SUBJECTS IN L2 ENGLISH: THE ROLE OF FEATURE INTERPRETABILITY

Andreea Dogaru*

Abstract: The present paper investigates the learning of subjects in L2 English by Romanian learners with a view to identifying possible developmental differences between referential and non-referential subjects. The main question targets the role that feature interpretability plays in the acquisition process in a context in which the learners' L1 allows null subjects. The main results reveal relatively early acquisition of subjects in L2 English. In line with the view that narrow syntax is acquirable in L2, the results show that proficient learners have native-like knowledge of subjects. A higher acceptance rate of null expletive subjects even at an advanced proficiency level indicates that non-referential subjects are vulnerable in L2 English. I account for these findings in terms of the Feature Interpretability Hypothesis.

Keywords: referential subjects, expletive subjects, L2 English, (un)nterpretable features

1. Introduction

The (re)setting of the null subject parameter in L2 is a well-documented topic in the literature, especially those cases where L1 is non-*pro*-drop and L2 is a *pro*-drop language; however, no agreement has been reached regarding the end-state of L2 grammar and the difficulties that purely syntactic properties might impose on acquisition.

Some authors claim that the discrepancy between the behaviour displayed by L2 learners and native speakers can be accounted for in terms of interface vulnerability. According to the Interface Hypothesis (Sorace & Serratrice 2009, Sorace 2011, a.o.), only properties at the syntax-discourse interface are vulnerable even at an advanced stage of acquisition, while properties pertaining to narrow syntax are fully acquirable in L2.

According to Tsimpli & Roussou (1991), syntactic mismatch between L1 (e.g. a null-subject language) and L2 (e.g. a non-null subject language) will result in prolonged learnability problems, which will never be overcome. According to these authors, L2 learners have access to the principles of UG, which regulate any language acquisition process, but parameter resetting does not take place when in L2 the parameter has a value different from the one in the native language. One of their main claims is that parameters should be disassociated from UG principles since they belong to the UG lexicon, i.e. a functional module, which is subject to maturation only in L1, while in L2, it cannot be accessed, thus excluding parameter-resetting and causing transfer errors, especially at the early stages. However, more advanced L2 learners, who seem to have adapted the right parameter choice, employ general learning mechanisms by analysing the input data (Tsimpli & Roussou 1991:151).

This theory was further developed starting from the minimalist distinction between interpretable and uninterpretable features, in Tsimpli & Mastropavlou (2007) and Tsimpli & Dimitrakopoulou (2007), who put forth the Interpretability Hypothesis. According to this theory, only uninterpretable features are vulnerable and constrained by a critical

* University of Bucharest, "Languages and Cultural Identitites" Doctoral School, andreead97@yahoo.com.

Bucharest Working Papers in Linguistics XXIII, 2, 51-67, e-ISSN 2392-8093, ISSN-L 2069-9239
DOI: 10.31178/BWPL.23.2.3

period, making them inaccessible in L2 learning, regardless of proficiency level. On the other hand, interpretable features which are present at LF are fully acquirable and play a compensatory role, facilitating the interpretation of uninterpretable features (Tsimpli & Dimitrakopoulou 2007). This hypothesis predicts that a mismatch between L1 and L2 in terms of uninterpretable features will constitute vulnerable domains even at an advanced stage of development (Prentza & Tsimpli 2013).

Given the existing disagreement regarding the acquisition of purely syntactic properties and the fact that only a few studies investigated the learning of this parameter in language pairs of the type L1 null-subject and L2 non-null-subject, it is worth investigating the learning of the null subject parameter in an L1 Romanian-L2 English context, a learning context which has been understudied. I focus on null pronominal subjects with a view to evaluating to what extent feature interpretability interacts with the acquisition of subjects.

This paper is organized as follows. Section 2 briefly discusses the linguistic context, by presenting the main syntactic properties of Romanian and English subjects. Section 3 provides a brief overview of several relevant studies that investigated the learning of subjects in L2 English. In section 4 I present my own study. The main findings are summarized in section 5.

2. Subjects in English and Romanian

2.1 English

English is a non-*pro*-drop language, with a rigid SVO order, which requires the subject to be obligatorily overt in finite root and embedded clauses (see 1). When the subject remains inside the VP, an expletive must be introduced to satisfy the EPP (2); in *there*-existential structures, *there* merges in SpecTP to satisfy the EPP (3) (Prentza & Tsimpli 2013). According to earlier studies, being a non-*pro*-drop language is also reflected in the ban on an overt complementizer preceding the trace of the displaced subject[1]. English, as a non-*pro*-drop language, does not allow *that*-trace violation (4).

(1) a. John was angry when he entered the room.
b. * Was angry when entered the room.
(2) a. It is said that John is a thief.
b. *Is said that John is a thief.
(3) a. There is a cake on the cupboard.
b. *Is a cake on the cupboard.
(4) a. * Who do you think that will come?
b. Who do you think will come?

[1] But see the discussion in section 2.2.

2.2 Romanian

Romanian is a VSO null-subject language (Dobrovie-Sorin 1993), which exhibits the properties associated with the *pro*-drop parameter (Rizzi 1982, 1986):

(i) null subjects in finite clauses and no expletives

(5) *pro* venim — Thematic null subject
pro come.1.PL
'We are coming.'

(6) *pro* plouă — Quasi-referential null subject
pro rains
'It's raining.'

(7) *pro* e o fată în clasă. — Referentially empty null subject
pro is a girl in classroom
'There is a girl in the classroom.'

(ii) free inversion, i.e. the subject can appear in postverbal position irrespective of verb type (transitive, unaccusative, unergative)

(8) Ion mănâncă un măr. / Mănâncă Ion un măr.
Ion eats an apple / eats Ion an apple
'Ion is eating an apple.'

(9) Ion a căzut. / A căzut Ion.
Ion has fallen / has fallen Ion
'Ion fell.'

(10) Ion plânge. / Plânge Ion
Ion cries / cries Ion
'Ion is crying.'

