How wrong is your existential? What ungrammaticality judgments can tell us about Preverbal versus Postverbal Agree[i]

By relying on a series of ungrammaticality judgment tasks, where Romanian native speakers are asked to choose the more acceptable ('lesser evil') variant among two different ungrammatical sentences (copular and existential), containing violations of agreement, the paper shows that what is at stake in the subjects' choices is neither the meaning of "to be" (existential "be" has the same effect as copulative "be"), nor the effect of the quantifier (as the sentence with the quantifier is still evaluated just the same as the one without), but rather the VS-SV distinction: speakers tend to accept agreement violations in the VS order more than in the SV order. The paper supports the idea that VS agreement is more permissive than SV agreement (Guasti & Rizzi 2002, Bjorkman & Zeijlstra 2014 a.o.) and accounts for this observation by arguing that, in addition to AGREE, SV agreement involves an additional step, namely, Spec-Head Agreement (Franck, Frauenfelder & Rizzi 2006, Franck, Lassi, Frauenfelder & Rizzi 2007).

Keywords: *degrees of ungrammaticality, agreement violations, SV, VS*

1. Aim of the paper

The aim of this paper is to account for why speakers feel that violations in agreement in existential sentences are somehow less blatant than violations in agreement in copular sentences with a preverbal subject in Romanian. The paper assumes that ungrammaticality is a cline (just like grammaticality), and that investigating judgments of varying degrees of ungrammaticality in comparison can tell us something relevant about the structures behind the sentences. While

starting from the idea that the differences in degree of ungrammaticality are due to semantic differences between existential and copular sentences (the meaning of *to be*, the role of quantifiers), the paper goes on to show that this hypothesis does not come through, and what is responsible for the difference among ungrammaticality judgments is the difference between SV and VS Agree, more exactly, preverbal (SV) agreement violations are felt as worse than postverbal (VS) agreement violation. A structural explanation is proposed to account for this, arguing that VS Agreement only involves one Agree operation (to be attained in c-command), unlike SV, which involves Agree and Spec-Head agreement ((Franck, Frauenfelder & Rizzi, 2006, Franck, Lassi, Frauenfelder & Rizzi 2007)..

2. A short introduction into the matter

Much has been written about existentials and copular sentences in English and not only, but one particular issue that has not been investigated (that much) is why certain ungrammatical copular sentences sound considerably worse than other ungrammatical existential sentences. Answering such a question can be extremely fruitful for understanding their structure or, at least, if not their structure in its entirety, at least syntactic phenomena related to their structure.

My personal interest in this matter was aroused when frequently hearing (1a), an ungrammatical sentence, where the verb disagrees with the subject in number, or (1b):

(1) a. Este la copii cheile.
be-3rd. SG. at child-MASC.PL. key-FEM.PL.-ART.FEM.PL
'The keys is at the children'.
b. Este niște cărți pe masă.
Be-3rd. SG. some book-FEM.PL. on table.
'There is some books at the table'.

It made me realize that I had heard such ungrammatical sentences before quite often, but, for some reason, I had heard sentences such as (2) much less frequently:

(2) Cheile e bune.
key-FEM.PL.-ART.FEM.PL. be-3rd.SG. good-FEM.PL.
'The keys is good'.

My own intuition evaluated (1a) as less ungrammatical than (1b), and I became interested in seeing whether other native speakers had similar intuitions as mine. At first glance, it seemed to me that violating agreement in a sentence expressing location or existence was somehow less strong than violating agreement in a copular sentence.

Having this at the back of my head, I decided to devise an ungrammaticality judgment experiment where I could test the different intuitions speakers had about an existential sentence such as the one in (1b) and a copular sentence such as the one in (2), where agreement has been violated. Given the presence of the locative PP between the verb and the subject in (1a), which might be thought to give rise to some intervening effects, I decided to stick to testing sentence (1b) rather than (1a). In the case of the copular sentence, I decided to go for a simple predicational type of copular. As is well-known in the literature (Higgins 1979), copular sentences can be of various types (predicational, specificational, identificational, equative-see (3)) and these types might be argued to involve different underlying structures:

(3) a. John is a philosopher (predicational).
b. The bank robber is John Smith. (specificational)
c. That man is Mary's brother. (identificational)
d. Cicero is Tully. (equative)

While tests should be done for various types of copular sentences, as one may notice a contrast among them, in this particular experiment, for the sake of simplicity, I decided to test the predicational type of sentence, which is the most frequently used copular sentence.

3. Some notes on agreement

The question driving the research revolves around whether copular sentences and existential sentences are similar in terms of agreement.

In English, it seems to be the case that, in copular sentences, the copula agrees with the subject preverbally (4a) (Spec-head IP), while, in existential sentences, the verb agrees with the subject postverbally (4b) (Spec-Complement: I- Spec of SC):

(4) a. Mary is happy.
b. There are pens on the table.

As for Romanian, in copular sentences, the copula usually agrees with the subject preverbally (Spec-head IP)[ii], while, in existential sentences, the verb agrees with the subject postverbally (Spec-Complement: I- Spec of SC):

(5) a. Maria este fericită.
Mary be-3rd.SG. happy-3rd.FEM. SG.
'Mary is happy'.
b. Sunt pixuri pe masă.
Be-3rd.PL pen-NEUTER.PL. on table.
'There are pens on the table'.

While there are two different ways of looking at Agreement: (i) Agreement as a function of the specifier-head relation (Kayne 1989, Pollock 1989), and (ii) Agreement as a function of c-command, as Agree (Chomsky 1998) (T c-commands the subject found within a vP) (some linguists believe that these two types of agreement can actually coexist, and one could resort to Upward Agree in a certain situation and to Downward Agree in another (Bjorkman & Zeijlstra 2014), thus offering a hybrid theory of agreement.

A possible working hypothesis, set in minimalist terms (Pesetsky &Torrego 2007) would be to argue that, in copular sentences, there is Upward Agree, while in existentials, the subject stays in situ, and there is downward Agree, a type of Agree which may be defective (Bjorkman & Zeijlstra 2014). The syntactic operation Agree can only take place between a probe that carries an uninterpretable feature and a goal that carries a matching interpretable feature. Upward Agree (UA) occurs when the goal is the closest potential goal that c-commands the probe (subject DP [iφ]]> T [uφ]), whereas Downward Agree (DA) occurs when the probe c-commands the goal (T [uφ]]> subject DP [iφ]]):

(6) a. [DP [T]]
[iφ] [uϕ]
[uT] [iT]
b.[T [DP]]
[uϕ] [iφ]
[iT] [uT]

Activation occurs when the lower goal becomes visible for an upward searching probe, an important thing is that a probe can only look up for potential goal, if it already stands in a different Agree relation with a lower goal.

