Complement Control in Early Child Grammar: A Study of Mandarin-Speaking Two-Year-Olds' Comprehension

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1. Introduction

Control involves the anaphoric relation between an unspoken subject, namely PRO, in the embedded clause and its antecedent. Examples in (1) are typical complement control sentences, in which PRO in the complement clause bears a co-referential relation with a matrix argument (i.e., the matrix subject in (1a) and the matrix object in (1b)).

(1) a. Mary$_i$ wants [PRO$_i$ to learn French].
b. Mary asks John$_i$ [PRO$_i$ to learn French].

The interpretation (i.e., reference assignment) of PRO reflects syntactic dependency between two non-adjacent elements and is subject to the structural constraints such as c-command and minimality. One version of the minimality constraints is the Generalized Control Rule (GCR) in (2) (Huang, 1984, 1989):

(2) The Generalized Control Rule (GCR)
An empty pronoun is coindexed with the closest nominal element in the hierarchical structure.

Following GCR, the closest nominal element for PRO in (1a) is the matrix subject, while the closest NP accessible for PRO in (1b) is the matrix object. Besides, the control properties of the verb also play an important role in determining the controller of PRO. As indicated by (1), *want* is a subject control verb, while *ask* is an object control verb.

The properties of control raise interesting acquisition issues. To master control, children should not only know the syntactic constraints on the interpretation of PRO such as GCR, but also lexical properties of control verbs. Since PRO is a phonetically null element unobservable in the linguistic input, knowledge of PRO in young children, as part of UG, would constitute strong

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evidence for the continuity view of language acquisition, according to which children's grammar is constant throughout development (e.g., Pinker, 1984, Crain & Pietroski, 2002). In the present study, we investigate early acquisition of complement control in Mandarin-speaking children.

The acquisition of control has been extensively investigated, particularly in English-speaking children (e.g., Chomsky, 1969; Hsu, Cairns & Fiengo, 1985; McDaniel, Cairns & Hsu, 1990/1991; Sherman & Lust, 1986, 1993; Landau & Thornton, 2011). Longitudinal data shows that English-speaking children produce control as early as age 2 (e.g., Pinker, 1984; Landau & Thornton, 2011). However, even 5-year-olds sometimes have non-adult-like interpretations by selecting the wrong controller of PRO. For instance, they may accept a sentence-external referent of PRO for subject control, and may accept both subject and sentence-external referents for object control (e.g., McDaniel, Cairns & Hsu, 1990/1991; Cairns, McDaniel, Hsu & Rapp, 1994). No consensus has been reached yet concerning whether children have early access to control. Some argue for early availability of the hierarchical structure of control (e.g., Sherman & Lust, 1986, 1993; Landau & Thornton, 2011), proposing that children have the knowledge of PRO and GCR at the outset of language development. Others contend that children initially use linear order strategies to interpret control (e.g., Hsu, 1981; Hsu, Cairns & Fiengo, 1985), i.e., consistently choosing either the matrix subject (i.e., the first noun of the sentence) or the matrix object (i.e., the noun adjacent to the control complement) as the controller of PRO.

Mandarin control structures show similarities as well as disparities from English. Similar to English, complement control in Mandarin Chinese also follows conditions in GCR. For instance, the subject control verb *xiang* 'want' in (3a) requires the matrix subject to be the controller of PRO, while the object control verb *jiao* 'ask' in (3b) takes the matrix object as the controller.

(3) a. Zhangsan$_i$ xiang [PRO$_i$ xue fayu].
Zhangsan want learn French
'Zhangsan wants to learn French.'

b. Zhangsan jiao Lisi$_i$ [PRO$_i$ xue fayu].
Zhangsan ask Lisi learn French
'Zhangsan asks Lisi to learn French.'

However, different from control in English, which is marked by the infinitival *to*, control in Mandarin is not overtly marked.[1] In addition, since

1. It has been controversial whether Mandarin exhibits a finite/nonfinite distinction. Some scholars argue that like English, Mandarin also has a finite/nonfinite contrast (e.g., Huang, 1984, 1989); others contend that the distinction does not exist in Mandarin (e.g., Xu, 1986; Hu, Pan & Xu, 2001). In the present study, following Huang (1984, 1989), we assume that Mandarin Chinese has the finite/nonfinite distinction and that PRO only occurs in nonfinite clauses.

