterance. It literally means 'yes, please', and Akkun is using it to express the meaning of *give* or possibly the transfer of an item from one person to another.

At around 2;5, however, the light verb *suru* 'do' occurs in his utterance. Akkun started placing *tiyu*, whose adult counter part is *suru* 'do', at the end of utterances quite productively. Some examples are shown from (19) through (24).

- (19) Mama, Akkun **hai-doozyo tiyu** (2;5) (goal-agent)
Mommy Akkun please do
'Akkun(/I) will give it to Mommy.'
- (20) Kotyan koe Akkun **hai-doozyo tiyu** (2;7) (goal-theme-agent)
Kotyan this Akkun please do
'Akkun(/I) gives this to Kotyan.'
- (21) Mama, Akkun koe **paku tiyu** (2;7) (goal-agent-theme)
Mommy Akkun this *onomatopoeia* do
'Akkun(/I) will put this into Mommy('s/your mouth).'
- (22) Koko **maamoi maamoi tiyu** (2;9)
Here circular circular do
'(Please) draw a circle here.'
- (23) Akkun nezi **kuyukuyu tite**, kono ko syabeyu (2;9)
Akkun winding around do this one talk
'When Akkun(/I) will wind this one around, it will talk.'
- (24) Mama, otitayo. Akkun-ga **poi tita** kaya (3;0)
Mammy fell Akkun-NOM *onomatopoeia* did because
'Mommy, (it) fell (on the floor), because Akkun(/I) threw (it down).'

In the above examples, the "predicates" that appear right before *tiyu* are typically onomatopoeic expressions.

For example, *paku* in (21) is sound that describes a person putting a food into his or her mouth or food going into a person's mouth. The utterance means 'Akkun put this in Mother's mouth'. *Maamoi* in (22), which corresponds to *marui* in adult speech, means 'circular'. Akkun said this to his mother, meaning 'I ask you to write circles here'.

The adult counter part of *tiyu, suru* 'do', can assign the agent role, like English verb *do*. It can be conjectured that Akkun uses *tiyu* in order to express the agentivity, and produce agentive ditransitives productively based on his grammar at the time.

3.3.2. Stage II: the acquisition of the lexical items for ditransitives

As we have seen in the previous section, by the age around 3, Akkun begins to produce ditransitive sentences using the light verb *tiyu (suru)* 'do'. What Akkun then needs to do is to acquire the actual lexical items for ditransitives. His acquisition of actual verbs starts early and proceeds step by step. He can produce unaccusative sentences with correct verb forms at around 3 years old:

- (25) Dango-ga, uta pakan tite, dango-ga **atta** (2;9)
 Dumpling-NOM lid *onomatopiea* do dumpling-NOM there-be
 'A dumpling. There is a dumpling (when I) opened the lid (of the box).'
- (26) ...Akkun-no papa-ga muti yatta toki, ame-ga **hutta** (3;0)
 Akkun-GEN daddy-NOM mosquito did when rain-NOM rain
 'When...Akkun's(/my) daddy lit a mosquito coil, it rained.'

The ditransitive verb *ageyu*, which means 'give' and corresponds to *ageru* in adult Japanese, appears at 2;7, and its past counterpart *ageta* 'gave' also appears at 2;10:

- (27) Mama tyotto ageyu (2;7)
 Mommy a little give
 'Mommy, (I will) give you a little bit.'
- (28) Kinnou Akkun akatyan toki papa ni koe ageta (2;10)
 Sometime ago Akkun baby when daddy to this gave
 'Akkun gave this to Daddy sometime ago, or when he was a baby.'

At this stage, an interesting phenomenon is observed. Akkun keeps making a systematic "mistake" concerning transitive-unaccusative pair constructions. In Japanese, there are lots of transitive-unaccusative pairs that are morphologically related. The examples of such pairs are shown in (29) and sentential examples in (30) and (31).

- (29) a. *miseru* 'show' / *miru* 'see'
 b. *utusu* 'copy' / *uturu* 'get copied'
 c. *todokeru* 'deliver' / *todoku* 'get delivered'
 d. *osieru* 'teach' / *osowaru* 'be taught'
- (30) a. Taroo-ga Hanako-o syasin-ni utus-u
 Taroo-NOM Hanako-ACC picture-IN copy-PRES
 'Taroo takes a picture of Hanako'
- b. Hanako-ga syasin-ni utur-u
 Hanako-NOM picture-IN get copied-PRES
 'Hanako appears in a picture'

- (31) a. Hanako-ga hon-o Taroo-ni todoke-ru
 Hanako-NOM book-ACC Taroo-DAT deliver-PRES
 'Hanako delivers a book to Taroo'
- b. Hon-ga Taroo-ni todok-(r)u
 book-NOM Taroo-DAT get delivered-PRES
 'A book is delivered to Taroo'

Let us now consider the mistakes that Akkun made. Akkun frequently used unaccusatives for transitives and unaccusatives with two arguments for ditransitives, but never vice versa. Note that this kind of mistake continues for two years up to the age 4;8. Some examples are provided in (32)-(37).