Various scholars (Zeijlstra 2012, Bjorkman & Zeijlstra 2014) have argued that DA is actually UA, and that expletive agreement is unproblematic for Upward Agree, since *there* may be argued to originate in the associate subject and then move out of it (Moro 1997, Kayne 2006), in which case it can be said to be part of the associate subject.

Other linguists, such as Preminger (2013) have argued against such a view, based on data from long-distance agreement from Tsez and Basque, which could only be accounted in terms of downward phi-agreement, in his opinion. Moreover, according to Preminger (2013), situations

where the agreement controller and the agreement bearer are maximally close to one another allow for both types of analyses, either in terms of upward valuation or to downward valuation.

While different views exist with respect to UA versus DA, a look at ungrammaticality judgments might be revealing as to whether speakers are sensitive to any difference between the mechanisms. If the speakers react differently to sentences where one would assume UA and DA are at stake, then one could perhaps come up with a hypothesis as to the violation of which yields more ungrammaticality.

4. Previous experimental work on agreement attraction errors ('antiagreement')

Considerable work has been done on agreement attraction errors. Bock and Miller (1991) first showed that attraction could be elicited experimentally by presenting speakers with complex sentential subjects, and asking them to complete the sentence under time pressure. Bock and Cutting (1992) were the first to report different attraction effects depending on the structural position of the attractor, independently of its linear position. Interestingly, they noticed that a local noun interferes more with the agreement process when situated in the same clause as the head noun (**The editor of the history books were…*) than when situated in a separate clause (**The editor who rejected the books were…*). Franck, Vigliocco and Nicol (2002) showed that the factor responsible for the low attraction rate with clausal subject modifiers is the syntactic depth of the local noun. In the presence of two local nouns, more attraction errors occur with the local noun situated high in the tree structure, though far from the verb in the linear sequence (**The computer with the programs of the experiment are…*) than with the local noun situated low in the tree structure, though linearly close to the verb (**The computer with the program of the*

experiments are…). Franck, Lassi, Frauenfelder & Rizzi (2006), Franck, Frauenfelder & Rizzi (2007) showed that attraction errors are sensitive to interveners, and that c-command is more important than being linearly close.

Nevins (2017), on the other hand, argued that a variety of languages (Bosnian, Croatian, Serbian, Slovenian, Hindi, Ndebele) show verbal agreement with only one of the coordinated subjects (or objects), rather than with the coordination as a whole, and that, depending on a variety of factors (number, gender, animacy, position with respect to the verb), such 'partial agreement' can happen with the linearly closest conjunct, or with the hierarchically highest conjunct, but never with a conjunct that is neither highest nor closest. Starting from such experimental data, Nevins (2017) argued against a hierarchical account of agreement and developed a theory of resolution of gender values in conjunct agreement, relying on operations such as featural agreement, featural deletion, and feature co-occurrence constraints across domains of morphosyntactic features, very much like in phonology.

While so much significant research seems to have been done in the field of antiagreement, an important remark is in order, namely, that most experimental studies involved eliciting production from speakers. The novelty of the tests proposed in this study relies precisely in the method used, i.e. comparing the degree of ungrammaticality of various sentences.

5. The 'Which is wronger?' test

A 'false choice' query was conducted on 20 native Romanian speakers, regarding which of the sentences *Cărțile e frumoase* 'Books is beautiful' and *E niște cărți pe masă* 'Is some books on table' is less ungrammatical than the other:

(7) a. Cărțile e frumoase.
Book-PL. FEM.-DEF ART. FEM. PL be-3rd.SG. beautiful-3rd, FEM, PL
'The books is beautiful.'
b. E niște cărți pe masă.
be-3rd.sg some book-FEM. PL on table.
'There is some books on the table.'

The choice of the sentences was for a regular predicative copular sentence, and a regular existential sentence, observing the natural order of items in Romanian.

In addition, I opted for the subject to be a noun, not a pronoun, as pronouns are known to behave differently from nouns (den Dikken 2001). Den Dikken (2001) showed that, unlike full noun phrases, weak and null pronouns typically cannot procrastinate: they cannot move at LF. Weak pronouns in English, for instance, show failure of agreement in agreement attraction, agreement with committee-type noun phrases (analysed as complex noun phrases headed by a null plural pronoun, and dubbed "pluringulars" when they trigger plural finite verb agreement), and agreement in *there* sentences. For such problematic reasons, I decided to choose a noun subject, rather than a pronoun subject.

5. 1. **Hypothesis**:

The hypothesis tested is that violating agreement in existentials is felt as less blatant than violating agreement in copular sentences with a preverbal subject.

5.2. **Subjects**

The subjects were 20 native Romanian speakers involved in the experiment.

5.3. **Method**

The subjects were given two sentences, they were told that both sentences are ungrammatical, but, in spite of this, they were asked to choose one sentence which sounded less bad to them. In many ways, the test procedure could be compared to a voting procedure. When one has to choose between two bad candidates, the choice is often for the 'lesser evil', since both candidates are unsuitable for the office. Nevertheless, one has to make a choice, so the vote will go to the candidate who seems less bad. In a similar way, here, the speakers have to make a choice, although both options are wrong.

No fillers were used, the purpose of this testing game was for the candidates to focus on exactly the sentences that they were given and evaluate their ungrammaticality in comparison. Putting among the sentences a sentence that was correct or that was ungrammatical (but for reasons totally unrelated to the purposes of the experiment) would have rendered the linguistic game pointless.

5.4. **Results**

17 out of 20 native speakers answered that they felt the second sentence was less ungrammatical. Although it is ungrammatical, it is apparently more acceptable to native speakers (85% out of the subjects). This is a very important result, and it shows that there is an almost unanimous consent in the ungrammaticality judgments of the sentences.

6. **Why assume ungrammaticality is a cline?**

One very important assumption embraced by this test is that ungrammaticality is a cline, therefore, it is not simply the case that some sentences are grammatical, and some sentences are ungrammatical, some sentences may be felt as more ungrammatical than others. While it has

been generally accepted that grammaticality is a cline, and there are degrees of grammaticality, there has not been so much interest in degrees of ungrammaticality.

Grammaticality judgments represent a speaker's judgment on the well-formedness of a linguistic utterances and are based on whether the sentence is produced and interpreted in accordance with the rules and constraints of the relevant grammar.

Chomsky (1957) lists several criteria that determine grammaticality (a) and several criteria that do not determine grammaticality:

(8) a. Criteria that determine grammaticality:

1. a speaker' s linguistics competence
2. the context where the sentence was uttered

b. Criteria that don't determine grammaticality:

1. Whether or not the sentence is included in a corpus
2. Whether or not the sentence is meaningful
3. Whether or not the sentence is statistically probable

Very importantly, he distinguishes between acceptable and grammatical sentences. A sentence can be grammatical but unacceptable (*Colorless green ideas sleep furiously*). A sentence can be acceptable but not grammatical (*But if this every changing world **in** which we live **in**/ Makes you give in and cry/ Say live and let die* (Paul McCartney 1973)). And cases of *wh*-extraction often lead to different results in acceptability, suggesting that acceptability is gradient (*? Which friend has Thomas painted a picture of?*).

