

INTRODUCTION

- The acquisition of passives has been controversially discussed in the literature. Several studies have claimed that **passives** are **delayed up to the age of 5** (Armon-Lotem et al. 2016).
- 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.
- For **Japanese** in particular, the claim is that acquisition of **passives** is **delayed to the age of 7** (Okabe and Sano 2002).

CONSENSUS ON DELAYED ACQUISITION OF PASSIVES

The view that the acquisition of passives is delayed has been put forth in the **syntactic approach** (e.g., Fox and Grodzinsky 1998) to passive acquisition, as well as in various guises of the **maturational approach**:

- A-Chain Deficit Hypothesis** (Borer and Wexler 1987), **Universal Phase Requirement** (Wexler 2004)
- Universal Freezing Hypothesis** (Hyams and Snyder 2005), building on smuggling analysis of passive in Collins (2005)
- Smuggling** (Belletti 2021)

THE PUZZLE

Our data shows that children have available both **long** (1-a) and **short** passives (1-b) very early on **at the age of 3** in Japanese.

- (1) 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)

PRODUCTION STUDY: METHODOLOGY & DATA

DATA COLLECTION

- CHILDES (MacWhinney 2000), *Ogawa corpus* (Ogawa 2016)
- We extracted all the utterances surfacing with the passive morpheme **-(r)are** in two longitudinal diary data of typically developing children acquiring Japanese.
- Ayumi, data recorded daily, age range: 0;9.00-6;01.00
- Mari, data recorded daily, age range: 0;5.00-4;02.00

DATA

- Total number of utterances: $N = 35666$
- Sentences surfacing with the passive morpheme: $N = 393$ → 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.

DATA ANNOTATION (I)

Type of passive

- long
- short

DATA ANNOTATION (II)

Argument realization patterns

- both external and internal arguments overtly realized
- both external and internal arguments unpronounced
- only external argument overtly realized
- only internal argument overtly realized

UNIVERSAL CONCEPTUAL STRUCTURE: SAUERLAND & ALEXIADOU 2020

- There is a **universal conceptual structure**
- There is **Universal Late Insertion** of early DM
- One exponent realizes one concept/feature in structure (cf. Kayne's (2005) Principle of Decompositionality, Guasti et al. (2022), Slobin (1973), van Hout (2008), among others)

1:1 MAPPING OF GUSTI ET AL. (2022)

- Individual languages reflect only fragments of this universal structures
- Grammatical sentences in adult language are maximally compressed → the least informative for investigating the underlying universal conceptual structure

Transparency principle

- Children are biased towards a one-to-one mapping from CRs to language.**
- Evidence for one-to-one mapping → **errors of commission**
- Often in child grammars overt realizations of material that stays unpronounced in adult grammar can be found.
- Errors of commission** serve as a tool for investigating universal conceptual representations.

- (2) Das Mädchen sein, das der Opa **das Mädchen** umarmt.
the girl be that the granddad the girl hugs
Lit.: 'Be the girl who the granddad hugs the girl.' Yatsushiro & Sauerland (2018)

