The littlest linguists and their superlatives: A first experiment*

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1 Introduction

In this paper, we consider the acquisition of complex superlative expressions such as (1), which contain a *by*-phrase modifying the superlative object noun phrase (NP). Such sentences give rise to up to three possible readings across languages. We begin by introducing a recent account of the cross-linguistic variation in the availability of these readings, and then move to a discussion of whether young children are sensitive to the interpretive restrictions on such expressions. We present the results of an experiment designed to test English-speaking children's interpretation of such superlative expressions, which reveal adult-like performance on a particular reading of simple superlative expressions, but difficulty on more complex superlative expressions such as (1).

1.1 The ambiguity of superlatives

Sentences containing superlative expressions such as (1) are ambiguous. Up to three readings can be found cross-linguistically, and these differ in what is taken to be the relevant comparison class (Pancheva & Tomaszewicz 2012). For the absolute (ABS) reading in (1-a), the comparison class contains paintings produced by Monkey. For the so-called relative reading with NP-external focus (REX) in (1-b), the comparison class contains individuals who purchased paintings by Monkey. Finally, for the relative reading with NP-internal focus (RIN) in (1-c), the comparison class contains individuals who produced paintings purchased by Sally.

(1) Sally bought the biggest painting by Monkey.
   a. Of the paintings produced by Monkey, Sally bought the biggest one. *(Absolute reading)*
   b. Of the people who bought paintings by Monkey, it was Sally who bought the biggest one (and not some other buyer). *(Relative reading with NP-external focus)*
   c. Of the paintings purchased by Sally, the biggest one was produced by Monkey (and not by some other painter). *(Relative reading with NP-internal focus)*

For helpful discussion and feedback, we would like to thank the audiences at CLS50 and at the University of Connecticut and École Normale Supérieure. Thanks also to the families and children who participated in our experiment at the UConn Child Development Labs and at the Mansfield Discovery Depot in Connecticut. The research leading to these results was supported by the Social Sciences & Humanities Research Council of Canada (SSHRC 752-2008-2450), the European Research Council under the European Union's Seventh Framework Programme (FP/2007-2013) / ERC Grant Agreement n.313610, and by ANR-10-IDEX-0001-02 PSL and ANR-10-LABX-0087 IEC.

In English, both the ABS reading in (1-a) and the REX reading in (1-b) are available; in contrast, the RIN reading in (1-c) is unavailable. As observed by Pancheva & Tomaszewicz (2012) however, the state of affairs is different when we move to a language such as Polish, in which all three readings in (1) are attested. The generalization appears to be that while the ABS and REX readings are universally available, the RIN reading is available only in languages without articles, i.e. NP-languages. It is the unavailability of this latter reading in English that will be the focus of the present paper.

Before moving on to a discussion of children's knowledge of superlatives, we will briefly present the basic derivations of the readings in (1). For our purposes, what is relevant are the basic ingredients needed to derive these readings. Therefore, rather than fully spelling out the analysis that we adopt for this paper, we will simply provide the basic ingredients of the analysis; we direct the reader to Heim (1999), Pancheva & Tomaszewicz (2012), and Shen (2014) for details.

1.1.1 Absolute reading

Heim (1999) proposes the following denotation for the superlative morpheme *-est*:

(2) $[\![est]\!] = \lambda C_{\langle e,t\rangle}.\lambda D_{\langle d\langle e,t\rangle\rangle}.\lambda x_e.\exists d[D(d)(x)\&\forall y[y \in C\&y \neq x \rightarrow \neg D(d)(y)]]$
$est(C)(D)(x)$ is defined iff (i) $x \in C$ and (ii) $\forall y[y \in C\&\exists d[D(d)(y)]]$

Based on this, the denotation of a phrase like *the biggest painting by Monkey* is as in (3).[1]

(3) $[\![the\ biggest\ painting\ by\ Monkey]\!] = \lambda x.\exists d\ s.t.\ x\ is\ d\ big\ \&\ \forall y.\ y \in C\ and\ y \neq x \rightarrow y\ is\ not\ d\ big\ \&\ x\ is\ a\ painting\ \&\ x\ is\ by\ Monkey.$
Presupposition: (i) $x \in C$; (ii) $\forall y[y \in C\&\exists d[BIG(d)(y)]]$

Without further syntactic movement of the above elements (i.e. when everything is interpreted *in situ*), the ABS reading is attested.

