

Case Alternations in Serbian Existentials

1. Introduction

Serbian existential sentences with the verb *ima* exhibit an interesting case pattern on the noun phrase. In affirmative clauses the noun phrase can be marked either genitive or nominative. In negative clauses the noun phrase can only appear in genitive. We will show that this case pattern in affirmative clauses is due to the type of quantity expression (silent or overt) that occurs in the structure. The obligatory genitive in negative clauses is due to the specific effect of negation on this quantification. The major claim with respect to genitive case assignment is that it is linked to the genitive of quantification in Serbian. The paper is structured as follows. In section 2, we will first present the major data of existential sentences in Serbian and suggest an analysis adjusted from Hartmann and Milićević (to appear). In the light of this analysis, we will introduce the case facts in affirmative and negative clauses in section 3. We modify the approach of the genitive of quantification in Bošković (2003, 2006) to account for the Serbian data in section 4. With this much at hand, we can account for the case patterns in Serbian existentials straightforwardly in section 5. In section 6 we will see that the obligatory genitive case assignment in negative existentials arises from the possibility (or rather semantic coherence) of quantifying over a part of an individual in a negative environment.

2. Background: Serbian Existentials

2.1 Data

Serbian existential sentences exhibit a number of intriguing properties (which distinguish them from locative sentences, cf. Hartmann and Milićević to appear).¹ First of all, existential sentences contain the verb *ima* ‘have’ in present tense, while AUX + *l*-participle of ‘be’ is used in past tense, cf. (1) vs. (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) *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.’

Second, the verb and noun phrase do not agree in ϕ -features, neither in present nor in past tense, cf. (3) and (4).

- (3) *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.’
- (4) *{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.’

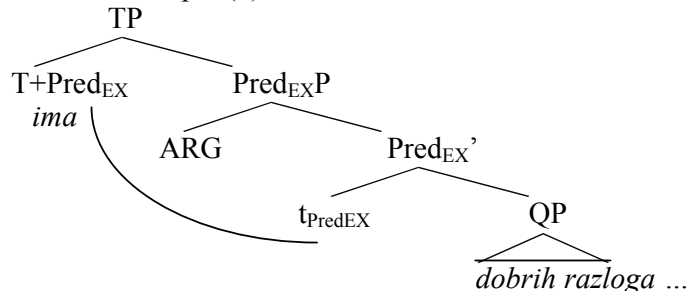
¹ We restrict our attention to existential sentences that assert the existence of an entity and its quantity in a given situation through a *specific syntactic structure*. Thus, we exclude structures in which an existential verb expresses the existence of an entity.

Third, the core of the existential structure consists of the verb and a more or less complex noun phrase; an additional prepositional phrase is optional, as can be seen in (2) and (4). Finally, in existential sentences, the noun phrase is usually case marked genitive, as seen in all the examples above. We will come back to the more complicated case facts below.

