

The Syntax of Existential Sentences in Serbian

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In this paper we offer an account of existential sentences in Serbian,¹ which show clear syntactic differences from the locative ones. We claim that the longstanding observation about the close relationship between the two types of sentences across languages (Freeze, 1992) tells us something about their conceptual ‘closeness’, which is not necessarily represented by a unique underlying syntactic structure. To account for the Serbian data, we propose that existential sentences originate from a different syntactic predication structure than locative ones. The existential meaning arises, as we will show, from an interaction of this predication structure and 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 the 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 + the *l*-participle of ‘be’, cf. (3) for the existential, and (4) for the locative structure.

¹As far as we know, the data we are discussing do not differ syntactically from standard Bosnian or Croatian and our analysis extends to them as well.

- (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) Knjige 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) and the noun phrase is usually case marked genitive.² The opposite is true for locative sentences, where the noun agrees with the verb and is case-marked nominative, 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 knjiga (u sobi).
 Be_{PART.N.SG} aux_{3SG}/ Be_{PART.F.PL} aux_{3PL} some_{GEN} 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.’

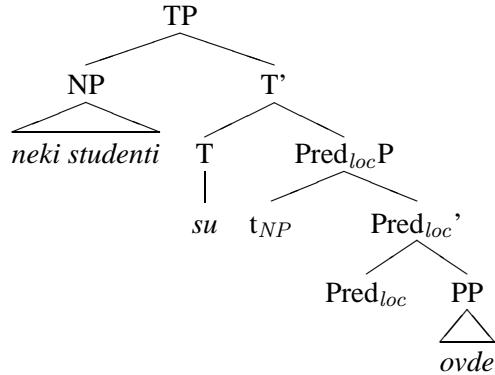
2 Proposal

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

²There are a few exceptions to this rule, however. The noun phrase is 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.

with a noun phrase subject and a predicative PP in the complement position (cf. Bowers 1993 and follow-up work, Bailyn and Rubin 1991 for Russian, Den Dikken 2006 for a recent study and references), cf. (9).

(9) Tree for example (2) LOCATIVE



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 Tense. The PredP that we assume here is a canonical PredP with an NP specifier and a predicative complement.

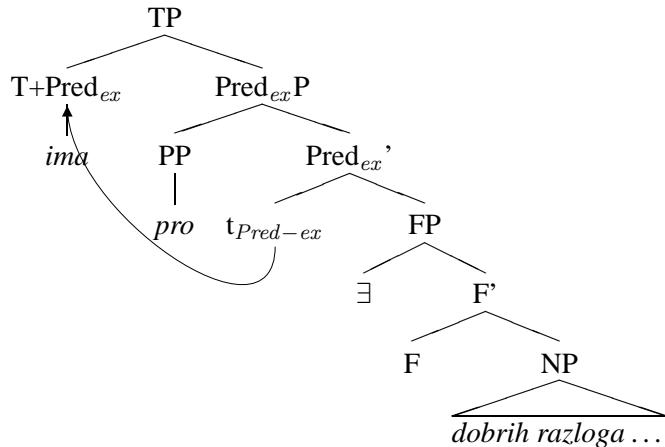
The core of an existential sentence is a different PredP, we call it $\text{Pred}_{ex}P$, with a (locative) PP in its specifier position and a nominal phrase in the complement position (cf. for similar ideas Williams 1994, Harves 2002, Zamparelli 2000, Hazout 2004, Williams 2006; see also the perspectival center of Borschev and Partee 2002). 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 singular. *Ima* is the spell-out of the head of PredP moved into tense, cf. (10).

This $\text{Pred}_{ex}P$ is ‘non-canonical’ - the nominal in the complement position is non-predicative.³ This configuration is read-off as an information structural predication: it states about a situation/location that it contains

³This can be seen from modification by non-restrictive relative clauses, and embedding under small-clause selecting verbs, see Hartmann (forthcoming) for details.

(10) Tree for example (5)

EXISTENTIAL



an individual of the type (and quantity) specified by the noun phrase. The noun phrase is embedded in an additional functional layer FP. This FP structure hosts the existential quantifier in its specifier and is responsible for the existential interpretation of the sentence. (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.) 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 2006, Franks and Pereltsvaig 2004, Pereltsvaig 2006). In Serbian, quantifiers get structural case 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.'