What I would like to argue is that, rather than have grammaticality divided in two or three (A or B), one could propose at least 4 types of (un)grammatical statuses a sentence can have:

(9) a.

grammatical
ungrammatical

b.

grammatical
odd
ungrammatical

c.

grammatical
odd
weak ungrammaticality
strong ungrammaticality

Odd ungrammaticality is different from weak ungrammaticality, as weak ungrammaticality is still deemed ungrammaticality by speakers. Each status results from the observance/ violation of different kinds of rules:

(i) grammatical: All rules are observed.

(ii) odd: Semantic rules are violated (s-selection rules).

(iii) weak ungrammaticality: Certain syntactic rules are violated (e.g. Agree under c-command)

(iv) strong ungrammaticality: Certain syntactic rules are violated (e.g. Agree in Spec-Head)

This can be related to Villata, Rizzi & Franck's work on island effects (2016), where the same idea is embraced, namely, that there are degrees of unacceptability. However, the approach embraced by the authors does not correlate degrees of ungrammaticality to the violation of different syntactic rules, but to featural (mis)matches between the intervener and the moved item. According to Featural Relativized Minimality, the local relation between an extracted element and its trace is disrupted when it crosses an intervening element whose morphosyntactic featural

specification matches the specification of the elements it separates. This results in degrees of deviance: the relative acceptability of an intervention configuration varies as a function of the total, partial or zero featural overlap between the intervener and the target. Where there is less featural overlap, the sentences should be more acceptable:

(10) ?? Which problem do you wonder [whether John could solve __] (in this way)?
[+Q, +N] [+Q]
X Z Y

7. Possible reasons for the results of the query. Discussion

Several things might be responsible for the results of the query: 1) the 3rd sg/ pl form syncretism favoured by the existential meaning of the verb *a fi* 'to be' in existential sentences in Romanian, 2) the postverbal positioning of the pivot noun, and 3) the use of the quantitative adjective *niște* 'some'.

7.1 The existential meaning of the verb *a fi* 'to be' in existential sentences

In Romanian, the verbs *a exista* 'to exist' and *a se afla* ('to be located'), both used in paraphrases of existential sentences with the verb *to be*, have the same form both in the 3rd person singular and plural (*există, se află*). The existing syncretism favours a possible syncretism between the verb 3rd sg form and the 3rd pl form of the verb *a fi* 'to be'. In its copular meaning, however, the verbs *a exista* 'to exist' and *a se afla* ('to be located') cannot be used instead of the verb *a fi* 'to be', therefore, one would perhaps expect the ungrammatical existential to be felt as more correct than the ungrammatical copular sentence:

(11) a. Cărțile e pe masă
book- FEM.PL-DEF ART. FEM.PL be-3rd.PL. on table
'The books is on the table'.
b. Cărțile e frumoase
book- FEM.PL-DEF ART. FEM.PL is beautiful-FEM.PL'
'The books is beautiful'.

With this purpose in mind, I decided to devise a second test (Test 2), interrogating 20 native Romanian speakers with respect to the sentences in (11) and found that 11 of them considered the violation in the existential somehow less offensive than the violation in the copular sentence. However, given the fact that the difference between the number of speakers with opposite judgments is not that great, I refrain from jumping to a certain conclusion. While the existing 3rd sg/ 3rd pl syncretism of the possible substitutes of existential *a fi* 'to be' may favour a 3rd sg/ 3rd pl syncretism in the case of existential *a fi* 'to be' as well, it is not clear from the data that this would explain the difference between the results of the first test (where most of the speakers opted for one variant) and the results of the second test (where the speakers had more divided judgments).

7.2 The postverbal positioning of the pivot noun

Another possible reason for the results attested in the case of the first test is represented by the postverbal positioning of the pivot noun, which favours singular agreement. This can be seen with coordinated DPs if agreement is by proximity:

(12) E o carte și un caiet
Be-3rd, sg. INDEF. ART. FEM. SG book and INDEF. ART. MASC. SG. notebook

pe masă
on table'.

Agreement with coordinated DPs may be defective to a certain extent, allowing agreement with only one of its members.

In order to see whether the postverbal positioning of the pivot noun is to blame for the resuls of the first test, rather than the copular-existential distinction, I decided to devise another test (Test 3), where I interrogated 20 native speakers of Romanian with respect to the difference in ungrammaticality degree between:

(13) a. E niște cărți pe masă
be-3rd sg some book-FEM.PL on table
'There is some books on the table'.
b. Cărțile e pe masă
book-FEM. PL-DEF ART.FEM .PL be-3r.sg on table
'The books is on the table'.

The results of the tests revealed that 19 speakers out of 20 considered the first sentence where the subject is postverbal to be less ungrammatical than the second one, with a preverbal subject. It seems to be the case that it is more acceptable to violate VS agreement than SV agreement. The fact that the majority of speakers still picked the sentence with the VS violation even if both sentences were existential shows that the position of the subject with respect to the verb matters in deciding ungrammaticality.

7.3. The use of the quantitative adjective *niște* 'some'

One possible counterargument to the previous statement would be to say that the factor that decides the ungrammaticality degree of a certain utterance is the use of the quantitative adjective *niște* 'some', which can go both with singular and plural pivot nouns.

One could even postulate the presence of a silent noun QUANTITY, AMOUNT or PLURALITY in the sentence *E nişte cărţi pe masă* ('be-3rd.sg some book-FEM.PL. on table') (Kayne 2003), thus accounting for the relative acceptability of the lack of proper agreement.

The effect of the quantifier has been studied at length in other languages, such as Hebrew (Danon 2012, 2013), where the existential verb exhibits agreement either with the noun or the quantifier modifying it, although not all quantifiers allow this variability. Structurally, Hebrew QNPs can be classified into three types:

(i) construct state QNPs, in which the Q is followed by a definite-marked noun:

(14) *nmarbit ha-mikrim*
majority the-cases
'the majority of cases'

(ii) prepositional partitives, which involve the preposition *me-*:

(15) *xelek me-ha-mikrim*
some/part from-the-cases
'some of the cases'

(iii) "simple" QNPs consisting of a quantifier followed by a bare noun, which have no nominal morphology

(16) *harbe mikrim*
many cases
'many cases'

While construct state quantifiers and prepositional quantifiers allow variation in agreement, permitting N agreement, as well as Q agreement, simple QNPs without nominal morphology only allow N agreement. Similar facts can be noted for Romanian, where *majoritatea cazurilor* (majority-DEF ART. FEM. SG. case-NEUT.PL.GEN, 'the majority of cases') and *o parte din cazuri* (DEF ART.FEM.SG. part of case-NEUT.PL, 'a part of the cases') allow variation in agreement:

(17) a. Majoritatea cazurilor de pojar este înfricoșătoare.
majority-DEF ART. FEM. SG case- NEUT.PL. GEN of chickenpox BE-3rd.G scary-FEM.SG.
'The majority of the chickenpox cases is scary'.

b. Majoritatea cazurilor de pojar sunt înfricoșătoare.
majority-DEF ART. FEM. SG. case- NEUT. PL. GEN of chickenpox be-3rd.PL scary-NEUT. PL.
'The majority of the chickenpox cases are scary'.