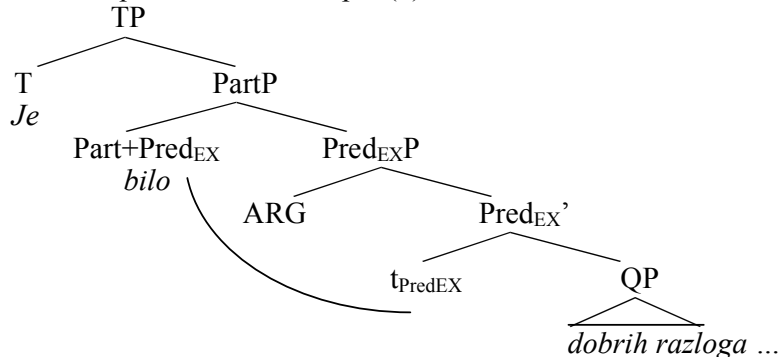
2.2 Analysis

In order to account for these properties of existential sentences in contrast to locative sentences, Hartmann and Milićević (to appear) proposed that existential sentences are derived from a special predication structure in which a complex noun phrase is the complement of a special Pred-head, Pred_{EX}. The subject of predication is a location (for related proposals see Williams 1994, 2006, Harley 1995, Zamparelli 2000, Hazout 2004, Błaszczack to appear; see also perspectival center of Borschev and Partee 2002). We take this subject to be the situation argument as proposed by Kratzer (2004) (and not a PP, in contrast to Hartmann and Milićević to appear). The predicative relationship that is established in this specific configuration is special. As neither the location nor the noun phrase is predicative (cf. Hartmann and Milićević to appear, Hartmann 2008), PredP cannot be a typical predication structure. Instead the configuration is read-off as an information structural predication: it states about a situation/location that it contains an individual of the quantity and type specified by the noun phrase. An additional PP is an adjunct structure and is therefore optional. As the noun phrase is not the subject of the structure, agreement is not expected and the verb only appears in third person singular form. The existential meaning arises through existential closure of the variable that is introduced by the noun phrase, which we label here QP for reasons that will become clear below. The head Pred_{EX} incorporates into the next higher head: T in present tense and PartP in past tense, as seen in (5) and (6).

(5) Tree for example (3)



(6) Tree for past tense of example (3)



The spell-out of these complex heads varies: it is *ima* in present tense and *bilo* in past tense. In our 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. Furthermore, 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; for a critique see Błaszczack to appear).

3. The data: Case Alternations in Existential Sentences

In affirmative clauses, the noun phrase in Serbian existential sentences is case marked genitive when it is a bare plural (*knjiga* in (7)), bare singular mass noun or, when it co-occurs with a quantifying expressions like *nekih* or *mnogih* in (7).

- (7) a. Ima (nekih/ mnogih) knjiga.
 has (some_{GEN}/ many_{GEN}) books_{GEN}
 ‘There are some/most of the books.’
 b. *Ima knjige/ knjiga.
 has books_{NOM}/ book_{NOM}
 ‘There are books./ There is a book.’

Bare singular count nouns cannot occur on their own, they have to be preceded by *jed-na/-an/-no* ‘one’ or *nek-a/-i/-o* ‘some’. In this case both the quantifying expression and the noun exhibit nominative case.

- (8) a. Ima jedna zanimljiva knjiga.
 has one_{NOM} interesting_{NOM} book_{NOM}
 ‘There is one interesting book.’
 b. *Ima jedne knjige.
 has one_{GEN} book_{GEN}
 ‘There's one book.’

Turning to negative clauses, we see that only genitive is possible. Furthermore, bare count nouns can occur with or without the negative indefinite determiner *nijed-na/-an/-no*, in which case both the determiner and the noun are case-marked genitive, in contrast to (8).

- (9) a. Nema (nekih/ tih/ mnogih) knjiga.
 not-has (some_{GEN}/ those_{GEN}/ many_{GEN}) books_{GEN}
 ‘There are some/those/many of (the) books.’
 b. *Nema knjige/ knjiga.
 not-has books_{NOM} book_{NOM}
 ‘There are books./ There is a book.’
 c. Nema (nijedne) knjige.
 not-has not-one_{GEN} book_{GEN}
 ‘There is no book/There are no books.’

Furthermore, it is possible to embed proper names in genitive in negative existential clauses.

- (10) a. Ima *Petar/ #Petra.
 Has Petar_{NOM}/ Petra_{GEN}
 ‘There is Peter.’
 b. Nema Petra.
 Not-has Petra_{GEN}
 ‘There is no Peter/There isn't Peter.’

The case pattern in affirmative clauses is clearly linked to the genitive of quantification, as Hartmann and Milićević (to appear) correctly point out: only *jed-* and *nek-* turn up in nominative, and these are the determiners that do not appear with genitive of quantification in Serbian either. So let us turn to genitive of quantification before we dwell on the reasons for the case-pattern in existential clauses.

4. Genitive of quantification in Serbian: Two types of Quantifiers

Genitive of Quantification is a well-known property of Russian and various studies proposed solutions to an analysis of the phenomenon, cf. Franks (1994), Franks and Pereltsvaig (2004), Bošković (2006), and references therein. Even though the phenomenon is similar in Serbian, it is not entirely the same (cf. Bošković 2003). Instead of reviewing the previous proposal for Russian and how they can or cannot account for the Serbian data, we present our view of the data. First of all, in Serbian, genitive of quantification is a phenomenon that depends on the type of quantifier and the agreement possibilities it establishes inside the noun phrase. We have to distinguish two types of quantifiers.

The first type, let us call them simply type-I quantifiers, has a full morphological case and agreement specification. The core members of this group are *mnogi* ‘many’, *neki* ‘some’, *jedan* ‘one’. They are not quantifiers in the semantic sense; they do not give rise to quantificational readings, cf. (11).

