

Production/Comprehension Asymmetry in Children's *Why* Questions

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1. Introduction

A long-standing question in the study of child language acquisition is the question of how accurately children's productions reflect their grammars. For adults, we assume that production is a fairly accurate representation of grammar; however children have a range of extra-linguistic limitations which may also influence their production. In this paper, we investigate the acquisition of subject-auxiliary inversion with *why* questions with this question in mind. We show that the lack of subject-auxiliary inversion with *why* questions, a phenomenon that has been attributed to a child's not having acquired the target grammar, is best captured as reflecting limitations of the production system.

It has been observed that young English-learning children fail to consistently require an inverted word order with *why*, even at a stage in which they do require an inverted word order in production with the remainder of the *wh*-phrases. It remains a question as to why children delay in exhibiting adult-like behavior with *why*. We consider two possible answers to this question. One possibility is that children have a misset parameter setting. On this view, children have acquired a grammatical system that is more appropriate for some language other than English. A second possibility is that children have acquired the correct (adult-like) grammar of English, but that their errors derive from some extra-linguistic mechanism that affects their productions. According to the first hypothesis, children are within the range of cross-linguistic variation, and display properties consistent with the grammar of another language, unlike English-speaking adults. According to the second hypothesis, children's grammars match the English-adult target grammar. Both of these hypotheses attribute a great deal of knowledge to the learner, but differ in identifying the source of children's production errors as due to the competence grammar or the performance systems. In the current paper, we examine children's comprehension of *why*-questions in order to tease these possibilities apart. The misset parameter hypothesis predicts that children's errors in production are correlated with certain kinds of errors in comprehension. The production constraint hypothesis, on the other hand, predicts that children will show target behavior in comprehension but not in production. We present two experiments that support the production constraint hypothesis over the misset parameter hypothesis.

Previous research in the domain of *why* questions has argued in favor of the misset parameter hypothesis (Thornton, 2004). However, this research has focused only on children's production of *why* questions, and therefore, does not eliminate the second hypothesis, that children have acquired the target grammar, but have production limitations that lead to non-adult productions. Therefore, in order to investigate children's grammar of *why*, we must examine both production and comprehension in tandem. In this paper, we conduct two experiments, one which tests production, and a second testing comprehension, to clarify the nature of children's representations. We ask the following question: when a child fails to require inversion with *why*, is their comprehension limited in predictable ways? In order to answer this question, we must compare the comprehension of *why* questions to a lexical item that does not require an inverted word order.

In English, there is a *wh*-phrase that does not require an inverted word order, *how come*. In English, this lack of inverted word order correlates with a lack of a long distance reading in two clause questions (Collins, 1991). If it is the case that children treat *why* like *how come* in lacking inversion,

then we can investigate their interpretation of *why* questions in order to identify the grammar of *why* in children who do not require an inverted word order.

We conduct two experiments, one which tests production, and a second testing comprehension, in order to ask two questions. First, do children adhere to the long distance restriction with *how come*? Second, what is the relation between inversion and interpretation in the child grammar? We find that children who do not require an inverted word order with *why* display the same range of interpretations as both adults and children who do invert with *why*. Furthermore, all children adhere to the long distance restriction on *how come*. Therefore we conclude that children are adult-like in their grammar of *why*-type words. This result yields a production/comprehension asymmetry: children appear non-adult-like in production, but are fully adult-like in comprehension with *why*. Thus, we conclude that children's errors derive from properties of the production system and not from a misset parameter.

2. Background

Why in English, requires subject-auxiliary inversion to be grammatical, as shown in (1).

1. a. Why do you like chocolate?
b. * Why you like chocolate?

However, this is not the case with all *wh*-phrases in English. Differently than *why*, *how come* does not permit the inverted word order, as shown in (2).

2. a. * How come do you like chocolate?
b. How come you like chocolate?