As for the quantifier *niște* 'some' in Romanian, it combines with singular nouns and plural nouns, and the agreement is with the noun.

(18) a. E niște zahăr pe masă.
be-3rd.SG. some sugar-SG. on table.
'There is some sugar on the table.'

b. Sunt niște studenți în clasă.
be-3rd.PL some student-MASC.PL. in classroom.
'There are some students in the classroom.'

The possibility of having two agreement options (at least in some cases) poses problems for a structural account of agreement, because, if one places either the Q or the N above, and agreement is by proximity, there is no way to account for the other.

Danon (2012, 2013) argues for such variation in agreement by distinguishing between index (which restrict an NP's referential index and is used in binding and in NP-external agreement) and concord (which usually correlates with morphology, and is used in NP-internal concord), and by saying that N- agreement is the default case, the case of concord, and Q-agreement only occurs when QNPs have index values. A similar take could be adopted for Romanian, for instance, by arguing that a sentence counts as less ungrammatical if it contains an index violation than if it contains a concord violation.

However, before jumping to conclusions, it is necessary to see what would happen if one left out the quantifier in test 1. In order to test this, I devised another test (Test 4-see the Appendix for a full overview of the tests done), where I asked 20 native speakers to pick out the lesser evil out of:

(19) a. *E* *cărți* *pe masă*
be-3rd.sg book-FEM.PL. on table
'There is books on the table'.
b. *Cărțile* *e* *frumoase*
book-PL. FEM.-DEF ART.PL. FEM be-3rd.sg beautiful-FEM.PL.
'The books is beautiful.'

The results of the test reveal that 16 speakers out of 20 considered the first sentence still less ungrammatical than the second one, in spite of the absence of any quantifier.

Given the results of Test1, Test2, Test 3 and Test 4, it becomes clear that it cannot be argued the quantifier is to blame, nor the existential meaning of the verb, rather, the postverbal positioning of the noun is the reason for the different ungrammaticality judgments provided by speakers in evaluating certain sentences.

8. The syntax of existential and copular sentences

Before trying to provide an account of the whole upward versus downward agreement matter, it is necessary to look a bit into the structure of existentials and copular sentences in English, and then in Romanian.

Interestingly, both existentials and copular sentences can receive a small clause analysis, where the verb *be* selects a small clause with a subject and a predicate. However, while this is the canonical analysis for copular sentences, where the predicate is copular, and the subject raises later on in the derivation (in a raising structure), existentials may be argued to not involve such a

structure. The choice for a particular kind of analysis is very important, as it represents a choice for a certain position for the subject and for the predicate, and agreement takes into account this position.

8.1. The syntax of copular sentences

For this reason, we will take a look at the syntax of copular sentences. It seems to be the case that copular sentences have a heterogeneous behavior, while existential sentences seem to be more homogeneous in behavior. Notably, from a semantic perspective, one can notice that copular sentences encode a variety of meanings (they can be specificational, identificational, equative – see (4)) (Higging 1979). Very importantly, these different meanings are associated with a different syntax. A clear distinction can be noted between predicative (20a) and equative sentences (20b, c):

(20) a. Pooh Bear is sad.
b. The cause of the illness is a virus.
c. What causes the illness is a virus. (pseudocleft)

While there is a certain amount of literature treating them on a par, with equative sentences being just inverse predication, there is evidence to the contrary (Heycock & Kroch 1998). For one thing, pseudocleft free relatives do not undergo preposing:

(21) * She said that run the marathon was what she would do; and what she did, run the marathon was.

Secondly, pseudocleft free relatives do not appear in SCs:

(22) * I consider what John is honest.

Thirdly, there is an overgeneration problem, because one would expect (23) to be perfectly fine:

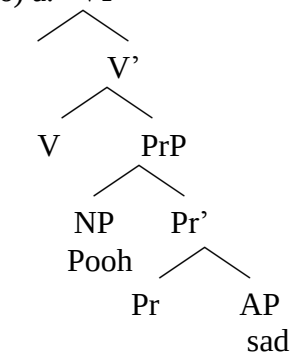
(23) *Honest is John.

According to Heycock & Kroch (1998), (20b) and (20c) do not represent a case of inverse predication, but predicate fronting, i.e. movement to Spec CP. Some of the arguments brought in favour of this are the lack of inverse agreement patterns (24), and binding by a postverbal quantifier (25), just like in an ordinary predicative sentence:

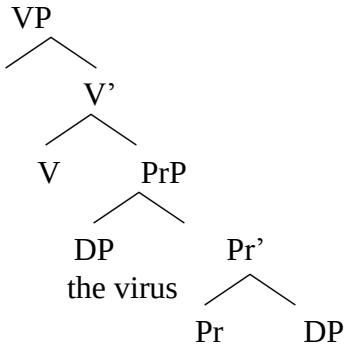
(24) The biggest problem is/*are factory closings.
(25) A threat to its$_i$ neighbors was [every country/more than one country in Western Europe]$_i$

Both predicational and equative sentences are ascribed representations containing predicational projections:

(26) a.



b.



the cause of the illness

However, while, according to Williams (1997), Moro (1997), predicate moves to SpecIP, Heycock & Kroch (1998) argue that such a movement is impossible (violating movement rules), and instead, the predicate moves to SpecCP.

Whereas Heycock & Kroch (1998) deny the existence of inverted equatives in English, they argue that there is such a thing as inverted equatives, but in Italian, where the subject is postverbal. One can notice a clear contrast in this respect between English and Italian by looking at (27) versus (28):

(27) a. I am the King of France.
b. The King of France is me.

(28) a. (Io) sono il re della Francia.
I am the king of France.
b. Il re della Francia sono io.
The king of France is me.

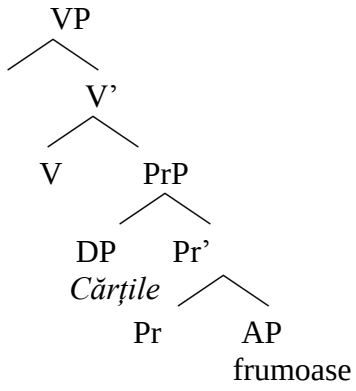
The agreement is with the postverbal subject (the subject is generated lower in Italian: *Arriva Gianni*), and there is scrambling of the second noun past the unmoved subject. A similar remark can be made for Romanian:

(29) a. Eu sunt regele Franței.
1st.SG be-1st.SG king-DET. MASC. SG. France-GEN.SG
'I am the king of France'.
b. Regele Franței sunt eu.
king-DET. MASC. SG. France-GEN.SG be-1st.SG I.
'The King of France is me.'