(iii) empty pronouns in embedded clauses

(11) Aceasta este femeia care crede că eşti deştept.
this is woman-the who thinks that are smart
'This is the woman who thinks that you are smart.'

(iv) apparent violation of the *that* t-effect

(12) Cine crezi că o va sprijini pe Maria?
who believe that her will support PE Maria
'Who do you believe that will support Maria?'

However, the integration of *that*-trace effects in the cluster of properties associated with the null subject parameter is highly problematic and has been challenged on both conceptual and theoretical grounds by many linguists (Liceras 1989, Roberts & Holmberg 2005, Prentza 2010, Prentza 2014).

One possible account for the different behaviour displayed by English and Romanian is the different realization of the EPP feature. Alboiu (2002) argues that this feature is subject to parametrization across languages, i.e. in some languages, it is realized as a [D], in others as a [T] or as a [V], which gives rise to three types of languages: [D]-type, [T]-type and [V]-type respectively. Based on this classification, Romanian is argued to be a V-type EPP language, which means that the EPP feature is checked by the lexical verb, which always undergoes raising to I^0 (Alboiu 2002). On the other hand, English is a D-type EPP language; the EPP feature is checked by selecting an agreeing XP and merging it in SpecIP (Alboiu 2002: 74).

3. Previous studies on subjects in L2 English

The L2 learning of the *pro*-drop parameter has been studied in an impressive number of studies. The main findings suggest that L1 speakers of a non-null subject language persist in using ungrammatical null pronominal subjects, especially null expletives in L2 English, even at an advanced level of proficiency.

White (1985) examined data coming from French and Spanish learners of L2 English of comparable proficiency levels from beginners to advanced. The task was a grammaticality judgment task which included sentences that varied with respect to null and postverbal subjects and the *that*-trace effect. The results for the null subject condition showed that overall, the French group outperformed the Spanish group, being more accurate in rejecting null subjects. However, both groups accepted significantly more null expletive subjects than referential subjects, and in the case of Spanish speakers, this tendency was still present at an advanced level of proficiency, while in the case of French speakers, this was more visible in the beginner group. The results also revealed improvement as proficiency level developed, i.e. advanced speakers were more accurate than beginners or intermediate in rejecting ungrammatical null subjects.

Similar results were reported in Phinney's (1987) study. This author analysed the production of two groups, i.e. L1 Spanish-L2 English learners and L1 English-L2 Spanish learners, focusing on the omission of subjects, postverbal subjects and verb morphology. The results concerning the presence of subjects revealed that the L1 Spanish speakers omitted both expletives and referential subjects in L2 English, while L1 English speakers performed better, correctly omitting subjects in L2 Spanish. In the case of the L2 English learners, a clear distinction was observed between impersonal constructions and the use of referential subjects, i.e. they omitted significantly more expletive subjects than null referential (the intermediate group omitted null expletives in 56% of the cases vs. 6% referential subjects, and the same tendency was noted for the beginners: 76% omission of expletives vs. 13% omission of referential subjects). Phinney (1987) explains these results in terms of markedness. She argues that [+pro-drop] is the unmarked setting of the *pro*-drop parameter, while [–pro-drop] is the marked setting, which explains why English learners of L2 Spanish outperformed the L1 Spanish learners of L2 English, since, as she explained, it is harder to change the value of a parameter from an unmarked setting to a marked setting than the other way round. The idea of markedness in L2 learning, however, has been challenged in several studies.

Another important study that highlights the discrepancy between null referential and null expletive subjects is Tsimpli & Roussou's study (1991). If the previous two studies predict the availability of resetting of parameter value in L2 acquisition, Tsimpli & Roussou (1991) argue that L2 learners have access only to UG principles, while parameter resetting does not take place when in L2 the parameter has a value different from L1. In order to test this hypothesis, they investigated the learning of the properties associated with the null subject parameter in an L1 Greek-L2 English context. In the first part of the experiment, the participants (6 intermediate, 7 post-intermediate L2 learners of English) were asked to evaluate and correct 30 English sentences. In the second part of the experiment, they had to translate 10 Greek sentences (with null subjects, postverbal subjects, dislocated subjects, dislocated objects) into English. The results showed that their participants behaved differently with respect to the three properties associated with the *pro*-drop parameter. Regarding the null subject property, the participants had no problem with the identification, correction and translation of the ungrammatical referential null subjects, correctly inserting a pronoun in subject position. The same behaviour was observed with quasi-argumental null subjects (weather verbs). However, they evaluated the sentences with expletive null subjects as grammatical in 80% of the cases, and when they had to translate some sentence of this type into English, they did not insert an overt expletive.

Prentza's study (2014) also investigated if the syntactic mismatch between L1 and L2 will result in prolonged learnability problems that will never be overcome. She focused on the proficiency level of the participants to determine if the problems could eventually be surmounted at an advanced level. As in the previous case, this study tested whether or not L1 Greek learners will acquire the syntactic properties of the English subjects, i.e. null subjects, postverbal subjects and the *that*-trace effect. One of her predictions was that language proficiency will play an important role; L2 learners would improve their subject use as their proficiency level developed, i.e. an advanced speaker would perform better than an intermediate or a beginner on all three conditions. It was also predicted that the end-state of L2 grammar will diverge from the native performance, especially when the L1-L2 mismatch is syntactic. The study consisted of two tasks: one paced grammaticality judgement task and one cloze task, in which 30 Greek learners of L2 English took part. They were divided into three groups depending on their proficiency level: beginners, intermediate and advanced. A control group of 10 English native speakers took part in the a study. The two tasks were balanced across three conditions: null subjects, postverbal subjects and *that*-trace effects. The results for the null subject condition revealed a significant difference between the performance of the four groups in both the paced grammaticality judgement task and in the cloze task. For the former, the beginners accepted null subjects in 58% of the cases, the intermediate learners in 46.5% and the advanced group in 11.1%, while the control group accepted null subjects in only 4% of the cases. The same behaviour was observed for the cloze task, where the beginners used null subjects in 61% of the cases, the intermediates in 39.7%, the advanced group in 15.1%, while the native control group in 0% of the cases (Prentza 2014: 1774). The overall results support Prentza's main prediction, i.e. the L1 properties associated with the null subject parameter are active in L2 English. She explains that the syntactic difference between L1 Greek and L2 English makes this parameter inaccessible

to adult L2 acquisition, even at an advanced level. The learners will transfer the relevant L1 features to L2 since they cannot switch off the syntactic properties associated with the null subject parameter in Greek (Prentza 2014: 1776).