Within English, there is variation concerning which *why*-type phrases require inversion. Because there is variability within the language, the acquisition of *why*-type phrases is an interesting point of investigation. First, we review the evidence that English-learning children delay in inverting with *why* over the remaining *wh*-phrases. Then, we review Rizzi's (2001) syntactic analysis, which provides the mechanism for inversion in the adult grammar, which we will use as the basis for our analysis in this paper.

2.1 Acquisition background

It has been shown that English-learning children delay in performing subject-auxiliary inversion with *why* (Labov and Labov 1978, Berk 2003, Thornton 2004). That is, some children fail to have an inverted word order with *why*, even when this word order is present with the remainder of the *wh*-phrases. Interestingly, the fact that *why* is the *wh*-phrase that is singled out in the course of acquisition reflects the distribution of *why* cross-linguistically. In this section, we briefly review the data concerning acquisition of *why*, as well as previous analyses that tie this delay to cross-linguistic observations.

Labov & Labov (1978) studied *why* questions produced by a young child named Jessie. They found that Jessie resisted inverting with *why* until around 4;6 years of age, even though she was regularly inverting with *what*, *how*, and *where* by the age of 3;9. This finding from naturalistic data has been observed in other children (Thornton, 2004), and replicated in Triggered Natural Speech (Berk, 2003).

The puzzle remains as to why *why* lags behind in development with respect to inversion long after the remainder of the other *wh*-phrases. In this paper, we will review two analyses concerning this delay in inverted word order with *why*.

Thornton (2004) observes that it is not only English-speaking children that do not invert with *why*. Italian *why* also does not require inversion (3), even though the remaining *wh*-phrases in Italian do trigger inversion (4).

3. Perché Gianni ha mangiato? [non-inverted word order]
Why Gianni ate?
 ‘Why did Gianni eat?’
4. a. *Che cosa Gianni ha detto?
What Gianni did?
 ‘What did Gianni do?’
 b. Che cosa ha detto Gianni?
What did Gianni?
 ‘What did Gianni do?’

Thornton claims that English-learning children who fail to have the inverted word order with *why* have the grammar of Italian. We review the grammar of Italian *wh*-phrases in the next section. This different grammar permits non-inverted word order with *why*, but still requires the triggering of inversion with the remainder of the *wh*-phrases.

Berk (2003) claims that children treat *why* like another non inverting *wh*-phrase in English, *how come*. Recall, in English, *how come* is a *why*-type phrase that does not require inverted word order. Berk claims that English-learning children, when they are not using an inverted word order with *why*, are treating *why* like *how come*.

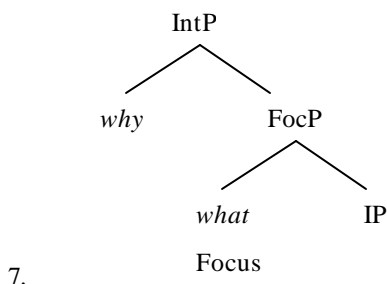
In the next section, we review the syntactic account for non-inversion in the adult grammar, using the analysis put forth by Rizzi (2001).

2.2 Two positions for movement

As we have seen, in both Italian and English, some *wh*-phrases require an inverted word order, while others do not. In particular, Rizzi (2001) observes that *why* in Italian, *perché*, does not require an inverted word order. Additionally, he observes that while the remainder of the *wh*-phrases can not co-occur with a focus phrase (5), *perché* can (6).

5. a. *A GIANNI che cosa hai detto?
TO GIANNI what you tell
 b. *Che cosa A GIANNI hai detto?
What TO GIANNI you tell
6. Perché QUESTO hai detto?
Why THIS you tell

The data shown in (5) suggests that most *wh*-phrases in Italian occupy the same position as focus phrases in Italian. However, the data in (6) suggests that *perché* occupies a position higher than focus phrases. Rizzi proposes a new position, IntP, which *perché* occupies, as shown in (7).



What accounts for the differences in word order permitted between *perché* and the remainder of the *wh*-phrases? Rizzi claims inversion derives from the different properties these two positions in the left periphery.

Perché occupies the higher position, IntP, which does not require inversion. *What* occupies the lower position, FocP, a position that requires an inverted word order.