1.1.2 REX reading

One account that has been proposed for the REX reading is the so-called *scope account*. According to proposals by Szabolcsi (1986) and Heim (1999), the relative reading is derived from the movement of the DegreeP (DegP) and of the focused element. In the REX reading, the focused element (i.e. the subject NP *Sally* in our example) moves to a higher position, before the DegP moves to tuck in below the focused subject, as shown in (4).[2]

(4) [Sally$_1$ [[$_{DegP}$ EST C] [~S [t$_1$ bought the [$_{AP}$ t$_{DegP}$ big] painting by Monkey]]]]

[1] For simplicity, we will assume that the definite article in superlative expressions functions as an existential quantifier.

[2] An alternative account is the *in situ account* also found in Heim (1999), later elaborated in further detail in Farkas & Kiss (2000) and Sharvit & Stateva (2002). On this theory, the DegP is interpreted *in situ*, with the difference between the ABS and REX readings deriving from different values of the contextual variable C. We will simply assume the scope account for the purposes of this paper, in particular because it has been extended to account for the RIN reading as well.

'Sally is x such that there is a degree d, such that x bought the d-big painting by Monkey, and no one else bought a d-big painting by Monkey'

1.1.3 RIN reading

According to Pancheva & Tomaszewicz (2012), relative readings require movement of both the focused element and DegP out of the NP. In the case of the RIN reading, it is the PP that is focused, and thus both the PP and DegP must move out of the NP, as in (5).

(5) [[PP_F by Monkey] [[$DegP$ EST-C] [~S [Sally bought the [NP [AP t_{DegP} big] [NP [NP painting] t_{PP}]]]]]]

Given the analysis of superlatives assumed so far, let us now consider one explanation for why the RIN reading is available only in NP languages. Assuming English is a language that projects a Determiner Phrase (DP) (i.e. is a DP language), Shen (2014) derives the unavailability of the RIN reading as follows. The focused PP *by Monkey* is an adjunct to the object NP.[3] In English, such adjuncts cannot move out of DP, as evidenced by the examples in (6).

(6) a. *It was by Monkey that Sally bought a painting.
b. *By whom did Sally buy a painting?
c. *A girl has a painting by every monkey. *(*every monkey > a girl)*

Such extraction can be ruled out by the Phase Impenetrability Condition (PIC) (Chomsky 2000, 2001) and Anti-locality (c.f. Bošković 2005, Abels 2003, a.o.) in the following manner. For the PP to move out of DP, it must first move through the edge of the DP phase, by the PIC. But any movement must cross at least one full phrase, by Anti-locality. Movement of the PP to Spec,DP in (7) is thus ruled out as too short. Since the RIN LF in (5) cannot be generated, DP languages are left with (7), and the RIN reading is unavailable.

(7) [DP_{phase} the [NP[NP [AP [$DegP$ EST-C] big] [NP painting]][PP by Monkey]]]

In NP languages on the other hand, extraction of PP does not violate locality constraints. Given the lack of a DP projection, NP is considered a phase in NP languages (Bošković 2005, a.o.). As seen in (8), the adjunct PP, being adjoined to NP, is base-generated at the edge; thus movement of PP and DegP can both occur, and the RIN reading is available.

(8) [NP_{phase} [NP [AP [$DegP$ EST-C] big] [NP painting]][PP by Monkey]]

1.2 Predictions for acquisition

' There has been very little previous research examining children's interpretation of superlative adjectives. Most studies to date have focused on when superlative

[3]For instance, *a painting* can be substituted by *one*, to the exclusion of the PP *by Monkey*:

(i) Sally bought a painting by Monkey, and Sue bought one by Bunny.

morphology emerges, either compared to other degree or comparative constructions (Hohaus & Tiemann 2009; Berezovskaya 2013) or to other grammatical suffixes like plural marking (Warlaumont & Jarmulowicz 2012). These studies reveal that there are generally few errors in 4–5-year-old children's spontaneous production of superlatives. But there is more to the target of acquisition here than target-like production of the superlative morphology. In particular, we have no information as to what interpretations children are assigning to the superlative, especially in light of the ambiguities we have discussed so far.

