TOWARDS AN ADULT-LIKE VERBAL PARADIGM: THE OPTIONAL INFINITIVE STAGE IN ROMANIAN

NICOLETA SAVA
"Ovidius" University, Constanta, Romania

Abstract. This paper reviews data from acquisition of Romanian attempting to establish whether Romanian children go through an Optional Infinitive stage similarly to children acquiring English, Dutch, French, etc. In the first sub-chapter, a brief presentation of OI-related Romanian adult grammar properties is provided: the non-finite forms in Romanian and their context as well as of other phenomena discussed in relation with non-finite forms in the OI literature (null subject, negation, clitics). The second sub-chapter reviews the theories put forward by linguists studying the OI phenomenon underlining the implications for the acquisition of Romanian. The third subchapter presents an analysis of the longitudinal corpus provided in the CHILDES database for Romanian. Ungoverned non-finite forms present in the corpus are analysed in relation to other properties of child grammar: null auxiliaries, copula *be* omission, clitics omission, auxiliary omission. Statistic data as well as utterance samples are provided. In the second part of this sub-chapter the predictions for Romanian resulting from the theories reviewed in sub-chapter two are checked against the findings.

Acquisitionists analysing data from various languages found that at a certain stage in their linguistic development (until approximately 2;6) children regularly use non-finite verbs in finite contexts alongside with the correct finite forms. Two explanations for these findings have been proposed:

Young children do not have knowledge of inflection. One proposal is that inflected forms produced during this stage are not in fact understood as verb roots to which inflection markers have been attached but as "wholes".

Children have knowledge of Inflection as a grammatical category, but they do not know the realizations of inflection, the morphemes.

The first explanation cannot account for the fact that at the age when they use non-finite verb forms in finite contexts, children also use the correct finite forms. Also, it cannot account for the fact that when they use inflected forms, children almost always use them correctly. Wexler (1992) is the first linguist to analyse this phenomenon in detail. He notices that at this stage inflection seems to be optional in child grammar. Wexler (1994) notices that the optionality in child's behaviour seems to reflect an optionality in the underlying child grammar that does not exist in adult grammar. He assumes that child representations at this stage are nevertheless correct.

1. Non-finite forms in adult Romanian

In many contexts where languages such as English use the infinitive, Romanian requires the subjunctive, which is formed with the particle SĂ and the verb root to which the subjunctive morphology markers for person and number are added. The subjunctive is used in embedded clauses, both when the two subjects, in the main and in the embedded clause, have different reference and when the subjects of the two clauses coincide (unlike in other Romance languages):

a. Vreau să pleci.
want-1SG SĂ go-2SG subj.
'I want you to go'
b. Urăsc să completez formulare.
hate-1SG SĂ fill-1SG in forms.
'I hate to fill in forms'

The infinitive is restricted in Romanian to the complement of the modal verb 'a *putea'* (can/may) and of the lexical verb '*a şti*' (to know), in these contexts being used alongside with the subjunctive construction:

Poți pleca/ să pleci.
May-2SG go-inf./ SĂ go-2SG subj.
'You may go'

With all other modal verbs or modal constructions only the subjunctive is used:

Trebuie să merg acasă.
must SĂ go-1SG subj. home
'I must go home'

The infinitive is also used to form the future tense with the auxiliary *a vrea* 'to want' (4) as well as in the formation of the so-called '*condițional optativ'*, a periphrastic construction with the auxiliary *a avea* (to have) and the infinitive of the lexical verb (5). However, both these forms are rarely used in Romanian. The periphrastic future, formed with the subjunctive construction and '*o*', is the future form preferred in colloquial/spoken Romanian.

a. Voi pleca mâine.
want-1SG leave-inf. tomorrow
b. O să plec mâine.
O SĂ leave-1SG subj. tomorrow
'I will leave tomorrow.'
(5) Aş merge la film cu tine.
have-1SG cond. go-inf. to movie with you
'I would go to the movies with you'.