- (11) Mnogi ljudi su bili u ovoj galeriji juče u 6.
 Many_{NOM} people_{NOM} aux_{PL} be_{PART.PL} in this gallery yesterday at six.
 ‘Various people were at the gallery at six o'clock.’
 ‘*A big group of people was at the gallery at six o'clock.’

Noun phrases headed by this quantifier obligatorily agree with the verb when they are in subject position. Both the type-I quantifier and the noun occur in nominative in this case.

- (12) a. Neki ljudi su tražili vizu.
 some_{NOM} people_{NOM} aux_{PL} requested_{M.PL} visa
 ‘Some people requested a visa.’
 b. *Neki ljudi je tražilo vizu.
 some_{NOM} people_{NOM} aux_{SG} requested_{N.SG} visa.
- (13) a. Mnogi ljudi su tražili vizu.
 many_{NOM} people_{NOM} aux_{PL} requested_{M.PL} visa
 ‘Various people requested a visa.’
 b. *Mnogi ljudi je tražilo vizu.
 many_{NOM} people_{NOM} aux_{SG} requested_{N.SG} visa

In contrast to that, the second class of quantifiers, type-II quantifiers, do not show agreement/case morphology. They have a fixed form. The core members of this group are *mnogo* ‘many, a lot’, *nekoliko* ‘a few’, *nešto* ‘some’, *malo* ‘a little/a few’ and the numerals from five upwards. The noun they occur with appears in genitive.

- (14) Mnogo/Nekoliko ljudi želi pravdu.
 Many/a-few people_{GEN} wants justice
 ‘Many/A few people want justice.’

The type-II quantifier *mnogo* differs from its similar type-I counterpart in that it can express quantity of a group, as illustrated in the following two examples. The same holds for *nekoliko*: it specifies the number of people that were here in (17).

- (15) Mnogi ljudi su bili u ovoj galeriji juče u 6.
 Many people_{GEN} aux_{PPL} be_{PL} in this gallery yesterday at six
 ‘Various people were at the gallery at six o’clock.’
 ‘*A big group of people was at the gallery yesterday at six.’
- (16) Mnogo ljudi je bilo u ovoj galeriji juče u 6.
 many people_{GEN} aux_{SG} be_{SG} in this gallery yesterday at six
 ‘Many people were in this gallery yesterday at six.’
- (17) Nekoliko ljudi je bilo ovde juče u 6.
 several people_{GEN} aux_{SG} be_{SG} here yesterday at six
 ‘Several people were here yesterday at six.’

With respect to subject-verb agreement of the embedded noun in these quantifier phrases, the agreement varies. The verb can agree with a plural noun when *nekoliko* is present, though agreement is dispreferred, cf. (18). Instead the verb appears in the singular form. With *mnogo* agreement is impossible, cf. (19).

- (18) a. ?Nekoliko ljudi su tražili vizu.
 several people_{GEN} aux_{PPL} requested_{M.PL} visa
 ‘A few people asked for a visa.’
 b. Nekoliko ljudi je tražilo vizu.
 several people_{GEN} aux_{SG} requested_{N.SG} visa
 ‘A few people asked for a visa.’
- (19) a. *Mnogo ljudi su tražili vizu
 many people_{GEN} aux_{PPL} requested_{M.PL} visa
 ‘Many people asked for a visa.’
 b. Mnogo ljudi je tražilo vizu.
 many people_{GEN} aux_{SG} requested_{N.SG} visa
 ‘Many people asked for a visa.’

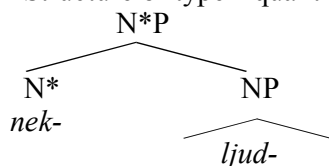
From these data, we can arrive at the following descriptive generalization (i) about the type-I quantifiers and (ii) about the type-II quantifiers.

- (20) Generalizations on Agreement and Quantifiers
 (i) When the noun and the quantifier agree in ϕ -features within the noun phrase (or QP), they also agree in case, and the full noun phrase agrees with the verb (in subject position). (Homogeneous case pattern cf. Bailyn 2004).
 (ii) When the noun and the quantifier do not agree in ϕ -features, the noun inside QP appears in genitive. (Heterogeneous case pattern, cf. Bailyn 2004).

