

Overt and implicit arguments and Voice in Japanese passives: a child language perspective

1. Introduction. At least two issues have been controversially discussed in the literature on passives: the status of implicit arguments (see [Bhatt and Pancheva \(2017\)](#) for a comprehensive overview) and the role of Voice morphology in transitivity alternations. With respect to the latter, several researchers take voice morphology to realize a functional head. With respect to the former the fact that in e.g., English, silent subjects are not allowed in active clauses (1-b), while agents of passives are usually left unpronounced (2-b), suggests that agents are not projected in the syntax. As they may optionally be realized (2-a) within a *by-phrase*, agent PPs are viewed as adjuncts to the VoiceP ([Bruening 2013](#)).

- (1) a. The girl hugged the dog. (2) a. The dog was hugged by the girl.
b. *Hugged the dog. b. The dog was hugged.

We approach this discussion from the perspective of child language. We examine the status of external, i.e., agent, and internal, theme, arguments in Japanese direct passive constructions (for the distinction between direct and indirect passives in Japanese see [Ishizuka 2012](#)) in child productions. External arguments have been claimed to be the main source of difficulties in the acquisition of passive (see [Fox and Grodzinsky \(1998\)](#) for *by*-phrases in English, [Okabe and Sano \(2002\)](#) for *ni*-phrases in Japanese). In a large-scale study of 11 typologically different languages, [Armon-Lotem et al. \(2016\)](#) demonstrate that short passives, i.e., forms lacking an overt external argument, are acquired first compared to long passives where both external and internal arguments are present, due to children's production and comprehension difficulties with external arguments. We first present a comprehensive corpus study of child spontaneous production data and report on the developmental trajectory of Japanese passives, demonstrating that children have available both long (3-a) and short passives (3-b) very early on. We then discuss an asymmetry between external and internal arguments as overt realization of the internal argument records higher frequency compared to the external one.

- (3) a. Ayumi-chan-wa ka-ni sas-are-n-ai n da mon.
Ayumi-DIM-TOP mosquito-DAT bite-PASS-NEG-PRES QUD be ASSERT
'Little Ayumi isn't bitten by a mosquito.' (Ayumi, 3;01)
b. Otokonoko-ga oite ik-are-ta.
boy-NOM put go-PASS-PAST.
'The boy was left behind.' (Ayumi, 4;10)

We then argue that the overt special passive morpheme *-(r)are*, consistently present in all child passive utterances in our data, facilitates the early acquisition of passive in Japanese compared to other languages (see also [Armon-Lotem et al. 2016](#)) as children follow the 1:1 mapping principle from conceptual representations (CRs) to morphology ([Alexiadou et al. 2021](#)).

2. Corpus study. We extracted all the utterances surfacing with the passive morpheme *-(r)are* in two longitudinal diary data of typically developing children acquiring Japanese (*Ogawa* corpus, 2 children, age range: 0;5.00-6;01.00) from the CHILDES database ([MacWhinney 2000](#)) using the CLAN software. Out of total number of utterances (N = 35666), sentences surfacing with the passive form (N = 393) were selected for the analysis. The analysis covers the time span between the age of 3;00, when the first occurrence of passive is attested in our corpora, and the age of 6;1. We annotated all the utterances for argument structure patterns, distinguishing between forms with (i) both external (agent) and internal (theme) arguments overtly realized, (ii) both external and internal arguments silent, (iii) only external argument overtly realized, (iv) only internal argument overtly realized. We then annotated all the utterances for the type of passive (long vs. short) and the Voice of the verb passive morpheme is attached to.

3. Results. Passive forms with both arguments silent are significantly more frequent (N = 166) than clauses with both arguments overt (N = 20). There is an asymmetry between utterances surfacing with an overt internal argument and silent external argument (N = 110) and utterances with an overt external argument but silent internal argument (N = 97), see Figure 1. We aggregated all instances of passives with an overt external argument as long passives, and utterances with both arguments silent and only internal argument overtly realized as short passives. As shown in Figure 2, short passives are more frequent (N = 276) compared to long passives (N = 117), while both forms show increase in frequency between 40 and 50 months (age 3;4-4;2).

