

Early Root Nonfinites and the Acquisition of Finiteness in Early Slovenian

Dominik Rus
Georgetown University

Introduction

This paper deals with one of the ongoing phenomena in the field of early syntactic development, namely, the acquisition of *finiteness* and *agreement paradigms*. In this study, I address the following three questions regarding the acquisition of Slovenian verb morphosyntax: (i) How and when are subject-verb agreement and tense acquired by young Slovenian children?; (ii) Is there empirical evidence suggesting that functional categories are present in early Slovenian grammar; and if so, to what extent?; (iii) What is the status and what are the properties of early root nonfinites, i.e., root infinitives, bare verb stems, and bare participles, which seem to represent some of the most common morphosyntactic constructions in early child systems? I also address the fourth question that falls out from the first three, namely, (iv) What is the initial clause structure of early child Slovenian?

The paper brings forth theoretical and empirical observations from the syntax of child verb morphology and the clause structure of early grammar, based on natural production data from very early Slovenian.¹

The paper is organized as follows. First, I briefly review the two opposing accounts regarding the acquisition of functional categories within the generative syntactic framework that I assume. Section 2 sketches the morphosyntactic properties of adult Slovenian that are relevant for our discussion. The subsequent three sections introduce the empirical evidence regarding the syntax of verb morphology of child Slovenian: Section 3 reviews the knowledge of young Slovenian

¹ The language in question seems to be a very attractive system from a morphosyntactic point of view since it exhibits extremely rich verb morphology, with Asp(ect) expressed on verb stems, T(ense), Agr(eement), and Asp expressed on verb affixes, as well as an extremely flexible word order with second-position Wackernagel clitics. The grammatical system of Slovenian is a three-gender, three-number, and three-person morphological system, giving rise to two types of agreement, i.e., subject-(finite) verb and subject-past participle agreement (on both active and passive participles).

children's subject-verb agreement, showing that the children's finite verbs appear correctly-inflected for T/Agr from the earliest utterances on; Section 4 provides evidence against a prefunctional stage in early grammars on the basis of constructions with finite verbs in the Present Tense; Section 5 introduces young children's nonfinite verb forms, showing that in the process of language development Slovenian children go neither through a bare stem nor a root infinitive stage, but do produce so-called Bare Participles, i.e., past participles unsupported by auxiliaries; Section 6 concludes the paper, laying out some open questions and further directions in the study of child Slovenian morphosyntax and child verb morphosyntax in general.

1. The Acquisition of Finiteness and Agreement Paradigms: Previous Hypotheses and Findings

The acquisition of finiteness has been associated with the Verb Movement Parameter and hence the emergence of functional projections, such as T, Agr, and C(complementizer) (see e.g., Hornstein and Lightfoot 1994; Ouhalla 1999).

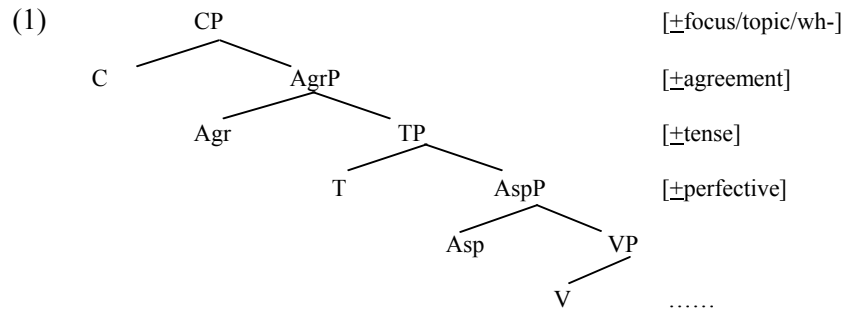
Traditional terms *finite* and *nonfinite* are extremely difficult to define precisely and have led to some confusion in the field. Traditionally, a *finite* verb form has been described as the one expressing the grammatical category of *person* (hence, *agreement* or *phi-feature agreement* in today's terms; see Chomsky 1995) whereas the *nonfinite* form the one lacking such agreement, though modern generative literature generally assumes that *finiteness* is a phenomenon associated with a lack or presence of a T head (or its featural specification, or even its lexical contents) in a phrase marker, rather than with the lexical form itself (e.g., Chomsky 1995; Ouhalla 1999). For example, infinitives are traditionally "nonfinite", but may show phi-feature agreement (e.g., inflected infinitives in Portuguese, infinitives inflected with clitic pronouns in Italian, etc.). Conversely, one can deal with a *nonfinite* clause in which T is present (e.g., in *to*-infinitival clauses in English). Hence *finiteness* does not really go hand in hand with the presence of T (or its lexical realization), much less with the presence of Agr (unless this is specified to be [-person] vs. [+person], in which case only the [+person] would count as finite in traditional sense. But then the confusion arises as to how to treat merely Agr-related material (in the

strict sense of the Split-Infl Hypothesis, for example) in terms of the T head specification. Moreover, the term finiteness may well refer to language-specific lexical material and there may not be a universal treatment of the finiteness phenomenon at all (see e.g., Wurmbrandt 2005). Here I will use traditional terms “finite” and “nonfinite” in order to be consistent with the previous research, and particularly, when reporting the analysis and findings of previous studies that used these terms exclusively.

