

TESTING ACCESS TO UNIVERSAL GRAMMAR IN L2 LEARNING:  
THE PRO DROP PARAMETER

*Adela SIMOIU*

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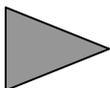
***Abstract***

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*The article looks at one of the topics for research within the field of second language acquisition. In particular, it presents an experiment of speakers of a [+ pro drop] language, Romanian, learning a [- pro drop] language, English, with an analysis of whether the Romanian speakers can reset their pro drop parameter from the L1 value to the L2 value. The experiment was carried out with 27 speakers of 4 main levels, elementary, intermediate, upper intermediate and advanced and it presents evidence to support the hypothesis of the Full Access Full transfer with respect to second language acquisition, i.e. although speakers have access to UG when learning a L2, they cannot reset the parameters completely. The article presents a discussion of the experiment in terms of all the properties related to the pro drop parameter.*

**Keywords:** second language acquisition, parameter resetting, universal grammar, access to universal grammar in second language acquisition, pro drop.



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## Introduction

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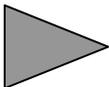
The purpose of this paper is to present an account of the phenomenon of pro drop with Romanian learners of English in the context of second language acquisition research.

One of the most important issues in second language learning is whether speakers can access their universal grammar in the course of acquiring/learning a second language. Universal Grammar (UG) was proposed as part of the innate biologically endowed language faculty (Chomsky, 1965, 1981) which allows the L1 acquirer to arrive at a grammar on the basis of linguistic experience. UG provides a genetic “blueprint”, determining in advance what grammars can and cannot be like. Firstly, UG places requirements on the form of grammars, providing an inventory of possible grammatical categories and features in the broadest sense, i.e. morphological, phonological, and semantic. In addition, it constrains the functioning of grammars, by determining the nature of the computational system, including the kinds of operation that can take place, as well as principles that grammars are subject to. UG includes invariant principles, that is, principles that are generally true across languages, as well as parameters which allow for variation from language to language. UG constrains L1 acquisition as well as adult native speaker knowledge of language. (cf. Lydia White, 2003)

In second language learning, L2 learners need to arrive at a linguistic system which accounts for the L2 input, allowing the learner to understand and speak the second language.

In order to establish the exact nature of L2 competence and account for its acquisition or learning, the working hypothesis has been that L2 learners do or do not still have access to UG. As mentioned before, UG contains abstract principles and structural relationships like c-command, which are the same across languages (i.e. all languages have a lexicon) but it also contains parameters, which are principles that differ in the way they work from language to language. The differences are accounted for by incorporating a limited number of options into UG. Parameters account for clusters of properties, which superficially seem to be unrelated. The idea is that parameters give the child, the L1 acquirer, advance

knowledge of what the possibilities will be, that is, they limit the range of hypotheses that have to be considered. Parameter settings are fixed on the basis of input from the language being acquired. In other words, when L1 speakers of one language are in the process of learning a L2, there is a question of whether they have access to the principles of UG and furthermore, whether they reset the parameters from L1 to L2, e.g. in the case of Romanian speakers learning English, one of the questions is whether they reset the [+ pro drop] parameter to the [- pro drop] parameter with respect to its entire cluster of properties. The present study will show an experiment of Romanian learners of L2 being tested for parameter resetting.



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### **Testing for Access to UG in Second Language Learning**

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In the investigation of individuals' access to UG, the main assumption has been that if speakers are shown to observe principles of UG without violating any of them, this means that they can access it; on the other hand, if they are shown to violate principles of UG, then this means that they can no longer have access to UG. Accordingly, the hypotheses adopted by researchers vary from those who say that there is full access to UG, through to those who claim that there is partial access to UG to the more radical who claim that there is no access to UG and that languages are learned through specific learning mechanisms.