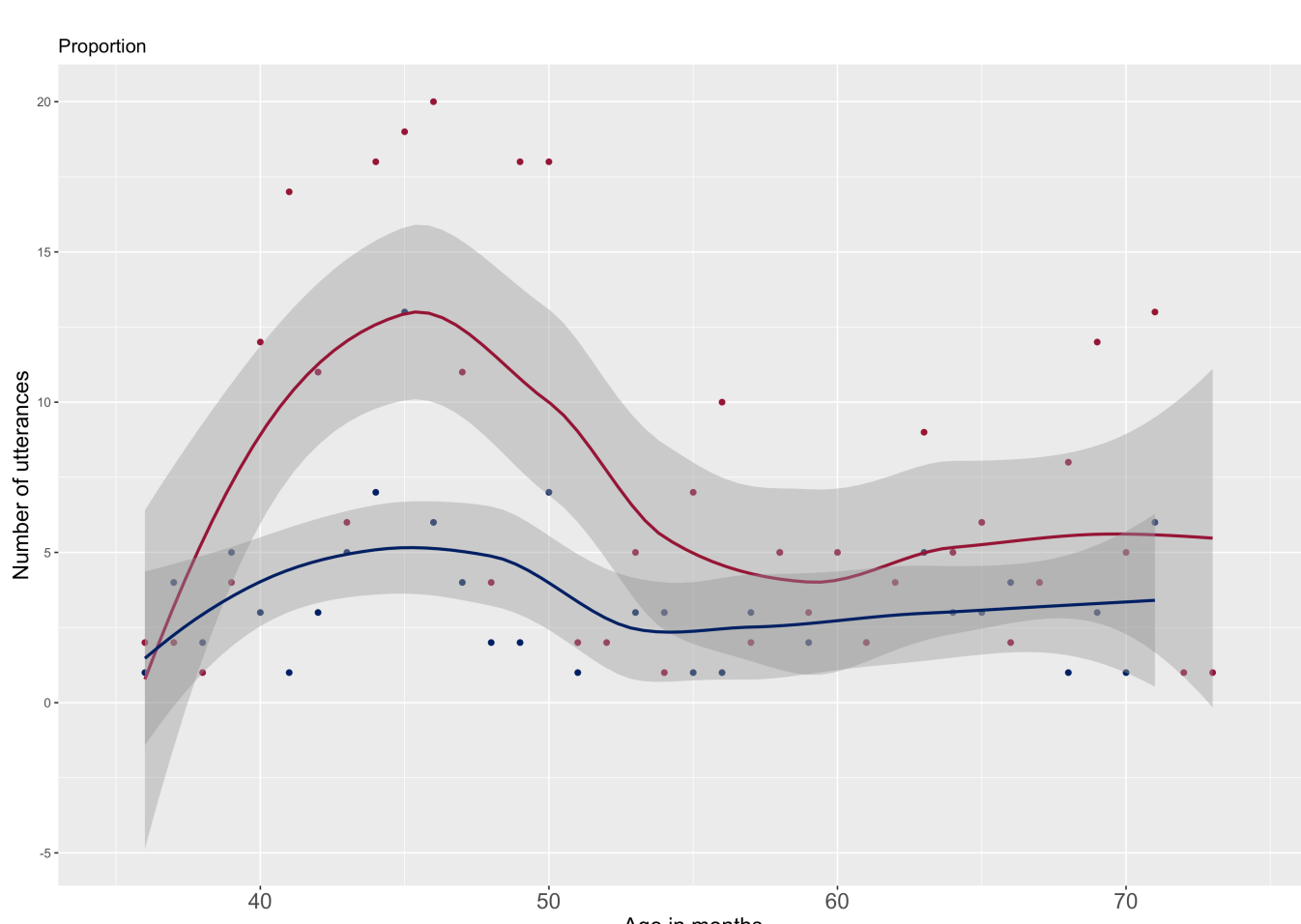
THE OVERT PASSIVE MORPHOLOGY HYPOTHESIS

- Building on Armon-Lotem et al.'s (2016) proposal that the presence of a unique syntactic or morphological property, such as dedicated verbal suffix or auxiliary for the passive, may lead to earlier acquisition, as well as that morphological passives are acquired earlier compared to periphrastic ones, and Guasti et al.'s (2022) 1:1 mapping principle

we develop **The Overt Passive Morphology Hypothesis**:

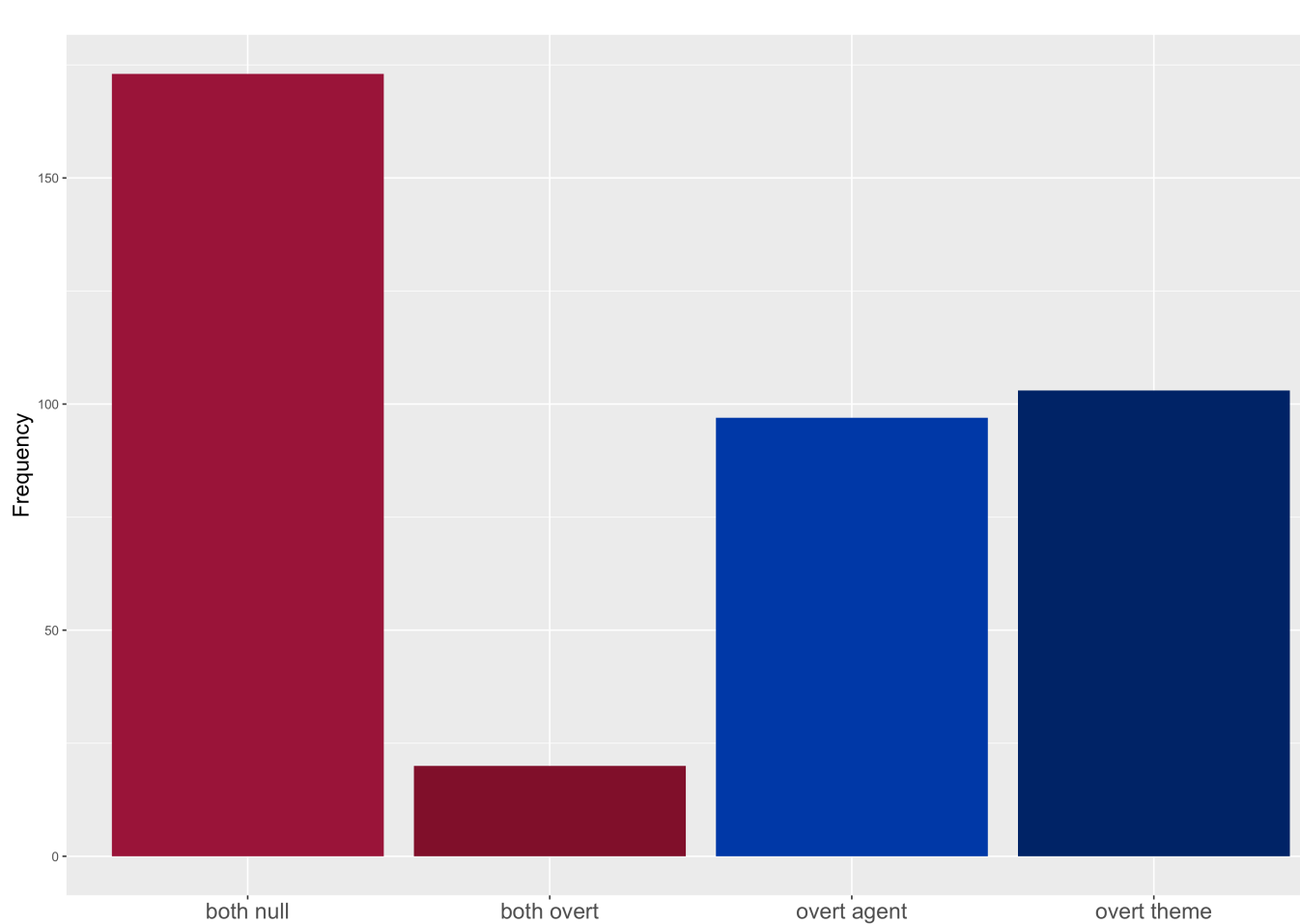
The overt special passive morpheme *-(r)are*, consistently present in all child passive utterances in our data, facilitates the early acquisition of passive in Japanese compared to other languages as children follow the 1:1 mapping principle from conceptual representations (CRs) to morphology (Guasti et al. 2022).

RESULTS: SHORT vs. LONG PASSIVE



- Short and long passives appear at the same time in child spontaneous production in Japanese, i.e., short passives do not emerge first.
- Short passives are more frequent ($N = 276$) compared to long passives ($N = 117$).
- Both forms show increase in frequency between 40 and 50 months (age 3;4-4;2).

RESULTS: ARGUMENT REALIZATION PATTERN



- Passive forms with **both arguments unpronounced** are **significantly more frequent** than clauses with both arguments overt.
- There is an **asymmetry** between utterances surfacing with an overt internal argument and silent external argument and utterances with an overt external argument but silent internal argument.

argument pattern	N
both unpronounced	173
both overt	20
overt agent	97
overt theme	103

PASSIVE EXPONENCE & ACQUISITION

- To explain the early acquisition of passive in Japanese, we adopt the idea that there is a **one-to-one correspondence** between a universal conceptual structure and linguistic realization thereof (Guasti et al. 2022), often obscured in natural languages.
- The results of our study and consistent presence of overt passive marking from the early age **supports morphological account** of passive acquisition.
- In contrast to Japanese, acquisition of passive in languages such as English, where dedicated passive morphology is not present, is significantly delayed.

