The Syntax of Existential Sentences in Serbian

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Freeze (1992) argued on the basis of data from several different languages that there is a close relationship between existential sentences (stating the existence of an entity) and locative sentences (stating the location of an entity). Freeze (1992) proposes that they are both derived from the same base structure and that the surface differences are rather due to the distinct information structures.This paper argues against this position with the data from Serbian existentials, which show clear syntactic differences from the locatives. Thus, the close relationship between existential and locative sentences that Freeze (1992) observes is conceptual, but not (necessarily) part of the syntax of the language. In order to account for the data, we propose that existential sentences originate from a different syntactic predication structure than the locative ones. The existential meaning arises, as we will show, from the interaction of this predication structure with the structure and meaning of the noun phrase.

1 The main data from Serbian

Existentials differ from locatives in the following respects: (i) In existential sentences the PP is optional, cf. (1) whereas with locative sentences it has to be overtly present, cf. (2).

(1) Ima nekih studenata (ovde) koji hoće samo diplomu.
Has some students$_{GEN}$ here who want just certificate
'There are some students (here) who just want the certificate.'

(2) Neki studenti su *(ovde) koji hoće samo diplomu .
some students$_{NOM}$ are here who want just certificate
'Some students are here who just want the certificate.'

(ii) In present tense, existentials use the verb *ima* 'have', while locatives are formed with the copula *je* 'be', cf. (1) vs. (2). In past tense both paradigms

use AUX + *l*-participle of 'be', cf. (3) for the existential and (4) for the locative structure.

(3) Bilo je nekih knjiga (u sobi).
Be$_{PART.N.SG}$ aux$_{3SG}$ some$_{GEN}$ books$_{GEN.F.PL}$ in room
'There were some books in the room.'

(4) Knijge su bile *(na stolu).
Books$_{NOM.F.PL}$ aux$_{3PL}$ be$_{PART.F.3PL}$ on table
'(The) books were on the table.'

(iii) In existential sentences, the verb and the noun phrase do not agree in ϕ-features, cf. (5) and (7). The opposite is true for locative sentences, cf. (6) and (8).

(5) Ima/ *Imaju dobrih razloga da se to uradi.
has/ have$_{PL}$ good$_{GEN}$ reasons$_{GEN}$ that SE it does
'There are good reasons to do it.'

(6) Dobri razlozi da se to uradi su/ *je u ovoj tabeli.
good$_{NOM}$ reasons$_{NOM}$ that SE it does are/ is in this chart
'The good reasons to do it are in this chart.'

(7) {Bilo je}/ {*Bile su} nekih
Be$_{PART.N.SG}$ aux$_{3SG}$/ Be$_{PART.F.PL}$ aux$_{3PL}$ some$_{GEN}$
knjiga (u sobi).
books$_{GEN.F.PL}$ in room
'There were some books in the room.'

(8) Knjige {su bile}/ {*je bilo}
Books$_{NOM.F.PL}$ aux$_{3PL}$ be$_{PART.3PL.F}$/ aux$_{3SG}$ be$_{PART.N.SG}$
*(na stolu).
on table
'(The) books were on the table.'

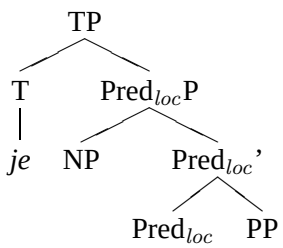
(iv) Finally, in locative structures the agreeing noun phrase is case-marked nominative. In existential sentences, the noun phrase is usually case-marked genitive as seen in all the examples above.[1]

[1]There are a few exceptions to this rule, however. The noun phrase can be nominative when the phrase is 3rd singular and is preceded either by *jedna* 'one' or *neka* 'some'. We take *jedna* and *neka* to be overt expressions of the existential quantifier (see below) and they can agree with the 3rd person singular verb. The nominative case-marking is possible under these circumstances.

