



Non-culmination in telic incremental theme predicates: An experimental study of Mandarin children and adults

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Introduction

Previous literature reports that Mandarin allows incremental-theme verbs taking a quantized object DP to be compatible with an incomplete situation.

- (1) I ate the cookie, #but I didn't finish eating it.
- (2) Wo chi-le na kuai binggan, keshi mei chi-wan.
1SG eat-LE that CL cookie, but NEG eat-finish
Lit: "I ate that cookie, but I didn't finish eating it."

Account 1: Verbal *le* is the source of non-culmination (Smith 1994, 1997, Martin 2019).

Account 2: Verb semantics is the source of non-culmination.
- All Mandarin monomorphemic verbs are **result-implied**, instead of result-entailed (independent of object properties), unless the verb is combined with a resultative particle (Tai 1984, Lin 2004, Koening & Chief 2008, a.o.).

Previous Experimental Results

Li's (2019) TVJT results in Mandarin:

- **Children** rejected telic descriptions of incomplete situations more often than **adults**, and **adults** rejected the sentences with a **numeral** direct object more often than the sentences with a **demonstrative** direct object (60% vs. 16.6%).
- **Li's conclusion:** Mandarin children and adults have **different lexical representations** of incremental-theme verbs. Adults' verbs are **result-implied**, while children's verbs are **result-entailed**.

Ogiela's (2007) TVJT results in English:

- Neither children nor adults gave categorical rejections for telic descriptions of incomplete situations.

→Is the difference in grammar or due to methodological differences?

The Present Study

- We test English and Mandarin with identical methods, controlling for **verb-subtype**, **determiner-type** of direct object in both languages, and presence/absence of **verbal *le*** in Mandarin.
- We provide evidence for **no radical differences** between English and Mandarin incremental-theme verbs.
- Children's representation of the verbs are not different from adults'. Rather, they take time to master properties of the **demonstrative** and **verbal *le***, going from **more stringent** to **less stringent** interpretations.