Mandarin Chinese is a *pro*-drop language (Huang, 1984, 1989), it is possible for the matrix subject in subject control and the matrix object in object control to be covert (Hu, 2010). As shown in (4a), PRO has a covert matrix object (represented by *e*) as the controller, which can be further identified in the discourse context. If we lexicalize the covert object in (4a), we may get (4b), suggesting the co-indexation between the matrix object and PRO. The syntactic representation of covert object control for Mandarin Chinese is given in (5).

(4) a. Zhangsan jinzhi e_i [PRO_i wan youxi].
Zhangsan prohibit play game
'Zhangsan prohibits (someone) from playing games.'
b. Zhangsan jinzhi $Lisi_i$ [PRO_i wan youxi].
Zhangsan prohibit play game
'Zhangsan prohibits Lisi from playing games.'

(5) $[_{Top}\ e_i]$, $[_{CP}$ ... e_i $[_{CP}$ PRO_i ...]]

The acquisition of control in Mandarin Chinese is relatively understudied. To date, only two studies have been conducted. Yang and Yang (2015) reported naturalistic production of complement control by four Mandarin-speaking children under age 2. It was found that subject control far outnumbered object control and took the majority of early complement control (92.4% vs. 7.6%). The study also identified children's discrimination between early control structures and serial verb constructions (SVCs) or coordinate constructions, which share the same surface form with control sentences. Moreover, control sentences with null matrix subjects were quite common in children's production, indicating the very early setting of the *pro*-drop parameter of Mandarin-speaking children. These findings provide evidence for the availability of control in early Mandarin development.

In a reference judgment experiment, Yang (2014) tested the comprehension of complement control by Mandarin-speaking children. The results showed that 3-to-4-year-old Mandarin-speaking children would assign wrong referents of PRO for both subject and object control. Like English-speaking children, they would assign an external referent of PRO for subject control with verbs like *dasuan* 'decide' and accept both the matrix subject and the external referents for object control with verbs like *rang* 'let'. In comprehension of the covert object control sentences involving *bu-rang* 'do not allow', some children accepted both the matrix subject and the external controller readings. Yang attributed such non-adult-like behavior to children's misanalysis of the missing subject in the complement clause as *pro*, rather than PRO. Since the referent of *pro* can be identified by both sentence-internal NPs and the discourse topic (e.g., $Zhangsan_i$ *shuo* [$pro_{i/j}$ *bu renshi Lisi*]. 'Zhangsan said that (he) did not know Lisi.'), children may allow the empty subject to have either a sentence-internal or a

sentence-external referent. It takes time for children to figure out the distributional differences between PRO and *pro*. Once they have differentiated PRO from *pro*, they will have PRO properly controlled.

In this paper, we report an experimental study using the intermodal preferential looking paradigm (IPLP) (Hirsh-Pasek & Golinkoff, 1996) which examined comprehension of complement control by Mandarin-speaking 2-year-olds. Though toddlers at age 2 have started to produce control sentences, it is not clear whether they have adult-like interpretations of different control structures. Comprehension studies can provide more direct insight into this issue. By extending the investigation to 2-year-olds, we intend to get a closer look at the initial state of children's knowledge of control and to add early language comprehension data to the study of acquisition of control.

2. Methods

2.1. Subjects

Thirty-two Mandarin-speaking toddlers participated in the experiment (mean age: 2;1;7; age range: 2;0;11-2;2;23; 16 boys, 16 girls). They were all born and raised in Beijing, and developing normally with no report of any hearing or speech disorder. Four additional toddlers were removed from analysis due to fussiness.

2.2. Test Stimuli

We included three types of control verbs: subject control verb *xiang* 'want', covert object control verb *rang* 'let', and overt object control verb *jiao* 'ask'. These three control verbs all appeared in young children's production in Yang and Yang (2015). In addition, we included the co-verb *gei* 'for' that introduces a benefactive NP, which is also quite frequent in early production.[2] With these words, we designed four types of test sentences: subject control, covert object control, overt object control and the *gei* 'for' structure. Sample test sentences are listed in (6).