2 Proposal

In order to account for the differences between the two types of structures, we propose that they are derived from two different core predication structures. The locative structure is derived from a typical predication structure with a noun phrase subject and a predicative PP in the complement position (cf. Bowers 1993 and follow-up work, Bailyn 1997 for Russian, den Dikken (2006) for a recent study), cf. (9).

(9)



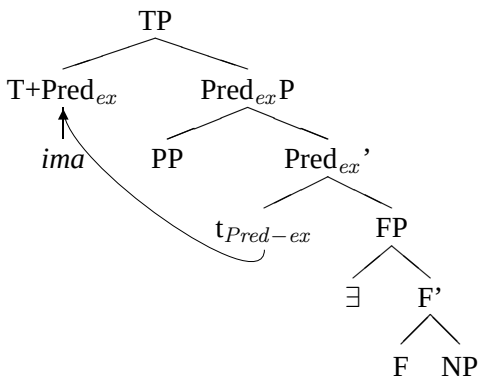
The PredP that we assume here is a canonical PredP with an NP specifier and a predicative complement. In this structure, the nominal phrase is in a typical subject-predication relationship with the predicate. Agreement is established with the subject of predication as in other copula structures of this type. Nominative is assigned to the subject of predication under agreement with the verb.

The core of an existential sentence is a different PredP, we call it Pred$_{ex}$P, with a (locative) PP in its specifier position and a nominal phrase in the complement position (cf. for similar ideas Williams 1994, Harves 2002, Zamparelli 2000, Hazout 2004, Williams 2006; see also the perspectival center of Borschev and Partee 2002). Serbian is a subject-drop language, thus, the 'subject' PP can be dropped under recoverability. As the overt nominal phrase is not the subject of the predication, agreement does not arise between the verb and the nominal phrase (on the assumption that agreement is linked to the subject of predication); instead the verb appears in default agreement. *Ima* is the spell-out of the head of PredP moved into tense, cf. (10).

This Pred$_{ex}$P is non-canonical as the nominal in the complement position is non-predicative.[2] The noun phrase is embedded in an additional functional layer FP. This FP structure hosts the existential quantifier in

[2]This can be seen from modificaiton by non-restrictive relative clauses, and embedding under small-clause selecting verbs, see Hartmann forthcoming for details.

(10)



its specifier and is responsible for the existential interpretation of the sentence.[3] FP is the same projection that has been proposed in order to account for the distribution and case properties of numerals and quantifiers in Serbian (cf. Franks 1994, Bošković 2003 or similarly for Russian Pesetsky 1982, Bošković 2004, Franks and Pereltsvaig 2004, Pereltsvaig 2006). In Serbian, quantifiers appear in nominative (for a clear case see (11-c)) while the complement NP appears in genitive (cf. also Leko 1989; for similar facts in Russian see Franks and Pereltsvaig 2004).

(11) a. Vidim pet prijatelja
see$_{1.SG.}$ five friends$_{GEN}$
'I see five friends.'

b. Ivan uze nekoliko cvetova.
Ivan took several flowers$_{GEN}$
'Ivan took several (of the) flowers.'

c. Većina knjiga je dosadna.
Most$_{NOM}$ books$_{GEN}$ is boring
'Most books are boring.'

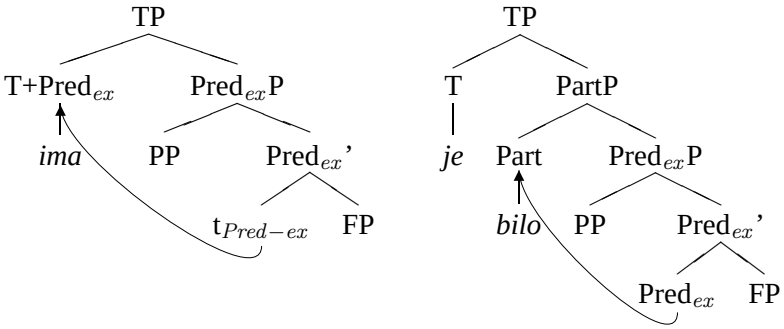
Thus, whenever quantification is present in the noun phrase, the nominal phrase appears in genitive. As we have seen above, genitive appears on the nominal in existential structures and we take this as evidence for the presence of quantification - existential quantification in this case. Syntactically, the F-head is responsible for the assignment of genitive case to its

[3] Alternatively, existential closure could ensure that the existential meaning arises in interaction with Pred$_{ex}$, cf. also Bailyn 1997 for a proposal on genitive of negation in terms of existential closure.

complement, as proposed by Bošković (2004).