Experiment 1: Effect of Determiner-Type in English and Mandarin Adults

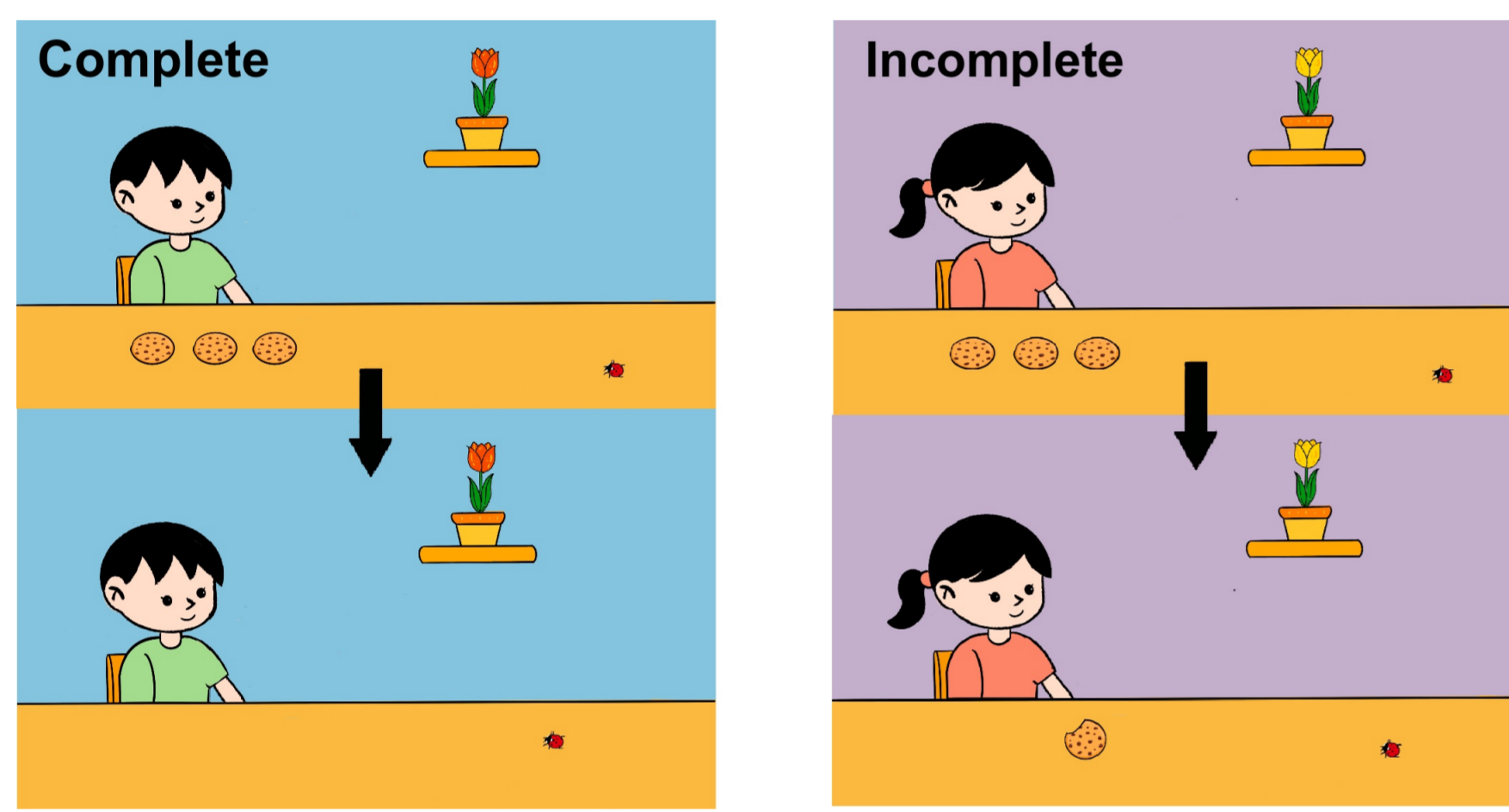
Question: Is the difference between English and Mandarin adults due to the fact that English uses the definite article while Mandarin uses the demonstrative?

Method: Truth-Value Judgment Task

Design

Subjects	Determiner	Verb
English adults (N=24)	the vs. three	eat drink
English adults (N=17)	these, those vs. three	build draw
Mandarin adults (N=11)	<i>zhe</i> 'this', <i>na</i> 'that' vs. <i>san</i> 'three'	