The present tense is also frequently used with future reference in Romanian. The infinitive is employed after certain prepositions such as *pentru* 'in order to', although this construction is considered very formal. The subjunctive, sometimes introduced by the complementizer *ca* 'in order to', is preferred in conversation.

a. Am sunat pentru a îi invita la cină.
have-1SG call-past part. in order to them invite-inf. to dinner
b. Am sunat (ca) să îi invit la cină.
have-1SG call-past part CA SĂ them invite-1SG.subj. to dinner
'I called to invite them to dinner'

As shown, the infinitive is rarely used in adult Romanian.

The non-finite form most frequently used in adult Romanian is the past participle. This form is used as part of the compound tense '*perfect compus'* with the auxiliary *a avea* 'to have'. This preterit form is used both with past and perfective meaning, the other preterite form '*perfect simplu'* being used only in some varieties of Romanian and in written texts.

A plecat ieri la prânz.
Have-3SG leave-past part. yesterday at noon.
'He left yesterday at noon'.

The past participle is also used in other compound preterit tenses such as the past subjunctive, the past conditional, the future in the past, these forms being obsolete.

The gerund does not form any compound tenses in Romanian, but it is used in presumptive and in embedded clauses.

Venind spre casă, am văzut o paradă.
come-ger. towards house have-1SG see-past part. a parade
' On coming towards the house, I saw a parade'

The frequency of the gerund in colloquial language and in child-directed speech is low.

The fourth non-finite form used in Romanian is the *supin* 'supine', which is actually identical in form with the past participle, but it is very rarely used.

Plec la pescuit.
go-1SG to fish-supine
'I am going fishing'

Other related grammatical properties. Romanian is a pro-drop language, null subjects being allowed both in matrix and in embedded clauses:

Vreau să pleci acasă.
want-1SG SĂ go-2SG home.
'I want you to go home'

However, 3rd person subjects must be recoverable from the context by pragmatic strategies in order for the sentence to be interpretable.

In Romanian, as in other Romance languages, object clitics may appear both on the left and on the right side of the verb, depending on their being (± finite).

a. Le-am văzut ieri la şcoală.
them-have 1SG see-part. yesterday at school.
b. Văzdu-l nefericit, mi-a fost milă.
see 1SG-he Acc. unhappy me-Dat. have-3SG be-past part pitty

Clitics also appear post-verbally with imperatives:

Dă-mi o carte din bibliotecă.
Give-2SG me Dat. a book from bookshelf
'Give me a book from the bookshelf'

Negation in Romanian is higher than inflection, the negative marker appearing on the left side of finite verbs:

a. Nu cred că va ploua.
not believe-1SG that will-3SG rain-inf.
'I don't believe that it will rain'.

2. Acquisition theories and predictions for Romanian

Given the data above, the current explanations for the OI phenomenon proposed in the literature would have the following implications for child Romanian and the possible existence of a non-finite form stage in Romanian.

Wexler (1994) assumes a representation constrained by the Universal Grammar for the optional infinitives produced in matrix clauses during the OI stage. In order to account for the assumed optionality in child grammar, he proposes that at this stage Tense is optional, the result being that children do not distinguish the values of Tense and hence, have no past-present-future distinction. His analysis deals with the values of early infinitives exclusively. In a footnote Wexler mentions that past participles produced at this age are better explained by a null-auxiliary analysis. He also argues that null-subject languages do not have an optional infinitive stage.

The prediction for Romanian would be that no non-finite forms should be produced in matrix clauses, the restriction for the infinitives applying to past participles as well. The null-auxiliary proposal as put forth by Boser et al. (1992) assumed, on the basis of data coming from German, a V2 language, that the Spec CP position had to be filled, the argument that occupies this position being responsible for licensing the null auxiliary. Given that Romanian is a pro-drop language and the subject need not be overt, this analysis should not apply to Romanian, unless proven that all sentences containing a past participle have an overt subject.

Wexler (1998) proposes the ATOM (AGR/TNS Omission Model), according to which the OI children optionally omit either Tense or Agreement. This analysis also proposes that in pro-drop languages this phenomenon does not occur and, therefore, no non-finite forms should be produced in Romanian.

