3rd Year Grammar

Stephen Crain
Rosalind Thornton
Macquarie University

1 Innate Linguistic Knowledge

Children manifest linguistic competence equivalent to that of adults in the first few years of life. By the age of three, children around the globe can produce and understand novel sentences, they can judge sentences to be true or false, and they can discern the inferences that sentences generate. Children’s experience dramatically underdetermines the linguistic abilities they so rapidly achieve, even given optimistic assumptions about children’s capacities to extract statistic regularities and form generalizations based on the input from adult speakers of the local language. The observation that children acquire a rich and complex grammar in the absence of abundant, if any, relevant experience forms the basis for poverty-of-the-stimulus arguments. These arguments and the experimental investigations that were inspired by them over the past fifty years have convinced many language scientists that young children know too much about human languages to have plausibly learned what they know from experience. As Chomsky (1965, p. 58-59) put it in Aspects:

It seems plain that language acquisition is based on the child’s discovery of what from a formal point of view is a deep and abstract theory – a generative grammar of his language – many of the concepts and principles of which are only remotely related to experience by long and intricate chains of unconscious quasi-inferential steps.

[T]here is surely no reason today for taking seriously a position that attributes a complex human achievement entirely to months (or at most years) of experience … Such a position is particularly implausible with regard to language, an aspect of the child’s world that is a human creation and would naturally be expected to reflect an intrinsic human capacity in its internal organization.
Concrete demonstrations of children’s linguistic knowledge in the absence of experience have been reported in many experimental studies of children acquiring typologically distant languages. There is now substantial experimental evidence that innate linguistic principles govern children’s behavior as soon as they can be experimentally tested, by the age of three.

Universal Grammar (UG) is a theory of the initial state of language learners. The principles of UG determine the kinds of analyses that child language learners can adopt, as well as certain language specific knowledge that children bring to the task of language acquisition. As Chomsky (1965, pp. 25-27) remarks:

As a precondition for language learning, [the child] must possess, first, a linguistic theory that specifies the form of the grammar of a possible human language […]

[…] The important question is: What are the initial assumptions concerning the nature of language that the child brings to language learning, and how detailed and specific is the innate schema […] that gradually becomes more explicit and differentiated as the child learns the language?

Ten years later, Chomsky famously proposed that Universal Grammar restricts children’s grammars to structure-dependent hypotheses. This was empirically verified by Crain and Nakayama (1987), using the formation of English Yes/No Questions as a case study. As early as they could be tested, children produced structure dependent questions, and no instances of structure-independent questions were in evidence.

Structure-dependent linguistic principles dictate what sentences cannot be formed and what meanings cannot be assigned to sentences, so such principles are appropriately referred to as constraints on grammar formation. Constraints have come to play a central role in the nativist account of language development. Prior to the introduction of constraints into linguistic theory, grammars consisted of rules. Rules are positive statements, indicating which forms and meanings are possible in a language. In contrast to rules, constraints are negative statements, preventing child language learners from producing illicit forms and from assigning illicit meanings. In order for children to learn a constraint, they would require access to negative evidence or some substitute for it. Despite valiant attempts by researchers to identify sources of negative evidence, it is generally conceded that negative evidence is not available in sufficient quantity or at the right time to explain children’s rapid and effortless mastery of language (e.g., Bowerman 1988).

About a decade after the publication of Aspects, constraints began to be investigated by researchers in child language. Many of these researchers were convinced that “the rapidity and uniformity of language learning” could only be explained by universal, innately specified linguistic principles/constraints. Chomsky referred to these principles as “deep-seated regularities” that are “only remotely related to experience” (Chomsky 2006). We will illustrate one of these deep-seated regularities - Principle C of the Binding Theory. Principle C is one of the most studied linguistic constraints in child language. Principle C prevents children from assigning illicit meanings to several kinds of linguistic expressions.