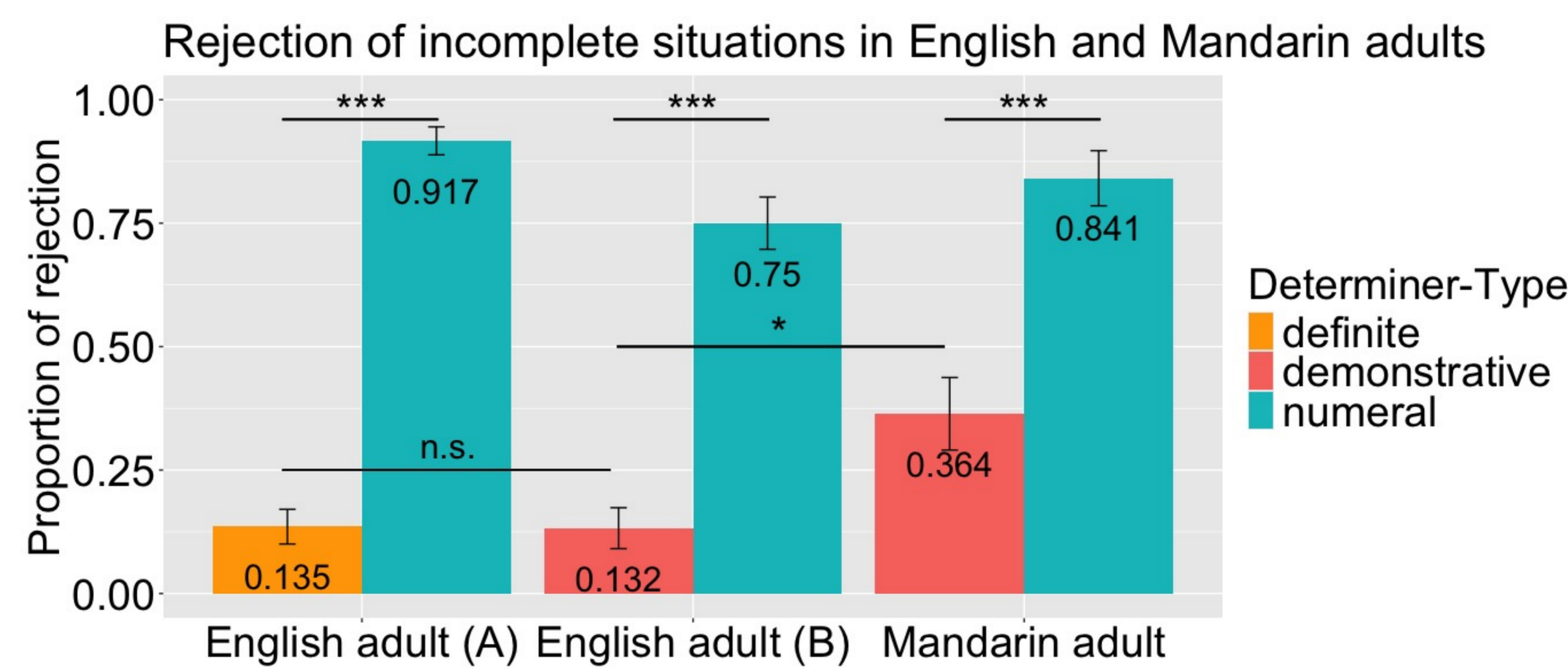
Visual Stimuli



Test Sentences

- (3) I ate {the, those, three} cookies.
- (4) Wo chi le {na ji, san} kuai binggan.
1SG eat LE that how-many three CL cookie
"I ate {those, three} cookies."

Results of the Incomplete Situations



Discussion

- If Mandarin incremental-theme verbs only imply culmination, they should receive high levels of acceptance for both the numeral and the demonstrative objects, contrary to what we found.
- Both English and Mandarin adults could accommodate for the referents of demonstrative DPs and definite DPs, but not the numeral DPs, to match the videos.