2.3 Movement into the Left Periphery

Rizzi claims that only FocP is an available landing site of movement. (8) is ambiguous: *perché* could have been generated in the matrix [Spec, IntP], or generated in the embedded [Spec, IntP] and moved to the matrix clause. However, (9) is not ambiguous: it can only have the matrix interpretation.

- | | | |
|----|--|---------------|
| 8. | Perché ha detto che si è dimesso?
<i>why said that he resigned</i> | [ambiguous] |
| 9. | Perché A GIANNI ha detto che si è dimesso?
<i>why TO GIANNI said that he resigned</i> | [matrix only] |

(9) contains a focus phrase, meaning that *perché* must occupy [Spec, IntP], because *wh*-phrases in [Spec, FocP] cannot co-occur with focus phrases. The lack of a long distance interpretation suggests that [Spec, IntP] is not a potential landing site of movement. Therefore, even though *perché* is generated in [Spec, IntP] in the embedded clause (9), it moves to [Spec, FocP] in the matrix clause.

This account explains why *how come* questions can not have long distance interpretations. Because *how come* is uninverted, it occupies [Spec, IntP]. Additionally, *how come* can not achieve the long distance interpretation, because the matrix [Spec, IntP] is not a potential landing site of movement. However, *why* is generated in [Spec, FocP], which is a potential landing site of movement. Therefore, a two clause *why* question is ambiguous, because the same position is both a landing site and a generation site.

3. Delayed Inversion with *why* in Acquisition

Now that we have reviewed the mechanism for inversion in the adult grammar, we can turn to the claims concerning acquisition. English-learning children frequently fail to require the inverted word order with *why*, which also occurs with Italian *why* and English *how come*. We will call children who fail to require an inverted word order with *why*, but do invert with the remainder of the *wh*-phrases, *Why-Non-Inverters* (WNIs). Berk claims that children fail to require inversion with *why* because they treat it like *how come*. Thornton claims that English-learning children who fail to require an inverted word order with *why* treat *why* like *perché*. These two hypotheses make different predictions concerning WNI's interpretations of two clause *why* questions. We review these predictions in this section.

3.1 The How come Hypothesis

Berk accounted for children's delay in inverting with *why* questions by claiming that WNIs initially treat *why* like *how come*. As we have seen, *how come* occupies [Spec, IntP], and does not allow a long distance interpretation in two clause questions. Recall, *wh*-phrases in IntP do not trigger inversion. Therefore, this hypothesis suggests that children are not requiring an inverted word order with *why* because they are treating *why* as a non-inverting, non-moving item. Some support for the hypothesis that the *how come* position is a default comes from the observation that children do not mistakenly use an inverted word order with *how come*.

3.2 The Perché Hypothesis

Thornton (2004) proposed that WNIs are 'speaking Italian', and mistakenly generate *why* in [Spec, IntP], resulting in delayed inversion in their *why* questions. Additionally, she claims that, like Italian, children allow movement of *why*-phrases only to [Spec, FocP].

Thornton observes a phenomenon similar to that noticed by Labov and Labov: her daughter, A.L., did not consistently invert with *why* until 5;0 years, even though she was inverting with non-*why*

questions successfully by 3;6. Support for the *Perché* Hypothesis comes non-adult behavior with one clause, but not two clause *why* questions. A.L. consistently inverted when asking a *why* question with a long distance interpretation (10)-(12) (all examples from Thornton (2004)).

10. Why do you think Santa's not coming this year? (3;10)
11. Why do you think that Boomer came in with us? (4;2)
12. Why do you think that Mommy would not wanna watch the show? (4;6)

Because A.L. inverted only when she intended a long distance interpretation, this suggests that *why* can move into [Spec, FocP]. As a result, Thornton claims that WNIs generate *why* in [Spec, IntP], and move it into the matrix [Spec, FocP], as is claimed by Rizzi for Italian. This hypothesis is in line with the continuity hypothesis, which claims that children can only make 'mistakes' that are constructions found in adult languages.

