



Toward a typology of children's early verb forms

John M. Ryan¹

University of Northern Colorado

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Abstract

This paper explores the notion that not only adult languages, but child languages might also be classified according to typological criteria that may be similar to or different from those used to compare and contrast structures in their corresponding adult or target languages. A number of first language acquisition studies have pointed out the predictable variability of certain verbal structures in child speech that correspond to tensed forms of the corresponding adult language. These occurrences include: 1) exclusive use of “bare” forms, 2) root infinitives occurring alongside tensed forms; and 3) imperatives that occur alongside tensed forms. A most interesting characteristic of such configurations is that they appear to be in complementary distribution of each other, that is, only one of the three arrangements appears in a particular child language. In addition to asserting that the array of early verb systems as observed by such studies may support the idea of an overall typology of early verb forms, this study proposes three potential universals with regard to child verbal morphology. Not only the universals proposed in this paper, but several of Greenberg's “adult” universals also refer to language behavior that can be described in terms of what has been proposed as some binary parameter setting. Similar to Greenberg's universal regarding head-complement order, the child language universals proposed in this paper likewise correlate to the setting of a parameter, that being the specification of null- versus non-null subject languages. Establishing a typology for developing languages may be particularly useful in terms of implications it has for the timing and potential ordering of parameter settings by children. As regards this study, the early verb structures studied here were found to correlate to the null subject status of a language, suggesting that this parameter has already been set for the languages compared.

Keywords Linguistic typology, child language, early verb forms, root infinitives, bare verbs, imperatives

1. Introduction

The field of linguistic typology strives to classify the variety of forms across adult languages according to similarities and differences among them. Once classifications were made, such pioneers of the field as Greenberg (1963) have then tried to abstract from their observations a number of linguistic universals that could be said to apply to all languages. Greenberg states that an overwhelming majority of his universals have to do with word order or morphology, but he adds that this is only because he found there to be a “considerable measure of orderliness” in these categories. With a goal to restrict the total number of universals as much as possible, Greenberg's

¹ Bio: John M. Ryan is an Associate Professor of Spanish Linguistics at the University of Northern Colorado. His work on first and second language acquisition includes articles published in *JCLAD*, *Hispania*, the *Journal of Language Teaching and Research* and *Theory and Practice in Language Studies*. Also, recent work in historical linguistics and discourse analysis has appeared in several edited volumes. Contact: John.Ryan@unco.edu

total number of universals reached 45. Examples (1) and (2) correspond to Greenberg's Universals 26 and 29², respectively, with regard to morphology:

(1) *Universal 26*. If a language has discontinuous affixes, it always has either prefixing or suffixing or both.

(2) *Universal 29*. If a language has inflection, it always has derivation.

To date, first language scholars have yet to apply the notion of typology to the differing manifestations of forms that systematically appear across child languages, and there are several reasons why this may be the case. The first may be that there has been relatively little systematic, cross-linguistic work done with regard to the wide array of possible early representative forms across languages. Another reason why this venture may not have been undertaken is the notion that Hoekstra and Hyams (1998) refer to as "early morphosyntactic convergence" whereby the developing morphology and syntax of a child learning a particular language can be recognized in its earliest stages as essentially that of the adult or target language, which begs the question why one would need to perform a separate classification of the child's manifestations of a given language.

Despite such limitations, the purpose of this paper is to suggest that not only adult languages, but child languages as well may, and perhaps should, be classified according to typological criteria that may be similar to or different from those used to compare and contrast structures in their corresponding adult or target languages. To further demonstrate this point, the author will focus on verb forms such as infinitives or the imperative mood which the literature suggests are overproduced in addition to tensed forms by children learning certain languages. These differing usages have been found to occur in systematic ways that differ from the target adult forms in these languages. Moreover, usage of these forms within language is not random, but rather, to use Greenberg's own words, they represent "a considerable measure of orderliness," and therefore, such combined usage with tensed forms is referred to as a "system," suggesting more of a typological classification than merely a haphazard occurrence of possibly alternating verb forms.