- (32) Koe ziityan-ni **miyu** (2;9)
 This Grandpa-DAT see
 '(I will) show this to Grandpa.'

Instead of *show*, we have *see*. This is the usage of the transitive (unaccusative) form for the ditransitive verb.

- (33) Akkun ima kaya koe **nayabu** (2;11)
 Akkun now from this be in line
 'From now, Akkun will put these in line.'

Instead of *put...in line*, we have *be...in line*. This is the usage of the unaccusative form for the transitive verb.

- (34) Nee, ati-o **hirogatte** (3;7) (Akkun is requesting)
 INT legs-ACC spread (vi.)
 'Please, spread your legs.'

Instead of *spread* (vt.), we have *spread* (vi.). This is the usage of the intransitive form for the transitive one "make something spread."

- (35) Kore, **ai**-toku kara saa (4;5)
 this open (vi.)-keep as INT
 '(I will) open this and keep it open, so...'

Instead of *open* (vt.), we have *open* (vi.). This is the usage of the unaccusative form for the transitive one "leave something open."

- (36) Kono yatu ni isi-o **doite**-moratte nee (4;6)
 This thing by rock-ACC remove-have INT
 '(I) have the rocks removed by this one.'

Instead of *remove* (vt.), we have *remove* (vi.). This is the usage of the unaccusative form for the transitive one "have something removed."

- (37) **Todok**-okka, ano hito ni **todok**-ou **todok**-ou (4;8)
 arrive-Let's that person to arrive-Let's arrive-Let's
 'Let's send (it). Let's send (it) to that person.'

Instead of *send*, we have *arrive*. This is the usage of the unaccusative form for the ditransitive verb.

It should be noted that all this happens in the process of the acquisition of actual lexical items. So, the correct forms are occasionally used along with the incorrect ones. Consider the following examples:

- (38) a. Baatyan-ni koe mityeyu (2;10) (cf. (32))
 Grandma-DAT this show
 ‘(I) show this to Grandma.’
- b. Tigau. Ake-toku dake (4;5) (cf. (35))
 No open (vt.)-keep just
 ‘No. (I will) just keep it open.’

Around the same time as Akkun uttered (32) using *miru* ‘see’ instead *miseru* ‘show’, he produced (38a) with the correct form of the verb. Similarly, in the same month as he uttered (35) with the unaccusative *aku* ‘open (vi)’, he produced (38b) with the correct *akeru* ‘open (vt.)’.

3.2.3. Stage III: the acquisition of the lexical *-(s)ase* causative

The *V-(s)ase* form is not used in the context where it is used. Akkun just used regular verbs, and the causative morpheme *-(s)ase* is missing. The examples are shown in (39)-(41).

- (39) Mama Akkun non-de (2;8) (Akkun is requesting)
 Mommy Akkun drink-request form
 ‘Mommy, please pour (this milk) into Akkun’s mouth.’
- (40) Papa koe nui-de (2;10) (Akkun is requesting)
 Daddy this undress-request form
 ‘Daddy, please take these (clothes) off.’

Intended meaning: Please make Akkun undressed.

Literal meaning: Please take your dress off, Daddy.

- (41) Mama-ga pantyu nui-da toki (3;2)
 Mommy-NOM underpants undress-PAST when
 ‘(I hurt) when Mommy took my underpants off.’

Intended meaning: ... when Mommy took underpants off Akkun.

Literal meaning: ... when Mommy took her underpants off.

In (39), the transitive verb *nom-u* ‘drink’ is used instead of the “causative” verb *nom-(s)ase-ru* ‘feed ... to (milk)/make ... drink (milk)’, and in (40) and (41), the transitive verb *nug-u* ‘undress/take off’ is used for expressing the “causative” verb *nug-(s)ase-ru* ‘take something off someone /make ... undress’.

Before Akkun started producing “regular” causative sentences at around the age of 5, there are sporadic instances of the morpheme *-(s)ase* much earlier:

- (42) Akkun-ni tabe-(s)ase-tee (3;6) (non-agentive)
 Akunn-dat eat-CAUS-request form
 ‘Please feed Akkun(/me) (with food).’
- (43) Nomi-tatye-te (3;7) (non-agentive)
 Drink-CAUS-request form
 ‘Please feed me (with *miso* sope).’

While Akkun can use correct verb forms like (42) and (43), he still continues to use the wrong forms. It is noticeable that this mistake is very similar to mistakes that Akkun made when he was acquiring ditransitives, and it occurs at the same period. We propose that this mistake is considered as one of the mistakes in transitive-ditransitive pairs.

Considering the meaning that the sentences (42) and (43) express, we notice that they do not express the meaning of “regular” causatives. If we consider (42) and (43) as “regular” causatives, (42), for example, should signify ‘You(Mommy) permit me(Akkun) to eat (some food)’, but the sentence does not convey this meaning.² It expresses ‘You feed some food to me(Akkun)’ instead. With this interpretation, the “causee” Akkun is not agentive, but it only behaves as a goal just like a goal phrase in a ditransitive sentence. This is the meaning that the lexical *-(s)ase* causative states.