Therefore, I will assume that finiteness is denoted by the morphosyntactic elements that directly express person and/or number agreement or tense (e.g., main lexical verbs, copulas, auxiliary verbs in periphrastic (compositional) tenses, and modal verbs), or are related to these elements (e.g., subject clitics or reflexive clitics). The acquisition of finiteness is directly related to the relation *Agree* between the SUBJ(ect) and the predicate, and as such, the child language acquisition literature has focused on the acquisition of agreement paradigms as well.

For Slovenian, I will assume the feature-based phrase structure representation given in (1) below, where the V and Asp represent the lexical layer, with all the heads above them representing the functional layer, split into the Infl(ectio)nal) and C layers. Following Giorgi and Pianesi (1997), the underlying assumption (for Italian and Spanish, at least) has been that preterit and imperfect morphology are checked against the feature [\pm perfective] in AspP in the lexical layer. Montrul (2004) extends this for every clause, providing the following representation:²

² I am leaving aside the discussion on the presence or absence of the two standardly assumed Infl-related projections, i.e., TP and AgrP. In the present paradigm in the ‘Chomskyan’ generative syntactic theory (e.g., Chomsky 1995), TP is being used for both representations, though most acquisition studies still use the (older) syntactic representation with the split Infl. Some accounts even crucially rely on the presence of both projections, claiming that morphological errors arise due to a deficit in one of the projections, where feature checking takes place in one but fails in the other (e.g., Guasti and Rizzi 2001).



Two main hypotheses dominate the field in terms of the acquisition of functional categories, namely a maturational account and a Full Continuity account. According to the former, children's earliest utterances are pure instantiations of lexical categories (Radford 1990, 1995; Varlokosta, Vainikka and Rohrbacher 1998) and functional categories only emerge in the final ("functional") stage at around 25 months of age.³ Radford (1990, 1995) puts forth such a hypothesis on the basis of the English-speaking children's non-adult utterances with T/Agr-less verbs (Bare Verbs; BVs), which seem to be extremely common in early English between the ages of 1.5 and 3. These constructions have been known as R(oot) I(nfinitives) (Rizzi 1993/4), i.e., infinitives used in matrix (root) finite contexts (but see Hoekstra and Hyams 1998, which claim that in English these should be analyzed as BVs rather than RIs since they do not follow the modality constraint in being semantically irrealis, but rather denote both realis and irrealis interpretations).

Several subsequent studies on other early Germanic languages (German, Icelandic, and Swedish), as well as early French found strikingly similar results, namely young children's earliest utterances seem to lack T/Agr markers (and other finiteness-related elements, such as auxiliary verbs (Wexler 1998) or copula verbs (Becker 2000)).⁴

³ This hypothesis argues that the initial stage in language development is pregrammatical in nature, i.e., the utterances at this stage consist of single words that have not yet been categorized syntactically (as Ns, Vs, etc.). In other words, according to this hypothesis, there is no true syntactic structure in earliest utterances.

⁴ However, it turned out that these are *optional* rather than *entirely missing* (see Deen 2003 and Guasti 2002 for extensive reviews of these proposals). Furthermore, it was found that while *omission* of T/Agr seems to be extremely common in child languages

The opposing view about the acquisition of functional categories in child grammars states that most (if not all) functional categories are in place very early in the grammatical system, and are, in fact, innately given by UG (Hyams 2002, 2003; Guasti 1993/4; Poeppel and Wexler 1993; see Deen 2002, Guasti 2002, and Montrul 2004 for detailed reviews). Most of these studies have looked at Romance (null subject) languages with rich agreement paradigms, such as Italian, Catalan and Spanish. Assuming the Full Continuity approach, they have shown that early language grammars not only exhibit the Infl-system, but also the C-system. According to this line of research, the differences between adult and child languages result from different morphosyntactic specifications of functional projections due to the mechanism of underspecification. In other words, certain features, such as T or Agr (e.g., Wexler 1994, 1998) or Number (e.g., Hoekstra and Hyams 1998) are underspecified or entirely missing in child grammars, hence the checking option cannot proceed as it does in adult grammars.⁵

Ever since the mid 1980s, researchers have shown that children acquiring null subject languages with rich morphology know the SUBJ-V agreement facts. Hyams (1986), for example, showed that Italian children have productive agreement, showing very few errors. However, her study reported the use of mainly singular verb forms. Guasti (1993/4), further showed that Italian children do not make systematic errors at all (she reports 1% of errors on all finite forms for two children and 3% errors for another child), and that later acquisition of plural agreement confirms a developmental trend manifested in other early languages.⁶ In sum, as Hyams' (2003) study shows, SUBJ-V agreement errors never rise above 4%.

cross-linguistically, *commission* (where the T and/or Agr are supplied in incorrect contexts) is hardly attested (see Deen 2002; Hyams 2003).

⁵ There is a third, mixed approach to the acquisition of functional categories that falls between the first two. Sometimes dubbed as the Weak Continuity Hypothesis, it holds that though children may have access to the full set of functional categories and operations that govern functional categories from the onset of the acquisition process, they may not make use of them in their representations right away (e.g., children who have not heard Cs yet do not have a CP representation in their grammars (Vainikka 1993/4)).