3.3 Predictions made by Thornton and Berk's hypotheses

Two clause *why*-questions are ambiguous in adult English.

13. Why do you think Joe left?

(13) can ask about the reason for thinking, the matrix interpretation, or the reason for Joe's leaving, the long-distance interpretation. This is not the case with *how come*, which is unambiguous in a two clause question (14).

14. How come you think Joe left?

The hypotheses presented by Thornton and Berk make different predictions for the acquisition of *why* and *how come*, specifically, WNI's interpretations of questions like that in (13).

Berk suggests that WNIs treat *why* like *how come*. This results in children producing *why* questions with a non-inverted word order. If WNIs treat *why* like the adult *how come*, then they will permit only matrix interpretations with two clause *why* questions, as is the case in the adult grammar for *how come*. Berk's hypothesis predicts that WNIs, when presented with ambiguous two clause *why* questions, will be restricted to matrix interpretations.

Thornton makes a different prediction. She claims that WNIs are 'speaking Italian': generating *why* in [Spec, IntP], but permitting movement only to [Spec, FocP]. This hypothesis predicts that when a WNI hears an inverted two clause question, he will posit that the *why* has moved to [Spec, FocP], because inversion is a cue that movement has occurred. Therefore, WNIs should interpret inverted two clause *why* questions only with the long distance interpretation.

Secondly, Thornton and Berk make a prediction about all children's interpretations of a non-inverted two clause question, like one with *how come*. Because movement to the matrix [Spec, IntP] is not permitted, *how come* must be base generated. Both Berk and Thornton predict that children will interpret two clause *how come* questions with matrix interpretations only, like adults.

4. Acquisition of Inversion and Interpretation in *why* Questions

Thornton and Berk both hypothesize that children adhere to a restriction of movement into IntP, predicting WNIs will not be able to obtain the full range of interpretations available to adults. Berk's hypothesis predicts that WNIs will interpret two clause *why* questions with a matrix only interpretation. Thornton predicts WNIs will treat inversion as a signal of movement, and that they will interpret inverted two clause *why* questions with a long distance interpretation, as a result of a misset parameter.

We conduct two experiments testing children's production and comprehension of *why* and *how come*, two phrases which differ with respect to inversion and interpretation, to determine the relation between inversion and movement in the grammar of young children. We find that children maintain the full range of interpretations available to adults with *why*, suggesting that even *Why-Non-Inverters*

allow generation of *why* in [Spec, FocP]. This fact is not revealed by their production, but comes out in evidence from their comprehension.

4.1 Purpose

In this paper, we investigate the grammar of *Why*-Non-Inverters by exploring the correlation between inversion and available interpretations.

The two experiments in this section investigate which interpretations are available to *Why*-Inverters and WNIs. Because the interpretation is a direct indication of movement, we can determine which positions children allow as landing sites of movement. Production and interpretation, combined, give us a complete picture of the relation between inversion and movement in the child's grammar.

In this section, we present an experiment designed to test if there is a correlation for children between inversion and long distance movement, and to determine the exact nature of this relation. If non-inverting children maintain the full range of adult-like interpretations (both matrix and long distance interpretations) with *why*, this suggests they allow both movement and generation in [Spec, FocP], as adults do. However, if children are restricted in their interpretation, we can then determine their grammar and the relation between production and their comprehension. We are interested in why children produce non-inverted sentences, and what this production, in combination with a look at comprehension, tells us about the range of possibilities open to a child.

4.2 Description

In this section, we present two experiments designed to test the relation between inversion and interpretation. The first experiment is an elicitation task, while the second experiment is an interpretation task. The elicitation task was designed to elicit *why* questions from children, to tell whether they were consistently inverting or not. The second task was a question interpretation task, designed using the Questions-After-Stories-task (DeVilliers et al., 1990). Ambiguous questions such as (15) were asked to children after a story which made both the matrix and long-distance readings felicitous.