Considering that UG both determines the nature of competence (it must be UG-constrained) and guides the L1 acquirer, there are three main scenarios with respect to L2 acquisition/learning:

- a) same competence, same means of acquisition: L2 learners show evidence of observing principles of UG and acquire appropriate L2 parameter resetting; (the full access hypothesis)
  
- b) different competence, different means of acquisition: unavailability of UG; the use of alternative means of learning the L2, e.g. the L1 grammar and problem solving. (the "no access" hypothesis)
  
- c) different competence, same means of acquisition: interlanguage grammars are possible grammars in a technical sense. (the partial access hypothesis)

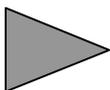
Under the full access hypothesis, there is full access to UG and the L1 does not influence second language learning and L2 is a result of the direct interaction between UG and L2 input; under the no access hypothesis, there is no access and L2 learners come to use a second language by means of general-learning and problem-solving mechanisms; finally, under partial access, there is access to UG but this is mediated by L1 and learners reset parameters from their L1 into their L2.

The hypothesis that I adopt here is a version of the full access hypothesis, which states that although there is full access to UG, there is also transfer from L1 into L2 in the process of second language learning and, moreover, that complete parameter resetting is not achieved.

With respect to testing for UG principles, this should be done with subjects who have mastered the kind of structures in which the principle to be tested would operate.

The test includes grammatical sentences, both correct and incorrect. These are grammaticality judgment tests and the subject must accept grammatical sentences and reject ungrammatical ones. These tests usually contain control mechanisms to avoid the possible bias of grammaticality tasks, i.e. the responders might judge the sentences according to criteria which are not those intended by the experimenter or they may show a tendency to accept all sentences. The control mechanisms are represented by correct English sentences with the same parameter featured, translation requirements of sentences using the same syntactic feature/principle/parameter under research as well as correction tasks, where the respondents are asked to correct the wrong sentences.

Another means is recording spontaneous production of data, but one needs to make sure that violations shown by these data are systematic rather than random. Because this is difficult to achieve scientifically, this sort of testing is not very used to investigate UG access.



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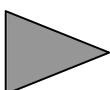
### **The experiment**

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The experiment focuses on a situation where L1 speakers of [+ pro drop] language (Romanian) learn a [- pro drop] language (English). The aim of the experiment is to check whether learners can or cannot reset the parameter from (+) to (-). This study is a ‘replica’ of Tsimpli and Roussou’s study of 1991 in which they state that, though there is access to Universal Grammar principles in L2 learning, there is no parameter resetting. The evidence they provide comes from Greek learners of English.

In this experiment, the assumption is that there is access to UG in second language learning. As mentioned before, I adopt the Full Access Full Transfer Hypothesis, namely the hypothesis which stipulates that learners have access to UG and start with a grammar of their L1 when learning an L2. L1 may be a barrier to L2 especially at the initial stages of learning when learners rely on comparisons between L1 and L2 to learn the new language. As they progress, they will rely more on the newly formed structures in L2 in order to advance. The study will show that there is transfer from L1 into L2 and, although there is evidence of progress with higher levels of proficiency, complete parameter resetting is not achieved.



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### **Methodological issues**

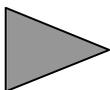
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The main issues to be considered in terms of methodology of an experiment are: the type of data used, whether longitudinal (the same learners across a longer relevant period of time) or cross-sectional (learners at different levels of development in their learning of English) and the level of the learners’ proficiency in the language. Linguists such as White (1989) claim that L2 learners must have achieved a level which is appropriate to the parameter value being tested.

I have chosen the cross-sectional method due to practical considerations. The subjects in this experiment are all adult/young adult learners of English at various levels of proficiency and having had different experience of learning English.

In terms of the properties being tested, one needs to take into account the fact that parameters have clusters of properties and therefore, one needs to look for evidence of clustering in parameter resetting in L2.



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### **The data**

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The experiment consisted of two parts – the first part is a profile description that the respondents filled in themselves. It contains information about the age, experience of learning English, level of proficiency as self-assessed.

The second part consisted of a set of 20 grammaticality judgments to be performed by the respondents along with 10 very simple Romanian sentences illustrative of the null subject parameter in this language to be translated into English. The subjects were also asked to make corrections in the grammaticality sentences where necessary. The translation part was used mainly as a control mechanism in order to ensure the accuracy of the experiment. All Romanian sentences were grammatical and included constructions with null subjects, both referential and expletive, postverbal subjects in main and embedded clauses, “that – trace” effect sentences. The same properties were tested in the English sentences.