Prentza & Tsimpli (2013) also investigated how the difference in the syntactic properties associated with the null subject parameter (null subjects and postverbal subjects) affects the acquisition process by analysing the interlanguage grammar of L1 Greek-L2 English learners. This time, however, the phenomenon is analysed from the perspective of the Interpretability Hypothesis (Tsimpli & Dimitrakopoulou 2007), which focuses on the role that the interpretable and uninterpretable features play in the acquisition process.

As in the case of the previous two studies, Prentza & Tsimpli (2013) also claim that UG principles are available in L2 acquisition. The novelty is that, as the Interpretability Hypothesis postulates (Tsimpli & Dimitrakopoulou 2007), uninterpretable features are not available in L2 learning: "it is claimed that if uninterpretable features are not selected from the UG inventory of features within the critical period these features will become inaccessible to L2 learners in the sense that L2 learners cannot use them to analyse the L2 input" (Tsimpli & Mastropavlou 2007). However, interpretable features are available in L2 acquisition and they have a compensatory function, i.e. "the L2 learner will assign interpretable features to the problematic L2 items in order to regularize their distribution eliminating in this way real optionality of the system" (Tsimpli & Mastropavlou 2007).

The authors designed two experiments to test this hypothesis: a paced grammaticality judgment task and a cloze task. 72 L1 Greek speakers participated. They were divided into two groups depending on their proficiency level in L2 English: intermediate and advanced. Additionally, there was a control group of 25 English natives. The two tasks had two main objectives. On the one hand, to investigate the degree of acceptability and production of L2 ungrammatical null referential and null expletive subjects in verb-initial and XP-preposed structures. On the other hand, to examine the degree of acceptability of ungrammatical postverbal subjects across verb classes in both initial and XP-preposed structures (Prentza & Tsimpli 2013: 336).

The results of the paced grammaticality judgment task support one of the main predictions. Overall, the participants accepted more null subject sentences than the control group. However, there was a divergence between the groups' performance, i.e. the advanced group performed better than the intermediate one (3.93 accuracy in identification of ungrammatical sentence and 4.65 accuracy in the identification of grammatical sentences for the advanced group vs. 3.09 and 4.39, respectively, for the intermediate group), but worse than the native control group (4.57 accuracy in identification of ungrammatical sentences and 4.94 accuracy in the identification of grammatical sentences). As predicted, L1 Greek speakers accepted more null expletives than null referential subjects (3.98 null expletive vs 3.5 null referential for the intermediate group and. 4.16 null expletive vs 4.43 null referential for the advanced group), proving that compensatory strategies are at work, i.e. referential subjects have interpretable [person], while expletives lack this interpretable feature. However, L2 learners did not accept more null subjects in the XP-preposed condition than in verb-initial structures, as initially predicted. It is the referentiality variable that affects learners' responses and not the XP variable, at least for the advanced group (Prentza & Tsimpli 2013:348). All in all,

based on these results, Prentza & Tsimpli's (2013) predictions were borne out, i.e. the syntactic mismatch in the LF-uninterpretable features associated with the null subject parameter between L1 Greek and L2 English caused prolonged problems for the acquisition of the parameter: "the semantically uninterpretable features regulating the syntax of English subjects which, by hypothesis, are not instantiated in L1 will be inaccessible to adult Greek learners" (Prentza & Tsimpli 2013: 356).

All these studies predict that the class of pronominal subjects is not homogenous from the point of view of learnability, i.e. expletives are probably acquired later than referential subjects. Following the Interpretability Hypothesis, this behaviour could be explained by resorting to the specification of features on the categories: referential subjects, which have some interpretable features [+pronoun] are eventually acquired, while expletives are endowed only with uninterpretable features which are inaccessible in L2 acquisition.

At the same time, all of these studies showed that the production and evaluation of referential and quasi-argumental subjects were in place in the case of advanced speakers, which suggests that this parameter is eventually acquired, supporting the Interface Hypothesis. According to this hypothesis, only the properties at the interface are vulnerable, while those belonging to narrow syntax are fully acquirable.

4. Present study

4.1 Main questions and predictions

As already mentioned, this study examines the learning of null subjects in L2 English by L1 Romanian speakers. We have seen that previous studies unanimously predict a developmental difference as the proficiency level improves and different acquisitional routes for referential and expletive subjects. Yet, there is no agreement regarding the end-state of L2 grammar. Some claim that the properties associated with the null subject parameter will never be fully acquired irrespective of proficiency level (Tsimpli & Prentza 2013).

The questions which I address in the present study are:

(i) Do Romanian learners of L2 English (re)set the value of the *pro*-drop parameter?
(ii) Is the change in proficiency level reflected in a change in accuracy of subject use?
(iii) Is there any developmental difference between referential, quasi-argumental and expletive null subjects in an L1 Romanian-L2 English context?

Since the ungrammaticality of null subjects in English is a purely syntactic phenomenon, pertaining to narrow syntax, following the Interface Hypothesis, we predict that L1 Romanians will have no problems in (re)setting the right value of the parameter in L2 English and that the end state of L2 grammars will be native-like with respect to this property. However, based on previous findings, we should observe a difference in accuracy rate as the L2 English proficiency level improves: more proficient L2 learners

will be more accurate than less proficient ones in rejecting ungrammatical English null subjects.