Turning to the differences between present tense *ima* and past tense *bilo* we suggest that the Pred$_{ex}$ incorporates into the tense head in present tense and is spelled-out as *ima*. In past tense, the Pred$_{ex}$ incorporates into the participle head, and is spelled out as the neuter third person singular (the least marked form) participle of the verb 'be', which is *bilo*.

(12) a. Present Tense b. Past Tense



Under this analysis, *ima* 'have' is not the existential copula, but the tensed realization of the existential Pred-head. Thus, the past tense paradigm can be different depending on language specific syntax/ morphology. This analysis has the advantage that we do not need to assume two lexical copulas 'be' and 'have' and stipulate the restrictions on their occurrence. Note that this proposal is different from *be+P=have* approaches (cf. Benveniste 1966, Freeze 1992, Kayne 1993, and for a critique of this type of proposal see Blasczak 2007).

3 Predictions

The proposal made above makes several predictions and, as we will see, all of them are born out. First of all, our proposal predicts that the existential meaning is not directly linked to word-order. And this is indeed the case. FP is not necessarily post-verbal, it can move preverbally for contrast or topicality (i.e. A'-movement), as illustrated in the following example.

(13) a. What about the book?
Da, knjige ima.
Yes, book$_{GEN}$ has
'Yes, there is a/the book.'

b. Da, knjige ima, ali markice nema.
Yes, book$_{GEN}$ has but stamp$_{GEN}$ not.has
'Yes, there is a/the book but not a/the stamp.'

c. Knjige ima, markice ima ...
Book$_{GEN}$ has, stamp has ...
'The/a book, there is, the/a stamp, there is ...'
(Ticking off the items on the list you are supposed to find)

Secondly, the word order facts from the existential sentences in the future tense clearly support our proposal. The future tense in Serbian can be both analytic (combining the future auxiliary with the infinitival form of the main verb) and synthetic (where the future marker occurs as the suffix to the main verb stem). The synthetic future in Serbian poses restrictions on the word order: the subject pronominal can never precede the verb, and the full NP can precede it only if it is a topic. As (15) shows, in neutral sentences any subject preceding the verb is ungrammatical.

(14) Stićiće (naši gosti/ oni) vrlo brzo.
will-arrive$_{3.Pl}$ our guests$_{NOM}$/ they very soon
'Our guests/They will arrive very soon.'

(15) *{Naši gosti/ Oni} stićiće vrlo brzo.
our guests$_{NOM}$/ they$_{NOM}$ will-arrive$_{3.Pl}$ very soon
'Our guests/ They will arrive soon.'

We conclude that the subject in the above cases does not raise to the specifier of the TP. The synthetic future, therefore, should reveal the difference between the in-situ orders of the locative vs. existential sentences. As expected, with locative sentences the neutral word order is V-NP-LOC with the location expression being obligatory, cf. (16). With existentials, cf. (17), the neutral word order is V-LOC-NP and the location can be dropped.

(16) Biće (Ana i Marko) tu.
Will-be$_{3.Pl}$ Ana and Marco$_{NOM}$ there
'Ana and Marco will be there.'

(17) a. Biće (tu) ljudi.
Be$_{FUT.3SG}$ (there) people$_{GEN.PL}$
'There will be people'

b. *Biće ljudi tu. (* on neutral reading)

Comparing the nominal in the existential construction with quantified subjects of other verbs, we find that they behave differently. Serbian quantified subjects optionally agree with the verb in number cf. Franks (1994), Bošković (2003). (For related data in Russian see cf. Pesetsky 1982, Babby 1987, Pereltsvaig 2006 among others). The examples in (18) illustrate this fact (cf. Franks 1994, see also Bošković 2003).