The aim of the task to correct the wrong English sentences was to ensure that the subjects identified the intended mistake and not anything else, as has been the case on some occasions. Similarly, the aim of the correct English control sentences was to ensure that the subject would recognize correct expression and not transfer the Romanian pro drop properties onto correct English sentences and correct the latter accordingly. For example, there were cases where the students corrected the correct English ‘Who do you believe will be late’ to the wrong Romanian-like structure ‘Who do you believe that will be late’, thus showing clear evidence of transfer.

The percentages given in the analysis of the results represent the degree of success in identification of the mistakes and in accurate correction for the judgement tasks. For the translation tasks, the percentages represent correct translation in terms of the properties being tested. Other types of mistakes were not taken into account. There were also several, but not in a relevant number, cases of avoidance or overgeneralization of the target structures. For example, for the Romanian sentence “Nu are rost să mă aștepți” (= not has point to me wait) some of the subjects

produced sentences of the type “You don’t have to wait for me” – avoiding the intended target structure “There is no point in waiting for me”.

The subjects are 27 adult speakers of Romanian learning English. They have had different exposure to English and different learning experience. Most of the advanced group have passed through very rigorous formal instruction and, as we can see in the result chart, show the highest degree of parameter resetting. None of the students learned English in a natural environment, they were all part of an education system.

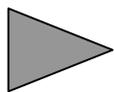
	Age	Level of proficiency in English	Number of students
Group 1	19 - 38	Elementary	7
Group 2	19 - 20	Intermediate	5
Group 3	18 - 21	Upper Intermediate	5
Group 4	19 - 20	Advanced	10

The exposure to input plays an important role in parameter resetting as it is the input which guides the choices of children when they acquire languages and help them set their parameters. Similarly, in L2 learning if the input is different from the target L2 or if it is confusingly mixed with L1, this will prevent the learner from correctly resetting the parameter.

I adopt version 1 of the null subject parameter presented in the previous chapter, i.e. the version adopted by Chomsky 1981, Rizzi 1982, White 1985, 1986. The properties associated with the null subject parameter according to this version are:

1. Null lexical subjects vs. Lexical subjects in English
2. No pleonastic pronouns (expletive subjects) vs pleonastic pronouns (expletive subjects) in English
3. Rich verbal agreement vs. lack of rich agreement in English
4. Subject-verb inversion in declaratives (vine trenul) vs. no subject – verb inversion in declaratives (SV Inversion)

5. That-trace sequences (Who did you say that came) vs. no that trace sequence



### Experiment Task Sheet

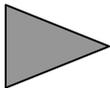
*Judgment sentences:*

1. When do you want to come to my house?
2. \*Sit you on this chair until I go to buy some bread. – incorrect: SV inversion in main declarative sentences. (Romanian structure)
3. \*I called you when arrived mother. – incorrect: SV inversion in embedded sentence (Romanian structure)
4. The little puppies sleep with their mother. – correct SV order; control.
5. He appears to be sad. – correct Subject raising; control for (13).
6. We visit our parents when my brother comes from the countryside. – correct SV order in embedded clauses; control for (3)
7. I spoke to the doctor yesterday. \*Told me I need more tests. – incorrect: null lexical subject (Romanian structure)
8. \*Who do you think that left? – incorrect: that – trace effect. (Romanian structure)
9. It snowed yesterday. – correct expletive/pleonastic subject; control for (13), (18).
10. \*Who did you say that married Maria? – incorrect: that – trace effect. (Romanian structure)
11. \*Who did they say that bought the apples? – incorrect: that – trace effect. (Romanian structure)
12. \*Is coming the postman – incorrect: SV inversion in main declarative sentences. (Romanian structure)
13. \* Seems that Mary is happy. – incorrect: expletive/pleonastic null subject. (Romanian structure)
14. \*Mary seems that is happy – incorrect: subject raising; expletive/pleonastic subject; that trace effect (Romanian structure)
15. \* Is raining in London – incorrect: expletive/pleonastic null subject. (Romanian structure)
16. \* Maybe is little chance to happen this. – incorrect: expletive/pleonastic null subject; SV inversion in embedded clauses. (Romanian structure)
17. Who do you believe will be late? – correct; control for (8), (10), (11)
18. \*Here is very hot. – incorrect: expletive subject, first position filled by a different word. (Romanian structure)