Hoekstra and Hyams (1998) assume the underspecification of Number to be the reason for the OI stage. They propose that the Spec Head agreement system is responsible for the occurrence of root infinitives in matrix clauses, given that a subject N underspecified for number requires a verb underspecified for number as well. This model is assumed to work only with languages that mark agreement by number exclusively, all other languages having no root infinitives. Given that Romanian marks both number and person agreement on the verb, the prediction is that non-finite forms in finite contexts are to be found in child Romanian. If they

were to exist, under this theory all non-finite forms used in declaratives should have a bare noun subject or a null subject.

Rizzi (1993/1994) proposes that young children do not have knowledge of the axiom root = CP. Thus, early root infinitives are assumed to be produced because child structure optionally lacks the Tense Phrase and the higher layers and, consequently, early child structures are truncated. Given that the child does not know the abovementioned axiom, he/she may take any other projection as the maximal projection (Verb Phrase, Inflection Phrase, Agreement Object Phrase), depending on the truncation point. Although the model is used to explain the root infinitives in languages such as German, English, etc., it does predict that other non-finite forms may be used in languages where the infinitive is not the unmarked non-finite form used in adult language. This model correlates the lack of finiteness in root infinitive forms with the lack of other elements hosted by functional projections higher than TP, such as complementizers and clitics.

Under Rizzi's proposal Romanian may have a stage during which non-finite forms are used in main clause contexts. Given the Romanian data, this form is predicted to be the past participle, the infinitive or the gerund/present participle. This account also predicts that no clitics are produced in clauses containing a non-finite form in matrix contexts. Also, no wh-questions or topicalized structures with non-finite forms are to be found. The complementizers, the infinitive marker 'a', the subjunctive marker 'să' are also predicted to be absent from early utterances.

Dye's (2002) account involves the presence of periphrastic constructions in adult language. She assumes that children will produce non-finite forms that exist in periphrastic constructions in the adult language. The model applies to both overt-subject and null-subject languages. Dye adopts Boser et al.' model proposing that non-finite forms are accompanied by a null auxiliary. Following Boser et al. she proposes that the non-finite forms used in child language are related to the non-finite forms used in adult periphrastic constructions with auxiliaries. The frequency of the non-finite forms in child speech is correlated to the frequency of the related periphrastic constructions in adult speech.

This theory predicts that early child Romanian should contain few, if any, infinitives, many past participles, given the high frequency of the *perfect compus* in child-directed adult speech, and no gerunds.

3. Non-finite forms in early child Romanian

The longitudinal data analysed comes from the Bianca corpus, available in the CHILDES database (MacWhinney) consisting of the transcripts of 16 recordings of 60 minutes each of a Romanian monolingual child, Bianca, aged between 1;5 and 2;2.

An analysis of the Bianca corpus shows that verbs are very rarely used until the age 1;10 (only 3 verbs). Starting with the age 1;10 the number of verbs raises significantly. The number of verbs per age file, as well as whether these verbs are finite or non-finite, is presented below.

(14)	1;10	1;10	1;11	2;0	2;1	2;2
Finite verbs	4	33	48	22	97	95
Non-finite verbs	0	1	3	3	1	2
Total	4	34	51	25	98	97

As shown, the number of non-finite verbs is low. However, all the non-finite verb forms are past participles, which might suggest that a non-finite form stage does exist in Romanian and that this stage involves past participles similarly to child Modern Greek as proposed by Varlokosta, Vainikka and Rohrbacher (1997).

(15) Acolo pus tanti Jeni coajă. (B. 1;11)
There put-part. aunt Jenishell.
'Aunt Jeni has put the/a shell there'

As shown by Rizzi for Italian, if a non-finite stage is assumed for Romanian, this stage last for a considerably shorter period of time in Romanian than in OI languages such as German, English, Danish. Also, the percentage of the non-finite forms produced by Bianca is much lower that the percentage of infinitives in English, German or Danish corpora, as presented in table (16). The data for all the languages except Romanian are taken from Varlokosta, Vainikka and Rohrbacher (1997).