(18) a. Dvadeset 'migova' prešlo je/ ?prešli
twenty migs$_{GEN.PL}$ crossed$_{N.SG}$ AUX$_{3SG}$ crossed$_{M.PL}$
su granicu
AUX$_{3PL}$ border

b. 70 milliona lica je napustilo/ ?su
70 million people$_{GEN.PL}$ AUX$_{3SG}$ left$_{N.SG}$ AUX$_{3PL}$
napustili ovaj kontinent.
left$_{M.PL}$ this continent$_{ACC}$

c. Nekoliko ljudi je kupilo/ ?su
Several people$_{GEN.PL}$ AUX$_{3SG}$ bought$_{N.SG}$ AUX$_{3PL}$
kupili imanja u Tetovu
bought$_{M.PL}$ properties in Tetovo$_{LOC}$

(Franks, 1994, 623)

In existential sentences, optional plural agreement is not available as shown in (19) and (20). On our approach this can be accounted for, since the nominal is not the subject of the predication. FP is a complement of a predicative head, and the verb itself is purely functional. Under these circumstances we do not expect agreement to begin with.

(19) Ima/ *Imaju dobrih razloga da se to uradi.
has$_{SG}$/ have$_{PL}$ good$_{GEN.PL}$ reasons$_{GEN.PL}$ it SE that does
'There are good reasons to do it.'

(20) {Bilo je}/ {*Bile su} nekih knjiga (u sobi).
Be$_{N.SG}$ is/ be$_{F.PL}$ are some$_{GEN}$ books$_{GEN.F.PL}$ in room
'There were some books in the room.'

As mentioned before, the existential meaning of the structure is linked to the occurrence of the existential quantifier in the specifier of FP, occupying the position of strong quantifiers. Thus, strong quantifiers are not expected to occur. This is born out as seen in (21).

(21) a. *Ima većina knjiga (ovde).
Has most$_{NOM}$ books$_{GEN}$ here
'There is most of the books here.'
b. *Ima sve knjige (ovde)
Has all$_{NOM}$ books$_{NOM}$ here
c. *Ima svaka (ta) knjiga ovde.
has every$_{NOM}$ that book$_{NOM}$ here
'There is a copy of each of those books here.'

When these quantifiers occur as genitives themselves they give rise to indefinite or kind readings as observed for other languages as well (cf. also Huang 1987, McNally 1997) and the reference to particular individuals is impossible. The quantifier in (22) has an indefinite/ partitive meaning as indicated by the English translation, while the quantifier and the demostrative in (23) and (24) quantifies over/ refers to the kind of individuals spoken about. The obligatory weak readings of the quantifiers and demonstratives is the consequence of their occurrence in the scope of the existential quantifier.

(22) Ima većine knjiga (ovde).
Has most$_{GEN.SG}$ books$_{GEN}$ here
'There is a majority of (the) books here.' (no reference to individuals, cf. Pereltsvaig 2006)

(23) Ima svih (tih) knjiga (ovde)
has all$_{GEN}$ those$_{GEN}$ books$_{GEN}$ (here)
'There are all (those) (kinds of) books here.'

(24) Ima svake (te) knjige (i) ovde.
has every$_{GEN.SG.F}$ that$_{GEN.SG.F}$ book$_{GEN}$ and here
'There is a copy of each of those books here, too'/ 'There is every imaginable/all kinds of books here, too.'

4 Extensions to other Slavic languages

4.1 The existential verb as a special case

On the analysis proposed here the Serbian present tense existential verb *ima* is a functional element, the spell-out of a predicative head incorporated into the tense head. We will now try to show that the tendency of marking the existential relation as a special case exists more generally in Slavic. A

simplified overview (only third person singular) of the type of auxiliary or copula we find in seven Slavic languages is given in table 1.