Another important issue to be addressed is the role that feature interpretability plays in the acquisition process. Based on previous studies (Prentza & Tsimpli 2013), it is possible to see a different acquisitional route depending on the type of null subjects, i.e. referential subjects, being endowed with some interpretable [person] feature, should, in principle, be the first rejected as null subjects. In sharp contrast, expletive subjects which lack any interpretable features, should be accepted more as null subjects. We will also examine the class of quasi-argumental subjects, which have some nominal features and ϕ-features, hence we predict our participants to accept more null quasi-argumental subjects than null referential, but less than null expletives.

4.2 Participants

The participants were 78 native speakers of Romanian studying L2 English, coming from different environments: high school, Faculty of Medicine, Politehnica University of Bucharest, Military Academy and Academy of Economic Studies. All of them were administered an Oxford Quick Placement Test (2001) and were divided into four proficiency levels depending on their scores: a beginner group (BEG) (n = 10), an intermediate group (INT) (n = 27), an advanced group (ADV) (n = 27) and the most proficient group (PROF) (n = 14). All of them, except for 7 participants in the proficient group, were linguistically naïve, i.e. they were exposed to English in a classroom setting during elementary, primary and high school, while 7 of them continued to study English at the Faculty of Foreign Languages and Literatures, University of Bucharest.

Table 1. Participants' linguistic background

Group	Number	Mean age	Other languages
BEG	10	17.6	French
INT	27	18.6	French
ADV	27	22.2	French, German, Spanish, Russian
PROF	14	23.9	Frencg, German, Spanish, Swedish

4.3 Method

A grammaticality judgment task was used. It included 18 test sentences and 18 distractors, balanced across three conditions depending on the referentiality of the subject: referential subjects, quasi-argumental subjects with weather verbs, and expletive subjects. The test sentences were balanced for grammaticality, as can be seen in the examples below:

(13) a. Anna takes a walk every afternoon before dinner. **Condition I**
b. *Has been working in this bank for ten years.
(14) a. It snows a lot in this part of the country. **Condition II**
b. *Snowed all night, I couldn't go out.

(15) a. It seems that Mike didn't get the job he wanted. **Condition III**
b. *Is essential that she comes to my party.

All of the items were randomised, and each participant received an online questionnaire with the test sentences and the fillers. For each sentence they had to indicate their evaluation by choosing one of the options: correct, incorrect or not sure. They were also instructed to provide the grammatical counterpart in case they decided that one of the sentences was ungrammatical or if they were unsure, in order to control if ungrammaticality was related to null subjects.

I gave 1 point for each grammatical sentence identified as grammatical and for all ungrammatical sentences identified as ungrammatical. I also gave 1 point when a grammatical sentence was evaluated as ungrammatical if the correct alternative provided by the participants targeted other aspects and not the subject. For example, for the sentence in (16), which is grammatical, one participant evaluated it as ungrammatical and gave (17) as the correct alternative, which is also grammatical depending on the spelling preferences:

(16) He spends most of his time trave**ll**ing abroad.
(17) He spends most of his time trave**l**ing abroad.

I gave 0 points when an ungrammatical sentence was correctly evaluated as ungrammatical but no overt subject was inserted in the correct variant, as can be seen in the examples below. The test sentence in (18), which is ungrammatical, was evaluated as ungrammatical, but as can be seen from the alternative in (19), the participant replaced *that* with *like*, without inserting an expletive subject.

(18) *Unfortunately, seems **that** the thief managed to get in.
(19) *Unfortunately, seems **like** the thief managed to get in.

For the statistical analysis, I used one-way ANOVA to determine the variation within and between groups for each condition. Any p-value < 0.05 was considered statistically significant. When I got a statistically significant difference, a Post Tukey Test was run to find out which specific group(s) differed statistically from the other(s). The percentages and the results from the statistical data are presented in section 4.4 below for each condition

4.4 Results

4.4.1 Condition I: Referential subjects

For the referential subject condition, the overall results show that the participants performed well; the beginner group correctly identified the grammatical and ungrammatical sentences in 80% of the case, the intermediate group in 88%, the advanced in 98%, while the proficient group had 100% target-like evaluation.

A one-way between groups ANOVA at the α =.05 level revealed that the number of correct answers differed significantly across the four groups [$F(3,74) = 7.85$, $p = .00012$]. A Post Hoc Tuckey HSD test was run to determine between which of the various pairs of means of the groups there was a significant difference. The results showed a statistically significant difference between the beginner and the advanced groups (BEG:ADV $p = .0001$), between the beginners and the most proficient groups (BEG:PROF $p = .00016$), and between the intermediate and the most proficient groups (INT:PROF $p = .03$). No statistically significant difference was reported between the advanced and the most proficient groups (ADV:PROF $p = .97$).

The overall results are summarized in Figure 1.