Before we look at sentences that are governed by Principle C, it is instructive to consider the kinds of sentences that are not governed by Principle C, taking as examples the declarative sentence (1) and the wh-question (2).

(1) Obama thinks he will buy a Prius.
(2) Who thinks he will buy a Prius?

Both examples are ambiguous. The ambiguity turns on the interpretation of the pronoun \( he \). On one interpretation, the pronoun \( he \) in (1) can be anaphorically linked to the name \( Obama \), and the pronoun \( he \) in (2) can be anaphorically linked to the \( wh \)-word \( who \). On this interpretation, (1) can be paraphrased as "\( Obama \) thinks that \( he \), \( Obama \), will buy a Prius," and (2) can be paraphrased as "Which person \( x \) is such that \( x \) thinks that \( x \) will buy a Prius?" Both examples have a second interpretation according to which the pronoun \( he \) picks out some salient male individual who is not mentioned in the sentence. On this interpretation, the pronoun \( he \) is said to have direct (deictic) reference.

Now we can consider sentences that are governed by Principle C, such as examples (3) and (4). These sentences are not ambiguous, due to Principle C. In both examples, the pronoun \( he \) must receive direct (deictic) reference. In contrast to examples (1) and (2), the pronoun \( he \) cannot be anaphorically linked to the name \( Obama \) in (3) or to the \( wh \)-word \( who \) in (4).

(3) He thinks Obama will buy a Prius.
(4) Who does he think will buy a Prius?

In addition to declarative sentences and \( wh \)-questions, Principle C applies to discourse sequences. To see this, notice that the pronoun \( he \) used by Speaker A cannot be anaphorically linked to the name \( Obama \) in the response by Speaker B in (5). Generative linguists have suggested that Speaker B’s fragment answer involves copying and then deleting some of the linguistic material from Speaker A’s statement (e.g., Merchant 2004). This enables the Principle C constraint to operate on the underlying representation in Speaker B’s fragment answer, in which the pronoun \( he \) is present, but not pronounced.

(5) Speaker A: I know who he thinks will buy a Prius.
Speaker B: Me too. Obama.

A number of experimental studies have been conducted with children as young as 3-years-old to see how young children interpret sentences like those in (1)-(5) (e.g., Crain and McKee 1986; Crain 2012; Crain and Thornton 1998; Thornton 1990; Conroy and Thornton 2005; Guasti and Chierchia 1999/2000; Kiguchi & Thornton 2004, Kiguchi & Thornton, in press). Essentially, children consistently adhere to Principle C. The findings from these experimental studies pose a challenge for the experience based account of language development, because the findings suggest that children do not avail themselves of either positive or negative evidence in the acquisition of constraints such as Principle C. On the other hand, the findings provide prima facie evidence for the nativist account of language development, as children evidently have linguistic knowledge for which there is no decisive evidence in the input.

2 Word Order, Scope and the Initial State

There is compelling evidence that children acquiring different languages begin at the same starting point, in keeping with Chomsky’s precept that “the innate schema … gradually becomes more explicit and differentiated as the child learns the language.” We will first illustrate one of the
different end-points that child language learners can reach. Then we will show that children, across languages, start off on the same path.

The phenomenon involves scope ambiguity, so a brief introduction to this topic is in order. The English sentence in (6) *All airplanes do not carry pets* contains two logical expressions; one is the universal quantifier *all* and the other is the negation marker *not*. As is often the case in sentences with two logical expressions, (6) gives rise to a scope ambiguity. On one reading, the quantifier *all* takes scope over *not*. A paraphrase of this interpretation is ‘No airplanes carry pets.’ On the other (intended) interpretation, the negative marker *not* takes scope over the universal quantifier *all*. A paraphrase of this interpretation is ‘Not all airplanes carry pets.’

(6)  All airplanes do not carry pets.

Sometimes one interpretation of a scope ambiguity is strongly favored in a class of languages, whereas the alternative interpretation is strongly favored in another class of languages. Consider the English sentence (7).