	Copula		Past Aux	Simple Past
	EXIST	LOC	complex tense	(Imperf.)
Russian	est' (non-agr)	⊘	⊘	–
Czech	je (AGR)	je	⊘	–
Polish	jest (AGR)	jest	⊘	–
Slovene	je (AGR)	je	je	–
Serbian	ima (non-agr)	je	je	–
Bulgarian	ima (non-agr)	je	(je)	yes
Macedonian	ima (non-agr)	e	ima/ ⊘	yes

Table 1: Copula and auxiliary verbs in Slavic (3rd person only)

The table includes one representative of the East Slavic (Russian), three representatives of the West Slavic (Czech, Polish and Slovene) and three of the South Slavic group (Serbian, Bulgarian and Macedonian). The locative copula and the past tense auxiliary pattern together (phonologically). In other words, if there is a locative copula of a certain type there is also an auxiliary of that type in the past tense. If the marker of locative predication is not overtly expressed, as in Russian, the past tense auxiliary is non-existent. This indicates that the past tense auxiliary develops from the tense realization of the typical predication, of which the locative predication is a subtype. Crucially, in the South Slavic group and in Russian, stating the

existence of an individual is obviously marked as a special case where the introduction of the special tense marker is required. As we will see later on in the West Slavic the tendency to formally disambiguate between the existential and locative predication comes in a different guise.

4.2 Serbian vs. Bulgarian/ Macedonian

The analysis of locative vs. existential sentences presented can be extended to Bulgarian and Macedonian. These languages employ the existential *ima* 'have' both in the present and past tense, as shown below.

(25) *Bulgarian*

a. Ima ućenici, koito ne sa zainteresovani ot tehniya
have students, who not are interested in their
predmet.
subject.
'There are students who are not interested in their subject.'

b. Imaše ućenici, koito ne byaha zainteresovani ot tehniya
had students who not were interested in their
predmet.
subject
'There were students who were not interested in their subject.'

(26) *Macedonian*

a. Ima dve rešenija za ovoj problem.
Have two soluions to this problem
'There are two solutions to this problem.'

b. Imaše dve rešenija za ovoj problem.
had two solutions to this problem
'There were two solutions to this problem.'

This is so, because unlike Serbian (which has only the compound past tense), these languages have both the simple and compound past tense. The formation of the simple past allows the incorporation of the existential predicative head into tense where its properties are combined with the past tense features and spelled-out as the past tense form of 'have'.

4.3 West Slavic

The examples of existential sentences from Slovene, cf. (27) show that in terms of word order (V-PP-NP) and the possibility of the omission of the location expression they exhibit the typical, 'existential' properties. However, the agreeing 'be' form is still the spell-out of the present tense in both locative and existential constructions. In Czech, cf. (28) the existential construction with the verb 'be' is degraded or leads to ungrammaticality. To express existence Czech resorts to the use of the lexical verb expressing the existential meaning.

(27) *Slovene*

a. So *š*tudenti, ki jih ta predmet ne zanima
are students-nom.masc, that them this subject not interests
'There are students who are not interested in that subject.'

b. Bili so *š*tudenti, ki jih ta
be-pl.masc AUX-pl students-nom.masc, that them this
predmet ni zanimal.
subject not interests
'There were students who are not interested in that subject.'

(28) *Czech*

a. Existuji studenti ktere nezajima jejich studijni
exist students which not-interested their study
predmet
subject.

b. ?Jsou studenti ktere nezajima jejich studijni predmet.
are students which not-interested their study subject
'There are students who are not interested in their subject.'

c. Existovali studenti ktere nezajimal jejich studijni
existed students which not-interested their study
predmet.
subject

d. ?*Byli studenti ktere nezajimal jejich studijni predmet.
were students which not-interested their study subject
'There were students who are not interested in their subject.'

This indicates that the strategy of using the least marked form of the verb as the expression of tense of the underlying existential predication is not

universal in Slavic.