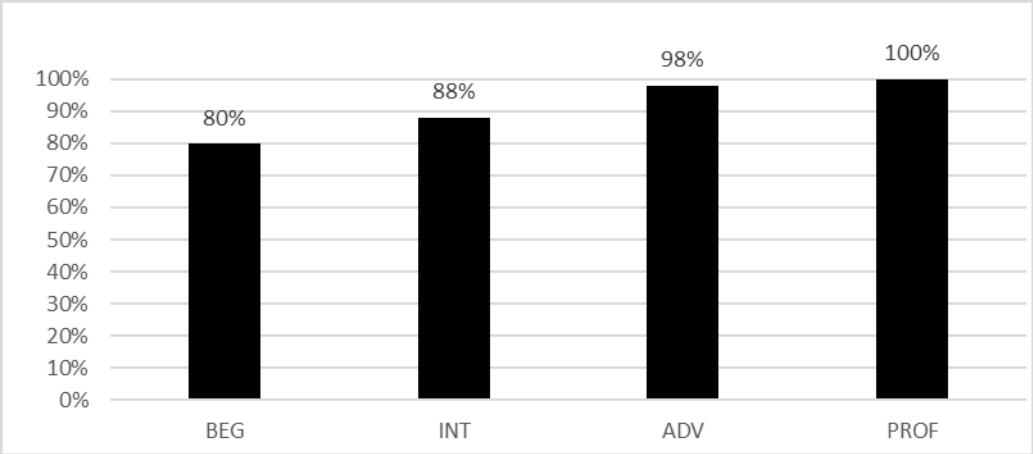


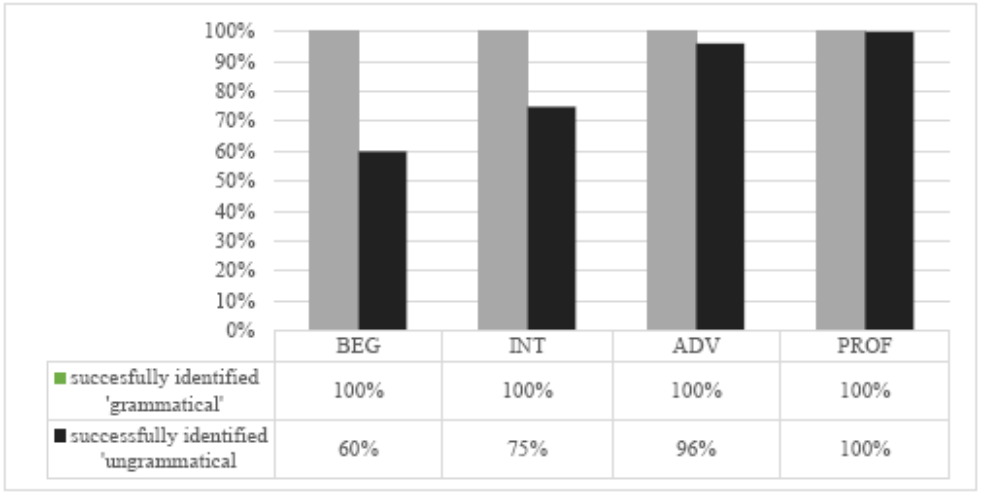
Figure 1. Condition I. Overall results

Another one-way ANOVA was conducted, but this time only with the data coming from the ungrammatical sentences which were correctly evaluated. The results were the same, i.e. the beginners differed significantly from the advanced and the most proficient groups (BEG:ADV $p = .00069$; BEG:PROF $p = .03$), while no statistically significant difference was attested between the advanced and the proficient groups ($p = .97$).

Regarding the judgment of grammatical vs. ungrammatical sentences, we see that the percentages change. All groups, except for the proficient one, who had 100% accuracy in evaluating both types of sentences, were more accurate in evaluating grammatical sentences than ungrammatical ones; but the difference reached significance only in the case of the beginner ($p = .001$) and the intermediate L2 learners ($p = 0.0009$). In the case of the advanced group the difference was not significant ($p = .07$).

4.4.2 Condition 2: Quasi-argumental subjects

For the quasi-argumental subject condition, a similar behaviour was observed. The overall results indicate a high rate of accuracy for the intermediate 80%, the advanced 92% and the proficient groups 100%. The beginner group accepted more ungrammatical null expletive subjects, having a 65% rate of accuracy.



	BEG	INT	ADV	PROF
succesfully identified 'grammatical'	100%	100%	100%	100%
successfully identified 'ungrammatical	60%	75%	96%	100%

Figure 2. Successfully identified grammatical vs. ungrammatical referential subjects

Like in the previous case, a one-way between groups ANOVA at the α=.05 level was conducted to test for the effect of quasi-argumental subjects on proficiency level. The number of correct answers differed significantly across the four groups [$F(3,74) = 12.6$, $p = 00001$]. Since the result reached significance, a Post Hoc Tuckey HSD test was run to determine between which groups there was a significant difference. The results showed a statistically significant difference between beginner and intermediate L2 learners, (BEG:INT $p = .04$), between beginner and advanced L2 learners (BEG:ADV $p = .00002$), between beginner and proficient L2 learners (BEG:PROF $p = .00$), and between intermediate and proficient L2 learners (INT:PROF $p = .00238$). No statistically significant difference was reported between the advanced and the proficient groups (ADV:PROF $p = .54$).

The overall results are summarized in Figure 3.

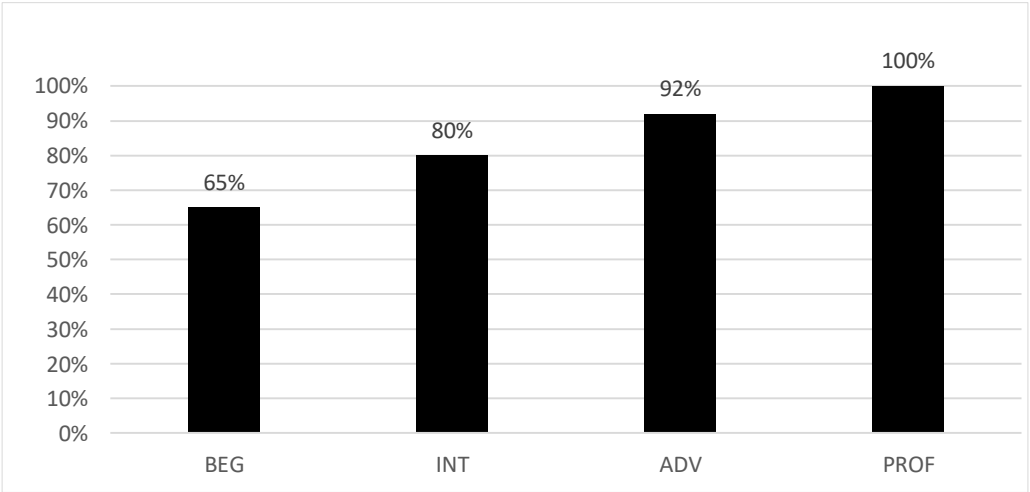


Figure 3. Condition II. Overall results

If we analyse only the acceptance of ungrammatical null quasi-argumental subjects, our results indicate a relatively poor performance of the beginners, who rejected null quasi-argumental subjects in only 40% of the cases. Similar behaviour was noticed with the intermediate group, who rejected them in 59% of the cases. The advanced L2 learners correctly rejected quasi-argumental null subjects in 85% of the cases, and they did not differ significantly from the proficient group (ADV:PROF, only ungrammatical correctly identified as ungrammatical $p = .058$).

