

There is more about existentials: agreement and case assignment in Serbian and Lithuanian

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BSTRACT

This paper examines the properties of existential constructions in Serbian and Lithuanian. Existential constructions share some interpretive properties with locative constructions, in that both express a proposition about the existence or the presence of someone or something in a context. However, Serbian and Lithuanian existentials display a cluster of properties that set them apart from locatives: unmarked verb-subject order (with pivot following copula), lack of agreement between copula and post-copular pivot, genitive case on the pivot and a dedicated form of the copula. The case properties of the pivot in existentials depend on specific interpretive properties related to agentivity, volitionality and definiteness and there are structural distinctions between existential and locatives, which are captured in syntax with parallel Agree operations: in locatives, the copula agrees with the pivot; in existentials, it agrees with an expletive *pro*.

KEYWORDS existentials · locatives · expletive · agreement · genitive

1 INTRODUCTION

This paper examines the properties of existential constructions in Serbian and Lithuanian. The extensive literature on existential constructions (Bentley et al. 2015, Francez 2007, McCloskey 2014, McNally 2011, Moro 1997) showed that they do not display a uniform syntactic behavior cross-linguistically: there are language-specific patterns with respect to agreement, case assignment and copula uses. Existential constructions share a number of interpretive properties with locative constructions. In particular, both existential and locative constructions express a proposition about the existence or the presence of someone or something in a context.

We discuss a well-known cluster of properties, found in several language groups (Baltic, Slavic, Albanian, Germanic, Romance...), that sets existentials apart from locatives. Unlike regular declarative sentences, existentials in such languages display an unmarked verb-subject order, with a nominal (the pivot) following the copula; the preverbal subject position in some of these languages (German, French, Swedish...), is filled by an overt expletive subject; the copula does not agree with the post-copular pivot, giving rise to a default agreement configuration; the post-copular pivot might not be assigned nominative case, in languages that morphologically mark case distinctions; the copula used in existentials often differs from that used in locatives and other declarative copular constructions.

We focus on four distinctive properties of Lithuanian and Serbian existentials: the lack of agreement between the copula and the pivot, the assignment of genitive case to the post-copular pivot, the lack of an overt expletive, and the morphosyntactic properties of the copula.

In §2, we introduce the relevant properties of existential and locative constructions: we discuss the case of French, a language which overtly marks all the differences in agreement, case assignment and word order and uses an expletive subject and a special existential copula, which will be addressed later in the paper. In §3 we introduce the

¹In line with Francez (2007), McNally (2011), Sarda & Lena (2023), Kampanarou (2024), Frasson (2024) and

pattern displayed by Serbian and Lithuanian existential and locative constructions, while in \$4 we show that the genitive marking exhibited by the pivot in existentials depends on specific interpretive properties related to agentivity, volitionality and definiteness. In \$5, we show that the structural distinctions between existentials and locatives are captured in syntax with parallel Agree operations: in locatives, the copula agrees with the pivot; in existentials, the copula agrees with an expletive *pro*; we also propose that genitive is inherently assigned by an existential copula, with specific lexical and featural properties. In \$6 we briefly discuss the quantification approach to existential constructions, which was discussed for Serbian in Hartmann & Milićević (2008): while we do not argue against the quantification approach in general, we propose that our model captures the phenomena under analysis in a minimalist way, without invoking additional operations or dedicated projections. \$7 concludes the paper.

2 PROPERTIES OF EXISTENTIAL AND LOCATIVE CONSTRUCTIONS

The type of existential constructions we investigate are often referred to as *there-*constructions, following the work carried out on such constructions in English starting from Milsark (1974).

The extensive literature on existentials (Bentley et al. 2015, Francez 2007, McCloskey 2014, McNally 2011, Moro 1997) showed that, cross-linguistically, they share with locative constructions the property of expressing a proposition about the existence or the presence of someone or something in a context. However, existential constructions display special morphosyntactic properties that set them apart from locatives.