15. Why did Joe say Monster ate his sandwich?

The goal of these experiments is to see if there is a correlation between inversion and availability of a long-distance reading. If children initially treat *why* like *how come*, as Berk suggests, then we would expect non-inversion and matrix-only interpretations to be correlated. If Thornton is correct, we would predict that non-inverting children treat inversion as an indication of movement, suggesting a much higher percentage of long distance interpretations. Additionally, we predict only matrix readings with *how come*, because this *wh*-phrase does not permit inverted word order.

4.3 Experiment One

Experiment one is an elicitation task designed to determine whether children were inverting with *why* questions. This is essential since previous studies have claimed a relation between lack of inversion in production and their grammar.

4.3.1 Materials and Methodology

For the elicitation task, children were shown a small alien toy, and told that this alien would not talk to the experimenter, but that the experimenter needed to ask him some questions. The child was asked if he/she would ask the alien some questions to help the experimenter. The experimenter then prompted the child, as shown in (16) or (17), alternating.

16. I need to find out where the alien lives. Could you ask him?
 17. Could you ask him where he lives?

This variation was added to assure that the child could not simply be repeating the question, which would appear quickly with use of different forms. Once the child answered, the alien gave some answer which contributed to the ongoing discussion. This process continued until the script had been completed.

The script consisted of two practice questions, and 18 target questions: 6 *what*, 6 *where*, and 6 *why* questions. These question words were chosen so arguments, adjuncts and *why*-type questions were equally represented. Responses were recorded by audio. Children were scored as 'Why-inverters' if they inverted 5/6 times with the *why* questions. Children were scored as 'Why-non-inverters' if they did not consistently use an inverted word order with *why*, but used an inverted word order with the other *wh*-phrases. There were no children which did not use inversion with any *wh*-phrases.

4.3.2 Subjects

Subjects were 25 children between the ages of 3;5 and 5;0, with a mean age of 4;4. Children were selected from preschools surrounding College Park, MD.

4.3.3 Results

Of the 25 children tested in experiment one, 6 children were *Why-Non-Inverters* children, while the remaining 19 were inverting with *why*.

4.4 Experiment Two

Experiment two addresses children's comprehension of two clause sentences with and without inversion. First, it has not been tested whether or not children adhere to the restriction on long distance interpretations with *how come*. Furthermore, Thornton and Berk make predictions about inversion and interpretation; therefore, we require a task in which the same children are tested on both of these fronts.

4.4.1 Materials and Methodology

The story interpretation task was designed using the Questions-After-Stories-task (DeVilliers et al., 1990). Pictures were shown on a computer, with a recorded voice, so that the stories were consistent between children. Children watched the stories with a puppet, and were told that the puppet had a really hard time figuring out what happened in the story, so the puppet may need to ask a question about what happened. The target questions were either *why* or *how come* questions, as shown in (18) & (19).

18. Why did Joe think Monster ate his sandwich?
19. How come Joe thought Monster ate his sandwich?

Children responded to the puppet, and their response was recorded on a digital recorder, and also notated by hand. Then the experimenter moved on to the next story.

There were a total of 24 story-question pairs in the story interpretation task. There were 12 target questions. Counterbalanced measures include: *wh*-phrase (*why* or *how come*, matrix verb (*say* or *think*) and story type (matrix-biased or non-biased, described below). The remaining 12 stories were control items. 6 of the control questions are interpretable only with a long distance interpretations, as in (20) and (21).

20. What did Joe think was in the tree?
21. Who did Joe announce won the prize?

Half of these questions used *who*, and half contained *what*.

The remaining 6 of the control questions had available only matrix interpretations, as in (22)-(24), which involve either a factive verb, a medial *wh*-phrase, or a non-finite embedded clause.

22. Where did Joe say what big Jack rode?
23. When did Joe figure out he got a new book?
24. When did Joe pretend to be a dog?

Half of these stories used *when*, and half used *where*.