(6) a. Subject control with *xiang* 'want':
Xiaotu$_i$ xiang [PRO$_i$ chi-fan].
Little Rabbit want eat-meal
'Bunny wants to eat a meal.'

b. Covert object control with *rang* 'let':
Xiaotu rang e_i [PRO$_i$ chi-fan].
Little Rabbit let eat-meal
'Bunny lets (Little Goat) eat a meal.'

2. Co-verbs are a class of morphemes in Mandarin Chinese that "are partly like verbs and partly like prepositions" (Li & Thomson 1981, p. 360), including *gei* 'for', *gen* 'with', *cong* 'from', *chao* 'facing', *yan* 'along', *li* 'be apart from'.

c. Overt object control with *jiao* ‘ask’:
Xiaogou jiao Xiaohou$_i$ [PRO$_i$ kai-men].
Little Dog ask Little Monkey open-door
‘Doggie asks Little Monkey to open the door.’

d. *Gei* ‘for’ structure:
Xiaogou gei Xiaohou kai-men.
Little Dog for Little Monkey open-door
‘Doggie opens the door for Little Monkey.’

As can be seen from (6a, b), subject control and covert object control sentences have an identical surface form of NVV, but the controller of PRO is different: while the matrix subject controls the embedded PRO in (6a), the controller of PRO in (6b) is the null object *e*, which can be identified in the discourse context. Therefore, in terms of the surface NVV sequence, *xiang* ‘want’ and *rang* ‘let’ form a minimal pair. On the other hand, overt object control shares the same surface form NVNV as the *gei* ‘for’ sentence. Again, they differ with respect to the agent of the second VP: in the overt object control sentence in (6c), the agent of the embedded verb is the matrix object, while the *gei* ‘for’ sentence in (6d) takes the matrix subject to be the agent of the verb. Given the surface NVNV string, *jiao* ‘ask’ and *gei* ‘for’ also form a minimal pair. In this way, we attempted to see whether toddlers were guided by the syntactic knowledge of control regardless of the surface form.

There were three sentences for each structure type. The sentences in each minimal pair contained the same nouns and embedded verbs, but they differed in the control verb (and the co-verb *gei* ‘for’). Nouns in the sentence were names of animal characters such as *Xiaotu* ‘Bunny’, *Xiaoyang* ‘Little Goat’ and *Xiaozhu* ‘Little Pig’. For subject control and covert object control, the embedded verbs were *chi-fan* ‘eat-meal’, *kan-shu* ‘read-book’ and *shua-ya* ‘brush-teeth’. For overt object control and the *gei* ‘for’ structure, the embedded verbs consisted of *kai-men* ‘open-door’, *chang-ge* ‘sing-song’, and *hua-hua* ‘draw-picture’. In total, we created 12 test sentences (i.e., 4 structure types x 3 sentences).

The speech stimuli were recorded by a native female speaker of Mandarin Chinese in a child-directed manner in a sound-proof booth. We also designed several carrier phases for the introduction of the characters and the questions about the referent (cf. Table 1).

For each minimal pair, a pair of pictures depicting the possible referents of PRO was created as visual stimuli (cf. Table 1). Considering that control structures are complex sentences with two events and the event encoded by the embedded clause is unrealized, to avoid confusion, in the present study, we did not use videos or pictures of events with both the participants and the actions.

2.3. Design

Given that the use of pictures representing the potential referents of PRO was a novel method in the field, we designed a training session to check the reliability of the method as well as to teach the child the task before the formal test. The training involved two types of non-control sentences. The first were three single-NP sentences (see (7a)), each presented in a separate trial. The other type included three other trials presenting three complex sentences with the verb *shuo* 'say', in which the agent of the embedded verb is the second noun of the sentence (see (7b)). The design of the two types of training sentences was to tell children that either the first noun or the second noun of the sentence could be the correct answer. The training trials had the same procedure as the test trials, except that in order to get the child to know what he/she was supposed to do, at the end of each training trial, we signaled the target picture by flashing it and the child also heard the correct answer *Shi Xiaoxiang xizao* 'It's Little Elephant that takes a shower'.