(7)  Ted didn’t order pasta or sushi.

Sentence (7) contains two logical expressions, negation and disjunction (English *or*). One interpretation is clearly accessible to speakers of English. On this interpretation, negation takes scope over disjunction (NOT > OR). Under this scope assignment, there are two entailments, just as in one of de Morgan’s laws of propositional logic: \( \neg(A \lor B) \Rightarrow \neg A \land \neg B \). In example (7), *Ted didn’t order pasta or sushi*, one of the entailments is that Ted didn’t order pasta, and the second entailment is that Ted didn’t order sushi. Taken together, this is called the ‘conjunctive’ entailment of disjunction in negative sentences. Disjunction generates a conjunctive entailment in (7) because negation takes scope over disjunction both in the surface syntax and at the level of semantic interpretation. Disjunction generates a conjunctive entailment in simple negative sentences in German, French, Greek, Romanian, Turkish, Bulgarian, and Korean.

In other languages, the surface syntactic position of disjunction and negation does not determine scope assignments. Example (8) is the Mandarin translation of the English sentence (7). Notice that word order (and surface syntax) is the same in Mandarin as in English, where the Mandarin word from negation is *méiyōu*, and the word for disjunction, *huòzhě*. Nevertheless, adult speakers of Mandarin do not judge (8) to license a conjunctive entailment. Rather, (8) means that either Ted didn’t order pasta or Ted didn’t order sushi.

(8)  (Wǒ cāi) Tàidé méiyōu diăn yídālimiànshì huòzhě shòusī.  
     (I guess) Ted not order pasta or sushi  
     (我猜）泰德没有点意大利面食或者寿司。  
     ‘It’s either pasta or sushi that Ted did not order’

Although negation (*méiyōu*) takes scope over disjunction (*huòzhě*) in the surface syntax in (8), disjunction takes scope over negation at the level of semantic interpretation, at least for Mandarin-speaking adults. Other languages that favor the ‘inverse’ scope assignment include Japanese, Hungarian, Russian, Portuguese, Serbo-Croatian, Slovak, and Polish.¹

¹ It might appear that these languages fail to conform to the relevant law of propositional logic: \( \neg(A \lor B) \Rightarrow (\neg A \land \neg B) \).
As a matter of fact, word order is completely orthogonal to scope assignment in human languages (Crain 2012). To see this, we need to identify two languages that differ in word order, as compared to Mandarin and English, but which also differ in scope assignment, just as English and Mandarin do. Japanese and Turkish fit the bill. In contrast to English and Mandarin, disjunction precedes negation in both Japanese and Turkish, as examples (9) and (10) illustrate.

(9) Ted-wa pasuta ka sushi-o chu'umon shi-nakat-ta.
   Ted-TOP pasta or sushi-ACC order do-not-PAST
   ‘It’s either pasta or sushi that Ted did not order’

(10) Teddy makarna yada sushi siparis et-me-di.
    Teddy pasta or sushi order make-not-PAST
    ‘Teddy did not order either pasta or sushi’

Here is where things get interesting. Adult speakers of Japanese assign the ‘inverse’ scope interpretation to (9), as do adult speakers of Mandarin. Moreover, adult speakers of Turkish assign the ‘surface’ scope interpretation to (10), as do adult speakers of English. This indicates that word order is orthogonal to scope assignment in human languages.

These cross-linguistic differences in the assignment of scope relations to logical expressions have led to significant predictions about the course of language development. As Chomsky remarks in Aspects (p. 27):

[T]he main task of linguistic theory must be to develop an account of linguistic universals that, on the one hand, will not be falsified by the actual diversity of languages and, on the other, will be sufficiently rich and explicit to account for the rapidity and uniformity of language learning, and the remarkable complexity and range of the generative grammars that are the product of language learning.