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

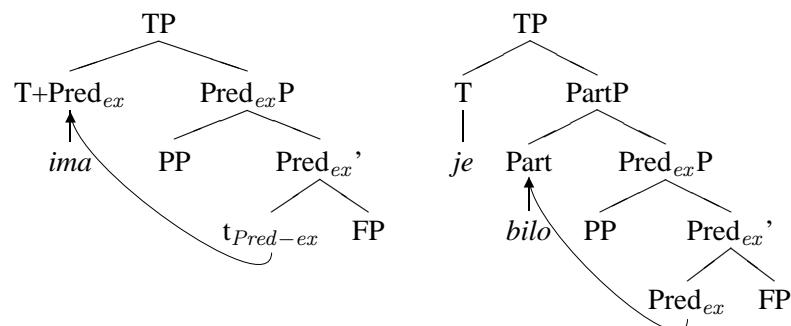
presence of quantification - existential quantification in this case. This is consistent with the observations about the interpretation of genitive in Russian, see Borschev et al. (this volume); namely, the ‘quantity’ interpretation typical of genitive NPs in Russian genitive of negation constructions is true of the Serbian ‘existential genitive’.⁴ Syntactically, the F-head is responsible for the assignment of genitive case to its complement, as proposed by Bošković (2006). The support for this step in the analysis comes from the example below, which shows that even singular nouns occur in genitive, and the mismatch of ϕ -features between the verb and the noun cannot be the sole reason for the occurrence of genitive case.

- (12) a. *Ima tuga.
 has sadness_{NOM}
 ‘There is sadness.’

b. Ima tuge.
 has sadness_{GEN}
 ‘There is sadness.’

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} head 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*.

- (13) a. Present Tense b. Past Tense



Under this analysis, *ima* ‘have’ is not the existential copula, but the tensed realization of *Pred_{ex}*. Thus, the past tense paradigm can be different de-

⁴The impossibility of strong quantification that we would expect in Serbian existentials if this parallelism holds is confirmed, as we will see further on.

pending 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 Blaszcak this volume).

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.

- (14) 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 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 (16) shows, in neutral sentences any subject preceding the verb is ungrammatical.

- (15) Otputovaće (naši gosti/ oni) vrlo brzo.
 will-go_{3.Pl} our guests_{NOM}/ they very soon
 ‘Our guests/They will leave very soon.’

- (16) *{Naši gosti/ Oni} otpovavaće vrlo brzo.
 our guests_{NOM}/ they_{NOM} will-go_{3.PL} very soon
 ‘Our guests/ They will leave very 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. (17). With existential sentences, cf. (18), the neutral word order is V-LOC-NP and the location can be dropped.⁵

- (17) Biće (Ana i Marko) tu.
 Will-be_{3.PL} Ana and Marco_{NOM} there
 ‘Ana and Marco will be there.’
- (18) a. Biće brzo (tu) ljudi.
 Be_{FUT.3SG} quickly (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), cf. (19).

- (19) 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 miliona 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}

⁵As a reviewer pointed out to us, the placement of certain adverbs that occur below TP (such as quickly) strengthens our argument, since without it, the reasoning may depend solely on the assumptions about the second position clitic placement (if the future suffix is treated as such. On this matter we follow Bošković (2004) and, thus, assume that clitics do not occur in C.

- 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 (20) and (21). On our approach this can be accounted for, since the nominal is not the subject of the predication, and it does not undergo spec-head agreement with T.

- (20) Ima/ *Imaju dobro 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.’
- (21) {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 (22).

- (22) a. *Ima sve knjige (ovde)
 Has all_{NOM} books_{NOM} here
 b. *Ima svaka (ta) knjiga ovde.
 has every_{NOM} that book_{NOM} here
 ‘There is a copy of each of those books here.’

Note that when the lexical items 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 and the demonstrative in (23) and (24) quantifie over/refer to the kind of individuals spoken about.

- (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 1.⁶

	Copula		Past Aux complex tense	Simple Past (Imperf.)
	EXIST	LOC		
Russian	est'	∅	∅	–
Czech	je (full paradigm)	je	∅	–
Polish	jest (full paradigm)	jest	∅	–
Slovene	je (full paradigm)	je	je	–
Serbian	ima	je	je	–
Bulgarian	ima	je	(je)	yes
Macedonian	ima	e	ima/ ∅	yes

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

The table includes one East Slavic language (Russian), two West Slavic languages (Czech and Polish) and four South Slavic languages (Slovene, Serbian, Bulgarian and Macedonian). The locative copula and the past tense auxiliary pattern together (phonologically). In other words, if there

⁶We indicate with ‘full paradigm’ when the existential copula/auxiliary (unlike in Serbian) employs the full person/number paradigm.