While inverted equatives represent a very interesting case which deserve attention in particular and needs testing- constituting one of the future projects of the author of this paper, as could be seen, for reasons of simplicity, the tests in this paper have been done on predicative

copulars, perhaps the most typical case of copulative sentences. From the point of view of representation, a sentence such as *Cărțile sunt frumoase* (Book-FEM.PL be-3rd.PL. beautiful-FEM.PL) receives the analysis in (30), where the subject is generated postverbally in a predicative small clause:

(30)



8.2. **The syntax of existential sentences**

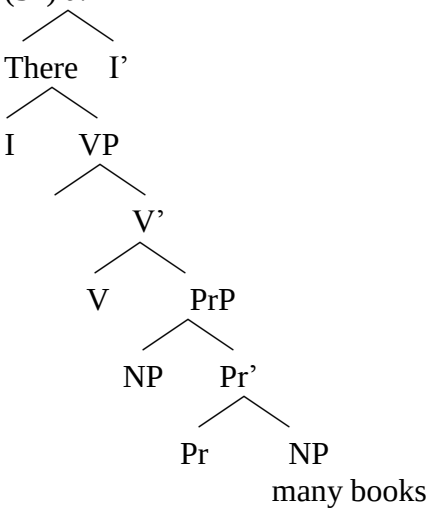
As for existential sentences, their realization in English is a *there*-sentence[iii], while Romanian does not dispose of a realization with an overt expletive.

Several analyses have been proposed for English (some proposals just insert *there*, others move it from a subject or predicate position in the small clause) (Kallulli 2008).

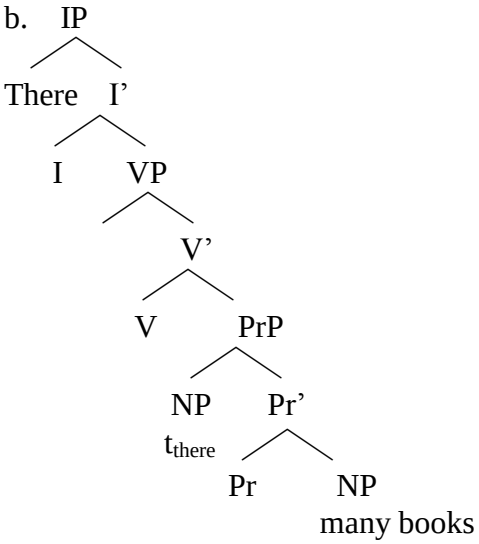
8.2.1. *There*-as subject, NP as predicate of SC analysis

A first analysis is that proposed by Williams (1994) and Hazout (2004):

(31) a. IP



b. IP



Williams (1994) argues that *there* is a base-generated subject and the predication relationship is not local, but rather long-distance Agree (31a). Hazout (2004) proposes a slightly

different version of Williams's analysis, with *there* merged as the subject of a complement-to-V^0 small clause, which later moves to the clausal subject position (31b).

Various arguments are adduced the postverbal NP exhibits narrow scope (32), predicates are less extractable than arguments (33), the postverbal NP can be elided, which indicates it is a predicate (34):

(32) In order for the illusion to work, there must seem to be nothing in the box.
(33) a. *Who do you wonder why there was at the party?
b. *How many people do you wonder why there was?
(34) a.*[What John is] is callous and what Mary is, is too. (Williams 1994:135)
b. [What John is] is amazing and what Bill is is too. (Williams 1994:135)

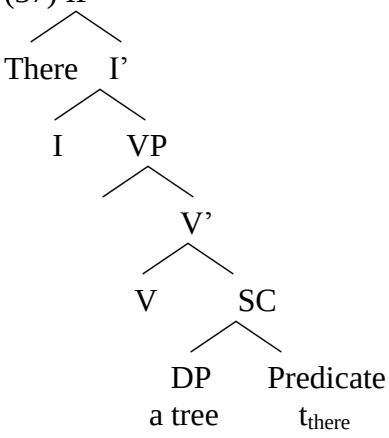
However, this analysis faces certain problems, such as the impossibility of *there* and the postverbal NP occurring without *be* IN sentences whose matrix predicate can combine with a small clause (35b), the impossibility of having AP as predicates of SCs (36), the impossibility of having count bare singular in Norwegian:

(35) a. I consider a man (to be) a liar.
b. I consider there *(to be) a man (in the room).
(36) a. *There is happy.

8.2.2. DP as subject of SC, *There*-as predicate of SC analysis

A different kind of analysis has been proposed by Moro (1997), who has argued that *there* is not in a subject position, but in a predicate position in a small clause selected by the verb *to be*:

(37) IP



Moro (1997) has brought various arguments in favour of his view, such as certain long-distance agreement facts (38), and the fact that *there*-existentials and predicate inversion sentences are impossible in a small clause configuration without *be* (39):

(38) There seems/*seem to be a man in the room.
(39) a. Mary believes there *(to be) a picture of the wall in the room.
b. Mary believes the cause of the riot *(to be) John.

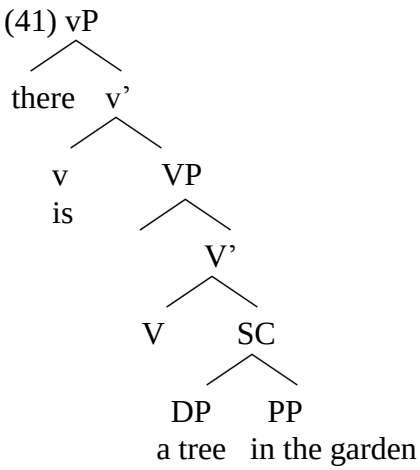
However, his analysis predicts a behavior similar to locative inversion, while locative inversion and *there*-sentences behave differently in many respects, with respect to *wh*-extraction, for instance:

(40) a. *Which wall do you think the cause of the riot was a picture of?
b. Which wall do you think there was a picture of?