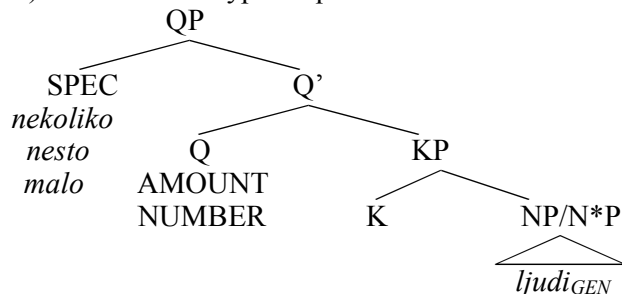
To account for this set of data, we analyze the two types of quantifiers as different elements that occupy different positions in the nominal structure. Type-I quantifiers are adjectival modifiers of the noun and are adjoined to the noun. Type-II quantifiers, on the other hand, specify an amount or number. They are specifiers of a silent head, NUMBER or AMOUNT, expressing inherently divisive vs. non-divisive quantity (similarly proposed by Jackendorff 1977; Kayne 2005; Van Riemsdijk 2005). We call this head Q. The complement of this empty head is a KP, a phrase that can either be headed by a functional preposition like English *of* or be spelled out as genitive or partitive case on the noun phrase. In this way, we follow current analyses of (pseudo-)partitive structures by Vos (1999), Van Riemsdijk (2005) and Tanase-Dogaru (2007) taking the silent noun in these structures as semi-lexical. The semi-lexical

domain is differentiated from the lexical domain by a functional preposition (cf. Tanase-Dogaru 2007) or the case-marking on the complement noun. The resulting structures are given in (21) and (22).

(21) Structure of type-I quantifiers (case depends on the position in the clause)



(22) Structure of type-II quantifiers



This analysis is similar to Bošković (2003, 2006), who proposes an F head (equivalent to our Q-head) which can assign genitive to its complement, if it contains a specifier. We depart from Bošković's analysis in two ways: first of all, we suggest that the silent nouns in Q are licensed not only by the presence of a specifier, but they can be licensed in an existential structure as well (see also the next section). Second, the head Q does not assign case to its complement, but selects for a KP complement (which might only be a notational variant).

Two sets of data support the analyses given above. First of all, type-I quantifiers can be preceded by type-II quantifiers, cf. (23). Therefore the former have to be base-generated lower in the structure.

(23) Mnogo nekih ljudi želi pravdu.
 many some_{GEN} people_{GEN} want justice
 'Many different people want justice'

Furthermore, the type-II quantifiers can be modified, cf. (24) which supports the view that they are specifiers and not heads.

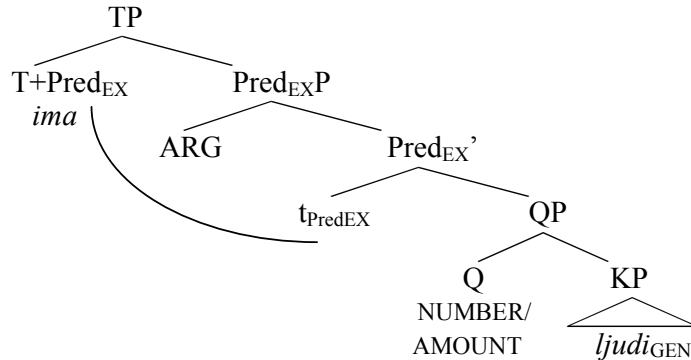
(24) neverovatno mnogo studenata
 amazingly many students

With this much background on the analysis of existential sentences and the genitive of quantification let us turn our attention to the analysis of the case pattern in existential clauses.