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 in 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*

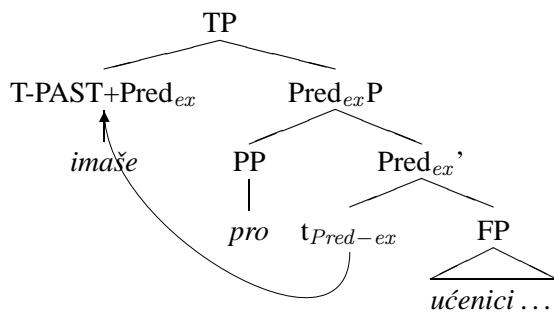
- a. Ima učenici, koito ne sa zainteresovani ot tehnika
have students, who not are interested in their
predmet.
subject.
‘There are students who are not interested in their subject.’
- b. Imaše učenici, koito ne byaha zainteresovani ot tehnika
had students who not were interested in their
predmet.
subject
‘There were students who were not interested in their sub-
ject.’

(26) *Macedonian*

- a. Ima dve rešenija za ovoj problem.
Have two solutions 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’, illustrated in (27).

(27) Representation of (25-a)



4.3 Slovene

The examples of existential sentences from Slovene, cf. (28), show the typical ‘existential properties of word order (V-PP-NP) and the optionality of the location expression. However, the agreeing ‘be’ form is still the spell-out of the present tense in both locative and existential constructions.

(28) *Slovene*

- a. So študenti, ki jih ta predmet ne zanima
are students_{NOM.M} that them this subject not interests
‘There are students who are not interested in that subject.’
- b. Bili so študenti, ki jih ta predmet ni
be_{PL.M} AUX_{PL} students_{NOM.M}, that them this subject not
zanimal.
interests
‘There were students who are not interested in that subject.’

4.4 West Slavic

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. In Czech, cf. (29), BE+NP construction is (highly) degraded. To express ‘existence’ Czech resorts to the use of the intransitive lexical verb ‘exist’ instead.

(29) *Czech*

- a. Existují studenti které nezajímá jejich studijní
exist students which not-interested their study
predmět
subject.
- b. ?Jsou studenti které nezajímá jejich studijní predmět.
are students which not-interested their study subject
‘There are students who are not interested in their subject.’
- c. Existovali studenti které nezajímal jejich studijní
existed students which not-interested their study
predmět.
subject
- d. ?*Byli studenti které nezajímal jejich studijní predmět.
were students which not-interested their study subject
‘There were students who are not interested in their subject.’

Polish, on the other hand, behaves like Slovene in this respect, and our account of the Polish data would be the same. Our account diverges from Blaszczałk (this volume) in that we do not assume the verb ‘be’ to be a lexical verb, although the variation across languages with respect to the choice of spell out of T remains an interesting topic for further research. The occurrence of a special negative existential verb *niema*, cf. (30), however, indicates that the negative features combine with the verbless existential predication, receiving a special phonological spell-out. If the negation combined with the lexical verb ‘be’, it is even harder to explain the switch to a special verb form (though see Blaszczałk this volume).

(30) *Polish*

- W lodówce niema piwa.
in fridge not-has beer_{GEN}
‘There is no beer in the fridge.’

4.5 Russian

In Russian, existential sentences exhibit many of the same properties as in Serbian (we take existential sentences to be sentences with *EST'* in the present tense, cf. Kondrashova 1996): (i) The locative expression is sentence initial; (ii) the nominal has an indefinite reading; (iii) a special verb form, *est'*, is employed in the present tense. The sentence is understood to assert the existence of instances of the THING in the given LOCATION (cf. Partee and Borschev to appear, 19). The clearly locative sentences have different properties: (i) they exhibit the NP-PP order; (ii) the verb form in the present tense is \emptyset ; (iii) the NP interpretation is definite (its existence is presupposed). They 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).⁷ 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 where the nominal complement of *est'* is definite, cf. (31). The interpretation of these sentences and the felicity conditions on their use reveal that we are in fact dealing with list reading sentences (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:

- (31) Context: We are in St. Petersburg and looking for someone to help us. As we cannot think of anyone in St. Petersburg, 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, we get a list reading. That this suggestion might be on the right track can be seen from data

⁷Obviously 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.

from English, where the same effect occurs (see Hartmann forthcoming for details).

- (32) 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 (33).

- (33) 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 in Italy
'There are volcanoes in Indonesia. And there are volcanoes in Italy.'
- (adjusted from Kondrashova 1996, 200)

This is also related to the special interpretation of the structure. We propose that these sentences are derived through 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. 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 existential sentences 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 is that we do not need to stipulate a separate existential verb, and we correctly derive the properties of existential sentences in Serbian: the contrast in word order with 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 a tendency for 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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