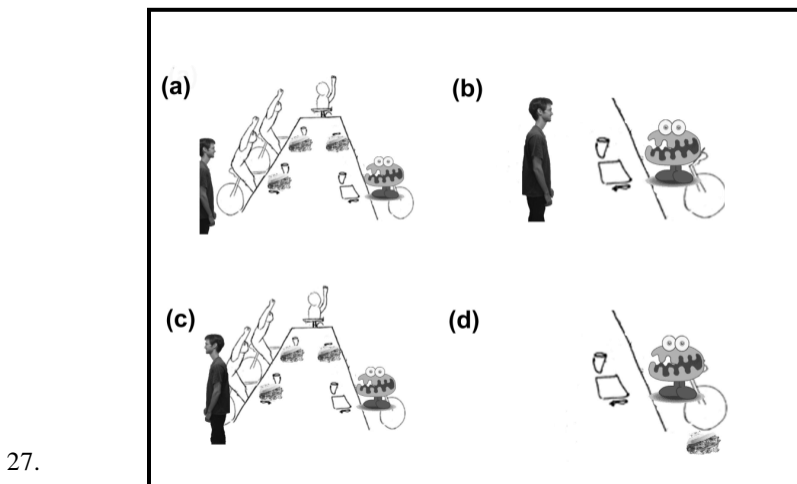
The target stories followed one of two formats. The first story format is the 'matrix biased' story, in which the main character, Joe, has a mistaken belief about the embedded clause. The second story format is the 'non-biased' story, where no mistaken belief occurs. Critical to this task, only questions were used in which the matrix and long distance interpretations yeild different answers. Notice, this is not the case in many two clause questions, as in (25).

25. Why do you think Joe is wearing a sweater?

In this case, *because it's cold outside* is both a viable reason for having this thought, and a rational reason for the wearing of the sweater. Cases such as these were avoided for this task, as clause of interpretation is critical for the experimental results.

In 'matrix-biased' stories, a mistaken belief occurs about the embedded clause. These types of stories were determined to be biased towards the matrix interpretation from adult piloting. In the story, Joe believes something falsely, which biases the question as one of reasons for thinking that way. A sample story is shown in (26), accompanied by the progression of pictures shown in (27).

26. Joe walks up to Monster in the lunchroom, and sees an empty plate (a). Joe says, 'Oh, you're sandwich is gone, you must have eaten lunch without me, you must have been really hungry (b). I guess I'll go eat somewhere else'. Joe leaves (c). Then, Monster reveals he did not actually eat his sandwich, but it fell on the floor (d).



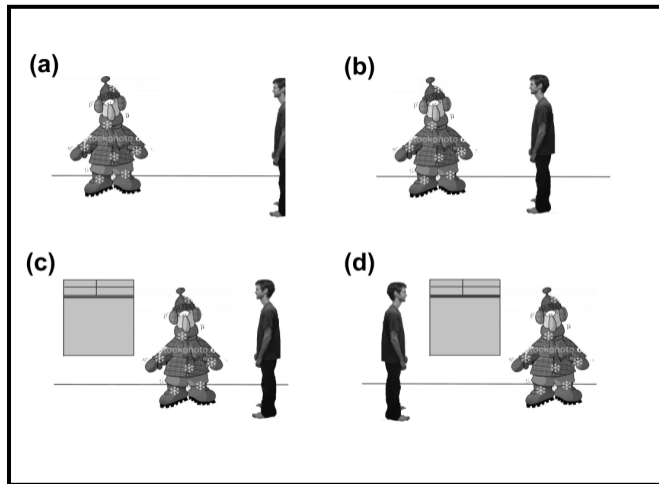
The child would then be asked the target question, as in (28).

28. Why did Joe think Monster ate his sandwich?

There are two possible answers made salient in the story. The matrix response is *because Joe saw the sandwich was gone*, which is Joe's reason for thinking monster had eaten. The long-distance response is *because Monster was hungry*, which is the reason that Monster would have eaten his sandwich, according to Joe.

The second format is a 'non-biased' story. In these stories, there is no confusion incurred by the main character in the story. According to adult pilot results, these stories are slightly biased towards the long-distance reading, since there is no prominent discourse reason to ask about the reasons for thought or speaking. A sample story is in (29), accompanied by the progression of pictures shown in (30).