4.4 Russian

In Russian, existential sentences exhibit much of the same properties as in Serbian (we take existential sentences to be sentences with *est'* in present tense, cf. Kondrashova 1996). The location expression is sentences initial while the nominal has an indefinite reading. A special verb form *est'* is employed in the present tense. The sentence is understood to assert the existence of instances of THING in the given LOCATION (cf. Partee and Borschev to appear, 19). The clearly locative sentences exhibit the NP-PP order and the verb form in the present tense is $\oslash$. The NP interpretation is definite (its existence is presupposed) and the sentence is understood to assert the location of the given THING. Thus it seems promising to carry over our analysis from Serbian existentials to Russian, with *est'* being the phonological expression of the projection Pred_{EX} (see also Kondrashova 1996 who suggest that *est'* heads a functional projection $\exists$).[4] Note however that these are only typical properties and there are a number of examples that do not fit the cluster (see Partee and Borschev (to appear) for an overview). One such case is the one where the nominal complement of *est* is definite, cf. (29). The interpretation of these sentences and the felicity conditions on their use reveal that we are in fact dealing with the list reading (cf. Kondrashova 1996, 275), where a locative expression opens a list and the NP complement is one of the items on it. To illustrate this we provide a scenario under which such sentences can be uttered:

(29) Context: We are in Petersburgh and looking for someone to help us. As we cannot think of anyone in Petersburgh, we think about people in other places. One of us thinks of Kolja, and says:

a. V Moskve est' Kolja
in Moscow is Kolja.nom
'In Moscow, there's Kolja'

b. #V Moscow Kolja.

In order to account for these sentences, we need to say, that Pred_{EX} can also select for a full DP (instead of an FP) and in this case, gives rise to a

[4] Obviously Russian differs from Serbian in that it does not have genitive marking on the noun phrase in affirmative existential sentences, it only occurs under negation. We do not have a straightforward account for that so far, and leave the issue to future research.

list reading. That this suggestion might be on the right track can be seen from data from English, where the same effect occurs.

(30) A: What could I give my sister for her birthday?
B: There's John's book on birdwatching.
(Birner and Ward, 1998, 131)

Finally, an indefinite can precede the existential verb, as illustrated by the following examples in (31). This is also related to the special interpretation of the structure. We propose that these sentences are derived through the topicalization of the indefinite nominal. As we propose that the existential quantifier is hosted in the specifier of FP, it is expected that it can move to the topic position.

(31) Context: we are discussing where we find volcanoes in the world.
a. Vulkany est' v Indonezii, takhze vulkany est' v Italii
volcanoes is in Indonesia, also volcanoes is in Italy
b. #Vulkany v Indonezii, takhze vulkany v Italii
volcanoes in Indonesia, also volcanoes is in Italy
'There are volcanoes in Indonesia. And there are volcanoes in Italy.'
(adjusted from Kondrashova 1996, 200)

These remarks about Russian suggest that the analysis presented for Serbian so far can also account for the core facts of existential sentences (sentences with *est'* in present tense).

5 Conclusion

In this paper we presented evidence for syntactic differences between existential and locative sentences in Serbian (contra Freeze 1992). In order to account for these differences, we proposed that existentials are derived from a special PredP, Pred$_{ex}$P that has a PP in its specifier and an FP in its complement. The existential meaning arises through this configuration and the existential quantifier in the specifier of FP. The advantages of this analysis are that we do not need to stipulate a separate existential verb, and we correctly derive the properties of existential sentences in Serbian: the word order contrast in comparison with the locative structures, optionality of the PP, the lack of agreement, and the occurrence of the present tense

ima vs past tense *bilo*. The FP projection derives the genitive case on the nominal in the structure and the restriction on the occurrence and interpretation of strong quantifiers. Finally, we have shown that the tendency of disambiguation between the existential and locative constructions exists in all Slavic languages. They seem, however, to differ with respect to whether they employ a functional verb with special non-agreeing properties as the tense spell-out of the existential predication. Some languages, *Czech* in particular, rather use a separate lexical verb 'exist' to deliver this type of relation between the locative and nominal argument. Thus, although further investigation is certainly necessary, the proposal made for Serbian seems to carry over to other Slavic languages as well.

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