19. It is a big difference between the two cars. – incorrect: expletive subject, double subject
20. In chapters 9 and 6 are presented the problems Romania will face. – incorrect: SV inversion in main clause, first position (subject position) filled by other categories (Romanian structure)

*Translations.*

1. Vreau ca fata mea să meargă la școală.
2. Plouă. – null expletive subject.
3. Vine trenul. – SV inversion in main clauses.
4. Am mâncat pâinea – null referential/lexical subject
5. Cine crezi că a venit ieri? – that trace effect.
6. Ce crezi că a cumpărat mama ieri? – SV inversion in embedded clauses.
7. Ei par fericiți. – subject raising.
8. E cineva la ușă – null expletive subject.
9. E frig afară – null expletive subject
10. Nu are rost să mă aștepți – null expletive subject.



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## The results

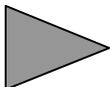
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The overall results with respect to the three properties associated with the pro drop parameter are similar to Tsimpli and Roussou's experiment although they are better in terms of degree of resetting. The main difference is that they used two intermediate levels of proficiency in English and, as a result, their data indicated a lot more clearly that there is no parameter resetting. There may be an objection here as to the relevance of the data, in that the intermediate levels may not be illustrative of the parameter resetting of some properties, in particular of the "that-trace" effect, which is a more subtle property that is learned later on. I used data from four levels, elementary, intermediate, upper intermediate and advanced and these show a higher level of resetting with more advanced levels, however not enough to allow a prediction in the sense of parameter resetting. In several ways, my results are also similar to those of White's (1985, 1986) experiment, in that the Romanian subjects show evidence of resetting parametrical properties related to the null subject and post verbal subject with percentages of over 90 for the advanced level but they fail with respect to "that-trace" effect sequences with percentages of approx. 82 for the advanced group. White (1989) suggested that there may have

been a methodological problem with her earlier experiment in that the subjects may not have reached the right level of proficiency to be tested for “that-trace” effect. These subjects were in three intermediate levels of proficiency, according to White 1989. As mentioned before, the subjects of the present experiment range from elementary to advanced and their judgment of “that-trace” effect sequences is very different across levels. Therefore, the objection that can be raised against Tsimpli & Roussou’s analysis or, for that matter, the one raised by White with respect to her own study, are rejected, as the present study shows clear evidence that parameter resetting is not achieved even with advanced level learners.

If we look at the differences between the judgement responses and the translation tasks across properties, we will notice that a larger percent of subjects produce accurate sequences in terms of all the properties tested and moreover, even in terms of the ‘that-trace’ effect, with differences of approximately 25% between judgments and translations across levels. This may indicate that these results may be more supportive of the parameter resetting possibility but they show, in fact, that the learners are aware of the correct possibility and they make the ‘safest’ choices when faced with a translation task. This does not guarantee, however, that they will not produce inaccurate sentences, violating the constraints on the pro drop parameter in English, as it is clearly shown by the judgment tasks. I should also mention that they were also given correct ‘that-trace’ effect sequences in the judgement tasks which most of them accepted and which indicate that they are aware of this possibility.



### **Null subjects: referential and expletive**

As far as null subjects are concerned, it is clear that the main area of interest for research is with null expletive subjects or pleonastic subjects, as referential null subject tasks were done almost entirely accurately. Consider the Romanian sentence:

(1) Am mâncat pâinea.

Ate (1<sup>st</sup> person singular) the bread.

All subjects correctly inserted the referential subject (I) in the translation, although there were some other mistakes with lower levels.

For the English sentence (2), the percentages are 30% success for the elementary group, 80% success for the intermediate and upper intermediate groups and 100% for the advanced group.

(2) I went to the doctor yesterday. Told me I need more tests.

With null expletive (pleonastic) pronouns, the results are rather different. We can clearly see progress from the initial state of the null subject property of *Romanian impersonal constructions* to the correct “*it/there*” insertion in English but the percentage of success does not exceed 85% even with advanced learners. The percentages are 21% (elementary), 40% (intermediate), 60% (upper intermediate) and 85% (advanced) - successful identification and correction of the task.