⁶ Valian (1990) reports that there is a general delay of plurality in child grammars crosslinguistically. Hence, Guasti (1993/4) argues that the lack of plural affixes in early Italian is a more general manifestation of the lack of plurality, rather than evidence that

I will show below that Slovenian children exhibit (near)-perfect knowledge of SUBJ-V agreement in the case of finite verbs and that neither the theories proposing a piecemeal acquisition of functional categories nor those assuming some partial knowledge of functional projections can adequately explain the data coming from the earliest utterances.

As a slight digression, let us briefly sketch the morphosyntactic properties of adult Slovenian that are relevant for the present discussion.

2. The Syntax of Verb Morphology in Adult Slovenian

Slovenian only has one synthetic tense, namely the Present Tense. Other tenses, i.e., the Past Tense, the Future Tense, and the old-fashioned Pluperfect are all compositional/periphrastic, composed of the auxiliary verb *biti* ‘to be’ and the active past participle. However, when compared to Germanic and Romance languages, the verb paradigms for the Slovenian Present Tense are more complex. The productive Present Tense suffixes carry both the T and Agr features that cannot be teased apart morphologically (portmanteau morphemes). Verbs are inflected according to the schema in (2), adapted from Toporišič (2000):

$$(2) \quad [\text{Root} + \text{Thematic Vowel}]_{\text{stem}} + \text{suffix (Tense/Person/Number)}$$

The morphosyntactic system comprises three persons (1, 2, 3), three genders (MASC, FEM, NEUT), and three numbers (SG, DU, PL), but since gender has no (separate) morphological instantiation in the Present Tense conjugation, each verb in the paradigm has nine cells, as the following paradigm for the verb *igrati* ‘to play’ in Table (1) shows:

child grammars lack verbal inflection. None of the studies address whether such delay is found across the board in early grammars, i.e., on verbs and nouns (and possibly adjectives agreeing with nouns), but stress the lack of plurality in early verb and agreement paradigm learning (cf. also Note 13 below).

Table 1: Conjugation of *igrati* ‘to play’ in the Present Tense

	SG	DU	PL
1	igram	igrava	igramo
2	igraš	igrata	igrate
3	igraØ	igrata	igrajo

Additionally, the Present Tense paradigm exhibits complex morphophonology with several phonological changes in the verb stem. According to traditional descriptive grammars, there are five classes of verbs regarding the stem's morphophonological changes, summarized in Table 2 below, with a representative example verb listed in each class and conjugated in all three persons in the SG (adapted from Toporišič 2000):

Table 2: Verb paradigms for all five verb classes in the Present Tense

Class Conj (SG)	-am Vs <i>igrati</i> (‘to play’)	-im Vs <i>narediti</i> (‘to make/do’)	-jem Vs <i>piti</i> (‘to drink’)	-em Vs <i>pasti</i> (‘to fall’)	-m Vs <i>hoteti</i> (‘to want’)
1	igram	naredim	pijem	padem	hočem
2	igraš	narediš	piješ	padeš	hočeš
3	igra	naredi	pije	pade	hoče

BE is the only AUX(iliary) that is used in the formation of compositional tenses. It inflects for present in the Past Tense and for future in the Future Tense. Both the present and the future forms of AUXBE are clitics and have no full counterparts, but may be stressed for emphasis or contrast. AUXBE has two non-finite forms, the infinitive (*biti*) and the Past Participle (the *-l* participle) (*bil*), which inflects for number and gender. AUXBE agrees with the SUBJ in person and number, and with the Participle in number and gender. AUXBE c-selects the Active *-l* Participle of lexical verbs (to form compound tenses) and the *-n/-t* Passive Participle of lexical verbs to form passive constructions.

(3) and (4) below show constructions with the Active Past Participles that will be relevant for our discussion on Bare Participles later on:⁷

- (3) Peter je kupil avto.
 Peter_{NOM} be_{3SGPRES} bought_{SGMASCPERF} car_{SGACC}
 ‘Peter has bought/bought a car’
- (4) Peter bo kupil avto.
 Peter_{NOM} be_{3SGFUT} bought_{SGMASCPERF} car_{SGACC}
 ‘Peter will buy a new car’

3. Subject-Verb Agreement in Early Child Slovenian

3.1 Data, Method and Analysis

The data are longitudinal natural production data, obtained from recording children during play at a daycare center in Ljubljana, Slovenia. The method used to collect the data differs from most studies reported in the acquisition literature since as many as 17 children originally participated in the study. To examine Radford’s Prefunctional Grammar Hypothesis (or even the Weak Continuity Hypothesis), we analyzed the data from children younger than 25 months only at the end of the recording; hence, we excluded the two oldest children in the group.⁸

We calculated MLU for each child. It fell between 1;2 and 1;10 in the beginning of the recording (average across all children: 1;7) and between 1;6 and 2;1 at the end of the recording (average across all children: 1;10). The average MLU across all subjects based on the entire recording period was calculated to be 1;94.⁹

⁷ Slovenian is a typical null-subject language with Wackernagel second position (P2) clitics, exhibiting a common Slavic pattern of (Past) Part(ici)ple fronting with a phonologically empty SUBJ(ect) (*Part + SUBJpro + AUXBE (+...)*).

⁸ The data come from Kranjc (1999), who recorded children on a weekly basis from 10/09/1992 to 01/14/1993. Most of the times she let children talk among themselves while playing, but sometimes she also interacted with them. In the data, her utterances are transcribed as well. The transcription also contains utterances of the daycare center teacher who would sometimes play with the children while they were being recorded. As customary in the acquisition literature, all direct and immediate repetitions after the teacher, the interviewer, or the child herself, as well as (memorized) nursery rhymes and songs, were excluded in the count.