Having been attested by a number of first language acquisition researchers to occur in developing child languages in places where the corresponding adult languages opt only for tensed forms, this variety of verb "systems" is as follows: 1) the exclusive occurrence of "bare" verbs and no tensed forms, 2) root infinitives that occur alongside tensed forms; and 3) imperatives that occur alongside tensed forms. A most interesting characteristic of these configurations is that they appear to be in complementary distribution of each other, that is, only one of the three arrangements appears in a particular child language. There is no mixing within a language of these three possibilities. What's even more interesting is that the findings with regard to these different cross-linguistic manifestations come from the

² This paper could have showcased any of Greenberg's universals. However, choice of Greenberg's Universals 26 and 29 as illustrations here is based solely on the fact that these are morphologically- and not syntactically based. Since the focus of this paper is that of the evidence for varying, yet systematic morphology across child languages, it is the author's opinion that they are the most appropriate to include here.



opposing generative camps cited earlier in this paper, both maturationalists and continuity theorists, none of whose findings seem to override those of the other.

It is for these reasons that I will argue that the array of early verb systems as has been cited by such studies as ensue here may contribute to an *overall typology of early verb forms*. For example: 1) English has been suggested by Radford (1990) to function with bare verb forms in small clauses initially with no co-existence of finite verb forms at all. I call such languages as English that manifest this behavior Bare Verb (BV) Languages; 2) Dutch, German, Swedish, Icelandic, and non-null subject Romance languages such as French, on the other hand, tend to opt for root infinitives alongside finite verb forms (Hoekstra and Hyams, 1998). These have been called Root Infinitive (RI) languages in the literature, and are represented here as such as well; and finally, 3) All null subject Romance languages and some other, non-Romance, Indo-European languages, such as Hungarian (Finno-Ugric) and Slovenian (Slavic), have all been attested to opt not for root infinitives, but rather for imperatives alongside finite indicative forms (Salustri & Hyams (2003). These are referred to here as Imperative Modal³ (IM) languages. Figure 1 illustrates these three different developing verb systems typologically.