The current theory of superlatives identifies certain prerequisites to the successful acquisition of superlative expressions such as (1). For instance, in order to derive the RIN LF in (5), a child acquiring an NP-language must have knowledge of focus movement, and thus be able to covertly move both PP and DegP out of the NP. On the other hand, in order to correctly disallow the RIN reading, a child acquiring a DP language requires knowledge of syntactic principles such as the PIC and Anti-locality; the child must also be able to distinguish arguments and adjuncts, as it is the adjuncts that are banned from undergoing the movement required to generate the RIN LF in (5). Finally, to correctly allow or disallow the RIN reading, the child must correctly set the NP/DP parameter, i.e. she must have knowledge of whether her language projects a DP.

We take it for granted that 4-year-olds have knowledge of the PIC and Anti-locality. Beyond the assumed universality of these principles, what matters for our purposes is the assumption that such syntactic principles are already in place by 4. For instance, 3- and 4-year-old children have been shown to be sensitive to successive cyclic movement, sometimes producing medial *wh-* in their long distance *wh*-questions (de Villiers *et al.* 1990; McDaniel *et al.* 1995; Thornton 1990). This can be taken as evidence of sensitivity to the PIC, which forces movement of the *wh* through intermediate Spec,CPs. Additionally, we assume that 4-year-olds can distinguish arguments from adjuncts. For instance, de Villiers *et al.* (1990) showed that 3–6-year-olds are adult-like in differentially interpreting argument and adjunct *wh*-questions. Moreover, we assume that children in this age range have also set the NP/DP parameter (see Koulidobrova 2012 for evidence of early setting of this parameter).

On the face of it, given the syntactic prerequisites for deriving the target-like distribution of readings discussed above, we might expect an English-speaking child by the age of 4 to already be capable of discerning the readings of (1), and, in particular, of blocking the RIN reading in (1-c). With this in mind, we set out to test English-speaking children's comprehension of sentences such as (1); in particular, we investigated whether children would correctly allow the ABS reading but disallow the RIN reading.[4]

2 Experiment

We designed a Truth Value Judgment Task (Crain & Thornton 1998, 2000) to assess the interpretations that English-speaking adults and children would assign to

[4]We restrict our attention to English in this paper, and leave to future study the elicitation of comparable judgments from children acquiring an NP language such as Polish.

sentences such as (1), in particular evaluating whether they would allow the ABS reading but disallow the RIN reading.

2.1 Methods

2.1.1 Participants

The participants were 16 English-speaking children (3;11 – 5;03, M = 4;07) and 22 adult native speakers of English. Participants had to pass at least 3 out of 4 control trials to be included in the analysis; all participants passed the control trials.

2.1.2 Procedure

Participants watched a series of short stories told through pictures on a laptop computer. Participants were told that a puppet, who appeared on the screen via prerecorded videoclips, was also participating in the experiment live, via webcam. At the end of each story, the puppet was asked a question about the story, and the participant's task was to decide whether the puppet was 'right' or 'wrong'. To indicate their responses, children were given a scorecard with two columns; they were asked to put a stamp in the 'happy face' column if the puppet was right, and to put a stamp in the 'sad face' column if the puppet was wrong. Adults were given a similar scorecard but were asked to place a checkmark in the appropriate column; they were also given a third column in which to provide brief written justifications for their responses.

2.1.3 Materials

We used a 2x2 design with group (child vs. adult) and interpretation type (RIN vs. ABS, within-subject) as factors. Each participant received two training items, followed by 8 test and 4 control items, which were presented in pseudo-randomized and counterbalanced order. Test trials included 4 RIN trials and 4 ABS trials. In the RIN condition, critical test sentences were presented in contexts that made the RIN reading true and the ABS reading false. In the ABS condition, critical test sentences were presented in contexts that made the ABS reading true and the RIN reading false.