29. Joe walks into the room and sees Fred all bundled up (a). Joe says, 'Geez, you must be cold, you're wearing your coat inside' (b). Then Joe notices that the window is open, and says, 'No wonder you are cold. The window is open!' (c). Joe offers to help out and shut the window (d).



30.

After completion of the story, the puppet would ask the child the target question, as in (31).

31. Why did Joe say Fred was cold?

As in the last story format, there are two possible answers made salient in the story. The matrix response is *because Joe saw Fred wearing a coat*, which is Joe's reason for thinking Fred was cold. The long distance response is *because the window was open*, which is the reason that Fred was cold, according to Joe.

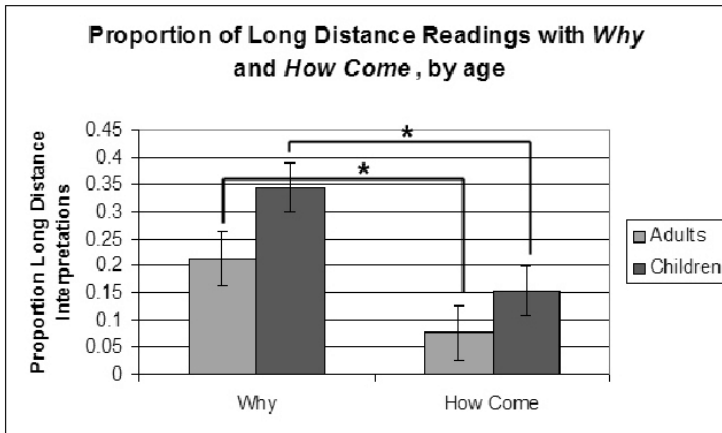
4.4.2 Subjects

Experiment two used the same subjects as experiment one. An additional 6 children were tested and excluded, due to responses that did not correspond to what happened in the story (e.g. responses like *because he was happy*) for more than two stories. This resulted in 25 subjects total. If a child gave non-adult answers (perhaps demonstrating theory of mind problems on the 'matrix-biased' stories), he/she was included in the study, but those particular items were disregarded for purposes of analysis of a long-distance/matrix reading.

Adult Subjects were 14 undergraduate students recruited from the University of Maryland. The procedure was performed exactly the same as for the children, except that a puppet was not used to elicit responses. The experimenter was the one to ask the target question. Responses were recorded by hand.

4.4.3 Results

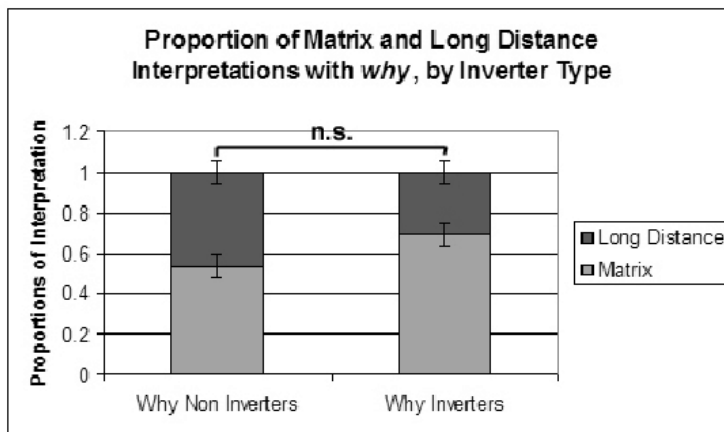
There are two findings from this experiment. The first finding is that children allow fewer long distance readings with *how come* than with *why*, as shown in (32). The graph plots proportion of long distance readings. The difference between *why* and *how come* is statistically significant ($p < .05$) for both children and adults. There are no differences between the children and adults.



32.

This suggests that children are adult-like in restricting long distance interpretations with *how come*. This suggests that English-speaking children do not allow movement into [Spec, IntP], at least with this particular lexical item.