⁹ We see that these children are at a very early stage of development, with their MLU being generally lower than 2;0. Hence, our data will be rather limited in terms of

Kranjc (1999) provides very little information in terms of the acquisition of morphosyntax. Her grammatical analysis section concentrates mainly on word classes and the division between lexical and functional vocabulary items in the data. She reports that there was a total of 6,086 words in Part A (which is the part analyzed here), of which 1,480 (=24.3%) are nouns and 1,466 (=24%) are verbs. The rest of the word classes are represented as follows: 1,453 (=23.8%) interjections, 740 (=12.1%) pronouns, 523 (=8.7%) adverbs, 89 (=1.4%) adjectives, 80 (=1.3%) quantifiers and only a few cases (less than 1%) of complementizers, prepositions and conjunctions. The following two tables show the breakdown of all the utterance types analyzed in this study:¹⁰

Table 3: A breakdown of all sentence types in the data

Utterance Type	Imperatives	Past Participles	Finite Vs	Other
Total #	679	197	187	142
%	56.4	16.3	15.5	11.8

Table 4: Sentence types analyzed for the present study

Utterance Type	Past Participles	Finite Vs	Other
Total #	197	187	142
%	37.4	35.5	27.1

3.2 Knowledge of Subject-Verb Agreement in the Present Tense

Let us first examine the suppliance of agreement on the Present Tense verbs and the characteristics of the earliest affixes used by the Slovenian children from our data. By examining Table 5 below, we

morphosyntactic complexity, though, as we will see below, the acquisition of finiteness is more than evident already at such an early age.

¹⁰ Table 3 shows the breakdown of all utterance types in the count, including imperative sentences, while Table 4 shows the types excluding the imperatives. It has been customary to discard imperatives in the count in the studies on finiteness since imperatives are believed to be deficient, tenseless clauses (Guasti 1993/4; Salustri and Hyams 2003). However, on the basis of imperative morphology, and particularly the characteristics exhibited by imperative subjects, as well as clitic and negation facts found in both matrix and embedded imperative clauses, the syntactic literature on adult Slovenian has always argued that imperatives are full-fledged finite clauses (Rus 2005; Milojevic Sheppard and Golden 2002; see Rus and Chandra in press for imperatives in child Slovenian).

quickly see an extremely high number of correctly-inflected verbs in the Present Tense:

Table 5: Agreement suppliance on finite verbs (in the Present Tense)

Total # Finite V contexts	187
Agr correct	174 (=93.05%)

Compared to the rate of correct SUBJ-V agreement suppliance in most previous studies (cf. our discussion above, based on Hyams 2003), 93% correct may seem a bit low. However, the agreement error facts tell us otherwise, namely almost 70% of the errors in the data are accounted for by the use of third Singular (3SG) form instead of first Singular (1SG) form in the cases where the child is referring to herself. This, however, has never been analyzed as an error in the acquisition literature since caretakers often address their children in 3rd person (Guasti 1993/4; Hyams 2003, p.c.). Table 6 shows the three types of agreement errors, of which two (i.e., the use of a bare stem and a wrong agreement marker) are considered “real” errors. Once we exclude “the 3SG (=‘I’)” environments from the count, we get the agreement facts as shown in Table 7 below:¹¹

Table 6: Types of Agr errors

Agr Error	# (%)
bare stem	1 (7.7%)
wrong AGR	3 (23.1%)
3GS (=‘I’)	9 (69.2)

Table 7: Adjusted Agr suppliance

Total # Vs	187
Agr correct	183 (=97.9%)

As we see from Table 7, the SUBJ-V agreement percent correct now increases to almost 98%, which is in line with most other studies on SUBJ-V agreement:¹²

¹¹ There were three cases in the data where the children left out a complete verb, producing only the subject and the object. We excluded these cases in the count, too. Having included these, there would have been 190 environments with finite verbs in the Present Tense, with 7 verbs being incorrectly inflected for T/Agr (1 bare stem, 3 forms with wrong T/Agr marker, and 3 omissions, which all included the verb *imeti*, ‘to have’).

¹² Note also that the children reported here are a few months younger than most of those reported in Hyams’ (2003) ‘review’ table.

Finite verbs in the Present Tense show a great variety of constructions, as seen in the following examples from the data, with finite verbs in italics:

- (5)a. Kapljice *padajo*. (Lenart, 1;9)
 drop_{NOMPL} fall_{3PLPRES}
 ‘The raindrops are falling’
- b. Katja *vozi* Katko. (Lenart, 1;9)
 Katja_{NOMSG} drive_{3SGPRES} Katka_{SGACC}
 ‘Katja is driving Katka’
- c. Tuki kuža *lula*. (Katja, 1;10)
 here doggie_{NOMSG} pee_{3SGPRES}
 ‘It is here where the doggie pees/is peeing’
- d. Ne *gre* dol. (Lenart, 1;9)
 not go_{3SGPRES} down
 ‘It does not go down’ (= ‘It won’t go down.’)
- e. Bakica, kaj *delaš*? (Vesna, 1;7)
 grannie_{NOMSG} what do_{2SGPRES}
 ‘Grannie, what are you doing?’
- f. Torbice *nima*. (Vesna, 1;7)
 bag_{GENSG} not have_{3SGPRES}
 ‘S/he doesn’t have a bag’
- g. *Vrti* se (Kaja, 1;5)
 roll_{3SGPRES} REFL
 ‘It’s rolling/going around’