There is considerable evidence that children acquire human languages rapidly and uniformly. Nevertheless, languages vary in their properties and it takes some months (sometimes even years) for children to become aware of those properties that distinguish the local language from languages spoken in other linguistic communities. This invites the inference that, before children have mastered the intricacies of the local language, all children speak the same human language. If so, the language spoken by many children will differ from the language spoken by adults. These predictions were investigated in a series of studies of children’s assignment of scope relations across languages (see Crain 2012 for a review).

The first of this series of studies involved negated disjunctions. In an insightful study, Goro (2004) predicted that all children would initially assign the same scope relations in negative sentences with disjunction, regardless of the linguistic input they encountered. The reasoning is based on the observation that the different scope assignments for negated disjunctions across languages stand in a subset/superset relation. The scope assignment preferred by speakers of English is NOT > OR (i.e., negation takes scope over disjunction). This scope assignment
asymmetrically entails the one that is preferred by speakers of Mandarin Chinese, OR > NOT. Based on this asymmetry, Goro reasoned that children would confront a potential learnability dilemma if they initially selected the superset scope assignment, OR > NOT. In the absence of negative evidence, children who initially assign this scope assignment would consistently have their hypothesis confirmed, and would fail to retract to the subset scope assignment manifested in languages like English, such that children acquiring these languages would fail to converge on the scope assignment in the local language. Since all children rapidly converge on the target language, Goro predicted that children acquiring all languages would initially assign the (subset) scope relations manifested in English.

Adopting the Principles and Parameters framework, Goro (2004) proposed that scope assignments were governed by lexical parameters. In the case of disjunction, Goro proposed that one value of the operative parameter forces disjunction to take scope over negation, as in Japanese and Mandarin, whereas negation takes scope over disjunction on the other parameter value. Adopting different terminology, Goro’s proposal was that disjunction words were Positive Polarity Items (PPI) in some languages but not in others. By definition, a Positive Polarity Item must take scope over (local) negation at the level of semantic interpretation, regardless of the structural relations that obtain between disjunction and negation in the surface syntax. Setting details aside, we can summarize Goro’s proposal as follows: disjunction words are associated with a lexical parameter, such that words for disjunction are either [+PPI] or [−PPI]. This led Goro to predict that children acquiring all human languages would initially assign a default (‘subset’) value to the lexical parameter, taking disjunction words to be [−PPI]. If children initially adopt the [−PPI] setting of the lexical parameter, then children acquiring ‘superset’ languages in which words for disjunction are [+PPI] will encounter adult input informing them to abandon the default ‘subset’ value [−PPI].

As an empirical consequence, adopting the [−PPI] value of the disjunction parameter would mean that Mandarin-speaking children should interpret the negated disjunction in (9), 比特 méiyǒu dìàn yìdālimiànsì huòzhě shòusì, in the same way as English-speaking children and adults interpret the negated disjunction in (8) Ted didn’t order pasta or sushi. That is, Mandarin-speaking children should initially assign the scope relations designated as NOT > OR. This semantic interpretation is not attested in the input to Mandarin-speaking children, because adult Mandarin-speakers adopt the [+PPI] value of the disjunction parameter, hence adult speakers of Mandarin interpret negated disjunctions to have the opposite scope relations, OR > NOT.

The predictions generated by Goro (2004) have been pursued in seven languages so far. The chart below summarizes the findings. In four languages (Japanese, Mandarin Chinese, Turkish, and Russian), adult speakers assign the [+PPI] ‘superset’ value of the disjunction parameter. So, adult-speakers of these languages consistently accepted negated disjunctions corresponding to the English sentence Ted didn’t order pasta or sushi in circumstances in which Ted ordered only sushi, or only pasta. In contrast to adults, children acquiring these four languages rejected the sentences in the same circumstances, as did both child and adult speakers of languages that adopt the default value of the disjunction parameter [−PPI] (English, German, and Korean).