Thus, the data shows that the lexical *-(s)ase* causative and the ditransitives are acquired in the same period and that they are acquired in the same way. This indicates that the lexical *-(s)ase* causative is an instance of ditransitives.

3.2.4. Stage IV: the acquisition of syntactic causatives

The following sentences with an agentive causee have never been seen until around the age of 5:

- (44) Obaatyan-no toko de tabemas-u Att, biiru dake nom-(s)ase-te kudasai (5;3)
Grandma-GEN room at eat-PRES INT beer only drink-let-request form please
'(I will) eat (a dinner) at Grandma's room. Eh, only beer, allow me to drink beer, please.'

Akkun started using “regular” causative sentences much later, around the age of 5. In (44), Akkun asks his mother to let him eat or drink something (by himself). In this sentence, Akkun does not ask someone to feed him. Thus, the causee, which is not overtly expressed, is agentive in (44).

To sum up, in this section, we showed how morphological causatives are acquired in Japanese, by investigating longitudinal data from a Japanese speaking child. We showed that the lexical *-(s)ase* causative is acquired at the same period as ditransitive sentences are acquired, and it is acquired earlier than “regular” syntactic causatives, which have biclausal structures.

4. Conclusion

In this paper, we presented acquisition data obtained from a longitudinal study, and discussed how children acquire Japanese causative constructions. We showed that the lexical causative is acquired earlier than “regular” causatives. Syntactic causatives in Japanese are widely assumed to have embedded structure, and their acquisition is in fact rather late. The lexical *-(s)ase* causative, on the other hand, is acquired relatively early. We also showed that our acquisition study provides supporting evidence for Matsumoto's analysis of morphological causatives.

Finally we briefly mention the implication for previous studies about acquisition of Japanese causatives. In Shirai et al. (2001), they have reported that indirect causatives, which seem to be biclausal, are acquired relatively early, pointing that children tend to use causative sentences with request form. At a glance, their conclusion seems to conflict with ours. However, if we closely examine their data, we find that the morphological causative sentences that children use at the early stage might be classified into the lexical *-(s)ase* causative.

Shirai et al. (2001) examine two kinds of data: cross-sectional data and longitudinal data. With regard to the cross-sectional data, they report that the following 23 tokens (6 types) of causative *-(s)ase* were found:³

² When (42) is interpreted as syntactic causatives, the sentence is interpreted as permissive causatives since the request form is used. Here, it is important that the causee is agentive. In syntactic causatives, the causee is always agentive whether they are permissive causatives or coercive causatives.

³ The data consist of transcribed conversational data of 2-, 3- and 4-year-old Japanese children.

(45)	tabe-sase-te	'Let (me/him) eat.'	(16 tokens)
	hukuram-asi-te	'Please inflate (the balloon)	(2 tokens)
	ire-sase-te	'Let (me) put (it) in.'	(2 tokens)
	kikae-sase-te	'Let (me/him) change clothes.'	(1 token)
	sase-te	'Let me do (it).'	(1 token)
	osimes-ase-te	'Let (me/him) put on a diaper.'	(1 token)

They show that all the examples in (45) except *hukuram-asi-te* 'swell-CAUS-request form' fall into indirect causatives.

As for the longitudinal data, although Shirai et al. do not present all the actual examples because of their aim of study, they mention that in Kii's data between 1;0 and 2;7, *hak-ase-te* 'put something on-CAUSE-request form' is observed at 1;6. They analyze that its intended meaning is 'Help me put on (the clothes)'. That is, *hak-ase-te* is considered as an example of indirect causatives.

They do not take the lexical *-(s)ase* causative into account because their analysis is based on the traditional classification of Japanese causatives. It has been believed that Japanese has lexical causatives and morphological causatives, and that morphological causative sentences contain the causative morpheme *-(s)ase* whereas lexical causatives do not. As pointed out in Shibatani (1976), Japanese morphological causatives can express both direct causation, i.e. manipulative/directive causatives, and indirect causation, i.e. permissive/assistive causatives.⁴ And all morphological causatives have been believed to be biclausal. So, in Shirai et al. (2001) the causative sentences containing *-(s)ase* are automatically classified either into indirect causatives or into direct causatives, which have biclausal structures.

However, our study showed that at early stage of acquisition of Japanese causatives, there is no sentence that conveys the meaning of indirect causation. For example, *tabe-sase-te* 'eat-CAUS-request form' means not 'let (me) eat', as mentioned by Shirai et al. (2001), but 'feed (some food) to me/put (some food) into my mouth'. Keeping this in mind, let us consider the examples in (45). Although they do not mention when each causative verb is uttered, we find that most tokens can be considered as the lexical *-(s)ase* causative. Thus, we suggest that the data presented in Shirai et al. (2001) can be the lexical *-(s)ase* causatives not indirect causatives with a biclausal structure.

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⁴ A lexical causative seems to be more directive than morphological causatives. It expresses direct causation.

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