(16)

Language	Child	Age	% non-finite forms
German	Katrin Nicole	1;5 1;8	58% 68%
Dutch	Peter I	1;9-1;11	94%

	Peter II	2;0-2;2	34%
Swedish	Markus I Markus II Markus III	1;7-1;9 1;9-1;11 1;11	100% 82% 45%
French	Daniel Nathalie Philippe	1;8 1;9 2;1	60% 96% 21%
Romanian	Bianca I Bianca II Bianca III	1;10 1;11-2;0 2;1-2;2	2.6% 7.7% 1.5%

The data show that the percentage of non-finite forms in child Romanian is very low. Assuming a non-finite form stage in child Romanian, the data show that this stage lasts for a short period, for Bianca between 1;11 and 2;2. It is true however that the OI stage varies from one child to another (in the table above Phillipe and Nathalie at the same age have 21% and 96% root infinitives, respectively, so perhaps additional data is necessary for Romanian.

A major difference between infinitives in OI languages such as English and past participles in Romanian is that while infinitive constructions in adult English do not involve an auxiliary in compound tenses, past participles in Romanian form compound tenses with auxiliaries. A difference between the OI stage in English and the non-finite form stage in Romanian is that while in English the auxiliaries are not acquired at the age at which children use root infinitives in matrix clauses, in Romanian the use of non-finite forms, i.e. past participles, is attested at the same age when the auxiliaries are already present, though optionally omitted. Thus, the past participles are used on a par with the correct auxiliary + past participle constructions.

(17)	1;10	1;10	1;11	2;0	2;1	2;2
Past participles (aux. omission)	0	1	3	3	1	2
Perfect compus forms (+ aux.)	0	0	3	1	9	16
Ratio	-	1:0	1:1	3:1	1:9	1:8

As shown, the ratio past participle-*perfect compus* forms is higher at the age when past participles are more frequent in the corpus, whereas after the age of 2;1 this ratio is lower, the number of auxiliary + past participle constructions being significantly higher than that of the past participles.

At the same age copula *be* is omitted.

(18) Nu supărată.
not angry.
'I am not angry'

The number of overt copula *be*-s constructions increases at the same age when the number of auxiliaries in compound tenses increases.

(19)	1;10	1;10	1;11	2;0	2;1	2;2
Overt copula	0	1*	1	2	39	16
Covert copula	5	11	6	4	5	5**

* two *nu e* 'it is not' constructions have been omitted from the counting for the reasons mentioned earlier in this chapter

** in four of the five cases identified, the missing verb can also be an inflected form, not necessarily an auxiliary

Similarly to the other phenomena presented above, the number of overt auxiliaries increases after the age of 2;1, the child producing adult-like utterances.

An important aspect discussed in the literature in relation with non-finite forms is the null subject. The number of null subjects with past participle constructions and the number of null subjects with auxiliary + past participle constructions have been counted in order to test whether the presence of an overt element in INF-position influences the presence of null subjects.

(20)	Overt subjects	Null subjects
Past participles	7	3
Perfect compus	6	23

As shown, the number of null subjects is higher in the case of the inflected construction. Moreover, all six overt subjects which appear with the auxiliary + past participle constructions are 3rd person subjects which cannot be recovered from the context, their overt presence being necessary for interpretation reasons. One of the null subjects with the past participle constructions appears in the preceding sentence, so the child may have interpreted it as recoverable from the context.

The findings in child Romanian are opposite to those of English and other OI languages, where null subjects are preponderantly used with non-finite forms, a strong relation between the two being assumed.

Another related phenomenon is the presence of clitics. Clitics (Accusative and Dative) adjoining to the right side of the verb appear first. Left-side clitics are produced later.