Each test story involved a character, Sally, visiting a crafts market with many different stands. At each stand were master craftsmen Monkey and Bunny, who produced various kinds of objects. Of the six objects on display at each stand, three produced by Monkey and three produced by Bunny, Sally would select three for purchase. During the training, children were shown that purchased objects would be indicated by circles around the objects, as well as Sally's placement of gold coins in front of the objects. The objects to be purchased varied along some dimension (e.g., length or size). Given the objects that were purchased, participants then had to judge whether the puppet's statement about Sally's purchases was right or wrong. Follow-up justifications were elicited following *yes*- and *no*-responses, in order to ascertain the reason for participants' responses.

An example of a critical RIN trial is provided in (9); see Figure 1 for the final image accompanying the presentation of the test sentence.

(9) *Training preamble:* This is Sally! She loves to visit the marketplace, where she can buy all sorts of things with the gold coins that she's saved up! She's

Figure 1: Final image accompanying the RIN test sentence *Sally bought the biggest painting by Monkey*.

> going to buy some different things, okay? So I need you to pay attention to what she buys, because we're going to ask Ellie later!
> RIN TEST TRIAL: [...] Now Monkey and Bunny are selling their paintings that they painted all by themselves! Which ones will Sally buy? Sally decides to buy this painting by Monkey and these two paintings by Bunny!
> EXPERIMENTER: Hey Ellie, can you tell us something about the story?
> PUPPET: Sally bought the biggest painting by Monkey!
> *(Target:* RIN-*yes* / ABS-*no)*

On such a trial, the RIN reading is made true: of the paintings that Sally bought, the biggest one was indeed produced by Monkey. The ABS reading is false however, because Sally did not buy Monkey's biggest painting, i.e. the second painting from the left. If participants could access a RIN reading, we expected them to be charitable and therefore to accept on these trials. If the RIN LF was excluded however, as expected in the theories discussed in Section 1, we expected participants to reject the sentence.[5]

By manipulating the agent in the *by*-phrase, we were able to create completely parallel test items that were true on the ABS reading while false on the RIN reading. An example of a critical ABS trial is provided in (10); see Figure 2 for the final image accompanying the presentation of the test sentence.

(10) ABS TEST TRIAL: [...] Now Monkey and Bunny are selling their cakes that they baked all by themselves! Which ones will Sally buy? Sally decides to buy this cake by Monkey and these two cakes by Bunny!
EXPERIMENTER: Hey Ellie, can you tell us something about the story?
PUPPET: Sally bought the tallest cake by Bunny!
(Target: ABS-*yes* / RIN-*no)*

On such a trial, the ABS reading is made true, because Sally did indeed buy the tallest cake produced by Bunny. The RIN reading however is false, because the tallest cake that Sally bought was actually produced by Monkey. If participants were able to access the ABS reading, we expected them to respond charitably by

[5] We present the expected judgments here rather categorically. The question may however be more subtle. In particular, even if participants have access to both readings, these readings may not be equally preferable. We set aside this issue for the time being.

Figure 2: Final image accompanying the ABS test sentence *Sally bought the tallest cake by Bunny*.

accepting on such trials.

The critical test sentences for both conditions are provided in (11) and (12).

(11) Puppet's statements in RIN test stories

a. Sally bought the biggest painting by Monkey.
b. Sally bought the shortest coat rack by Bunny.
c. Sally bought the tallest cupcake by Monkey.
d. Sally bought the longest scarf by Bunny.

(12) Puppet's statements in ABS test stories

a. Sally bought the biggest pie by Bunny.
b. Sally bought the shortest hat by Monkey.
c. Sally bought the tallest cake by Bunny.
d. Sally bought the longest necklace by Monkey.

Stories and images were maximally counterbalanced. For example, the *by*-phrase made reference to Monkey half the time, and made reference to Bunny half the time. As another example, the *X*-est object, e.g., *tallest, shortest*, appeared on the left half the time, and on the right half the time.

In addition to the 8 test items, each participant received four control trials. Control items included two *by*-phrase controls (e.g., *Sally bought a bowl by Monkey*, where Sally only bought one bowl, which was produced by Monkey) and two superlative (ABS) controls (e.g., *Sally bought the biggest plant*, where there were only three plants available for purchase, and Sally bought the biggest one). The control trials could be associated with a *yes*- or *no*-target, allowing us to balance the overall number of *yes*- and *no*-responses from any given participant. The purpose of these control trials was to ensure that child participants had no difficulty with the comprehension of the *by*-phrase and the superlative independently of each other. The control trials also allowed us to ensure that all participants were on task.