(7) a. Single-NP sentence:
Xiaoxiang xizao.
Little Elephant take-shower
'Little Elephant takes a shower.'

b. Complex *shuo* 'say' sentence:
Xiaohou shuo [Xiaozhu kai-che].
Little Monkey say Little Pig drive-car
'Little Monkey says that Little Pig drives a car.

The test session followed the training session. Each test trial started with an introduction of the two animal characters using carrier phrases such as *Kan! Xiaotu! Kan! Xiaoyang! Wa*! 'Look, Bunny! Look! Little Goat! Wow!'. Then, the test sentence was presented (e.g., *Xiaotu xiang chi fan* 'Bunny wants to eat a meal'), followed by a who-question about the agent of the embedded verb (e.g., *Shei chi-fan a?* 'Who eats a meal?'). When the test sentence and the question were presented, the screen was blank. Finally, the two animal characters reappeared on the screen for 3.6 s, during which the child was expected to look at one of the two pictures (see Table 1 for the layout of a sample test trial). The side of the target picture was counterbalanced, with the target showing half time on the left and half time on the right across the trials.

Table 1. Layout of a sample test trial

	Visual	Audio	Visual
Character introduction		*Kan! Xiaoyang!* 'Look, Little Goat!'	
		Kan! Xiaotu! 'Look, Bunny!'	
		*Wa!* 'Wow!'	
Test sentence + Question	(Blankness)	*Xiaotu*$_i$ *xiang* [*PRO*$_i$ *chi-fan*]. 'Bunny wants to eat a meal.'	(Blankness)
	(Blankness)	*Shei chi-fan a?* 'Who eats a meal?'	(Blankness)
		(3.6s-Silence)	

The order of the test trials was pseudo-random with the constraint that sentences in a minimal pair or with the same control verb (or *gei* 'for') would not be adjacent. Each child was randomly assigned to one of the four experimental orders, and each order consisted of all four structure types.

2.4. Procedure

Toddlers were tested individually in a sound-proof acoustic chamber. The video stimuli were displayed on an LCD screen, and the audio stimuli were delivered by loud speakers on both sides of the screen. During the experiment, the child sat on the parent's lap facing the screen. The parent was explicitly instructed not to distract the child beforehand and listened to music from headphones to mask the audio stimuli during the whole experiment. The child's looking behavior was recorded (for later off-line coding) by a hidden camera under the screen, which sent videos simultaneously to the monitor in the adjacent room where the experimenter who was blind to the test stimuli observed the children and launched each trial. The whole experiment lasted about 6 minutes.

2.5. Statistical Analyses and Predictions

Children's looking behavior (direction and duration) in the last 3.6s of each test trial was coded off-line by a blind researcher from the recorded videos. For each frame, the child's looking was coded as left look, right look, or looking elsewhere. Trials where the child looked elsewhere over 80% of the time were excluded from analysis, and a total of 2.3% of the trials fell into this category.

Reliability of the coding was assessed with 12.5% of the data. The inter-coder reliability reached 96.4%.

To assess whether children could assign the correct referent to PRO, we conducted two kinds of statistical analyses. The first was the paired T-tests, which compared children's proportion of looking to the matrix subject in two minimal pairs. This measure evaluated whether the structure types affected children's looking preference. It was predicted that if children showed any sensitivity to the structural constraint of GCR, there should be evidence for a differentiation between subject control and covert object control. Specifically, there should be more looking to the matrix subject character in the *xiang* 'want' trials than in the *rang* 'let' trials. Similarly, if children could distinguish overt object control from the *gei* 'for' structure, looking to matrix subject for the two structures should differ significantly, with more looking to matrix subject in the *gei* 'for' trials than in the *jiao* 'ask' trials. However, if children adopted a linear order strategy, then there would be no differentiation between subject control and covert object control, nor between overt object control and the *gei* 'for' structure. Specifically, there might be two tendencies. One was that children might adopt a first-noun strategy and thus showed a subject bias by generalizing the frequent *xiang* 'want' interpretation to all verbs. The other was the adjacent-noun strategy. Children might consistently turn to the closest lexicalized NP, i.e., the first NP (the matrix subject) for subject control and covert object control, and the second NP for overt object control and the *gei* 'for' sentences.