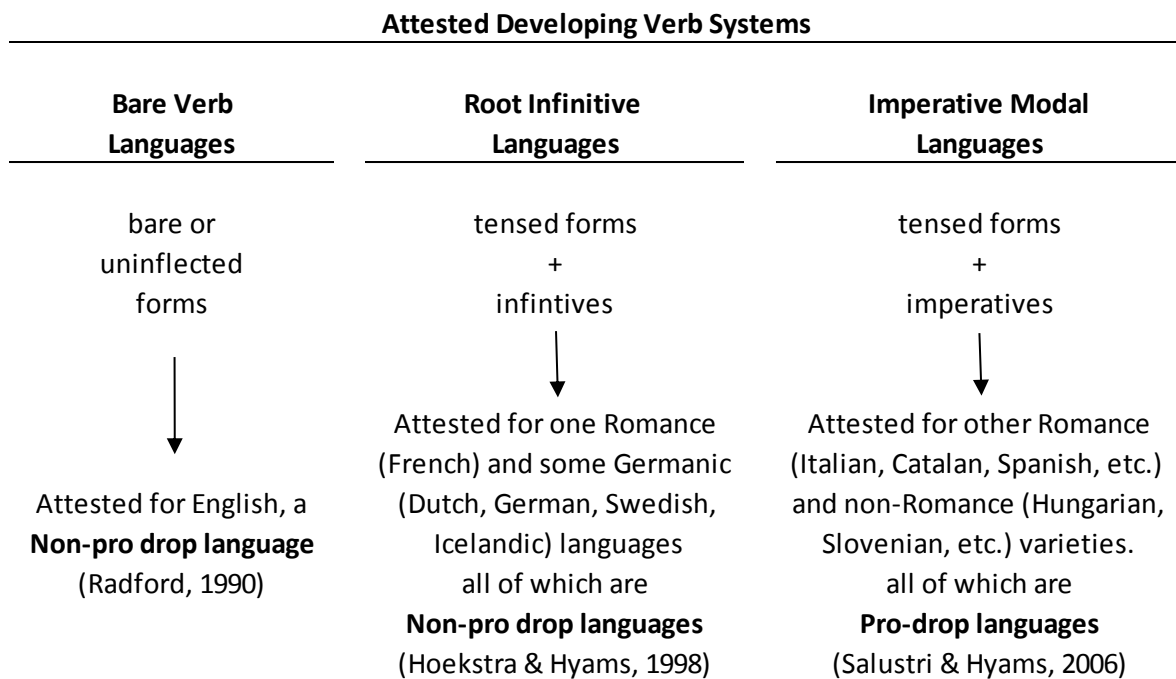


Figure 1. Proposed Typology of Early Verb Systems

³ According to Salustri & Hyams (2003), the semantics behind the morphology of both root infinitives and imperative forms, is similar in that they both imply modal interpretations. They claim that this explains why in some languages the infinitive form is often used to express the imperative mood, as in the use of the infinitive in negative, second-person singular commands in Italian (*non ti preoccupare* ‘don’t worry’) These authors suggest, however, that bare forms in English, unlike their root infinitive or imperative counterparts, exhibit a somewhat different behavior, and do not in fact imply this modal interpretation.



landing site for a moving auxiliary; 3) children normally do not productively move wh-constituents from their place of origin to the specifier position of C, suggesting that without a complementizer phrase, there is no landing site in the form of the Spec of the CP for a moving wh-constituent; and 4) when children are presented with input containing preposed wh-constituents, they rarely parse them correctly.

Aldridge (1989) lends further support to Radford's less-than-full-syntax hypothesis, primarily by: 1) countering the continuity-based claim by Hyams (1986) that T exists in children early on but is pronominal; and 2) providing evidence for acquisition of T after two years. Another study which also focuses on the child's language system as limited and comparably underdeveloped is Phinney (1981) who demonstrates that the production of complementizers doesn't happen with children until as late as 5 years of age. More recent maturational work conducted by Potts and Roeper (2006) lends further empirical evidence to Radford's small clause hypothesis in what P & R refer to as the "non-sentential." According to the authors, adult use of expressive small clauses (ESCs), as in (6) or incredulity small clauses as in (7) are actually extensions and continuations of the child stage of small clauses that never developed into "larger" syntax.

(8) "You idiot!"

(9) "What, me worry?"

Potts & Roeper suggest that the adult small clauses such as those in (6) and (7), in fact, remained at the small clause level. They suggest a two-fold process corresponding to acquisition of English by children in two stages: 1) All two-word forms are small clauses. At first, mapping is not functional; each structure is associated with a large set of meanings. 2) As learners acquire more functional projections, they begin to also move toward a one-to-one syntax-semantics connection. At first, children use small clauses as all-purpose structures but as they acquire significantly more complex syntax, namely, the TP level, they specialize structures according to what they want to mean. As they start to assign meaning to the new structures, they likewise start disassociating the meanings now associated with the new structures from the old small clause structures. P & R suggest that expressive small clauses or incredulity small clauses of English-speaking adults, as in (6) and (7), respectively, never become disassociated with their small clause origins from child English.

2.2. *Root Infinitive (RI) Languages*

Other studies on early verb forms, namely by continuity theorists, who unlike their maturationalist opponents such as Radford, propose that some early verb structures indeed do suggest the early existence of an adult system. These studies have focused on a phenomenon in some languages called root infinitives (RIs) (Rizzi, 2000). Root infinitives are much like the bare verb forms in small clauses as proposed by Radford for English, in the sense that they too are uninflected forms. In fact, this led Wexler (1994) to classify bare verb forms as infinitives themselves. However, as Hoekstra and Hyams (1998) point out, a major difference between the two forms is that the

English bare form has no infinitival morphology and hence does not imply a modal meaning. RIs on the other hand, tend to have a modal interpretation, known as the Modal Reference Effect (MRE) and tend to happen with eventive (as opposed to stative) verbs, known as the Eventivity Constraint (EC). For ease of explanation, early languages that manifest root infinitives will be referred to in this Dissertation as RI languages.

Another important observation of root infinitives in languages that manifest them, and which also distinguishes them from the bare verbs of English small clauses, is that unlike early English bare verbs which according to Radford exist by themselves until modal verbs are the first finite forms to appear on the scene, RIs have been found to exist alongside finite forms, suggesting that these have a grammatical function to themselves that is separate from the use of finite forms.