With respect to the evaluation of grammatical vs. ungrammatical sentences, this time all groups, except for the proficient one (100% accurate in their evaluation) were significantly more accurate in evaluating grammatical sentences with quasi-argumental subjects than ungrammatical ones (BEG: $p = .0017$; INT: $p = .0009$; ADV: $p = .008$).

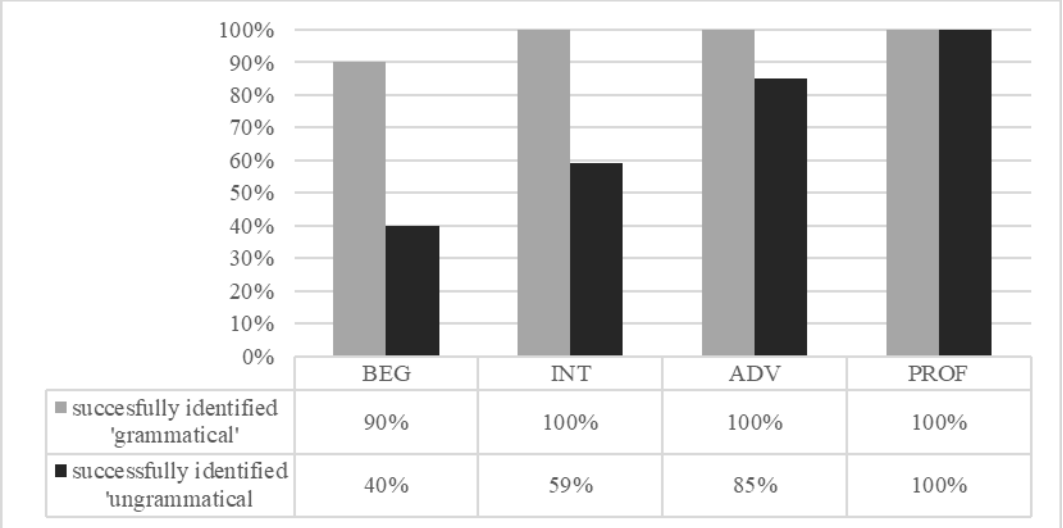


Figure 4. Successfully identified grammatical vs. ungrammatical quasi-argumental subjects

4.4.3 Condition 3: Expletive subjects

For the expletive subjects condition, the overall results indicate that the INT, ADV and PROF groups performed relatively well overall (INT 77%, ADV 90%, PROF 100%). The beginner group performed rather poorly with a 63% accuracy rate.

The one-way between groups ANOVA at the $\alpha = .05$ level revealed a statistically significant difference across the four groups [$F(3,74) = 13.7$, $p = .00001$]. The results of Post Hoc Tuckey HSD tests revealed a statistically significant difference between the beginner and the intermediate L2 learners (BEG:INT $p = .04$), between the beginner and the advanced L2 learners (BEG:ADV $p = .00004$), between the beginner and the proficient L2 learners (BEG:PROF $p = .0000$), and between the intermediate and the proficient L2 learners (INT:PROF $p = .00042$). No statistically significant difference was reported between the two most advanced groups (ADV:PROF $p = .54$) overall, i.e. grammatical and ungrammatical sentences correctly evaluated.

The overall results are summarized in Figure 5.

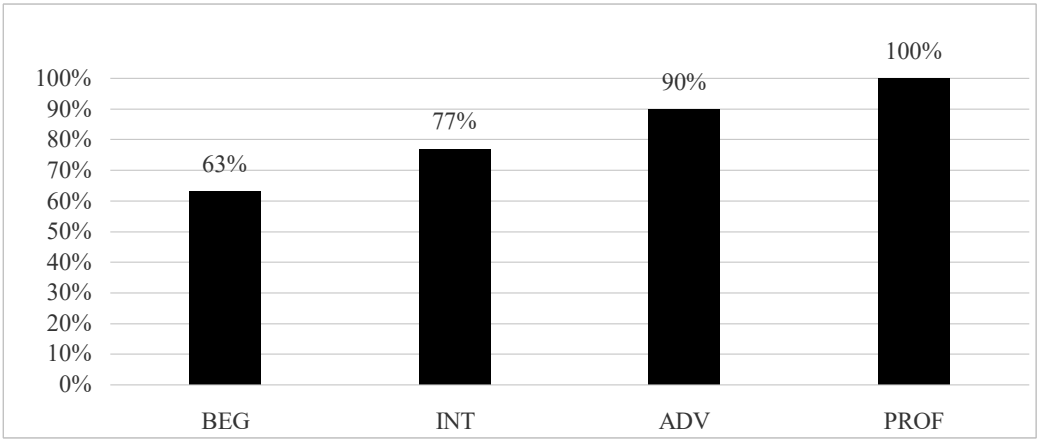
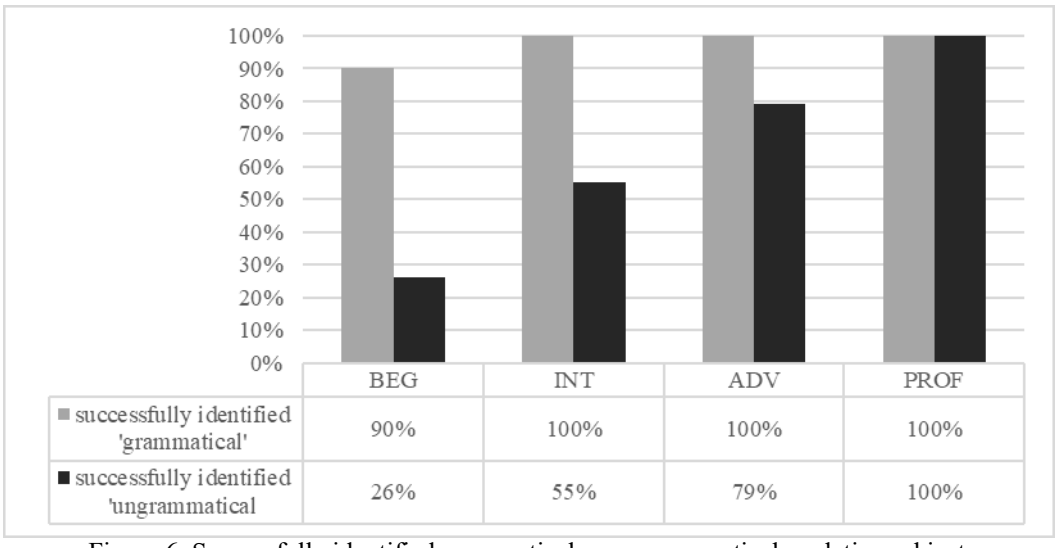