A representative language in this respect is French, where existentials exhibit a whole cluster of morphosyntactic properties that formally distinguish them from their locative counterparts. Consider the examples in (1-a) and (1-b):

- (1) a. Il y a des chats (ici). (French)

 EXPL.3SG.NOM LOC have.PRS.3SG of cat.PL.PART here

 'There are cats (here).'
 - b. Les chats sont ici. (French) the.DEF.PL cat.PL.NOM be.PRS.3PL here 'The cats are here.'

The existential sentence in French uses the expletive pronoun il, the *have*-copula y a^2 , the pivot *des chats* and the optional locative coda ici as shown in $(1-a)^3$. The locative sentence in (1-b) uses a preverbal nominal, a *be*-copula and an obligatory locative marker.

Locative and existential constructions in French thus differ in a number of ways. First, the locative in (1-b) uses a *be*-copula, as opposed to the *have*-copula employed in existentials. Second, the *be*-copula in French locatives fully agrees with the preverbal plural pivot *les chats*. The *have*-copula in French existentials does not agree with the post-copular pivot: the copula is marked for third person singular whereas the pivot is marked for plural. Conversely, the copula in (1-a) agrees with the preverbal dummy subject *il*, a masculine singular form. Third, the post-copular nominal in (1-a) is preceded by the preposition *des*, used in French as a partitive marker.

In §3, we show that parallel contrasts between existential and locative constructions are attested in Serbian and Lithuanian.

building on previous definitions in Williams (1980) and Moro (1997), we propose that the verb employed in existential constructions qualifies as a copula, a verbal head that selects non-verbal predicates.

²The French copula y a is a form used only in existential constructions. It is made up of a locative clitic y and the third person singular form of the verb have. We will come back to the meaning of existential copulas in section 5.3.

³According to Francez (2007), only the pivot (the post-copular nominal) is universally available and obligatory in existential constructions cross-linguistically. Conversely, there is variation with respect to the availability of expletive pronouns and copulas, and with respect to the obligatoriness of codas.

3 EXISTENTIALS AND LOCATIVES IN SERBIAN AND LITHUANIAN

Beyond French, similar clusters of properties are attested in various Germanic (German, Swedish...), Italo-Romance (Venetan), Albanian, Slavic (Serbian) and Baltic (Lithuanian, Old Latvian) languages.

In this paper we will focus on existential and locative constructions in Serbian (2-a)-(2-b) and Lithuanian (3-a)-(3-b).

- (2) a. Ima mačaka (ovde). (Serbian existential) have.prs.3sg cat.pl.gen here 'There are cats (here).'
 - b. Mačke su ovde. (Serbian locative) cat.pl.nom be.prs.3pl here 'The cats are here.'
- (3) a. (Čia) yra kačių. (Lithuanian existential) here be.PRS.3 cat.PL.GEN 'There are cats (here).'
 - b. Katės (yra) čia. (Lithuanian locative) cat.PL.NOM be.PRS.3 here 'The cats are here.'

Serbian and Lithuanian locatives ((2-b), (3-b)) are formed with a nominative case-marked nominal, a *be*-copula (which is optional in Lithuanian) and an obligatory locative marker.

Existential constructions in Serbian and Lithuanian pattern with French existential constructions in a number of ways. First, existential copulas in Serbian (2-a) and Lithuanian (3-a) do not agree in number with the post-copular pivot⁴. Second, Serbian existentials use a special *have*-copula, while Lithuanian exhibits an obligatory *be*-copula (which is only optional in locatives). Third, the pivots in Serbian and Lithuanian existentials are genitive case-marked.

However, the Serbian and Lithuanian existential constructions also reveal some differences from French. First, they lack an overt expletive, a property that is traditionally linked to the *pro*-drop parameter (Rizzi 1982). Second, the alternation between a specialized copula in existentials and a regular one in locatives is neutralized in the past tense. Serbian past existentials (4-a) and locatives (4-b) both use *be*, while the copula is obligatory in past existentials (5-a) and locatives (5-b) alike in Lithuanian.