(22)	1:10	1;11	2;0	2;1	2;2
Left-side clitics	0	0	0	4	7
Right-side clitics	0	1	2	2	1

No clitics are found with past participle constructions. At the age they start being produced, right-side clitics seem to be optionally omitted, the child producing both these utterances:

(23) a. joc cu Doru – clitic omission
play-1SG with Doru
'I'm playing with Doru' (B. 2;2)
b. *m*-am jucat cu mingea
me have-1SG play-part. with the ball
'I played with the ball' (B. 2;1)

Complementizers start being used at the same time as right-side clitics. Complementizers are found at earlier ages in the corpora but in inappropriate contexts. Around the age of 2;1 they are used in adult-like manner, although they are still occasionally omitted.

(24) a. mănânce iepurașul și iepurașul face ceau+ceau
eat-3SG subj. the rabbit and the rabbit make-3SG bye+bye.
'The rabbit must eat and the rabbit goes away' (B. 2;1)
b. Adult: aha dar Bianca de ce nu bea bere?
'But why doesn't Bianca drink bear'
CHI: că doa(r)e [*] bu(r)ta pe Bianca.
'Because Bianca's stomach aches' (B. 2;2)

Subjunctive morphology on the other hand seems to be acquired later, since the age at which she starts using subjunctives in the appropriate contexts, subjunctive markers are occasionally incorrectly used.

Prepositions start to be correctly used at approximately the same age.

Wh-questions are found at early ages in the corpora, but no wh- non-finite questions are found in the corpora. However, existential *be* is often omitted in wh-questions:

(25) unde Bianca
where Bianca
'Where is Bianca'

The periphrastic future is also acquired around the age of 2;1, which is proof that Bianca has knowledge of the values of Tense.

How well do the current theories account for the Romanian data? Wexler (1994) and Wexler (1998) predict that no non-finite forms used in matrix contexts are to be found in child Romanian, given that Romanian is a pro-drop language. The presence of past participles produced by Bianca in main clauses contradicts this prediction. The prediction that non-finite forms different from the infinitive are to be explained under the null auxiliary hypothesis is subsumed to the analysis of Dye' s (2002) account. In most recent papers, however, Wexler proposes that a unitary account for non-finite forms used by children in matrix contexts should be found. Also, the correlation between null subjects and non-finite forms does not hold for child Romanian, where null subjects are almost absent with past participles, while they are dominant with the auxiliary + past participle construction. The fact that null auxiliaries are used with finite verbs does not contradict Wexler's theory, given that Romanian is a pro-drop language. His account however cannot explain why overt subjects are preferred with past participles.

Hoekstra and Hyams' (1998) proposal also predicts that non-finite forms are not to be found in Romanian, because the subject and the finite verb show both number and person agreement in Romanian. This prediction is not borne out by the Romanian data, given that past participle forms used in main clauses are attested in the corpora. Moreover, the relation between bare nouns and non-finite forms is contradicted by the fact that overt subjects produced with past participles in Romanian are mostly proper names and nouns accompanied by the definite article:

(26) nu vrut pisica
not want-part. the cat
'The cat didn't want'

Rizzi's (1993/1994) truncation model predicts that other non-finite forms except the infinitive may be produced during this stage, thus accommodating the presence of past participles used in declaratives in child Romanian. His theory seems to account for the fact that clitics and complementizers appear later in the child Romanian corpora. Given that clitics occupy a position higher than TP and that complementizers and wh-elements in questions are hosted in the CP layer, both these positions being assumed to be missing from early representations, no clitics and no wh-questions are predicted to be produced in non-finite clauses. This prediction is borne out by the Romanian data. However, Rizzi's model cannot account for the fact that post-verbal overt subjects seem to be preferred with non-finite forms while null subjects occur most frequently with finite verb forms. Also, the truncation theory cannot explain the presence of wh-questions with a missing existential *be* as well as of copula constructions with overt subjects and missing copula in the Romanian corpora. Most important, Rizzi's theory cannot explain why both finite and non-finite forms are optionally used in matrix contexts during this stage.