Slovenian children seem to acquire the Present Tense paradigm very early. However, DU forms as well as 1PL and 2PL forms are not found in the data, with 3SG being the most frequent. This conforms to the previous findings in the field, namely that the singular inflection is the most common and that plural inflections appear later than singular in the course of language development. We found only one case of 3PL with finite verbs in the Present Tense.¹³ Table 8 below shows a breakdown of the inflections found in finite verb constructions regarding the person:

¹³ However, 3PL appears *quite frequently* with COPBE, so it is probably *not* true that crosslinguistically early verbs will generally appear in the SG only. Also, DU forms might not be found in the data simply because there might not be any DU contexts. From the transcript alone, it is hard to determine whether the child is addressing one or two

Table 8: Attested verb forms in finite verbs in the Present Tense

	SG	DU	PL
1	10	N/A	N/A
2	4	N/A	N/A
3	168	N/A	1

4. Prefunctional Stage in Early Slovenian? Evidence from Finite Verbs

The researchers who have argued that there is a prefunctional stage in language development would put forth the following arguments about early grammatical systems:

- (6) (i) There are no functional projections (e.g., T, Agr) in early systems, but only lexical projections and T/Agr morphology is not productive at all.
- (ii) T/Agr-related elements such as modals and reflexive clitics are not present/productive.
- (iii) Since there is no left periphery in the earliest systems, there are no C-related elements (e.g., complementizers, *wh*- elements), nor processes involving the left periphery (e.g., topicalization, focalizations) in early grammars.

The examples from child Slovenian in (5) above seem to refute the claims in (6). Not only do they all show perfect SUBJ-V agreement,

interlocutors. The children reported here most often refer to themselves (1SG), address their speaker (2SG), or talk about the third person/object (either present or absent) (3SG). Interestingly, the high suppliance rate of 3SG forms may suggest that it is this form that is analogous to an RI form, which is what has been claimed for child Spanish (e.g., Davidiak and Grinstead 2004), where the 3SG form in the Present Tense paradigm for *-ar* and *-er* verbs bears no phonological tense or agreement marker, but merely a thematic vowel (same as in Slovenian; cf. (2) and Table 1 above). However, children acquiring Spanish quite frequently make an error by producing a 3SG form in 1SG and 2SG contexts with overt personal pronouns, suggesting that it might be the case that 2SG *may be* some RI version of an early root nonfinite. In our child Slovenian data, however, this *never* occurs, though sometimes it is not obvious from the context whether the child is referring to herself or her interlocutor, especially since overt subjects are hardly ever attested. Generally, 3SG correctly appears in 3SG context, though we definitely need more data to confirm this claim.

some of them also show focalized adverbials in pre-SUBJ position (presumably located in the C-domain; (5c)), sentential negation (5f), *wh*-movement (5e), object topicalization (movement of the object across the verb) (5f), and the presence of the reflexive clitic ‘*se*’ (5g). We can thus conclude that the T/Agr markers are present from the onset of the acquisition process.

There is, however, a difference between “presence” and “productivity” in language acquisition and sometimes these are not teased apart sufficiently. I agree with constructionists, for example (e.g., Goldberg 2006, p.c.; Tomasello 1992), who argue that the mere presence of a certain linguistic expression does not entail that the child has acquired it and knows it (for it may be simply rote-learned), but I believe that the facts on T/Agr suppliance in the current study show that T/Agr markers in child Slovenian are not only present, but also productive in the sense that they appear on a large number of verbs and with very diverse types of verbs (e.g., transitive, unaccusative, etc.).¹⁴

Let us now look at the subject use. In the generative acquisition paradigm, the knowledge of Nom(inative) case in pre-verbal position has generally been taken to be a piece of evidence for the existence of TP/AgrP (e.g., Wexler 1994, 1998), following generative syntactic literature, which assumes that Nom is checked in the functional layer above the VP after the V has moved to the Inflection (T/Agr) (e.g., Chomsky 1995; Ouhalla 1999). As the following table shows, overt subjects in our data are extremely rare:

Table 9: Subject use in finite verbs in the Present Tense

	Null SUBJ	Overt SUBJ
Finite Vs	153 (81.8%)	34 (18.2%)
Agr errors	12 (“real”: 3)	1

¹⁴ The strongest support for productivity would, of course, come from the knowledge of inflection on novel verbs. Unfortunately, we have no data on this. The lack of certain forms (e.g., DU and PL forms) is, I believe, merely an unfortunate consequence of the nature of the data, and by looking at the variety and complexity of the constructions it would be hard to believe that these utterances are rote-learned. This might be less apparent in the cases of modals, reflexives and *wh*’s since these elements are very rare in the data, but again, there might be very few contexts that require them after all. Note also that even when the few recorded morphosyntactic errors appear, they are never those of commission, but rather omission, as found in all other child languages studied so far (cf. Deen 2002).