8.2. 3. There as subject, DP as subject of SC, Locative PP as predicate analysis

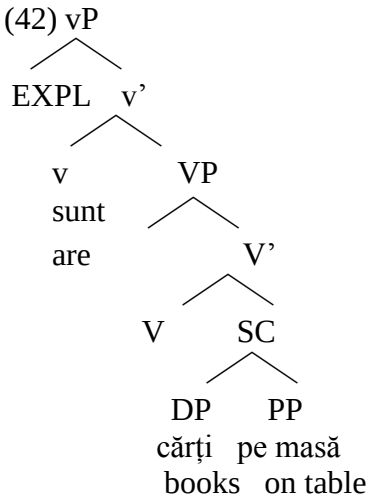
Kallulli (2008), on the other hand, has argued for a SC analysis where the SC has the location as a predicate. This captures the importance of the locative element, without which the existential sentence would not count as informative (41)

(41)



Through such an analysis, Kallulli (2008) accounts for the impossibility of having bare singulars in existential sentences in Norwegian, since subjects need to be satured expressions, they cannot be NPs or APs. Given the problems faced by the other analyses and the importance this analysis ascribes to the locative predicate, I adopt it for Romanian as well, in an attempt to provide a uniform crosslinguistic analysis of sentences expressing existence/ location. Another take upon the matter would be to argue there is no null expletive, the existential meaning of the sentence is a by-product of the lexical meaning of the verb. However, for the sake of crosslinguistic uniformity, as well as, for the reason that the absence of a null expletive would fail to explain the difference between VS existentials and SV sentences at all, I will assume the expletive is null in the case of Romanian, unlike English, where it is overt:

(42) vP



9. Possible Account

Bearing the results at the back of our head, and having looked a bit at what agreement means and what structural representation can be ascribed to existential and copular sentences, we are now able to proceed further with an account of why exactly postverbal agreement seems to be less demanding than preverbal agreement.

When the subject DP occupies a surface position in the higher parts of the inflectional system, typically higher than the inflected verb (Spec of Agreement or higher), the morphological expression of agreement is compulsory (provided that the language has the relevant morphology). If the subject DP is left VP-internal or in the lower part of the inflectional system (lower than Agreement), then languages may go both ways: some express morphological agreement with the DP, others do not (resorting possibly to an overt expletive):

(43) a. DP Agr ... Compulsory morphological expression of Agr

b. ...Agr...DP... Variable morphological expression of Agr (Guasti & Rizzi 2002)

There is variation crosslinguistically in colloquial English, some varieties of colloquial Italian and French, varieties of spoken Brazilian Portuguese:

(44) a. there are / there's many people in the garden.
b. Ci sono / c'è molte persone in giardino
c. Ce sont / est des linguistes.
It are/ is some linguists.
'They are linguists.'
d. Dois meninos chegaram /*chegou.
Two boys came-PL / came-SG
e. Chegaram/chegou dois meninos.
Came-PL/came-SG two boys

While this variation occurs in VS configurations, it does not occur in SV configurations.

Further evidence comes from language acquisition, where it has been shown that children exhibit variation in inflecting *do* in VS structures, but always inflect it in SV structures, in questions (Guasti & Rizzi 2002):

(45) a. Robin don't play with pens (Adam28, 3;4)
b. so Paul doesn't wake up (Adam28, 3;4)
c. (#)Do he go?
d. does dis write? (Adam28, 3:4)

Languages normally admitting VS order often show lack (or optionality) of the realization of agreement in these structures as compared to the corresponding SV configurations. Under this hypothesis, agreement is more stable in SV structures because features are checked twice: (1) through AGREE, and (2) in the strictly local Spec-head configuration, after movement of the subject (Franck, Lassi, Frauenfelder & Rizzi 2006, Franck, Frauenfelder & Rizzi 2007).

Agreement, a process at the interface between syntax and morphology, consists of two subprocesses: AGREE and Spec-Head agreement. AGREE represents the operation whereby the subject initially merged as the specifier of the lexical verb in the VP and endowed with person

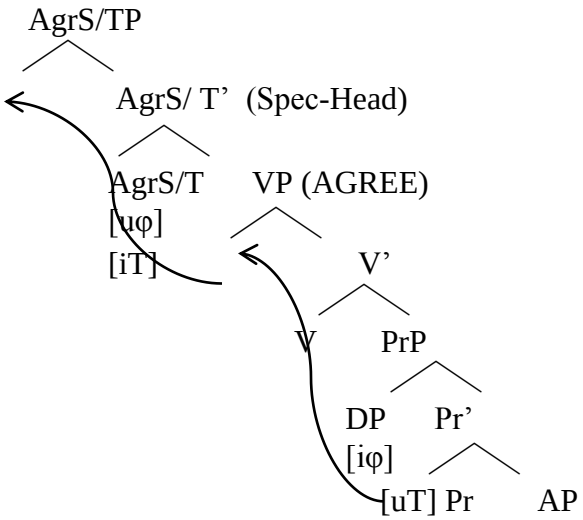
and number features values the feature of the inflectional node AgrS above it. It is a feature copying operation whereby the subject copies its features onto the AgrS under c-command and in a local configuration. Spec-Head agreement, on the other hand, represents the additional operation that originates if and when the subject moves out of VP (and leaves a copy there) to Spec AgrS and enters into a local Spec-head relation with the AgrS head, where the verb may have previously moved to receive its morphological specification. It is a verification operation that makes sure the subject and the verb have the same features. It seems to be the case that, in SV sentences, agreement is obtained by AGREE, MOVE, and Spec-Head, while, in VS sentences, it results solely from AGREE. This helps us understand the different rate of attraction errors occurring during spontaneous speech production. Moreover, this also helps us understand the different (un)grammaticality judgments of sentences with SV and VS structures, resulting in:

(i) Weak ungrammaticality, in the case of violation of Agree

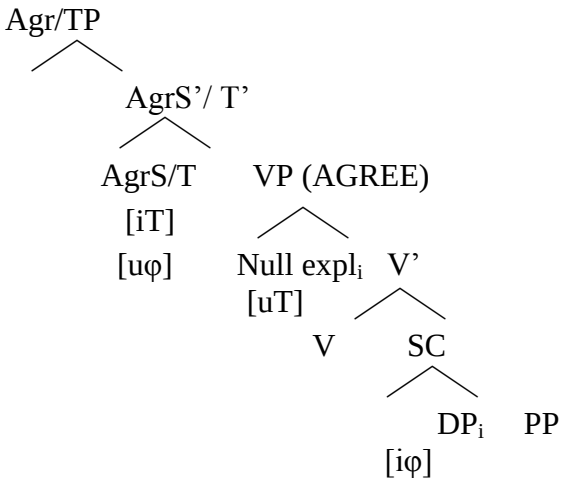
(ii) Strong ungrammaticality, in the case of violation of agreement (Agree + Spec-Head agreement)

Taking all these into account, I would like to investigate the following tentative representations for copular and existential sentences within the minimalist framework (Chomsky 1993). Following Thráinsson (1996), I have embraced the view that some languages have fused AgrSP and TP, i.e. IP, while others have TP separate from AgrSP, and that Romanian has a fused AgrS/T head:

(46) a. for copular sentences:



b. for existentials:



Reformulating the issue in terms of LF versus overt syntax, one could say that if a speaker treats a strong feature as a weak feature (able to undergo checking at LF) and that feature

would have been checked under AGREE (in overt syntax), then this results in weak ungrammaticality. However, if a speaker treats a strong feature as a weak feature and that feature would have been checked in a Spec-Head agreement configuration (in overt syntax), this gives rise to strong ungrammaticality.