---

2 Consider ambiguous sentence S, with two possible interpretations, A and B. If interpretation A asymmetrically entails B, then A is true in a subset of the circumstances that make B true. A is the ‘subset’ interpretation, and B is the ‘superset’ interpretation.
Clearly children acquiring [+PPI] languages did not select the [–PPI] value of the disjunction parameter based on input from adults. According to Goro (2004), children’s initial selection of the –PPI value is due to a principle of language learnability called the Semantic Subset Principle (Crain, Ni and Conway 1994; cf. Berwick 1985). The Semantic Subset Principle (SSP) enforces an ordering on the values of parameters in cases where one value makes a sentence true in a subset of the circumstances that make it true on the other value. The SSP enjoins children to initially adopt the subset value of the parameter.

3 The Continuity Hypothesis

We have seen that child language can differ from the language of adults in the same linguistic community. Two accounts of such differences have been offered, corresponding to the two different perspectives on language acquisition - the experience-based approach, and the approach outlined by Chomsky in Aspects. We discuss these in turn.

According to the experience-based approach, the differences between child and adult language is a matter of degree. Child language is a constructive process. It develops gradually, based on readily available and salient cues in the input to children. Children use these cues to form generalizations, based on general purpose learning mechanisms including distributional analysis, analogy, and ‘cut and paste’ operations. The products of these learning mechanisms are 'shallow' piecemeal records (a.k.a. constructions/ templates/ schemas) of the linguistic patterns that are displayed in the children’s linguistic experience. Constructions are concatenated sequences of words, combined with category labels (NP, V, neg, INF, P) drawn from a simple inventory. Constructions are learned solely from positive evidence (Goldberg 2003, 2006; Pullum and Scholz 2002). When children’s generalizations extend beyond their experience, this is just an instance of a completely general problem of induction that arises for all learning that involves projecting beyond one’s experience (Cowie 1999). It is not necessary to suppose that children are innately endowed with "specific contingent facts about natural languages" (Pullum and Scholz 2002). If the data available to children are rich enough for them to determine the structures of human languages, given the right inferential techniques, then appeals to innately specified principles are unnecessary.
Adopting the alternative approach formulated by Chomsky in *Aspects*, there have been several specific proposals about the ways in which child and adult languages can differ. One proposal is called the Continuity Hypothesis (Crain and Pietroski 2001, Crain 2002, cf. Gleitman 1981, cf. Goodluck 1991, cf. Pinker 1984). According to the Continuity Hypothesis, child and adult languages can differ only in the ways that adult languages can differ from each other. The Continuity Hypothesis anticipates that children will try out various linguistic options, encoded in parameters, before they settle on the values of those parameters that distinguish the local language from other languages. In other words, children are expected to speak fragments of ‘foreign’ languages, from the perspective of adults. At any given time, children are speaking a possible human language, just not necessarily the language that is being spoken to them. The Continuity Hypothesis is, therefore, a rich source of poverty-of-the-stimulus arguments.

Experimental studies of child language have uncovered a number of instances in which children exhibit constructions that are not attested in the local language but are attested in other languages. We witnessed one example earlier. In resolving scope ambiguities, children acquiring Turkish, Russian, Mandarin and Japanese initially interpret negated disjunction in the same way as child and adults speakers of German, Korean, and English. This section reports the findings of two other studies in which child language has been found to differ from that of adults, but just in ways that adult language languages differ from each other.

The first example concerns the interpretation of negative statements with the Italian (deontic) modal expression *potere*. This example is interesting because Italian-speaking children appear to be speaking a fragment of English. Consider example (11).

(11)  

Gianni può non venire.

‘Gianni may not come’

Adult speakers of Italians judge (11) to mean ‘Gianni doesn’t have to come’ (i.e., Gianni can come, but he is also allowed not to come’). Based on learnability considerations, Moscati and Crain (2014) predicted that Italian-speaking children would initially enforce the strong (‘impossibility’) meaning. More specifically, Moscati and Crain argued that sentences with deontic modals and negation are governed by a lexical parameter, R. The initial value for children should be the positive value [+R] for Italian-speaking children, whereas the parameter has a negative value [-R] for Italian-speaking adults. If so, Italian-speaking children and adults are expected to interpret sentences like (11) differently. Children should interpret sentence (11), *Gianni può non venire*, to mean that Gianni must not come (‘It is impossible/forbidden for Gianni to come’).