The findings in Table 9 suggest that young Slovenian children are indeed very sensitive to their linguistic environment and start using null subjects from the earliest stages on, with the subjects also correctly inflected for the Nominative Case. We found no errors for Case in subject D(eterminer) P(hrase)s. Though this may be a piece of evidence for the existence of TP/AgrP, it may well be that Nom in Slovenian is simply a default case and is simply spelled out in the derivation (whatever grammatical mechanism is responsible for that). Furthermore, the hypothesis that the use of subjects is associated with the knowledge of agreement, following the assumption that while overt subjects would be used (more) with correctly-inflected verbs, null subjects would be used (more) with uninflected (bare) verbs, is hard to test for Slovenian for two reasons. First, the correlation concerning subject use and agreement has been found in non null-subject languages, where subjects are obligatory, and second, uninflected verbs in a language like Slovenian are hardly attested, as we saw above.¹⁵

In the model that we assume (cf. the phrasal representation in (1) above), the following four pieces of evidence count as evidence for functional projections higher than the VP (AspP), with the first two representing the strongest evidence for our argument:

- (7) (i) The presence of correct T/Agr markers on the verbs.
- (ii) The presence of focalized/topicalized object DPs.
- (iii) The presence of *wh*-questions.
- (iv) The presence of reflexive clitics in constructions with reflexive verbs.¹⁶

5. Root Nonfinites in Early Child Slovenian: Bare Verb Stems, Root Infinitives and Bare Participles

When investigating nonfinite verbal forms that appear in the contexts of finite verbs in our data, we get the following facts:

¹⁵ In child Slovenian, the few agreement errors appeared mainly in utterances with null subjects, as seen in Table (9) above.

¹⁶ We will see below that we get the same morphosyntactic facts (i.e., agreement markers, *wh* words, and reflexive clitics) in constructions with Bare Past Participles, another piece of evidence that will be taken to indicate the presence of functional material in early Slovenian (Rus and Chandra 2005; see below for details).

Table 10: Root nonfinites in early child Slovenian

	# finite V utterances: 187
BVs	1 (0.5%)
INFs	9 (4.8%)

We found only one case of a BV, *kak* ‘to do a poop’. This might be a phonologically reduced finite verb or simply noise in the data. We also found 9 infinitives, but interestingly, all of them were found in the contexts where the finite verb that was entirely omitted by the child required a nonfinite complement ((8)a.), or after the omitted preposition that required the infinitive ((8)b.). In both cases we are dealing with some elision, but note that both contexts *require* infinitival complementation in adult grammar. Hence, these infinitives cannot be categorized as RIs at all:¹⁷

- (8) a. Pit. (Katja, 1;10)
 drink_{INF}
 ‘I want to/must drink’ (saying it to a caretaker)

cf. the adult form:

- a’. Hočem pit.
 want_{1SGPRES} drink_{INF}
 b. ADULT: Zakaj pa ima ključ?
 why part have_{3SGPRES} key_{ACC}
 ‘Why does he have the key?’

CHILD: *Zap(r)et.* (Lenart, 1;9)
 Close_{INF}

cf. the adult form:

- b’. Za zapret
 for close_{INF} (for closing; lit. ‘for to close’)

¹⁷ Children cross-linguistically often omit prepositions, using only DP complements (Radford 1990, 1995 among others). Kranjc (1999) reports the same finding for Slovenian children in her analysis.

Rus and Chandra (2005) studied the Bare (Past) Participles (BPs) in the same corpus. Recall from above that BPs represents almost 40% of early verbs in the data. A few examples of these constructions are given below in (9):

- (9) a. Tukele sk(r)ila pikapolonica. (Lenart, 1;9)
 here hidden_{SGFEMPERF} ladybug_{NOMSG}
 ‘The ladybug has hidden/hid here’
- b. Zajček kukuc naredu. (Vesna, 1;7)
 little rabbit_{NOMMASC} peek-a-boo_{ACC} made_{SGMASC}
 ‘The bunny has made/made a peek-a-boo’
- c. Kaj (na)redu? (Tomaž, 1;9)
 What made_{SGMASC}
 ‘What has he done/did he do?’

Rus and Chandra (2005) showed that the following observations were true for Slovenian BPs (SBPs):

- (10) (i) SBPs are extremely frequent (around 40% across all children).
 (ii) SBPs almost always occur without AUXBE (roughly, 98% of them).
 (iii) SBPs generally appear without the SUBJ (roughly, in 93% of the cases).
 (iv) The SUBJs in constructions with SBPs appear not only preverbally, but also postverbally around 30% of the time, which is a non-adult use.
 (v) SBPs usually appear without reflexive clitics.

The findings in (10) above show striking similarities with other root nonfinites, particularly RIs. In fact, Varlokosta et al. (1998) argue that BPs (in child Greek) are instantiations of RIs on the basis like the ones in (10). However, they also argue that the before-mentioned observations stating the early “no functional material” stage (in (6) above) hold true for BPs. I believe that Rus and Chandra (2005) showed convincingly that this is *not* the case. On the basis of examples such as the ones in (9) above and similar other examples from the data, I argue that SBPs offer an additional piece of evidence that young Slovenian children know verb

morphology and possess the inventory of functional material as early as we can test them since SBPs show:

- (11) (i) a variety of structures (i.e., with a variety of different verbs, such as transitives, unaccusatives, etc.),
- (ii) productive participle morphology with 96% correct Agr on the participles (subject-participle agreement),
- (iii) the presence of Nominative subjects which contrast correctly with Accusative objects,
- (iv) the presence of dislocated objects (i.e., objects in pre-participle position),
- (v) compatibility with *wh*-phrases¹⁸

6. Conclusion and Future Directions

The presence of T/Agr suffixes on the verbs, Nominative subjects in pre-verbal position, contrasted correctly with Accusative objects in post-verbal position, the use of reflexive clitics, yes/no and *wh*-questions, as well as topicalized/focalized DPs in the left periphery have all been taken in the field to be evidence for functional projections in both adult and child grammatical systems. Slovenian children seem to have all of these.