We further conducted one-sample T-tests to compare children's proportion of looking to the target, i.e., the correct reference, of each trial type with chance level 0.5. Above chance proportion of looking to target would indicate the correct selection of referents. We predicted that if children understood the subject control structure with *xiang* 'want' and the *gei* 'for' structure, they should look more to the matrix subject. If children could find the correct controller for the covert object control *rang* 'let' structure and the overt object control *jiao* 'ask' structure, they should look more to the character other than the matrix subject for *rang* 'let' and the matrix object for *jiao* 'ask'.

3. Results

To check the reliability of the training method, we conducted a one-sample T-test to compare children's proportion of looking to target in the training trials with the chance level 0.5. The results revealed that children's proportion of looking to target was significantly or marginally above chance in all single-NP training trials (Single-NP Training Trial 1: M=.615, SE=.029, $t(31)=3.974$, $p=.000$; Single-NP Training Trial 2: M=.565, SE=.035, $t(31)=1.864$, $p=.072$; Single-NP Training Trial 3: M=.588, SE=.041, $t(31)=2.132$, $p=.041$). In the first and the second complex *shuo* 'say' training trials, proportion of looking to target was not different from the chance level (first: M=.485, SE=.039, $t(31)=-.378$, $p=.708$; second: M=.484, SE=.047, $t(31)=-.341$, $p=.735$). Nevertheless, it

became significantly above chance in the third one (M=.618, SE=.035, $t(31)=3.338$, $p=.002$). Overall, the results of the training trials showed that children had succeeded in learning the task.

For the test phase, the results of children's looking to the matrix subject in the four structures are displayed in Figure 1. As predicted, the paired T-test showed that the difference in proportion of looking to matrix subject for the *xiang* 'want' and *rang* 'let' structures was marginally significant ($t(31)=1.865$, $p=.072$). It indicates that the structure type had an effect on children's looking preference: they looked more to the matrix subject only for subject control. The paired T-test also yielded a difference between the proportion of looking to matrix subject for the *gei* 'for' and *jiao* 'ask' structures ($t(31)=1.750$, $p=.090$). This, again, suggests that children's looking behavior was affected by the type of test sentences: they looked more to subject for the *gei* 'for' structure than for overt object control. This pattern of results manifests that toddlers made a distinction between subject control and covert object control on the one hand and between the *gei* 'for' structure and overt object control on the other.

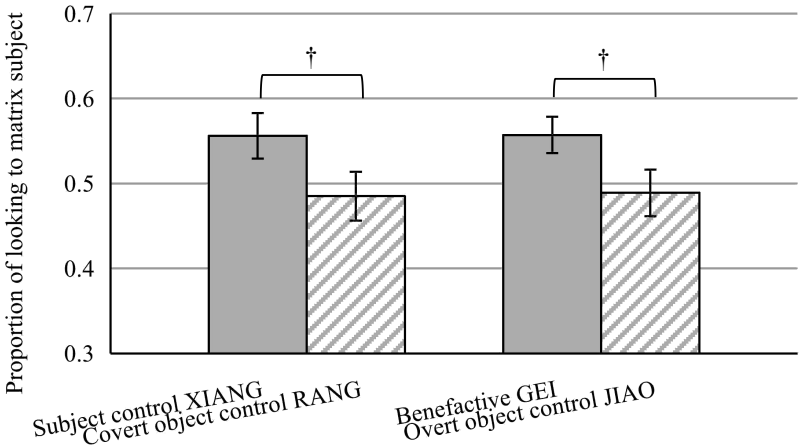

Figure 1. Mean proportion of looking to matrix subject in two minimal pairs (†$p<.1$)