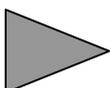
Consider the wrong English sentences:

- (3) \*Is raining in London.
- (4) \* Maybe is little chance to happen this.
- (5) \*Here is very hot.
- (6) \* It is a big difference between the two cars.

The first one is a classic example of the null expletive in a [+ pro drop] language such as Romanian and it is easy to change to the (-) value which presupposes “*it*” insertion in the subject position. In the second example, though, ‘maybe’ fills the initial position and can be mistakenly taken for a subject by learners who know that they have to start their sentence with the subject in English. Thus it is more illustrative of the resetting phenomenon for this particular property. Moreover, the main sentence is followed by another sentence where the subject is postposed, a copy of the relevant Romanian structure. The degree of acceptability was relatively high for this sentence, indicating that the parameter had not been reset. Similarly, example (5) is illustrative for the null expletive property in a typical Romanian construction with the first position again filled by a different word which can be mistakenly taken for a subject. The results show that learners can identify the more straightforward case of (3) more easily, even at lower levels, but they fail to identify the mistakes in examples like (4) and (5) to a large extent even with higher levels. The translation tasks which mirror these structures were done with a higher degree of accuracy with percentages ranging from 42 (elementary), 80 (intermediate), 95 (upper intermediate) to 100 (advanced). Again, even though these percentages are considerably higher than the judgement ones, they only

indicate that the subjects are aware of the correct alternatives and when faced with a translation task they will use their best option.

With the example of type (6) we are looking at the incorrect insertion of ‘it’ for English sentences requiring ‘there’ insertion. This is a frequent transfer error with Romanian learners, even with advanced level learners. Having learned that they need to place the subject in the initial position and that they have to insert expletive ‘it’ in impersonal constructions, learners will overgeneralize this property across the null expletive ‘there/it’ in English and will produce inaccurate sentences.



### **Subject Verb inversion in declaratives**

Another important property of the null subject parameter is the possibility of subject verb inversion in main or embedded clauses. Romanian allows postverbal subjects both in main and in embedded clauses, while in English the subject verb order is compulsory. Representative examples of grammaticality judgements testing this structure are:

(7) \*Sit you on this chair until I go to buy some bread.

(8) \*We go to bed when sleeps our son.

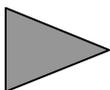
(9) \* Is coming the postman.

Most advanced subjects (90%) correctly identified and modified the grammaticality judgement tasks. Also, as we can see in the graph in Appendix 2, there is evident progression from the elementary to the advanced level. Moreover, with translation tasks, the percentage is even higher, with rates of success of 71% for elementary, 100% for all the other levels. The Romanian sentences used were:

(10) Vine trenul (= come (present 3<sup>rd</sup> person singular) the train)

(11) Ce crezi că a cumpărat mama ieri? ( what think (present 2<sup>nd</sup> person singular) that bought (past 3<sup>rd</sup> person singular) mom yesterday?)

These results indicate that there are less transfer errors in the area of the subject verb order, but, since we need to provide evidence for clustering of properties reset in the L2, it is not enough to support the claim that there is parameter resetting.



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### **“That – track” effect sequences**

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With sentences of the type “It seems that Mary is happy”, which involve both expletive null subject and subject extraction out of a ‘that’ clause, the level of acceptability is very different. These results are very similar to Tsimpli and Roussou’s results, with the exception that as the level progresses, the subjects show evidence of decreasing the number of transfer errors. The rate of success for sentence (12) was: 30% elementary, 60% intermediate and 80% with upper intermediate and advanced students

(12) \*Mary seems that is happy.

This type of result is consistent with the data from the “that-trace” effect sentences. Consider the sentences below:

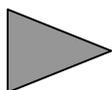
(13) \*Who do you think that left?

(14) \*Who did you say that married Maria?

(15) \*Who did they say that bought the apples?

(16) Cine crezi că a venit ieri? (= who think (present 2<sup>nd</sup> person singular) that came (past 3<sup>rd</sup> person singular) yesterday?)

The results are: 42% of the elementary group rejected the sentences although not very many were able to produce an accurate replacement; 20 % of the intermediate group rejected them with many of them providing correct alternatives; 54% of the upper intermediate group were successful and, finally 84 % of the advanced group rejected them and provided correct alternatives. They all accepted the control correct sentence provided and this indicates that they are aware of the correct possibility but, however, they have not reset the parameter. With translations, the results were very different – while 28% of the elementary group provided correct structures, although they had other mistakes, 62 % of the intermediate group offered correct translations, with many of them including “that” in their sentence. On the other hand, 80% of the upper intermediate and 94% of the advanced group gave a correct translation of the Romanian sentence.