Furthermore, we saw that Slovenian children do not go through a BV or an RI stage, nor do they produce any other early root nonfinite verb in finite contexts. A few infinitives appear in the data, but these are correctly used as nonfinite complements to (missing) finite verbs and prepositions in the contexts where adult grammar requires nonfinite complementation.

In sum, Slovenian children seem to be sensitive to morphosyntactic and semantic properties of the target language from the earliest utterances on. They seem to be faithful to the subject setting, word order (e.g., second position clitics), and Nominative subject case marking when subjects are overt. They also seem to distinguish between finite and

¹⁸ For details about agreement facts, the use of subjects, reflexive clitics, and *wh*-phrases in SBPs, see Rus and Chandra (2005), who claim that BPs are full clauses with a missing AUXBE in T. This claim was made not only on the basis of the morphosyntactic facts, but also the semantic ones, since SBPs do *not* show a typical RI-like irrealis meaning, but aspectually denote both perfective and imperfective meaning and temporally both past and future events.

nonfinite verbs, as seen in the knowledge of finite verb inflections and nonfinite complementation. However, though children seem to be extremely fast and efficient language learners and conform to the target system extremely early, some of the data on early Slovenian (and early syntax in general) are still very puzzling when evaluated cross-linguistically.

First, the lack of RIs (and BVs) in null subject grammatical systems with complex verb morphology such as Slovenian is still poorly understood. The existing formal tools from syntactic theories, such as underspecification theories (e.g., Wexler 1994, 1998) or truncation theories (e.g., Rizzi 1993/4) are (still) inadequate to categorize the interplay between rich morphology and early root nonfinites since they cannot capture the morphological nature of the nonfinite verb form that will surface in child grammars. In other words, truncating a phrase structure below TP/AgrP, for example, simply implies that the result form will be a nonfinite one, without specifying whether this might be a gerund, a participle, an infinitive, or a bare stem. Hence, I believe that the field needs to move on to look not only at syntax per se, but particularly at the interplay between morphology and syntax, as well as the one between morphology and semantics (see also Hyams 2002, 2003).

Second, while there has been quite a lot of interest in early RIs, very little has been done in areas other than early root nonfinites. Only a few studies to date have reported on early Bare Participles, for example, and their status and use are still not well-understood.

Last but not least, I would like to add a conceptual observation regarding the entire research program concerning the acquisition of early verb morphosyntax. We know that children are extremely sensitive to morphosyntactic and semantic properties of the target language from the earliest stage on, but we also know that we do find empirical differences among child systems in terms of early finite and nonfinite forms. Hence, (a) we either have not been able to pinpoint the right (biological) mechanism responsible for these differences, or (b) there might be some learning/statistical mechanism(s) at stake which divide child grammars into RI languages vs. non-RI languages (or even more narrowly into BV languages vs. RI languages vs. BP languages). This issue may even reduce to language typology rather to a core universal, biological morphosyntactic property (see Newmeyer 2004, for example). Since UG-

based accounts rest on internally-driven approaches rather than externally-driven ones, factors such as frequency, consistency and saliency in the input have been largely ignored or have not been incorporated into the theory. I believe that the field needs to move beyond this static approach and together with “cognitivists” (e.g., constructionists and interactionists) start looking at the statistical and distributional facts of child-directed speech, which may provide some answers to the frequency and use of early root nonfinites and specific finite forms in child corpora. This is not to say that a child is merely an input-matcher and cannot project beyond her experience, which is what a constructionist approach would claim, for example (e.g., Tomasello 1992), but corpus linguistics (analyzing mother-child, child-child, as well as adult-directed corpora) might give us some new insights into why children initially seem to prefer certain verb forms (e.g., progressive *-ing* in English, perfective *-i* in Greek, imperative forms, and/or participial *-l* in Slovenian) and to what extent these early forms are conditioned by the input (if at all). Hence, more research into early verb morphology is needed, particularly of other morphologically complex languages, by combining the tools of generative linguistic theory and corpus linguistics.

7. References

- Becker, M. 2000. *The Development of the Copula in Child English: The Lightness of Be*. Ph.D. Dissertation. UCLA.
- Chomsky, N. 1995. *The Minimalist Program*. Cambridge, MA: MIT Press.
- Davidiak, E. and J. Grinstead. 2004. *Root non-finite forms in child Spanish*. Poster presented at GALANA 1 (Generative Approaches to Language Acquisition North America). University of Hawaii. December 2004.
- Deen, K. 2002. *The acquisition of Nairobi Swahili: The Morphosyntax of Inflectional Prefixes and Subjects*. Ph.D. Dissertation. UCLA.
- Giorgi, A. and F. Pianesi. 1997. *Tense and Aspect: From Semantics to Morphosyntax*. *Oxford Studies in Comparative Syntax*. Oxford: Oxford University Press.
- Goldberg, A. E. 2006. *Constructions at Work: The Nature of Generalization in Language*. Oxford: Oxford University Press.