2.2 Results

A 2x2 ANOVA revealed a significant main effect of interpretation type ($F(1,72) = 13.22$, $p < .001$), no effect of group, and a significant interaction ($F(1,72) = 19.20$, $p < .001$). Adults gave significantly more *yes*-responses on the ABS condition than on

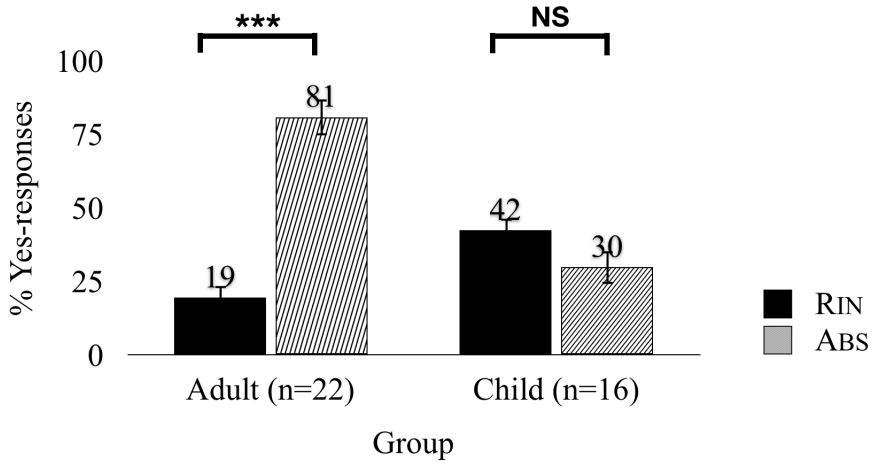


Figure 3: Results for RIN and ABS test conditions

the RIN condition (Tukey HSD, $p < .001$), while children did not differ significantly on the two conditions. The participants' *yes*-responses are plotted in Figure 3.

3 Discussion

3.1 Response patterns

On the face of it, while adults appear to respond in a manner consistent with the judgments reported in the theoretical literature, children as a group appear not to distinguish the two readings. Two issues arise that must be examined more closely. First, although the theory categorically rules out the RIN reading for English, our adults gave *yes*-responses on the RIN condition just under 20% of the time. Second, it's worth questioning how consistent individual children were in their responses. As it turns out, an examination of individual responses (including follow-up justifications) reveals more nuanced patterns of performance, which may allow us to answer both questions.

In particular, adults fell into two categories: 19/22 adults performed as expected, accepting the ABS trials and rejecting the RIN trials, while 3/22 adults displayed a 'reverse' pattern, accepting the RIN trials and rejecting the ABS trials. Child response patterns fell into four categories: 3/16 children were target-like; 5/16 displayed the reverse pattern; 5/16 rejected all test trials (despite providing target *yes*-responses on control trials); and 3/16 provided mixed responses. The mixed response pattern is not very informative, so we leave these three child participants aside, and turn instead to explaining each of the other three response patterns.

Let us first consider the target pattern. The majority of adult participants responded in the expected manner, providing experimental support for the unavailability of the RIN reading. By contrast, only three children exhibited the target pattern, suggesting that even by 4, many children may not have arrived at the target interpretive restrictions on superlative expressions.

Next consider the mysterious reverse pattern, exhibited by 3 of the 22 adults and

5 of the 16 children. We propose that these participants reanalyzed the *by*-phrase as an adjunct to VP. That is, instead of assigning the sentence the DP-adjunct structure in (13), the participants assigned it the structure in (14).