Dye (2002) analyses the presence of all non-finite forms in child grammar, proposing a unitary account for the presence of non-finite forms in child grammar cross-linguistically. Her correlation between the presence of periphrastic constructions in adult speech and the presence of the non-finite forms included in these constructions in child grammar is borne out by data from the Bianca corpus. No gerunds and no infinitives are produced in main clauses; only past participles are. However, Dye's theory predicts a higher proportion of past participles in Romanian child speech (given the high frequency of the past participle periphrastic constructions in adult Romanian) than actually found in the Bianca corpus. The explanation involving a null auxiliary seems to account for the fact that overt subjects are preferred with past participles, given that Boser et al. (1992) propose that the spec CP position must be filled by an overt element in order for the null auxiliary to be licensed. Varlokosta, Vainikka and Rohrbacher' (1997) objection for Modern Greek, namely that past participles found in child Modern Greek were not used in the same contexts as the past participles used in adult Modern Greek does

not hold for Romanian, given that all participial utterances produced by Bianca seem to involve a part tense or perfective context. This model also accounts for the presence of wh-questions lacking the copula verb. Also, the use null auxiliary bears no consequences on the values of Tense. This account for the fact that past participles used in child Romanian have a past value as well as for the fact that the future tense is used at an age when past participles are still found in the corpora. The null auxiliary model cannot account for other related phenomena such as the late presence of clitics and complementizers in the corpora. Also, it cannot explain why overt auxiliaries appear at the same time that the null auxiliaries are used. Assuming that lack of morphology knowledge is responsible for the presence of null auxiliaries, it is predicted that the two constructions should not co-occur.

Conclusions

None of the current analyses can account for all the properties of child Romanian. Two of the models, that of Rizzi (1993/1994) and Dye (2002)/Boser et al. (1992), seem to complementary explain the presence of past participles in child Romanian as well as other related phenomena. We propose that a unified account of the non-finite forms produced crosslinguistically should be found, further research being necessary in this respect, given that not much attention has been paid to this phenomenon in languages where optional non-finite forms are not so frequent as in the traditional OI languages. Frequency remains an unsolved problem, no account providing a strong explanation for the crosslinguistic differences in terms of frequency of the non-finite forms in child speech. Perhaps other factors apart from syntactic and morphologic knowledge should be considered for this purpose.

References

Avram, L. 2003. *An Introduction to Language Acquisition from a Generative Perspective*. Bucureşti: Editura Universităţii Bucureşti

Dye, Christine. 2002. "Optional infinitives are not an option: New evidence from Romance." Paper presented at the 16th Symposium on Romance Linguistics *(Going Romance 2002), Groningen,* November 28- 30, and at the Cornell Linguistics Circle Colloquium, Ithaca. November 21.

Hoekstra, T., N. Hyams, 1998. “Aspects of root infinitives”. *Lingua,* 106. 81–112.

Hoekstra, T., N. Hyams, M. Becker, 1996. “The underspecification of Number and the licensing of root infinitives”. *Proceedings of the 20th Boston University Conference on Language Development*. 293–306.

MacWhinney, B., C. E. Snow. 1985. *The Child Language Data Exchange System*.

Rizzi, L., 1993/1994. “Some notes on linguistic theory and language development”, *Language Acquisition,* 3. 371–394.

Schönenberger, M., A. Pierce, K. Wexler. F. Wijnen. 1995. “Accounts of root infinitives and the interpretation of root infinitives”, *Geneva Generative Papers*. 47–71.

Varlokosta, S., A. Vainikka, B. Rohrbacher, 1996. “Root infinitives without without infinitives”. in *Proceedings of the 20th Annual Boston University Conference on Language Development*. Stringfellow, A. D. Cahana-Amitay, E. Hughes and A. Zukowski (eds.). volume 2. Somerville, Mass.: Cascadilla Press. 816–827.

Wexler, K. 1994 “Optional infinitives, head movement and the economy of derivations” in *Verb Movement*. D. Lightfoot and N. Hornstein (eds.). Cambridge: Cambridge University Press. 305–350

Wexler, K. 1998. “Very early parameter setting and the unique checking constraint: a new explanation of the optional infinitive stage”, *Lingua*, 106. 23–79.