The production of root infinitives by children has been attributed in the continuity research as some kind of underspecification. In other words, full syntax is believed to be there, but for one reason or another the child opts to underspecify some category or constituent, resulting in a surface form that is different from the adult target. Some examples of these forms (from Hoekstra & Hyams, 1998) are:

- (10) a. Papa schoenen wassen.
 Daddy shoes wash-INF (Dutch gloss)
- b. Auch Teddy fenster gucken
 also Teddy window look-INF (German gloss)

Another important observation of the root infinitive phenomenon which is of direct importance to this paper is that they do not appear to occur in null-subject languages, including Romance and other languages. Instead, recent research proposes that an analog in the form of the imperative mood is the form of choice for null-subject languages, more of which will be discussed in the following section.

2.3. Imperative Modal (IM) Languages

More recent studies on root infinitives by Salustri & Hyams (2003) suggest an early verb form analog to exist in the null-subject Romance, as well as other early null-subject languages that do not employ root infinitives. This form appears to be the imperative⁴. In presenting what they conceive as the *Imperative Analog Hypothesis* (IAH), Salustri & Hyams provide evidence from these non-RI early languages that the imperative is indeed used in analogous modal contexts where root infinitives have been attested to occur in RI languages. This overused imperative form, like its root infinitive counterpart in those languages that overuse them, appears alongside tensed forms.

For purposes of typology, these languages are referred to here as Imperative Modal Languages. Examples from of these languages follow:

⁴ Salustri & Hyams (2003) address arguments that have been made by others that the form in question may in fact not be the imperative but rather a third person singular tensed form (which for some languages has been argued to be the same form as the imperative) or some neutral or 'bare' form. See Salustri & Hyams for an explanation as to why languages such as Italian or Spanish provide clear evidence for the imperative interpretation of this structure.



- | | | | | | |
|------|----|---------|----------|--------|---------------|
| (10) | a. | Mangia | la | pasta! | |
| | | Eat-imp | the | pasta! | Italian gloss |
| | b. | Non | mangiare | la | pasta! |
| | | Not | eat-INF | the | pasta! |
| | | | | | Italian gloss |

In a recent study in which he uses data from CHILDES (MacWhinney, 2000), Ryan (2017) makes two important updates to the IMH, based on an analysis of early verb use by two children, one learning Spanish and the other Italian. The study, which compared the emergent production of two different intransitives, namely, unaccusatives and unergatives, found that unaccusatives were produced earlier than unergatives, suggesting that verbs with theme arguments are perhaps acquired earlier than those with agents. This finding led Ryan to reassess the so-called Eventivity Constraint, proposed by Hoekstra and Hyams (1998) to be what determines the use of an infinitive or imperative by the child to mark events (as opposed to states that would be marked by a tensed verb). Instead, Ryan (2017) proposed that agentivity of the verb may be what in fact determines the non-finite verb form.

Describing and classifying the different forms across child languages that are used uniformly for corresponding structures in the target adult language is an important step in creating a typology of child language, however, this is only the first phase in the typological process. If we are to use as a model the trend that mainstream typology has followed for adult languages, it follows logically that once characteristic patterns have been identified cross-linguistically, the next, more challenging task for the language typologist is that of reviewing the sum of evidence from the many grammars and structures studied in order to propose a set of generalizations that might apply to the range of languages studied, and in turn, an even greater task would be that of implying a certain set of universals for languages generally. Accordingly, if an early child language typology were to be formulated, it would then follow that one might be able to suggest certain universals that are applicable to all developing languages⁵.

⁵ Abstracting a series of linguistic universals for child language comes with its own complications. In the first place, this process requires much more first language acquisition data and analysis than are currently available for the wide variety of existent languages. This issue of inadequate data, coincidentally, has been raised for mainstream typology as well, due to the fact that there are many adult languages, both ancient and modern-day, for which adequate grammars are lacking to allow for such an analysis. If we take this notion a step further, the process for creating a linguistic typology for children would seem even more precarious than that for adults in that there exists a double complication: 1) some languages for which there are no corresponding adult grammars that might help us to understand their structures; and 2) as seen previously, there is just not enough data that would constitute an adequate sample size of the many developing child counterparts. This second problem may be addressed in theory with the advent and growth of such prominent first language data resources as the Child Language Data Exchange System (CHILDES) (MacWhinney, 2000). Although the intent of this paper is not to create a child language typology itself but to argue why such a typology should be created hypothetically, the line of

Based on the cross-linguistic studies of early verb forms that have been cited throughout this paper, one might suggest the following universals with regard to child verbal morphology as it relates to the particular null-subject parameter that has been set for a given language:

Child Language Universal 1. Children who produce only one verb form early in development will do so in bare, or some other non-tensed, uninflected form. This language will most probably be a non-null subject language.