This was exactly what Moscati and Crain found. Whereas the scope relations assigned by adult speakers of Italian is determined by the relative positioning of modals and negation in the surface syntax, child Italian-speakers strongly prefer the inverse scope relations, as dictated by the [+R] value of the lexical parameter. The findings from the Moscati and Crain study, therefore, rule out any structure-independent account of children’s initial assignment of scope relations. The findings also speak against the possibility that children base their initial scope interpretations on evidence provided by adults. Italian-speaking children could not learn to assign the ‘impossibility’ meaning to (11), because adults cannot interpret (11) in this way. If children do not learn to assign the impossibility meaning, then the default [+R] setting of the lexical parameter is a viable candidate for innate specification. The final observation is that Italian-speaking children apply an interpretive principle that is operative in languages like...
English, but not in Italian. More specifically, children’s non-adult interpretation of (11) is the same as the interpretation assigned by English-speaking children and adults to the sentence Gianni can not come. Therefore, Italian-speaking children are conforming to the natural seams of human languages, as anticipated by the Continuity Hypothesis.

The second example involves the acquisition of syntax. The conclusion is that some English-speaking children ask certain kinds of questions in the same way as Italian-speaking children and adults, but not in the same way as English-speaking adults. The questions under consideration begin with wh-words (why, what, where, who), so they are referred to as wh-questions. In adult English, wh-question words must be immediately followed by an inflected auxiliary verb (e.g., be, do, can, have). This yields well-formed questions like (12), with inversion of the subject NP (you) and the inflected verb (are). By contrast, wh-questions without inversion such as (13) are unacceptable, as indicated by the symbol **.

(12) Why are you here?
(13) *Why you are here?

Despite their unacceptability for adult English speakers, English-speaking children produce matrix (one clause) why-questions like (13) (e.g., Labov & Labov 1978). Based on an analysis by Rizzi (2001), Thornton (2004; 2008) proposed that English-speaking children’s matrix non-adult why-questions draw upon structural properties that distinguish English questions from those produced by speakers of Italian (also cf. de Villiers et al., 1990).

In Italian, the wh-word perché corresponds to English why. Italian perché-questions allow a grammatical option that is not permitted for the corresponding English why-questions. More specifically, a subject NP (e.g., i tuoi amici) is permitted to intervene between perché and the inflected verb (e.g., hanno) in Italian, so the question in (14) is acceptable, as is its counterpart with inversion (perché hanno ...). The critical observation is that Italian permits matrix perché-questions that are similar in form to the non-adult matrix why-questions produced by English-speaking children, as we illustrated in (13) Why you are here?

(14) Perché i tuoi amici hanno finite il lavoro?
   Why the-PL your friends have-3PL finished the-SG work
   ‘Why have your friends finished the work?’

