

Are Chinese Children's Passives Delayed?

Synopsis: In this paper we demonstrate that children's comprehension of long passives in Mandarin Chinese improves greatly once the felicity conditions for long passives are satisfied. These results are consistent with the findings of O'Brien, Grolla & Lillo-Martin (2006) and Crain, Thornton & Murasugi (2009), but are incompatible with maturational theories of passives such as Wexler's (2004) Universal Phase Requirement.

Introduction: It has been widely reported that English children's development of long passives is delayed (Fox & Gordzinsky 1998, Hirsch & Wexler 2004). Passives of psychological verbs (e.g. *see*) are also harder for children to understand than passives with actional verbs (e.g. *hit*) (Maratsos et al. 1985). Similar patterns are found in children's comprehension of passives in Mandarin Chinese (Xu & Yang 2008). However, a recent study shows that English long passives and psychological passives are not problematic for children if the felicity conditions for passives are met in the experiment. O'Brien et al. (2006) added an extra potential agent in their experiment, and found that children's comprehension of long passives with both actional and psychological verbs improved greatly. When the real agent is contrasted with another potential agent, the English long passive with a *by*-phrase becomes felicitous. In this study we investigate how felicity conditions affect children's understanding of passives in Mandarin Chinese.

Experiment: We employed a Truth Value Judgment Task and tested 20 Mandarin-speaking children aged 4 (mean age 4;5) and 5 (mean age 5;6). The test sentences included actives (1a), long passives (1b) and short passives (1c). Verbs in the test sentences fell into three categories: actional verbs (e.g. *tui-zou* 'push'), subject-experiencer (SE) psych verbs (e.g. *kan-jian*, 'see'), and object-experiencer (OE) psych verbs (e.g. *xia-huai*, 'scare'). Crucially, each test sentence was presented in two conditions (2): Condition 1, which does not satisfy the felicity condition (i.e., with **only one** potential agent in the story), and Condition 2, which satisfies the felicity condition (with **two** potential agents in the story).

Results: For all three types of long passives, including passives with actional, SE psych and OE psych verbs, a clear contrast was found between Conditions 1 and 2: Children understood long passives much better in Condition 2 than in Condition 1 (3a). However, such a contrast was not found for short passives (3b): Pairwise *t*-tests indicate that children's comprehension does not differ significantly between Condition 1 and Condition 2 for either type of short passive.

Discussion: The results for long passives are consistent with O'Brien et al. (2006) and Crain et al. (2009), who argue that satisfying felicity conditions facilitates children's comprehension of passives. In Condition 2, children performed well with long passives of both actional verbs and psych verbs. Thus, the asymmetry between actional and psych verbs that was reported by Xu and Yang (2008) disappeared. However, the question remains why felicity conditions did not help children understand short passives better (3b). We suggest that this is due to structural differences between long and short passives in Chinese. Passives in Mandarin are argued to involve a different syntactic derivation than in English, with long passives involving null-operator movement (1b), and short passives A-movement (1c) (Huang, 1999). Hence the Chinese short passive is not simply an agent-deleted version of the long passive: The short passive (1c) has no subject in the complement of BEI. The two potential agents in Condition 2 make **long** passives felicitous, but not **short** passives, because the latter do not involve an agent in the syntax or the semantics. This explains why satisfying the felicity conditions only improve children's comprehension of long passives, not short passives. Consistent with O'Brien et al., our results are incompatible with maturational accounts such as Wexler's (2004) Universal Phase Requirement (UPR), which predicts equally good comprehension of long passives in Condition 1 and Condition 2, given that long passives in Chinese involve A'-movement.

- (1) a. Xiaogou tuizou le daxiong. Active
 little dog push ASP big bear.
 ‘Little dog pushed big bear.’
- b. Daxiong_i [VP bei [IP Op_i [IP xiaogou tuizou le t_i]]] Long passive
 big bear BEI little dog push ASP
 ‘Big bear was pushed by little dog.’
- c. Daxiong_i [bei [VP PRO_i [tuizou le t_i]]] Short passive
 big bear BEI push ASP
 ‘Big bear got pushed.’

(2) **Condition 1: one potential agent**

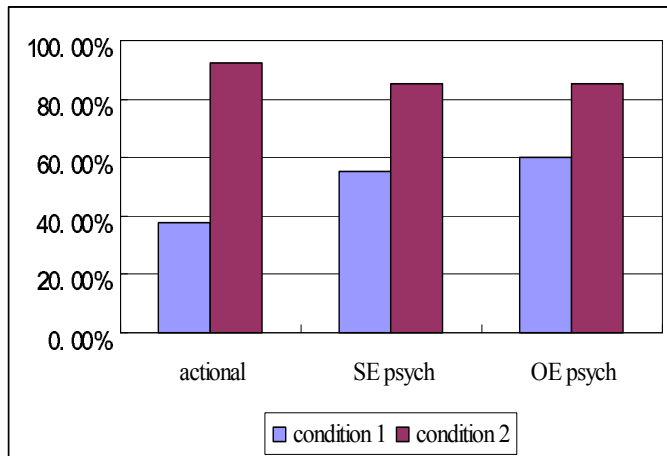
Big Bear asked Little Dog whether he could push him. Little dog said yes and did it.

Condition 2: two potential agents

Big Bear asked Little Dog and Little Elephant whether they could push him. Little dog said no, because he was tired. Little Elephant said yes and pushed Big Bear.

(3) **Results:** Comparison between Condition 1 and Condition 2

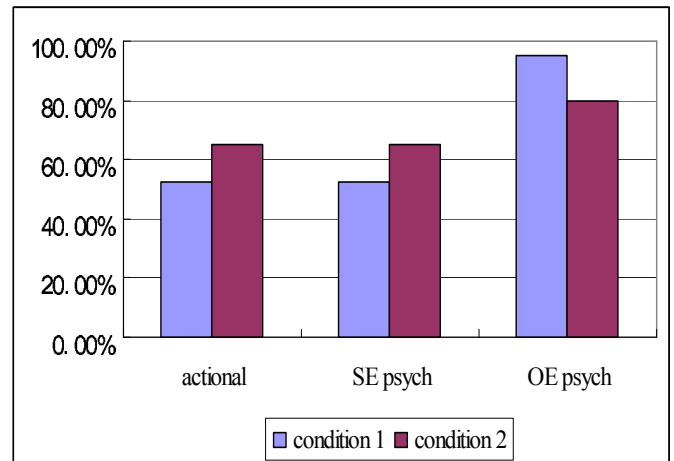
a. long passives



Pairwise *t*-tests (two tailed) comparing long passives in condition 1 vs. 2

- ✓ Actional long passives: $t(19)=6.242, p<.001$
- ✓ SE psych long passives: $t(19)=3.040, p=.007$
- ✓ OE psych long passives: $t(19)=2.517, p=.021$

b. short passives



Pairwise *t*-tests (two tailed) comparing short passives in condition 1 vs. 2

- ✓ Actional short passives: $t(19)= 1.561, p=.135$
- ✓ SE psych short passives: $t(19)= 1.422, p=.171$
- ✓ OE psych short passives: $t(19) = 2.042, p=.055$

Selected References

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