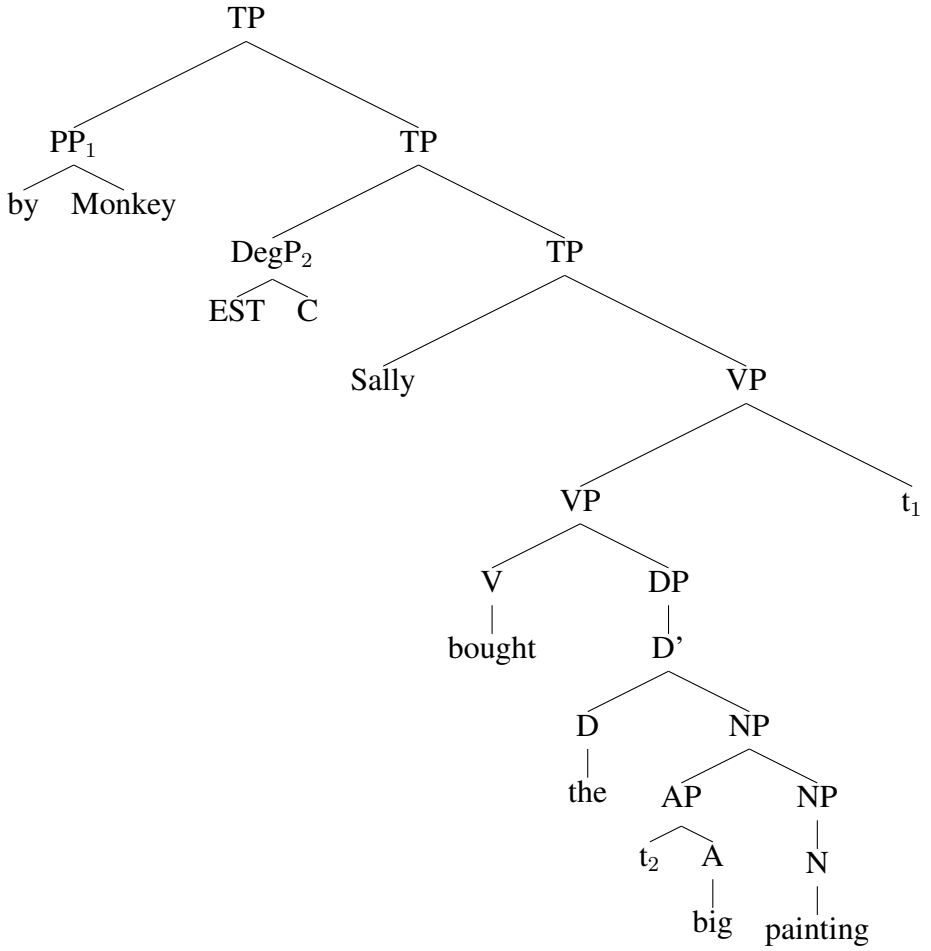
(13) Sally bought the [$_{DP}$ [$_{DP}$ biggest painting] [$_{PP}$ by Monkey]]

(14) Sally [$_{VP}$ [$_{VP}$ bought [$_{DP}$ the biggest painting]] [$_{PP}$ by Monkey]]
Interpretation: 'Sally bought the biggest painting, and she bought it from Monkey'

Since VP adjuncts can move in English, as evidenced by the movement of the *from*-phrase in (15), it is possible to generate the LF required for the RIN reading; that is, unlike the case of the NP adjunct, movement of the VP adjunct is not banned by Anti-locality. The structure that these participants are likely to have assigned to the sentence is provided in (16).

(15) From whom did Sally buy the biggest painting?

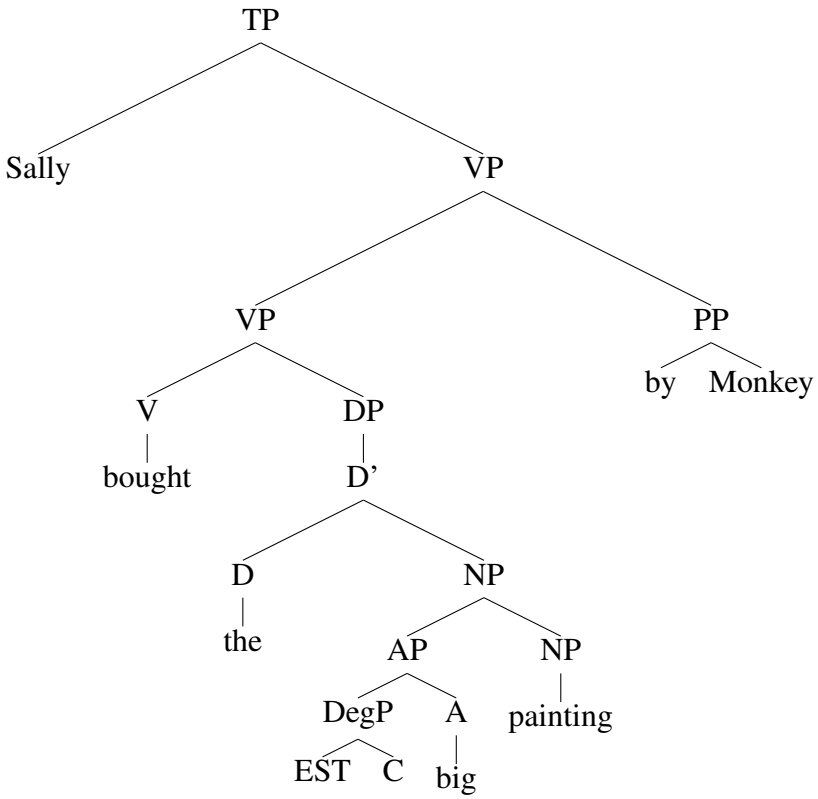
(16)