Coming back to the analysis in (46), I would like to comment upon what happens in the structure, and embrace the Preminger's view (2013, 2014, 2015) that it all depends very much on what direction of valuation one adopts (upward, downward). According to Upward valuation, for α to acquire ϕ-features derivatively, from β, it must be the case that α c-commands β (Chomsky 2000). According to Downward valuation, for α to acquire ϕ-features derivatively, from β, it must be the case that β c-commands α (Zeijlstra 2012).

As can be seen from the representations above, in (46a), driven by the need to check its uninterpretable features, the DP will move to SpecV and enter an AGREE relation with the AgrS/T head above it.

One possible scenario could be that, since AgrS/ T c-commands the DP in SpecV, it will acquire its phi-features derivately from the DP (Upward Valuation). However, the DP still has [uT] which it needs to check. For this reason, it will move further up in the structure up to SpecAgrS/ T, where it will get valued by the AgrS/T (Upward Valuation). In this scenario, one AGREE would be for phi-features and the other Spec-Head agreement would be for case-assignment (possibly). This represents, however, merely one possibility. According to Franck, Frauenfelder & Rizzi (2006), the reason for the second Spec-Head Agreement would rather be verification, nothing related to case-assignment.

On a completely different scenario, since AgrS/ T c-commands the DP in SpecV, the DP will acquire its case features derivately from AgrS/T (Downward valuation), and then, driven by

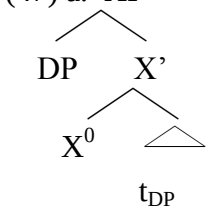
the need to help AgrS/T become phi-valued, it will move to SpecAgrS/T (Downward valuation). Such a view has a totally different assumption related to movement than minimalism, where elements have to be active/ featurally unsatisfied in order to move, namely, that elements can move in order to help/ rescue others, not necessarily out of the necessity to have some features checked.

As for (46b), if one adopts Kallulli's analysis (2008), the expletive (which is null in Romanian) is generated in SpecV, AgrS gets upward valuation from the DP through AGREE, and one would have to assume that the null expletive gets case from AgrS[iv] (through downward valuation?) and transmits it to the DP, as the expletive and the DP form a chain (bearing the same index (Chomsky 1981). This would result in a hybrid approach to agreement, resorting to both upward and downward valuation, which might seem problematic. However, given the fact the two valuations occur for different features, it might be that the upward valuation is for phi and the downward valuation is for case. If one wishes to maintain the same valuation mechanism, one could argue the null expletive moves to SpecAgrS, where it gets case [iT] (through upward valuation) and then transmits it to the DP. It might be argued this account makes agreement seem quite difficult: one not only needs Agree, but also some feature sharing along a chain to ensure the expletive and the DP share their features. However, to my mind, valuing for case reasons should be kept distinct from phi-feature valuing, therefore, this should pose no problem to the idea that DPs agree with verbs through AGREE and Spec-head agreement in copular sentences and the idea that DPs agree with verbs through AGREE only in existentials.

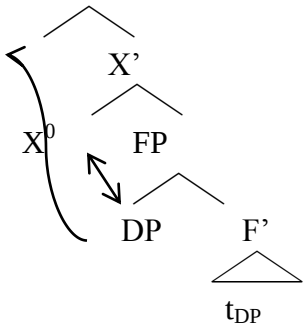
In a no-expletive analysis (where the existential meaning is argued to be derived from the lexical meaning of the verb), the DP would simply be in SpecV and it would get phi-valued by AgrS. However, for reasons of crosslinguistic uniformity, an expletive analysis is preferable.

According to Preminger (2013, 2014, 2015), maximally-local agreement relations teach us nothing about the direction of valuation in agreement, downward valuation can easily be recast as upward valuation:

(47) a.



b.



Moreover, the position of the subject in a sentence is not revealing with respect to the direction in which it agrees with the verb. This has a lot to do with the particular framework one adopts and to, albeit motivated, personal decisions of analyzing the data. For this reason, it is not possible to claim that ungrammaticality judgments tell us something about upward or downward valuing, they do, however, tell us something about VS and SV agreement, and, given the fact movement is upwards, the preference for VS ungrammaticality over SV ungrammaticality can be explained by SV agreement consisting not only of AGREE, but also Spec-head agreement, involving thus an additional step of verification of features.

10. Conclusion

Variation in agreement in existential sentences is a widely known and well-documented phenomenon (Bentley 2013, Claes 2014 a.o.). It is present both cross-linguistically (the personal *ci sono* in Italian versus the impersonal *il y a* in French) and within the same language (in Spanish, for instance, *había árboles* versus *habían fiestas*, or in English, *There are nice things to discover* versus *There's things I cannot resist*). The data on ungrammaticality from Romanian seems to fit in the array of already existing data from all over the world, showing there is a clear difference between VS and SV orders in terms of (dis)agreement. This can be interpreted as telling us something about two different mechanism of agreement: one involving just Agree (in the VS order), the other involving Agree and Spec-Head agreement (in the SV order) (Franck, Frauenfelder & Rizzi 2006).

Further tests need to be done to tease apart the role of each element in the grammaticality of the sentences (tests done with interveners, coordinated subjects). Another aim for future research would be to realize a clearer typology of ungrammaticality, relating various violating of syntactic operations/ rules with a certain degree of ungrammaticality.

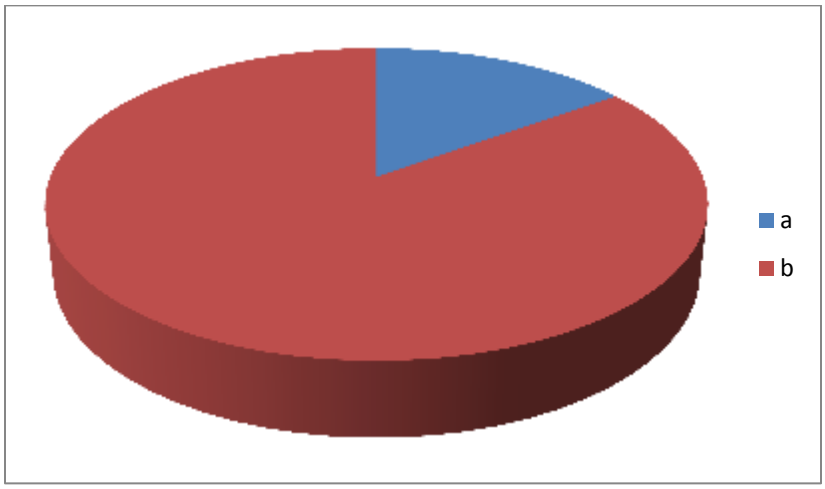
APPENDIX

Test 1 (a= copular sentence, SV, non-quantified subject, b= existential sentence, VS, quantified subject)

a. Cărțile e frumoase.
Book-PL. FEM.-DEF ART. FEM. PL be-3rd.SG. beautiful-3rd, FEM, PL
'The books is beautiful.'
b. E niște cărți pe masă.
be-3rd.sg some book-FEM. PL on table.
'There is some books on the table.'