The second finding is that WNIs have a full range of interpretations available to them in comprehension. That is, WNIs allow both matrix and long distance interpretations with two clause *why* questions, at a rate equal to that of *Why*-inverters, as shown in (33).



33.

This shows that even though non-inverting children produce *why* in [Spec, IntP], they allow movement to [Spec, FocP]. Because inversion occurs in *why* questions in English, [Spec, FocP] is the only position in which one can interpret a *why* question.

4.5 Discussion

From experimental results, we have shown that while WNIs generate *why* in [Spec, IntP] (resulting in non-inversion in production), they allow both adult-like interpretations.

The predictions made from the hypotheses of Thornton and Berk are not borne out. Recall Thornton's hypothesis: that children generate in [Spec, IntP] and move to [Spec, FocP]. With this grammar, children would be unable to achieve a long distance interpretation for an item in [Spec,

FocP]. Berk hypothesized that WNIs would obtain only matrix interpretations in two clause *why* questions. We showed that WNIs maintain the full range of interpretations available in the adult grammar, contra the predictions made by Thornton's and Berk's analyses.

The fact that WNIs allow both interpretations that even though children are producing non-adult like utterances, they maintain the adult lexical entry. This suggests that WNI do not have a grammar different from that of adult English-speakers, but simply overgenerate in possible sites of generation.

Because movement is permitted to [Spec, FocP] in the child grammar, we suggest that WNIs allow generation in both [Spec, FocP] or [Spec, IntP]. If it were the case that children generate in [Spec, IntP], but allow movement to [Spec, FocP], as Thornton suggests, then we would expect children to allow only long distance interpretations in two clause *why* questions. Therefore, we claim English-speaking children have the option of generating *why* in either [Spec, IntP] or [Spec, FocP].

5. Conclusions

In this paper, we conducted two experiments testing children's interpretations and production of *why* questions. We found that although some children produce non-adult-like *why* questions, these same children maintain the adult-like ambiguity in two clause *why* questions. This suggests, contra previous hypotheses, that children do not have a different grammar than English-speaking adults.

Furthermore, we have revealed a production/comprehension asymmetry in young English-learning children's *why* questions. Children appear non-adult-like in production, but are fully adult-like in comprehension of two clause *why* questions. We suggest that *Why-Non-Inverters* allow lexical overgeneration. That is, WNIs allow generation of *why* in both the inverting and non-inverting positions. To become adult-like, children must simply adjust their lexical entry, and need not acquire new movement possibilities.

Our experiments suggest that children not only are in line with the range of cross-linguistic possibilities, but are actually in line with English-speaking adult's grammars. Furthermore, we show that a child's production does not necessarily reflect their grammar. Therefore, production can not be taken as indicative of a child's linguistic capacity. By investigating comprehension in tandem with comprehension, we were able to uncover the source of non-inversion in English-learning children's *why* questions.

References

- Berk, Stephanie. (2003). Why *why* is Different. In B. Beachley, A. Brown and F. Conlin (eds.) *BUCLD 27*, 127-137. Somerville, MA: Cascadilla Press.
- DeVilliers, Jill, Thomas Roeper and Anne Vainikka (1990) The acquisition of long distance rules. In L. Frazier and J. G. de Villiers (eds), *Language Processing and Acquisition*. Dordrecht: Kluwer.
- Labov, William and Teresa Labov (1978). Learning the syntax of Questions. In R. Campbell and P. Smith (eds.). *Recent Advances in the Psychology of Language III*, 1-44. New York: Plenum Press.
- Rizzi, Luigi (2001). On the Position '(Int)errogative' in the Left Periphery of the Clause, in G. Cinque and G. Salvi (eds.) *Current Studies in Italian Linguistics*, 287-296. Amsterdam: Elsevier.
- Thornton, Rosalind (2004). Why Continuity. In A. Brugos, L. Micciulla, and C. Smith (eds.) *BUCLD 28*, 620-632, Somerville, MA: Cascadilla Press.

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