Now notice that these same participants would be expected to reject the ABS items. Assume no PP movement, as in (17). If the DegP is interpreted *in situ*, and the comparison class is the set of all six paintings, the interpretation is akin to: *Sally*

bought the biggest painting in the context, and she bought it from Monkey, false in the given scenario.[6]

(17)



Finally, consider the 'reject-all' pattern, exhibited by 5 of the 16 children. We hypothesize that these children consistently interpreted the *by*-phrase as an adjunct to VP, scoping over the DegP as in (17). This structure would yield the interpretation that Sally bought the biggest/longest, etc. object from among the comparison set of all six objects – false in every test story.

3.2 Improving adult performance

As we have seen, the possibility of a VP-adjoined reading of the *by*-phrase creates a potential confound in our experiment. Part of the children's non-target performance reflected a pattern also observed in adults. In a follow-up experiment, we sought to eliminate the possibility of the VP adjunct reading by using a predicate that was incompatible with a VP adjunct reading of the *by*-phrase. Using the same design, we adapted the test items such that the verb *buy* was replaced by the verb *paint*. Notice that the verb *paint* does not easily allow a VP adjunct reading, e.g., it is impossible to interpret (18-a) as in (18-b).

(18) a. Billy painted the smallest violin by Penguin.

[6]In fact, on none of the test trials did Sally buy the absolute X-*est* of all six objects on display.

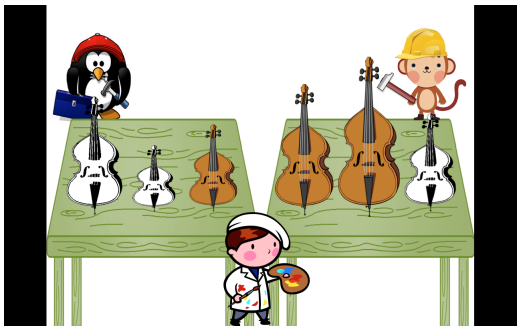


Figure 4: Final image accompanying the RIN test sentence *Billy painted the smallest violin by Penguin*.

b. Billy painted the smallest violin by Penguin...#and he painted it by/from Penguin.

Examples of RIN and ABS critical test trials for this follow-up experiment are presented in (19)-(20) and Figures 4 and 5.

(19) *Training preamble:* In these stories, we're going to see our friends, Billy, Dog, Penguin, and Monkey. They are preparing for a big art show! Dog, Penguin, and Monkey are master builders. They love to build all different sorts of things! And Billy is a very talented painter! His job is to paint some of the things that the other guys make! So he's going to paint some different things, and I need you to pay attention to what he paints, because we're going to ask Ellie later!
RIN TEST TRIAL: [...] Now Penguin and Monkey have made some violins! See, Penguin made these three violins, and Monkey made these three! Let's see what Billy does! Oh look, Billy painted this violin by Penguin and these two violins by Monkey!
EXPERIMENTER: Hey Ellie, can you tell us something about the story?
PUPPET: Billy painted the smallest violin by Penguin!
(Target: RIN-*yes* / ABS-*no)*