5. Case and Agreement in Affirmative Existential Clauses

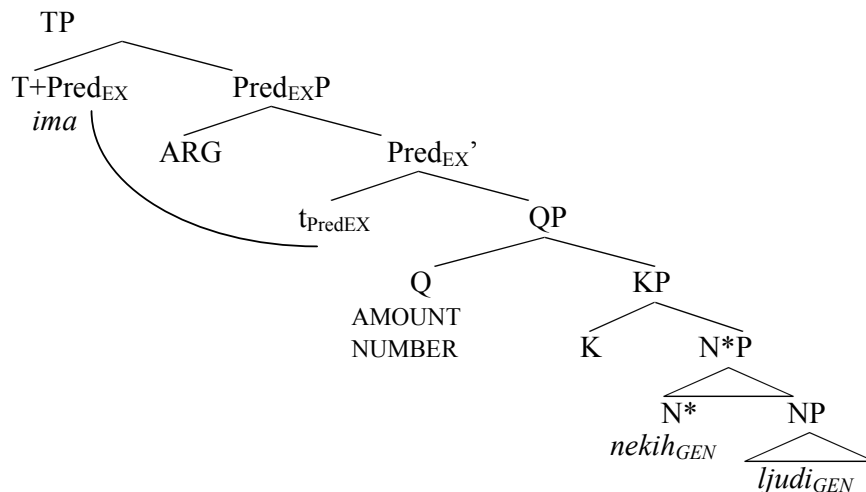
Let us now deal with the genitive vs. nominative case in affirmative clauses. As already mentioned above, we suggest that the silent nouns NUMBER/AMOUNT in Q can be licensed (i) by an overt specifier – a type-II quantifier, or (ii) by the existential structure. In this way, our analysis of the genitive of quantification allows for its principled extension to the existential genitive, or more specifically, to the genitive of bare plural noun phrases, cf. (25). The presence of the silent noun blocks the agreement of the verb with the embedded noun phrase. The noun appears in genitive case within KP.

(25) Tree structure for example (7)



If a type-I quantifier is present, it also turns up in genitive. As shown above, type-I quantifiers occur lower in the structure and show case/agreement morphology. They, however, are not specified for ϕ -features of their own, but agree in ϕ -features with the noun. As a result, when a type-I quantifier modifies the noun, they agree in case. In the existential construction, the case is genitive, because both the noun and the type-I quantifier are embedded under KP. The internal structure of the noun phrase featuring this type of quantifiers is given in (26).

(26) Type-I quantifier in existential structures



Example (16) above showed that type-I quantifiers do not have true quantificational force (or, as we stated above informally, they do not refer to the quantity/size of a concrete group). This means in our analysis that they cannot express the ‘sub-part of’ relationship with the noun following the type-I quantifier. Hence we treat them as semi-lexical heads (cf. Van Riemsdijk

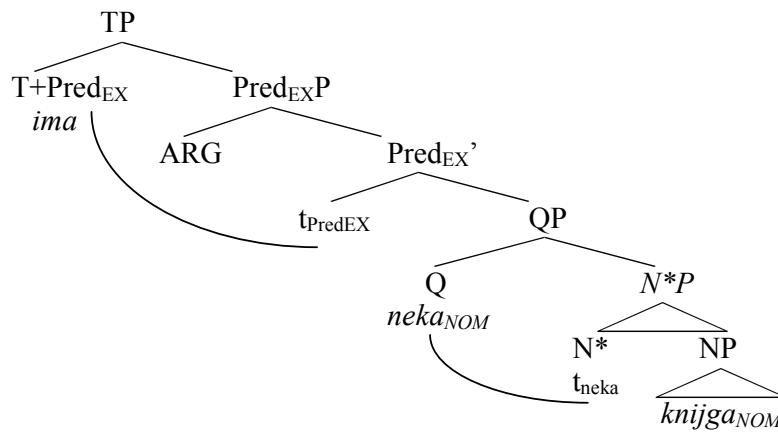
2005) that cannot instantiate the QP layer. There are two exceptions to this general observation.

Nominative case on the noun phrase is possible when a singular noun is modified by *jed-na/-an/-no* or *nek-a/-i/o*, cf. (27). The crucial fact in this case is that the occurrence of the modifier is obligatory.

- (27) a. Ima neka knjiga (ovde).
 Have some_{NOM} book_{NOM} here
 ‘There is some book here.’
 b. Ima jedna knjiga (ovde).
 Have one_{NOM} book_{NOM} here
 ‘There is one book here.’

We take this as an indication that some elements from the semi-lexical category (all type I quantifiers) can also be functional elements. In other words, they can instantiate Q. In our analysis we may state this in two ways: these elements raise from N to Q, or the lexicon contains a separate set of these elements which are functional, i.e. they are inserted in the structure as Q elements. Though they express AMOUNT/NUMBER they obviously do not express the sub-part relationship with the following noun. Their role in the Q functional domain is to indicate that the atomic singular entities are instantiated as a whole. Syntactically, this is the situation in which the homogeneous agreement pattern inside the nominal domain and the external agreement obtain. Thus, both Q and N are nominative. The internal structure of these quantifiers is given in (28).

(28) Tree structure of (27a)



6. Case and Agreement in Negative Clauses

Just like its affirmative counterpart, the negative existential predicate (*nema*) also licenses QP. The paradigm of the negative existential clauses is, nevertheless, different in that it includes referring expressions, cf. (29) and the genitive is obligatory, cf. (30)-(33).