Experiment 2: Effect of Determiner-Type in Mandarin Children

Questions

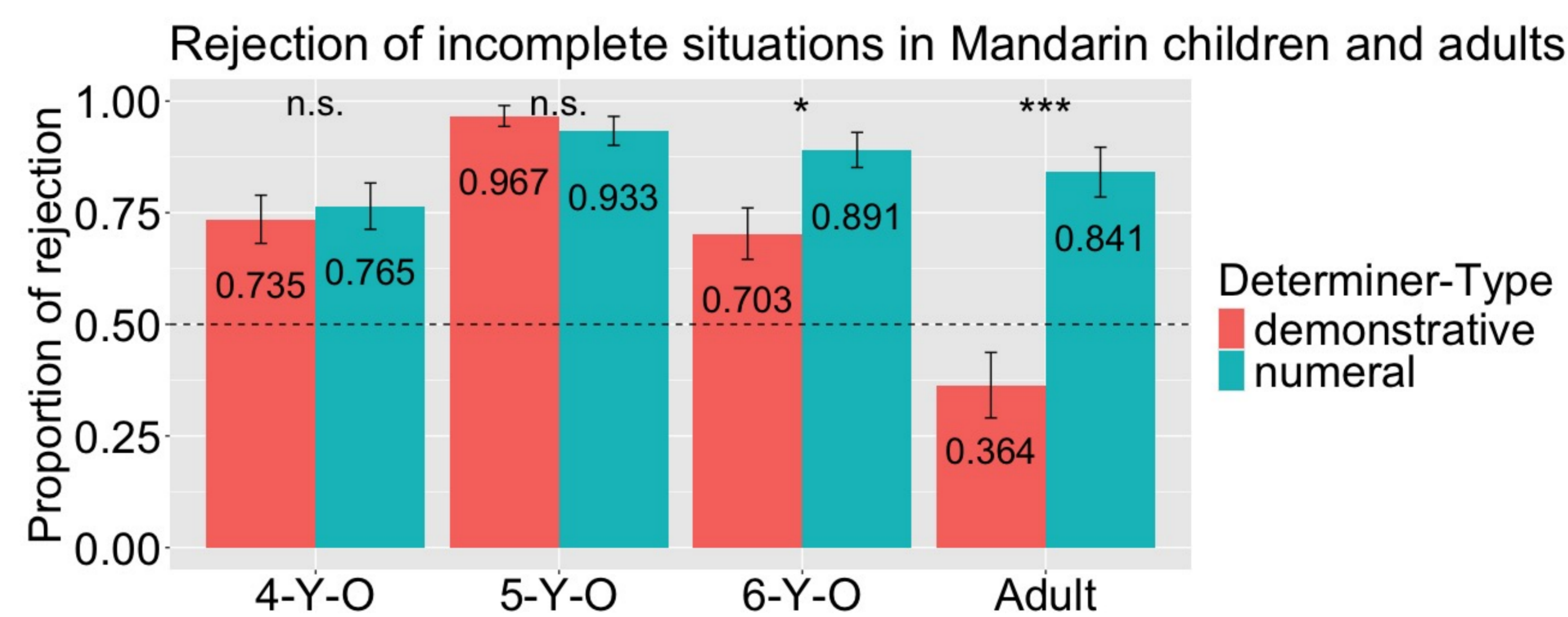
- How does determiner-type affect Mandarin children's interpretations?
- Can Mandarin children accommodate for the demonstrative object DPs as adults do?

Method, Design & Materials: Same as Mandarin adults in Exp. 1

Subjects

Age Group	Number	Age Mean	Age Range
4-Y-O	17	4;6	4;0-4;11
5-Y-O	15	5;8	5;1-5;11
6-Y-O	15	6;4	6;0-6;10

Results of the Incomplete Situations



Discussion

- 4-Y-O and 5-Y-O did not distinguish the demonstratives and the numeral, so they were unable to accommodate for the demonstrative DPs.



Experiment 3: Effect of Verbal *le* in Mandarin Children and Adults

Question: What's the role of verbal *le* in Mandarin children and adults?

Method: Truth-Value Judgment Task

Design

Presence of <i>le</i>	Determiner	Verb
No <i>le</i>	<i>zhe</i> 'this', <i>na</i> 'that'	eat drink
Verbal <i>le</i>	vs. <i>san</i> 'three'	build draw

Test Sentence

- (5) Ta chi { \emptyset , *le*} {na ji, san} kuai binggan hou jiu qu gan bie-de shi *le*.
3SG eat LE that how-many three CL cookie after then go do other-DE thing LE
"After she ate {those three} cookies, she went to do something else."

Subjects

Condition	Age Group	Number	Mean	Range
No <i>le</i>	4-Y-O	12	4;6	3;11-4;11
	5-Y-O	13	5;4	5;0-5;10
	6-Y-O	12	6;4	6;0-6;9
Verbal <i>le</i>	4-Y-O	12	4;6	4;0-4;11
	5-Y-O	14	5;5	5;0-5;10
	6-Y-O	14	6;3	6;0-6;9

Results of the Incomplete Situations