- (4) a. Bilo je mačaka (ovde). (Serbian existential) be.ptcp.3sgn be.prs.3sg cat.pl.gen here 'There were cats (here).'
 - b. Mačke su bile ovde. (Serbian locative) cat.pl.nom be.prs.3pl be.ptcp.3plf here 'The cats were here.'
- (5) a. (Čia) buvo kačių. (Lithuanian existential) here be.pst.3 cat.pl.gen 'There were cats (here).'

(i) a. Aš nesu čia. (Locative)

I.NOM NEG.be.PRS.1SG here
'I am not here.'

b. Manęs čia nėra. (Existential)

I.GEN here NEG.be.PRS.3
'I am not here.'

⁴In Lithuanian, 3rd person singular and 3rd person plural endings are homophonous. The examples in (i), with a first person pronoun, show that the copula in locatives agrees with the pronoun, whereas the copula in existentials does not agree with the pronoun.

b. Katės buvo čia. cat.PL.NOM be.PST.3 here 'The cats were here.'

(Lithuanian locative)

Notice that Serbian past existentials ((4-a)) reveal an additional property, related to agreement: the copula is marked as third person singular neuter. In previous studies on Serbian existentials (see for instance Hartmann & Milićević 2008, as discussed in §6), this pattern was defined as a "default" agreement type. In the course of our study, we will argue against this hypothesis. In §4 and §5 we focus on each of these properties in Serbian and Lithuanian constructions, showing that they depend on both interpretive and structural phenomena.

4 GENITIVE MARKING: AGENTIVITY, VOLITIONALITY AND DEFI-NITENESS

4.1 MORE EXAMPLES OF CASE ALTERNATIONS IN SERBIAN AND LITHUANIAN

§3 presented the nominative-genitive case alternation in Serbian and Lithuanian existential and locative constructions. While in this study we focus mainly on the contrast between these two types of constructions, parallel contrasting agreement patterns are attested in other structures in the two languages under analysis. In this section, we present some relevant examples.

A first relevant example is represented by some Serbian unaccusative constructions, which allow for singular neuter agreement when the subject follows the verb (6-a) or full agreement when the subject precedes the verb (6-b).

- (6) a. Nestalo je struje. (Serbian)
 disappear.PTCP.3SGN be.PRS.3SG light.SG.GEN
 '(The) electricity went out.'
 - b. Struja je nestala. (Serbian) light.sg.nom be.prs.3sg be.ptcp.sgf '(The) electricity went out.'

The post-verbal subject *struje* in (6-a) appears in the genitive case, while the pre-verbal subject *struja* in (6-b) is in the nominative case. The alternation of case and structural properties of such unaccusative constructions suggests that the considerations made so far for existential and locative sentences are not limited to case properties of pivots, but could be extended to case properties of nominals in a wider range of constructions.⁵

While Lithuanian does not show a parallel contrast for unaccusative constructions, the phenomenon of marking a demoted logical subject with genitive case is not limited

- (ii) Nestala je struja. (Serbian)
 disappeared.ptcp.sgf be.prs.3sg light.sg.nom
 'The electricity went out.'
- (iii) Struje je nestalo. (Serbian) light.sG.GEN be.PRS.3SG disappeared.PTCP.SGN '(The) electricity went out.'

We assume that post-verbal nominative *struja* in (ii) occurs in a dedicated right-dislocated projection, while the pre-verbal genitive *struje* in (iii) occurs in a left-dislocated projection, possibly encoding special information-structural properties such as the ones described for Romance in Cardinaletti (2001) and Cruschina (2012). Notice that the same dislocated structures are available for locative and existential constructions. The possibility of extending the idea of dedicated functional projection to the constructions analyzed in the present study is a matter of future research.

⁵We are aware of the possibility of having full agreement with a post-verbal nominative subject (ii), as well as neuter agreement with pre-verbal genitive subjects (iii), in Serbian unaccusative constructions.

to existential constructions. In Lithuanian passive constructions, logical subjects are genitive case-marked as shown for the demoted NP *Jonas* 'John' in (7).

(7) Ši knyga buvo parašyta Jono. (Lithuanian) this.nom.f.sg book.nom.f.sg be.pst.3 written.ptcp.f.sg John.gen 'This book was written by John.'