We conducted further analysis on children's looking to the targets, i.e., the correct referents. Proportion of looking to target for each structure is displayed in Figure 2. These results display a contrast in children's interpretation of PRO in subject versus object control structures. As expected, when tested on subject control *xiang* 'want' and the *gei* 'for' sentences, children looked more at the matrix subject. The one-sample T-test results showed that proportion of looking to target was significantly above chance for the *xiang* 'want' (M=.556, SE=.027, $t(31)=2.097$, $p=.044$) and *gei* 'for' sentences (M=.557, SE=.021, $t(31)=2.677$, $p=.012$). However, our predictions concerning children's looking behavior for *rang* 'let' and *jiao* 'ask' were not borne out. The T-test results showed that

proportion of looking to target was at chance for both *rang* 'let' (M=.515, SE=.029, *t*(31)=.522, *p*=.605) and *jiao* 'ask' sentences (M=.511, SE=.027, *t*(31)=.392, *p*=.698). It seems that children at age 2 still find it difficult to identify the controller of PRO in object control structures.

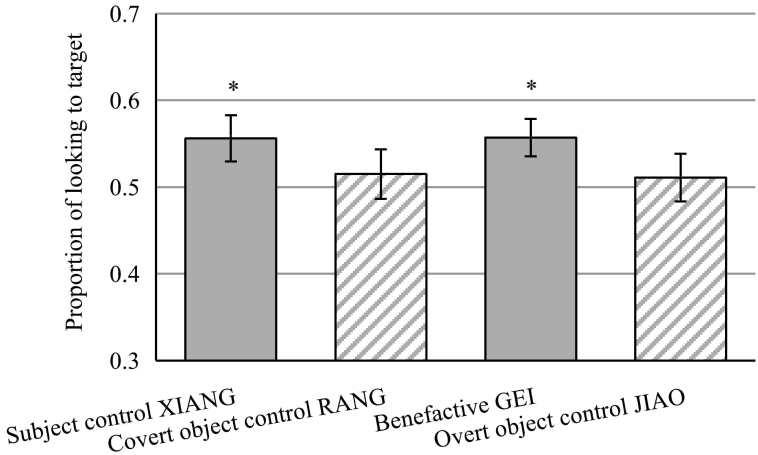

Figure 2. Mean proportion of looking to target in different structure types (*p<.05)

4. Discussion and Conclusion

The purpose of the present study was to assess young children's early knowledge of control. We tested thirty-two Mandarin-speaking 2-year-olds' comprehension in an IPLP experiment to see whether they were able to choose the right antecedent of PRO in various complement control structures (i.e., subject control with *xiang* 'want', covert object control with *rang* 'let' and overt object control with *jiao* 'ask'). A methodological innovation of our study was the design of the visual stimuli. In previous IPL studies of the acquisition of verbs or verb-related structures, the standard method has been to present video clips or pictures containing full events or actions named by the verb (e.g., Naigles, 1990; Candan, et al., 2012; Yang, Shi & Xu, 2018). This method has been successful for sentences expressing simple actions. Control structures, however, are complex sentences containing two events. Also, the embedded event is not realized. For instance, a control sentence such as 'Doggie asks Little Monkey to open the door' does not entail that the door is open or even will be opened. Therefore, presenting only pictures of characters avoided the potential confusions that might affect children's looking behavior. Furthermore, while depicting a verb event is quite complex, depicting objects in pictures for word-object recognition is more straightforward. Many previous IPL studies using object pictures in the same procedure as ours successfully revealed the

knowledge of noun comprehension in children (e.g., Fernald et al., 1998; Plunkett, 2005), even in 1-year-old infants (e.g., Swingley & Aslin, 2002; Ballen & Plunkett, 2005). Moreover, children's noun comprehension in this procedure has shown the influence of the syntactic context of the carrier utterances, for example, better object recognition when the carrier is grammatical than ungrammatical (e.g., Melançon & Shi, 2015; van Heugten & Shi, 2009). Considering all the above factors, in the present study, we decided to use pictures of characters representing the potential antecedents of PRO in the test sentence, rather than videos or pictures of events with both the participant and action. The results of our training trials showed that our children learned the task during training, they understood that when asked who did a particular action, they needed to look at the character who was the agent of that action. This suggests that our method is a successful new way to study children's knowledge of verb arguments and verb structures.