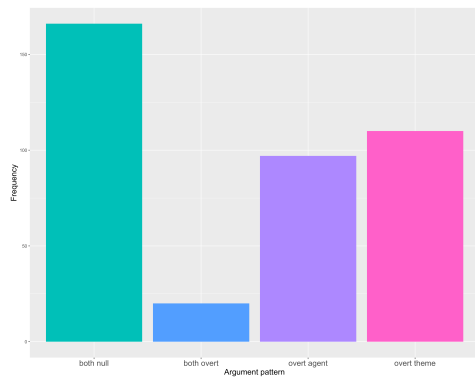


Figure 1: Argument pattern in Japanese passives

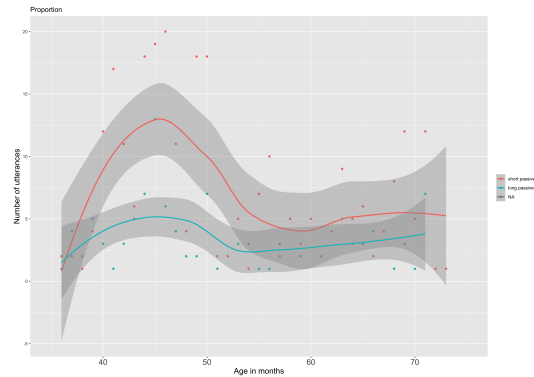


Figure 2: Short vs. long passives in Japanese

4. Implicit arguments and overt morphology. We observe a strong preference for both external and internal arguments to be left implicit in Japanese (4-5), which is ruled out in a non-*pro*-drop language such as English. If agent PPs are adjuncts, this is expected for the external argument. As Japanese is a radical *pro*-drop language, it further allows an internal pronominal argument to be realized as *pro*, (Neeleman and Szendrői 2007).

- (4) Otera de sas-are-ta n janai? (5) Tsukamae-rare-ta.
 temple LOC stab-PASS-PAST NEG TAG catch-PASS-PST

‘Weren’t you stabbed at the temple?’ (A, 3;01) ‘I was caught.’ (Mari, 3;05)

Ishizuka (2012) argues that an analysis of *-ni* phrases following Collins (2005) cannot apply to Japanese: Japanese has a designated Voice head, *-rare*, and the external argument is introduced by *-ni*, suggesting that they cannot both spell-out the same head. *-rare* is incompatible with middle Voice marking, which further supports the view that it realizes Voice. Ishizuka (2012), moreover, notes that *-rare* may combine with transitive verbs yielding idiomatic readings, a pattern reminiscent of languages such as Greek that make use of Voice heads hosting non-active morphology (Alexiadou et al. 2015, Oikonomou and Alexiadou 2022). We note an agent-theme asymmetry in our data: as shown in Figure 1, when only one of the arguments is expressed overtly, children demonstrate a preference for an overt theme and a silent agent, as in (7), over an overt agent and silent theme (6). (6) is possible as the internal argument is syntactically projected. As a result, this asymmetry is reminiscent of the behavior of agent PPs in nominalizations, where the presence of a PP is dependent on the presence of the internal argument (Grimshaw 1990) and is consistent with treating *by*-phrases as adjuncts (Bruening 2013, Alexiadou et al. 2015).

- (6) Ka-ni sas-are-ta no. (7) Misoshiru kobos-are-ru.
 mosquito-DAT bite-PASS-PAST QUD miso.soup spill-PASS-PRES

‘I was bitten by a mosquito.’ (Ayumi, 3;01) ‘Miso soup is spilled.’ (Ayumi, 5;00)

An unexpected finding of our study is early spontaneous production of passive forms in Japanese at the age of 3. Previous comprehension studies have claimed that passives are delayed up to the age of 5 (Armon-Lotem et al. 2016) and in Japanese in particular up to the age of 7 (Okabe and Okubo 2005). We argue that our result stems from the transparent Voice morphology in Japanese, realized in the form of the morpheme *-rare*, which strongly supports the idea in Alexiadou et al. (2021) that children follow a 1:1 correspondence between conceptual representations (CRs) and morphology, and which predicts that overt passive morphology facilitates the acquisition of otherwise challenging structures.

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