We argue that our result stems from the transparent Voice morphology in Japanese (see also Ishizuka 2012), realized in the form of the morpheme *-rare*, which:

- supports the idea in Guasti et al. (2022) that children follow a 1:1 correspondence between conceptual representations (CRs) and morphology, and**
- predicts that overt passive morphology facilitates the acquisition of otherwise challenging structures.**

AGENT-THEME ASYMMETRY

- We observe a preference for both external and internal arguments to be left implicit in Japanese, which correlates with the preference to short passives. As Japanese is a radical pro-drop language, it allows all arguments to be dropped (Neeleman and Szendrői 2007).
- However, when only one of the arguments is expressed overtly, **children demonstrate a preference for an overt theme and a silent agent**, as in (3-b), over an overt agent and silent theme (3-a). (3-a) is possible as the internal argument is syntactically projected. This asymmetry is **consistent with treating by-phrases as adjuncts** (Bruening 2013, Alexiadou et al. 2015).

- (3) a. Ka-ni sas-are-ta no.
mosquito-DAT bite-PASS-PAST QUD
'I was bitten by a mosquito.' (Ayumi, 3;01)
- b. Misoshiru kobos-are-ru.
miso.soup spill-PASS-PRES
'Miso soup is spilled.' (Ayumi, 5;00)

OUTLOOK: CAUSATIVE PASSIVE IN JAPANESE

- We aim to extend our **Overt passive morphology hypothesis**, that straightforwardly follows from Guasti et al. (2022), to all other cases where dedicated passive exponence is attested.
- Our data provides evidence for early production of **causative passive** in Japanese (4). Similarly to dedicated passive morphology, Japanese employs special causative morphology realized as **-(s)as(e)**.
- Our data provides evidence for very early production of causative passive in Japanese, at the age of 3.

- (4) Ouchi made tob-**as-are**-ch-au?
home term fly-caus-pass-compl-pres
'Will I be flown home?' Ayumi, 3;04

ACKNOWLEDGEMENTS

This project has received funding from the European Research Council (ERC) under the European Union's Horizon 2020 research and innovation programme (grant agreement No 856421).



REFERENCES

Alexiadou, A., Anagnostopoulou, E., and Schäfer, F. (2015). *External arguments in transitivity alternations: A layering approach*. OUP, USA.

Armon-Lotem et al. (2016). A large-scale cross-linguistic investigation of the acquisition of passive. *Language acquisition*. Belletti, A. (2021). Ways of smuggling in syntactic derivations. In *Smuggling in Syntax*. OUP.

Borer, H. and Wexler, K. (1987). The maturation of syntax. In *Parameter setting*. Springer.

Bruening, B. (2013). By phrases in passives and nominals. *Syntax*.

Collins, C. (2005). A smuggling approach to the passive in English. *Syntax*.

Fox, D. and Grodzinsky, Y. (1998). Children's passive: A view from the by-phrase. *Linguistic inquiry*.

Guasti, M.T., Alexiadou, A., and Sauerland, U. (2022). *Undercompression Errors as Evidence for Conceptual Primitives*. Manuscript. University of Milano-Bicocca, Leibniz Centre General Linguistics (ZAS), Humboldt-Universität zu Berlin.

Ishizuka, T. (2012). *The passive in Japanese: A cartographic minimalist approach*. John Benjamins.

Kayne, R.S. (2005). *Movement and silence*. OUP.

MacWhinney, B. (2000). *The CHILDES project: Tools for analyzing talk: Volume 1: Transcription format and programs, Volume 2: The database*. MIT Press.

Neeleman, A. and Szendrői, K. (2007). Radical pro drop and the morphology of pronouns. *Linguistic Inquiry*.

Ogawa, Y. (2016). *Ogawa Corpus*. Pittsburgh, PA: TalkBank. doi:10.21415/T5H314.

Okabe, R. and Sano, T. (2002). The acquisition of implicit arguments in Japanese and related matters. *Proceedings of the Boston University conference on language development*.

Sauerland, U. and Alexiadou, A. (2020). Generative Grammar: A Meaning First Approach. *Frontiers in Psychology*, 11:3104.

Slobin, D. I. (1973). Cognitive prerequisites for the development of grammar. In *Studies of child language development*. Van Hout, A. (1998). On the role of direct objects and particles in learning telicity in Dutch and English. *Proceedings of the 22nd Annual Boston University Conference on Language Development*.

Wexler, K. (2004). Theory of phasal development: Perfection in child grammar. *MIT working papers in linguistics*.

Yatsushiro, K. and Sauerland, U. (2018). A filled gap stage in German relative clause acquisition. *Proceedings of the 42nd annual Boston university conference on language development*.