Figure 5. Condition III. Overall results

The analysis of the answers received for the ungrammatical sentences evaluated as ungrammatical reveals a change in the percentages: the accuracy rate in rejecting null expletives is relatively low for the beginners (26%) and the intermediate (55%). The advanced group also accepted null expletive subjects in 21% of the cases, having an accuracy rate of 79%, which is statistically different from the proficient group (p = .02).

As in the previous condition, the difference between the judgment of grammatical vs ungrammatical sentences reached significance not only with the beginner and the intermediate participants (BEG: p = .0017; INT: p = .0009) but also with the advanced group (ADV: p = .0014).



	BEG	INT	ADV	PROF
successfully identified 'grammatical'	90%	100%	100%	100%
successfully identified 'ungrammatical	26%	55%	79%	100%

Figure 6. Successfully identified grammatical vs. ungrammatical expletive subjects

4.4.4 Comparing the results

Overall, the Romanian L2 learners of English performed well, especially the intermediate, advanced and proficient groups. They were accurate in rejecting null subjects: the intermediate group 81%, the advanced group 93%, the proficient group 100%. The beginner group accepted ungrammatical null subjects at the highest overall rate of 69%. The results of a one-way ANOVA at the $\alpha = .05$ level showed that the number of correct answers across the three conditions differed significantly across the four groups [$F(3,230) = 32.19$, $p = .00001$]. Post Tukey HSD test revealed that all groups, except for the advanced and the proficient ones, differed significantly overall (BEG:INT $p = .0006$; BEG:ADV $p = .000$; BEG:PROF $p = .000$; INT:ADV $p = .00073$; INT:PROF $p = .0000$; ADV:PROF $p = .14$, i.e. not statistically significant).

If we analyse only the results for the set of ungrammatical identified as ungrammatical responses, overall, the beginners correctly rejected null subjects in only 42% of the cases, the intermediate in 63% of the case; the ADV performed better with a rate of accuracy of 86% while the proficient group was 100% accurate. In this case, however, the results of the one-way ANOVA indicate that the ADV group differed significantly from the PROF in accurately evaluating the ungrammatical sentences, and as we have seen, this was the case with null quasi-argumental and expletive subjects.

Within-group analysis also showed a statistically significant difference between each condition for the BEG, INT and ADV groups. In the case of the group of advanced L2 learners, the Post Tuckey test showed that this difference was significant between the first and third condition, i.e. they accepted more ungrammatical null expletives than null referential subjects. No statistically significant difference was observed in the advanced group's evaluation of the referential and the quasi-argumental subjects, even though a tendency to accept more null quasi-argumental subjects than null referential subjects was attested.

The comparison is set out in Figure 7.

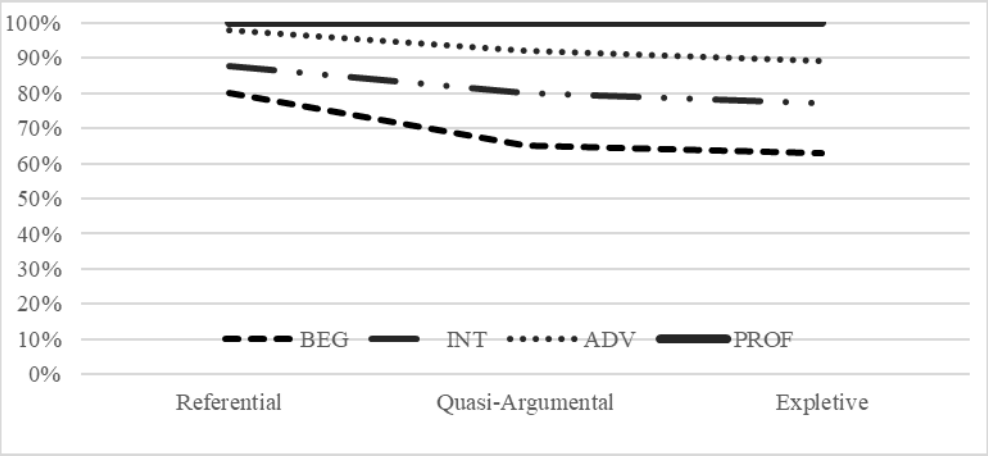


Figure 7. Overall score per condition

4.5 Discussion

Overall the results revealed an obvious difference between the three proficiency levels. The setting of the null subject parameter is in place with the advanced and the proficient groups, whose grammaticality judgments were almost native like: the accuracy rate was 91% with the former and at ceiling with the latter. This suggests that these groups know that English does not allow null subjects. The results also indicate gradual development in null subject rejection as proficiency level improves: the proficient group scored the highest, followed by the advanced, the intermediate, and finally the beginner group.

Within-group analysis showed that, overall, i.e. the results for both types of sentences (grammatical evaluated as grammatical and ungrammatical evaluated as ungrammatical), there was no statistically significant difference between the three conditions. However, if we examine only the results obtained for the set of sentences successfully identified as ungrammatical, the results change. There is a statistically significant difference within-groups between the three conditions for the beginner, the intermediate and the advanced groups. The same tendency was noted: null referential subjects were the first to be rejected by the three groups (BEG:60%, INT: 75%, ADV:96%), followed by null quasi-argumental subjects with weather verbs (BEG: 40%; INT: 59%; ADV:79%), while null expletives were discarded in the fewest cases (BEG: 26%; INT: 55%; ADV: 79%).