Results for test 1: 17 (out of 20) subjects opted for *b*.

Figure 1:



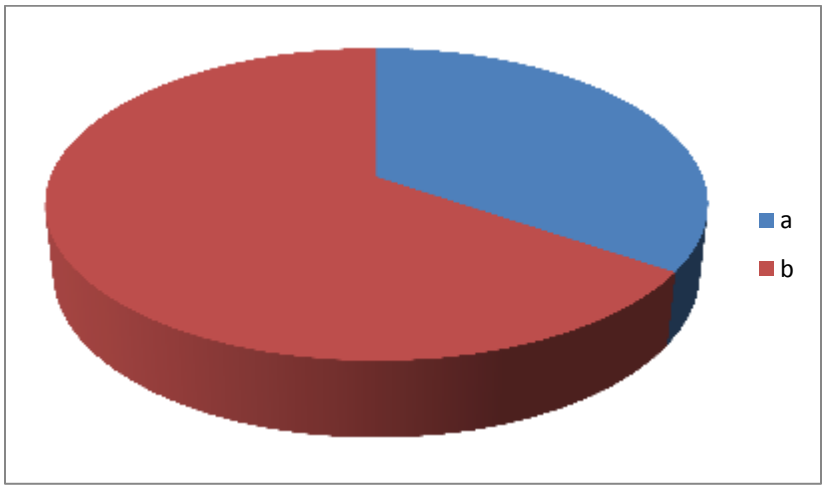
Test 2 (a=existential sentence, SV, non-quantified subject, b= copular sentence, SV, non-quantified subject)

a. Cărțile e pe masă
book- FEM.PL-DEF ART. FEM.PL be-3rd.PL. on table
'The books is on the table'.
b. Cărțile e frumoase

book- FEM.PL-DEF ART. FEM.PL is beautiful-FEM.PL'
'The books is beautiful'.

Results for test 2: 11 (out of 20) subjects opted for *a*.

Figure 2:

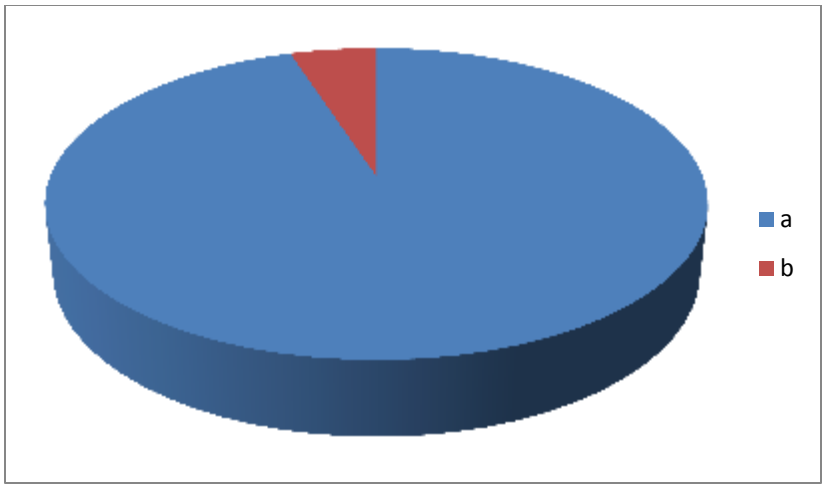


Test 3 (a= existential sentence, VS, quantified subject, b= copular sentence, SV, non-quantified subject)

a. E niște cărți pe masă
be-3rd sg some book-FEM.PL on table
'There are some books on the table'.
b. Cărțile e pe masă
'book-FEM. PL-DEF ART.FEM .PL be-3r.sg on table'

Results for test 3: 19 (out of 20) subjects opted for *a*.

Figure 3:

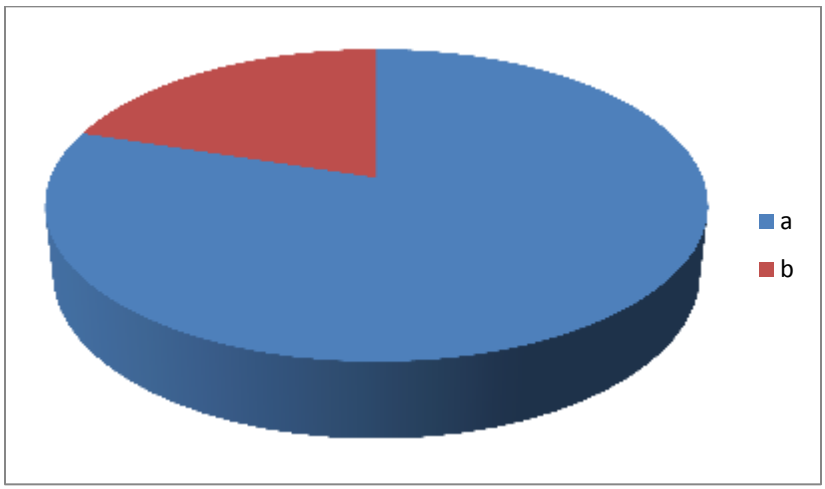


Test 4 (a= existential sentence, VS, non-quantified subject, b= copular sentence, SV, non-quantified subject)

a. *E* *cărți* *pe masă*
be-3rd.sg book-FEM.PL. on table
'There is books on the table'.
b. *Cărțile* *e* *frumoase*
book-PL. FEM.-DEF ART.PL. FEM be-3rd.sg beautiful-FEM.PL.
'The books is beautiful.'

Results for test 4: 16 (out of 20) subjects opted for *a*.

Figure 4:



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[i] The paper has benefited a lot from insightful comments from Luigi Rizzi, Hedde Zeijlstra, Marcel den Dikken, Andrew Nevins, Alexandra Cornilescu, Larisa Avram.

[ii] The fact that the copula *usually* agrees with the subject preverbally, but it can also agree with it postverbally in Romanian is very significant, as this is not possible in English, which has strict EPP requirements. Thus, one can perfectly utter a sentence such as (i):

(i) Este fericită Maria.
be-3rd.SG. happy-3rd.FEM. SG. Mary.
'Mary is happy'.

However, although Romanian is a VS language, based on my personal linguistic intuitions and the linguistic intuitions of a number of 10 native informants, whom I asked the question 'which sounds more natural to you?', I take the SV order to be the most frequent in copular sentences (at least). It could be that the subject raises for informational structure purposes (to a TOPIC position), but, on its way to TOPIC, it will move through SpecAgr nonetheless.

[iii] However, while *there*-sentences can be existential, they need not be and can express a presentational meaning instead (*There appeared a girl from the bushes*).

[iv] One problematic aspect is whether it is really the case that the null expletive contributes case, as it has been argued to have deictic features or even number features (according to Svenonius 2001).