(20) ABS TEST TRIAL: [...] Now Penguin and Monkey have made some guitars! See, Penguin made these three guitars, and Monkey made these three! Let's see what Billy does! Oh look, Billy painted this guitar by Penguin and these two guitars by Monkey!
EXPERIMENTER: Hey Ellie, can you tell us something about the story?
PUPPET: Billy painted the smallest guitar by Monkey!
(Target: ABS-*yes* / RIN-*no)*

We conducted this follow-up experiment with 17 adults who had not participated in the original experiment. We found that while adults accepted the test sentence 90% of the time in the ABS condition, they did so only 4% of the time in the RIN condition. It remains to be seen whether this manipulation of predicate type will likewise have a favorable effect on children.

Figure 5: Final image accompanying the ABS test sentence *Billy painted the smallest guitar by Monkey*.

Note however, that given only five of the 16 children tested exhibited the 'reverse pattern', even if this particular response pattern were eliminated, half the children would still appear non-target-like, an observation that remains to be explained.

3.3 Learnability of superlatives

The existing literature on the acquisition of superlatives consists mostly of corpus studies examining the age of emergence of superlative morphology. We have little data on what interpretations children can assign to superlatives. The corpus data and a subset of the experimental control conditions reported in this paper reveal competence in the ABS reading. We have so far not found any clear evidence for knowledge of *relative* readings. But the work ahead of us remains clear: to establish the full complement of children's interpretation of superlatives.

One reason to more closely examine children's acquisition of these structures is that children appear to receive very little evidence in their input for these interpretive restrictions. An examination of corpora on the CHILDES database (MacWhinney 2000) reveals that the majority of superlatives in child-directed speech involve evidence for the ABS reading of expressions such as *the best*, with superlatives overall appearing very infrequently. In the Brown corpus for example (Brown 1973), Adam's mother produced 4 instances of *-est* out of 19,838 utterances; Eve's mother produced 3 instances of *-est* out of 10,245 utterances; and Sarah's mother produced 18 instances of *-est* out of 26,837. More importantly, virtually none of these instances of *-est* involved relative readings. Yet English-speaking children must somehow arrive at a target grammar that allows the ABS and REX readings but disallows the RIN reading.

Our hope is that by more carefully investigating children's comprehension of complex superlative expressions such as those discussed in this paper, we will be able to identify what ingredients children who are not yet able to assign adult-like interpretations to these superlatives may have yet to acquire. In this paper, we have focused on the syntactic knowledge required to generate (only) the permitted readings, in particular:

(21) *Syntactic ingredients required for adult-like comprehension of superlatives*

a. Covert movement operations (required to generate relevant readings)
b. Correct setting of the NP/DP parameter

c. PIC and Anti-locality conditions (required to block disallowed readings)

But to this list of required ingredients, we ought to also add the following:

(22) *Additional ingredients*
   a. Degree/scalar semantics
   b. Knowledge of gradable adjectives
   c. The morphology and semantics of the *-est* morpheme
   d. Conceptual ability to compare members of a comparison set
   e. The ability to generate, store, and access a comparison set

More careful investigation is required in order to precisely identify which of the above ingredients are missing in cases where children fail to display the target complement of available readings.

4 Conclusion

In this paper, we have examined English-speaking adults' and children's comprehension of complex superlative expressions that involve modification of the object noun phrase. In doing so, we have provided additional experimental evidence that English-speaking adults generally allow the ABS reading but disallow the RIN reading. Our novel investigation with children, however, suggests that although 4-year-olds can interpret basic ABS superlative structures that do not involve modification of the object NP, they have yet to acquire adult-like interpretations of more complex superlative expressions. We have identified a number of ingredients that are required for target-like comprehension of such superlative expressions. In particular, assuming 4-year-old children already have knowledge of the PIC/Anti-locality conditions, the argument/adjunct distinction, and the setting of the NP/DP parameter, these syntactic ingredients appear to be insufficient to derive target-like knowledge of the interpretive restrictions on superlative expressions. More careful investigation is required in order to identify which additional ingredients may pose a problem for children in this age range.

More generally, it is our hope that a better understanding of how children perform with respect to the interpretive restrictions on superlatives as well as the various ingredients that go into target-like comprehension of superlatives will ultimately shed light on the learnability of such expressions.

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