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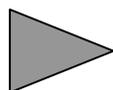
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### **The age factor**

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The age when the subjects started learning English may be of importance when interpreting these results as well. The data show that learners who started learning English at an earlier age, most of them at the age of 8-10, are less likely to make transfer errors than those who started learning L2 at a later stage, i.e. as teenagers. Also, the data show that the older subjects which are at elementary and (pre) intermediate levels are more likely to make transfer errors than the younger ones.



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### **Conclusion**

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To summarise the results presented so far, the data show that Romanian speakers of English adopt certain properties of the null subject parameter in English to a larger extent than others, but they cannot completely reset the parameter. As we have seen before, the highest degree of success is with the null referential subject property, followed by the subject verb inversion property and then to a significantly lower extent the null expletive property and the “that trace” effect. With translations, the results are closer to the target language structure but this is not evidence of correct resetting of the parameter, as discussed above, but rather of the subjects’ awareness of the correct structures.

This experiment has shown evidence that speakers of [+ pro drop] language cannot reset this parameter to [- pro drop] value of a L2 like English entirely, although there is evidence that transfer errors are fewer with some properties of the parameter than others. The results are consistent with the study of Tsimpli and Roussou (1991) and the experiment uses experiment sentences from White (1985), Tsimpli and Roussou (1991), as well as my own data.

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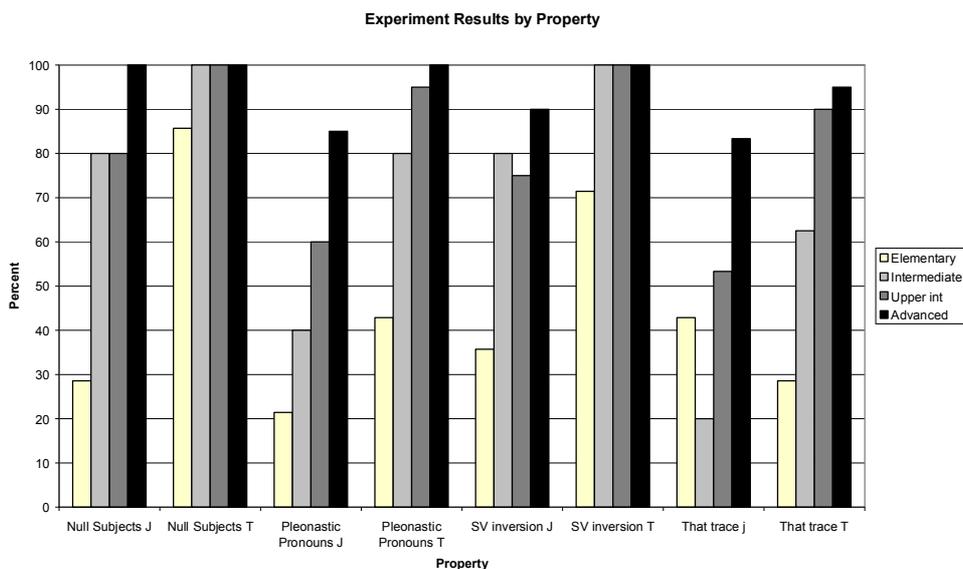
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*Appendix 1*

The percentages shown are of success in identifying the intended mistakes and of correct translation.

Null Subjects J = Null Subjects Judgement of the English wrong sentences

Null Subjects T = Null Subjects Translation of the Romanian sentences

Pleonastic Pronouns J = Pleonastic Pronouns Judgement of the English wrong sentences

Pleonastic Pronouns T = Pleonastic Pronouns Translation of the Romanian sentences

SV inversion J = Subject Verb Inversion Judgement of the English wrong sentences

SV inversion T = Subject Verb Inversion Translation of the Romanian sentences

That trace J = That trace effect Judgement of the English wrong sentences

That trace T = That trace effect Translation of the Romanian sentences

*Appendix 2*