- (29) a. *Nema Petar.
 not-has Peter_{NOM}
 ‘There is no Peter.’
 b. Nema Petra.
 not-has Peter_{GEN}
 ‘There is no Peter.’

- (30) a. Nema (nekih) ljudi.
 not-has some_{GEN} people_{GEN}
 ‘There aren't some of the people.’
 b. *Nema (neki) ljudi.
 not-has some_{NOM} people_{NOM}
- (31) Nema (mnogo/nekoliko/malo) ljudi.
 not-has many/several/few people
 ‘There aren't many/several/few people.’
- (32) Nema (mnogo/malo) ljubavi.
 not-has much/little love_{GEN}
 ‘There isn't (much/little) love.’
- (33) a. *Nema jedan čovek.
 not-has one_{NOM} man_{NOM}
 ‘There isn't one man’
 b. Nema jednog čoveka.
 not-has one_{GEN} man_{GEN}
 ‘There isn't one (particular) man.’
 c. Nema nijednog čoveka.
 not-has not-even-one_{GEN} man_{GEN}
 ‘There isn't a single man.’

We propose that the key to these differences is semantic in nature. A proper name is impossible in affirmative clauses because stating the existence (in affirmative fashion) of an individual through the statement of a sub-part of that individual in a given location is not in accordance with our world-knowledge (i.e. there cannot be/exist ‘a part of’, or ‘some dog’, ‘book’ or ‘Peter’). In other words, in upward-entailing contexts stating the existence of a part of an individual does not entail or imply the existence of the whole individual. However, under negation such an implication is possible. Given our knowledge of the world, stating the non-existence/absence of any ‘sub-part-of’ an individual/atomic whole necessarily implies that the whole individual is absent. With this in mind, the analysis above goes through in negative clauses as well. The silent AMOUNT is present in the structure and blocks the agreement of the verb with the following noun phrase that occurs in genitive.

Looking at (33) we see, that *jedan* cannot occur in the nominative under negation. Under negation, *jedan* cannot raise to Q because it does not express the proper sub-part-of relation between Q and the following noun.

Our analysis of the existential genitive as an essentially quantificational/partitive construction is further supported by the interpretative difference between *jednog* and *nijednog* in (33b) and (33c). Unless the numeral ‘one’ is internally negated, it gives rise to a specific interpretation. The specific interpretation of a noun phrase within quantified partitive constructions is a well-known phenomenon (cf. Barwise and Cooper 1981, Hoeksema 1996). Our assumptions about the presence of silent Q and its nature is in accordance with this observation – (33b) is thus interpreted as ‘there is not any sub-part/amount of one (specific) man’.

If we consider a language, which overtly marks specificity in the partitive construction, like English, we see that in the quantified partitive noun phrase, the embedded noun is obligatorily accompanied by an article and gets a specific interpretation. In (35b) the quantifier itself quantifies over a sub-part of a specific group of students. This sub-part has been claimed to be ‘silently’ present in the quantified partitive construction by Jackendoff (1977) for English.

- (35) a. There aren't many students. (implies small number of students)
 b. There aren't many of the/our students. (doesn't imply small number of students)

Type-I quantifiers/modifiers in Serbian also give rise to a specific interpretation, cf. (36) and escape the scope of negation without the presence of any specificity markers, which show that the construction in question is partitive. What is negated in this example is the existence of an indeterminate amount of some specific students cf. (36a) or various specific students, cf. (36b).

- (36) a. Nema nekih studenata koje znam.
 not-has some_{GEN} students_{GEN} which I-know
 'There aren't any of some students I know.'
 b. Nema mnogih studenata.
 not-has many_{GEN} students_{GEN}
 'There aren't any of many students.'

7. Conclusion

In this paper we have argued that the case pattern in Serbian existentials (*ima*-sentences) can be accounted for straightforwardly if we extend the analysis of genitive of quantification to the existential structure as well. We have shown that the genitive of quantification arises with a complex noun phrase structure, headed by a silent head Q, which expresses either NUMBER or AMOUNT. It selects for a KP complement, which in Serbian is expressed with genitive case. This silent head can be licensed either by a type-II quantifier in its specifier or by the existential predication structure. The different pattern in negative existential clauses is due to the interaction of the semantics of this structure with negation.

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