Now consider the perché-question in (15). This is a ‘complex’ wh-question, with an embedded clause. Example (15) is ambiguous. On one interpretation, perché is construed locally. On this interpretation, the question asks about the reason for the event of "saying." A second ‘long-distance’ interpretation is also available. On this interpretation, the question asks about the reason for the event of “resigning.” This long-distance interpretation is only possible if the inflected verb (ha) is adjacent to the wh-word perché. This constraint on interpretation can be illuminated by comparing the question in (15) to the one in (16), where the subject NP (Gianni) intervenes between the wh-word perché and the inflected verb (ha). In contrast to (15), a long-distance reading is not possible in (16); the question only asks about the reason for the event of “saying,” not about the event of “resigning.” As indicated by the gloss below (16), the same local construal is unequivocal in English how-come questions such as How come Gianni said he would resign? In short, the forms taken by matrix why-questions differ across languages, but the long-distance construal of complex wh-questions is governed by a linguistic constraint.
This difference between matrix and complex *why*-questions was exploited in a study by Thornton (2008). The goal of the study was to explain English-speaking children’s non-adult matrix *why*-questions. Adopting the Continuity Hypothesis, Thornton (2008) proposed that English-speaking children initially analyze *why*-questions in the same way as Italians analyze *perché*-questions. To assess this possibility, Thornton conducted an extensive experimental and longitudinal diary study of the *wh*-questions produced by one child, AL, between the ages of 2;0 and 5;6 years. By the age of 3;4, all of AL’s matrix *wh*-questions were adult-like, except for *why*-questions. Over a year after that, the majority (80%) of AL’s matrix *why*-questions continued to be non-adult. Examples of AL’s adult-like and non-adult *wh*-questions are given in (17) and (18).

(17)  a. How did Tweetie get maked? (3;0)
     b. When will we big enough to climb up there? (3;1)
     c. Who was it that you was talking to? (3;1)

(18)  a. Why the pig got eatened? (3;0)
     b. Why unicorns are pretend? (3;1)
     c. Why you are going in that one? (3;2)

The critical data for evaluating the Continuity Hypothesis were AL’s complex *wh*-questions with a long-distance interpretation. As we have seen, the long-distance interpretation of complex *wh*-questions, including *why*-questions, is governed by a linguistic constraint that requires the inflected verb to be adjacent to the *wh*-phrase. AL clearly adhered to this constraint. Between the ages of 3;0 and 5;6, AL produced 83 complex *wh*-questions (with *think* and *say* as the matrix verb). Twenty-one of these *wh*-questions contained *why*, and 62 contained other *wh*-words. All of AL’s *wh*-questions with *wh*-words other than *why* were adult-like. Moreover, seventeen of AL’s 21 complex *why*-questions were adult-like, with inversion of the inflected verb (in the form of *do*-support). AL’s adult-like complex *why*-questions were long-distance *wh*-questions, as is evident in the examples in (19).

(19)  a. Why you think Santa’s not coming this year? (3;10)
     b. Why do you think Boomer came in with us? (4;2)

To recap, an intensive investigation and analysis of the *wh*-questions produced by AL support the conclusion that English-speaking children’s non-adult *why*-questions are derived in the same way as *perché*-questions in Italian. In producing non-adult *why*-questions, English-speaking children ignore abundant evidence that indicates a mismatch between their *why*-questions and those of adults. If AL’s productions are indicative, the long-distance *why*-questions produced by English-speaking children should always be adult-like. The disparity between AL’s non-adult matrix *why*-questions and adult-like complex *why*-questions is compelling evidence for
the Continuity Hypothesis and the principles of Universal Grammar. This pattern is difficult to reconcile on an experience-based approach to language acquisition.

4 Conclusion

As Chomsky made clear in *Aspects*, a central task of linguistics is to explain how children bridge the gap — Chomsky calls it a ‘chasm’ — between what they come to know about language and what they learn from experience. Proponents of the experience-based approach to language development accuse nativists of overestimating the complexity of what children learn, underestimating the data children have to work with, and manifesting undue pessimism about children’s abilities to extract information and form generalizations based on the input. Nativists working within the generative tradition have championed an alternative argument - that children come to know linguistic facts that are “only remotely related to experience by long and intricate chains of unconscious quasi-inferential steps.” This brief report surveyed some representative examples of empirical finding from studies of child language that support the nativist approach advanced by Chomsky 50 years ago. In each case, children have been found to speak a fragment of a language that is spoken by adults who reside somewhere else in the world, but not by adult speakers of the local language. These examples constitute poverty-of-stimulus arguments, and lend credence to the Continuity Hypothesis which supposes that, at every stage of language acquisition, children speak a possible human language.

References