- Guasti, M. T. 1993/1994. Verb syntax in Italian child grammar: Finite and nonfinite verbs. *Language Acquisition* 3:1-40.
- Guasti, M. T. and L. Rizzi. 2001. Agreement and tense as distinct syntactic positions: Evidence from acquisition. In *Functional Structure in DP and IP*, ed., G. Cinque. Oxford: Oxford University Press.
- Guasti, M. T. 2002. *Language Acquisition: The Growth of Grammar*. Cambridge, MA: MIT Press.
- Hoekstra, T. and N. Hyams. 1998. Aspects of root infinitives. *Lingua* 106:81-112.
- Hornstein, N. and D. W. Lightfoot (eds.) *Verb Movement*. Cambridge, UK: Cambridge University Press.
- Hyams, N. 1986. *Language Acquisition and the Theory of Parameters*. Dordrecht: Reidel.
- Hyams, N. 2002. Clausal structure in child Greek. *The Linguistic Review* 19:225-269.
- Hyams, N. 2003. Child non-finite clauses and the mood-aspect connection: Evidence from child Greek. To appear in *Aspectual Inquiries*, eds., R. Slabakova and P. Kempchinsky. New York: Springer.
- Montrul, S. 2004. *The acquisition of Spanish. Morphosyntactic Development in Monolingual and Bilingual L1 Acquisition and Adult L2 Acquisition*. Amsterdam/Philadelphia: John Benjamins.
- Newmeyer, F. 2004. Typological evidence and Universal Grammar. In *What Counts as Evidence in Linguistics. Special Issue of Studies in Language* 28, eds. M. Penke and A. Rosenbach, 527-548.
- Ouhalla, J. 1999. *Introducing transformational Grammar: From Principles and Parameters to Minimalism*. 2nd ed. London: Arnold.
- Poeppel, D. and K. Wexler. 1993. The full competence hypothesis of clause structure in early German. *Language* 69:1-33.
- Radford, A. 1990. *Syntactic Theory and the Acquisition of the English Syntax*. Oxford: Blackwell.
- Radford, A. 1995. *Phrase structure and functional categories*. In *The handbook of child language*, eds., P. Fletcher and B. MacWhinney, 483-507. Cambridge, MA: Blackwell.
- Rizzi, L. 1993/1994. Some notes on linguistic theory and language development: The case of root infinitives. *Language Acquisition* 3:371-393.

- Rus, D. in press. Early Root Nonfinities and the Acquisition of Finiteness in Child Grammar: Evidence from Early Child Slovenian. To appear in *Proceedings of the 14th Annual Conference on Formal Approaches to Slavic Linguistics (FASL): the Princeton Meeting*.
- Rus, D. 2006. *What momma still had to teach you: Towards a variational model of early morphosyntactic development*. Georgetown University Ms.
- Rus, D. 2005. Embedded Imperatives in Slovenian. In *Georgetown Working Papers in Theoretical Linguistics IV*, eds., C. Brandstetter and D. Rus, 153-183. Georgetown University Department of Linguistics.
- Rus, D. and P. Chandra. 2006. Child Language Imperatives: Questioning the 'Imperative as Root Infinitive Analogue' Hypothesis. To appear in *Proceedings of the 30th annual Boston University Conference on Language Development*. Somerville, MA: Cascadilla Press.
- Rus, D. and P. Chandra. 2005. Bare participles are *not* root infinitives: Evidence from early child Slovenian. In *Proceedings of the 29th annual Boston University Conference on Language Development*, eds., A. Brugos, M. Clark-Cotton and S. Ha, 493-503. Somerville, MA: Cascadilla Press.
- Salustri M. and N. Hyams. 2003. Is there an analogue to the RI stage in the null subject languages? In *Proceedings of the 27th Annual Boston University Conference on Language Development*, eds., B. Beachley, A. Brown and F. Conlin, 692-703. Somerville, MA: Cascadilla Press.
- Milojevic Sheppard and M. Golden, 2002. (Negative) Imperatives in Slovene. In Barbiers, S, Beukema, F and van der Wurff, W. eds. *Modality and its Interaction with the Verbal System*. Amsterdam/Philadelphia: John Benjamins.
- Tomasello, M. 1992. *First Verbs. A Case Study of Early Grammatical Development*. Cambridge, UK: Cambridge University Press.
- Toporišič, J. 2000. *Slovenska slovnica*. Maribor: Založba Obzorja.
- Valian, V. 1991. Syntactic subjects in the early speech of American and Italian children. *Cognition* 40:21-81.
- Vainikka, A. 1993/1994. Case in the development of English syntax. *Language Acquisition* 3:257-325.
- Varlokosta, S., B. Rohrbacher and A. Vainikka. 1998. Functional projections, markedness, and 'root infinitives' in early child Greek. *Linguistic Review* 15:187-207.

- Wexler, K. 1994. Optional infinitives, head movement and economy of derivation. In *Verb movement*, eds., N. Hornstein and D. Lightfoot, 301-350. Cambridge, UK: Cambridge University Press.
- Wexler, K. 1998. Very early parameter setting and the unique checking constraint: A new explanation of the optional infinitive stage. *Lingua* 106:23-79.
- Wurmbrandt, S. 2005. Infinitives are tenseless. Talk presented at Georgetown University. November 2005.