Child Language Universal 2. Children learning non-null subject languages who produce two verb forms will most likely produce tensed forms and root infinitives as these forms.

Child Language Universal 3. Children learning null subject languages will most likely produce two verb forms which will appear as tensed forms and the imperative.

What is perhaps the most noticeable observation about the first language “universals” as postulated here is the similarity to Greenberg’s “adult” universals in the sense that both describe behavior in terms of some parameter setting. For example, Greenberg’s universals for adult languages correlate primarily to the parameter setting of head-complement order, where implications are made for the order of certain constituents such as adjectives or prepositions based on the status of a particular language as either head-first or head final. Here too, as do Greenberg’s universals, the child language universals proposed in this paper likewise correlate to a parameter, but rather than to that of head-complement order, the parameter in question appears to be the status of the language as being null subject or non-null subject.

The correlation between adult and child universals in terms of parameters makes for a strong argument for the usefulness of a typology of developing languages in that it makes some implications for the timing and potential ordering of parameter settings by children. In other words, the early structures studied here were found to correlate to the null subject status of a language, suggesting that this parameter has already been set for the languages compared. An implication for further research would be to look for other correlations that may exist between other early forms or structures and other parameters such as headedness or wh-movement. As mentioned in the section on bare verb forms as suggested for English, Radford (1990) attributes no apparent wh-movement to the lack of a CP. In terms of this paper, however, this might also imply a setting of the wh-movement parameter in children that is later than that of the null subject parameter.

inquiry here is intended solely as a starting point from which further investigation and discussion might blossom.



3. Summary and Conclusions: The Bridge between Linguistic Universals and UG

This brief paper opened with a discussion of the difference between continuity and maturationalist accounts of language acquisition and the controversy surrounding the extent to which the child's grammar resembles that of an adult. The paper then entertained the idea of constructing a typology of early child language that is to be distinguished from mainstream language typology that is typically constructed for adult languages. Examples from current first language acquisition research were then provided to illustrate how some systematic manifestations of early verb forms in certain languages have been found to correlate with the null-subject parameter settings of those languages. Using Greenberg's (1963) first language universals as a guide, three preliminary child language "universals" were then proposed for the early child verb forms that have been suggested by the research.

A compelling motivation for the creation of a typology of child language is that it might in fact reconcile two very basic linguistic notions that until now have not been directly addressed in the literature as being related, namely: 1) the concept of linguistic universals from the field of typology, and 2) that of Universal Grammar, the child's initial innate system, or S^0 , before exposure to any language input (Chomsky, 1995). Both concepts, after all, refer to the idea of generality or communality across languages. The possible reason why acquisitionists have not attempted to draw a connection between these two abstractions is that until now they appeared to be representative of either adult (in the case of typology) or child (in the case of UG) grammars, but not both. Constructing a child language typology, however, now makes it possible to discuss one notion in terms of the other. In other words, the differing yet systematic early manifestations found in child languages might be said to correlate with some very specific first language issues. One such example, as pointed out above, is that of language parameters that are set by children who are all alleged to start out with the same UG or S^0 .

This paper is intended solely to introduce the idea of child language typology as suggested by some recent acquisition work on early verb forms. Before anything more definitive can be said about such an attempt, much more work will have to be done in terms of structures other than early verb forms and parameters other than the null subject parameter. As suggested earlier, one such parameter showing promise in this area is that of wh-movement. This paper closes by adding a new question to the lively debate between continuity theorists and maturationalists. If children do indeed produce forms in predictable, systematic ways that are different from the adult target form and these forms are found to correlate directly with a particular language "type" in terms of some parameter setting, AND if there is additional evidence that other parameter settings are not made until later, would not this make child language typology not only a worthy, but necessary, pursuit, and even provide additional empirical evidence for a more maturational account of language acquisition?

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