Our results provide evidence for the availability of control in early language development. 2-year-old children were found to differentiate between subject control and object control, and have a good command of subject control. Their performance was especially impressive given the ambiguities present in the linear order of Mandarin sentences. In particular, Mandarin allows *pro*-drop at both subject and object positions, and unlike languages like English, there are no morphological cues to control structures in Mandarin. Although our children had some problems comprehending covert object control *rang* 'let' and overt object control with *jiao* 'ask', the at-chance results for these two structures indicate that toddlers did not simply adopt the first-noun strategy across the board (i.e., taking the matrix subject as the reference for the object control sentences), nor did they use the adjacent-noun strategy (i.e., turning to the matrix subject for covert object control, and the matrix object for overt object control). That is, toddlers were not driven by the identical linear surface form of each contrasting pair of structures (i.e., the same surface NVV sequence in the *xiang* 'want'/*rang* 'let' trials, and the same NVNV sequence in the *jiao* 'ask'/*gei* 'for' trials). Instead, they demonstrated awareness of the hierarchical structure of the sentences by selecting the controller of PRO in accordance with the c-command and minimality constraints such as GCR, though they were still at the stage of working out the structural details of object control. Results like these support and extend similar findings from previous studies examining how young children represent abstract phrase structural knowledge (e.g., Höhle, Schmitz, Santelmann & Weissenborn, 2006; Massicotte-Laforge & Shi, 2015; Shi, Legrand & Brandenberger, 2020).

Our findings are in line with Yang's (2014) *pro* analysis of PRO in early Mandarin. According to this analysis, Mandarin-speaking children are aware of the existence of the embedded null subject and the related structural constraints. However, as *pro*-drop is characteristic of Mandarin and is an early-acquired aspect of syntactic development (Wang, Lillo-Martin, Best & Levitt, 1992; Yang & Yang, 2015), young children may misanalyze PRO as *pro*. Since the referent of *pro* can be identified by sentence-internal NPs and the discourse

topic, children may therefore allow *pro* to be co-referential with the matrix subject, the matrix object, or a sentence-external referent. In our experiment children's proportion of looking to target in covert object control *rang* 'let' trials was at chance, which means that they might have accepted both the covert object (co-referential with the external referent) and the matrix subject as the antecedent of PRO. In the case of overt object control *jiao* 'ask', their proportion of looking to target was also at chance, indicating their likely acceptance of both the matrix subject and matrix object as the controller of PRO. These findings are consistent with the *pro* analysis of PRO. Interestingly, in accounting for the English-speaking girl Laura's (aged 1;6 to 2;6) early production of control, Landau and Thornton (2011) also detected a stage when Laura analyzed PRO as *pro* accompanied by the drop of infinitival marker *to*.

However, the *pro* account discussed above still faces a challenge: if children misanalyze PRO as *pro*, why are they more capable of interpreting subject control than object control in our study? Following Sherman and Lust's (1986, 1993) lexical-syntactic integration hypothesis, we assume that children have to learn to integrate the structural knowledge of control with the lexical knowledge of control verbs. Such an integration of different modules likely takes more time. It is also possible that Mandarin-speaking children acquire subject control verbs like *xiang* 'want' earlier than object control verbs like *rang* 'let' and *jiao* 'ask', due to the low frequencies of the latter two in the linguistic input. We searched the input of subject control verb *xiang* 'want', overt object control verb *jiao* 'ask' and covert object control verb *rang* 'let' in the Beijing Chinese Early Language Acquisition (BJCELA) corpus of 145 hours of natural child-adult interactions, and identified 844 tokens of *xiang* 'want' but only 53 tokens of overt object control *jiao* 'ask' and 48 tokens of covert object control *rang* 'let'.[3] How input frequency of control verbs affects acquisition of control requires further investigation.

In conclusion, the present study reveals how 2-year-olds comprehend control. Our findings show that Mandarin-speaking toddlers at age 2 already demonstrate sensitivity to the structural distinctions between different types of complement control, and that they comprehend subject control better than object control. These findings contribute supporting evidence for the continuity view of control in language acquisition.

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