These results confirm our prediction that there should be a different acquisitional route for each type of subject, as shown in previous studies (Tsimpli & Prentza 2013). The Romanian L2 learners of English behaved like Greek L2 learners of English with respect to null subjects. They had no problems with referential subject but expletive subjects remain vulnerable even with advanced learners. Null expletive subjects are always rejected only by proficient L2 learners. The results of the present study support the Feature Interpretability Hypothesis. Referential subjects, having an interpretable [person] feature, are easily recognised and acquired first. In contrast, non-referential subjects, which lack an interpretable feature, are vulnerable even at an advanced level of acquisition, as we have seen. In the case of quasi-argumental subjects (Tsimpli & Prentza 2013), it has been claimed that they have some nominal features and ϕ-features, which will help the learner in the acquisition process.

The evaluation of the overall rejection rate of null subjects shows that the beginner and the intermediate groups did not set the parameter value. The results for the advanced group are not uniform: they had no difficulties in rejecting null referential subjects since they correctly identified the ungrammatical sentences in 96% of the cases. Similar behaviour was observed in the second condition, where they accurately dismissed the sentences with a null quasi-argumental in 85% of the cases. For the expletive subject condition, even though the overall results show that they were accurate in 90% of the cases, their performance regarding the rejection of incorrect sentences was lower, only 79%.

The proficient group scored 100% in all conditions. They performed better than the advanced group in the third condition, who accepted significantly more null expletive subjects. This result indicates, in line with previous studies, that null expletive subjects are vulnerable in L2 English even at an advanced level.

5. Conclusions

Our results indicate that Romanian learners of L2 English manage to set the right value of the null subject parameter in L2 English eventually. They challenge the hypothesis that when there is a syntactic mismatch between L1 and L2, the L2 end-grammar will never be native-like since our proficient group of L2 learners gave 100% accurate responses across conditions. This is why we believe that the null subject parameter, which is a purely syntactic phenomenon in English, pertaining to narrow syntax, will be eventually acquired in L2, even though this may happen at a later stage.

Regarding the second issue addressed in the present paper, i.e. the role of feature interpretability, our results support the hypothesis that only uninterpretable features represent a vulnerable domain in L2 acquisition. Our findings support the Interpretability Hypothesis (Tsimpli & Dimitrakopoulou 2007, Tsimpli & Mastropavlou 2007) and are in line with Tsimpli & Prentza (2013). Expletive null subjects, which are endowed only with uninterpretable features, are the most vulnerable. Even the advanced participants accepted significantly more expletive subjects than null referential subjects and tended to be more accurate in rejecting null quasi-argumental subjects. The proficient group was the only one who reached 100% accuracy on all conditions, which suggests that even though uninterpretable features can hinder the acquisition process, it is not the case that they are completely inaccessible in L2 learning, as the Interpretability Hypothesis predicts.

References

Alboiu, G. 2002. *The Features of Movement in Romanian*. Bucharest: Editura Universității din București.

Dobrovie-Sorin, C. 1993. *The Syntax of Romanian: Comparative Studies in Romance*. Berlin: Mouton de Gruyter.

Liceras, J. 1989. On some properties of the pro-drop parameter: Looking for missing subjects in non-native Spanish. In S. Gass & J. Schachter (eds.), *Linguistic Perspectives on Second Language Acquisition*, 109-133. Cambridge: Cambridge University Press.

Phinney, M. 1987. The pro-drop parameter in second language acquisition. In T. Roeper & E. Williams (eds.), *Parameter Setting*, 221-238. Dordrecht: Reidel.

Prentza, A. 2010. Feature Interpretability in Second Language Acquisition: Evidence from the Null Subject Parameter in the Greek/English Interlanguage. PhD dissertation, Aristotle University of Thessaloniki.

Prentza, A. 2014. Can Greek learners acquire the overt subject property of English? A pilot study. *Theory and Practice in Language Studies* 4: 1770-1777.

Prentza, A. & Tsimpli, I. M. 2013. The interpretability of features in second language acquisition: Evidence from null and postverbal subjects in L2 English. *Journal of Greek Linguistics* 13 (2): 323-365.

Rizzi, L. 1982. *Issues in Italian Syntax*. Dordrecht: Foris

Rizzi, L. 1986. Null objects in Italian and the theory of *pro*. *Linguistic Inquiry* 17 (3): 501-557.

Roberts, I. & Holmberg, A. 2005. On the role of parameters in Universal Grammar: A reply to Newmeyer. In H. Broekhuis, N. Corver, U. Kleinhentz & J. Koser (eds.), *Organizing Grammar: Linguistic Studies in Honor of Henk van Riemsdijk*, 538-553. Berlin · New York: Mouton de Gruyter.

Sorace, A. 2011. Pinning down the concept of "interface" in bilingualism. *Linguistic Approaches to Bilingualism* 1: 1-33.

Sorace, A. & Serratrice, L. 2009. Internal and external interfaces in bilingual language development: Beyond structural overlap. *International Journal of Bilingualism* 13 (2): 195-210.

Tsimpli, I. M. & Dimitrakopoulou, M. 2007. The Interpretability Hypothesis: Evidence from *wh*-interrogatives in second language acquisition. *Second Language Research* 23 (2): 215-242.

Tsimpli, I. M. & Mastropavlou, M. 2007. Feature interpretability in L2 acquisition and SLI: Greek clitics and determiners. In J. Liceras, H. Zobl & H. Goodluck (eds.), *The Role of Formal Features in Second Language Acquisition,* 143-183. Mahwah, NJ: Lawrence Erlbaum.

Tsimpli, I. M. & Roussou, A. 1991. Parameter resetting in L2? *University College London Working Papers in Linguistics* 3: 149-169.

White, L. 1985. The "*pro*-drop" parameter in adult second language learning. *Language Learning* 35 (1): 47-62.