Just as in the case of Serbian unaccusatives, the post-verbal subject in Lithuanian passives (7) appears in the genitive case. While we do not establish a direct parallel between the agreement pattern exhibited by existentials and unaccusatives or passives, we will come back to the latter in 5.2, where we will discuss inherent case assignment.

Another case of nominative-genitive alternation emerges when comparing case properties of post-copular singular mass and count nouns. In Lithuanian existential constructions, a singular pivot is genitive case-marked when the noun is a singular mass noun as shown in (8-a) or a plural count noun as shown in (8-b) plural *knygų*. However, bare singular count nouns are preferred in the nominative case, as shown in (8-c).

- (8) a. Ant stalo buvo cukraus. (Lithuanian) on table.GEN be.PST.3 sugar.SG.GEN 'There was some sugar on the table.'
 - b. Ant stalo buvo knygų. (Lithuanian) on table.GEN be.PST.3 book.PL.GEN 'There were books on the table.'
 - c. Ant stalo buvo knyga / #knygos. (Lithuanian) on table.gen be.pst.3 book.sg.nom book.sg.gen 'There was a book on the table.'

Interestingly, Serbian displays a similar pattern, in that singular count nouns are preferred in the nominative. However, some speakers may accept a post-copular genitive pivot. If the noun is genitive case-marked as in (9-b), it receives a partitive interpretation.

- (9) a. Torta je na stolu. (Serbian) cake.sg.nom be.prs.3sg on table.loc 'The cake is on the table.'
 - b. #Na stolu ima torte. (Serbian)
 on table.Loc have.PRS.3SG cake.SG.GEN
 'There are (parts of) cake on the table.'

Crucially, the existential construction with a nominative pivot in (9-a) refers to the presence of cake as a single entity; conversely, the construction with a genitive pivot in (9-b) refers to the presence of pieces or slices of cake on a table.

4.2 LACK OF EXISTENTIAL COMMITTMENT AND THE DESUBJECTIVIZATION OF THE PIVOT

In order to develop an empirically adequate analysis of existential constructions, we must consider the interpretation of genitive case-marked post-copular pivots. In her study of Polish negative existentials, Błaszczak (2009) shows that sentences with a post-copular genitive pivot are generally incompatible with an agent-oriented adverb such as *on purpose* (Grimshaw 1990), when the adverb refers to the pivot's intention; conversely, sentences with pre-copular nominative pivots are compatible with such interpretation. In examples (10-a)-(10-b) and (11-a)-(11-b) we show that the same distribution of agent-oriented adverbs holds in Serbian and Lithuanian existential and locative constructions:

(10) a. *S razlogom je bilo devojaka na žurci.
with purpose be.prs.3sg be.ptcp.3sgn girl.pl.gen at party.sg.loc
'There were girls at the party on purpose.' (Serbian existential)

- b. Devojke su s razlogom bile na žurci. girl.pl.nom be.prs.3pl with purpose be.ptcp.3plf at party.sg.loc 'The girls were at the party on purpose.' (Serbian locative)
- (11) a. *Vakarėlyje tyčia buvo merginų. (Lithuanian existential) party.sg.loc on.purpose be.pst.3 girl.pl.gen 'There were girls at the party on purpose.'
 - b. Merginos tyčia buvo vakarėlyje. (Lithuanian locative) girl.pl.nom on.purpose be.pst.3 party.sg.loc 'The girls were at the party on purpose.'

Building on Dziwirek (1994) and Partee & Borschev (2004), Błaszczak (2009) discusses the impossibility of having an agent-oriented adverb in existential constructions such as (10-a)-(11-a), where the post-copular pivot is genitive-marked. In examples (10-a)-(11-a), the post-copular genitive pivot is characterized by the lack of specific interpretive properties, such as agentivity and volitionality. In other words, the nominative pivot in (10-b)-(11-b) is agentive and has control over the situation, while the post-copular genitive pivot in (10-a)-(11-a) does not, therefore being unable to be interpreted as the agent of an adverb like *on purpose*.

Our analysis builds on the idea that the pattern in (2-a), (3-a), (4-a), (5-a) from §3, as well as (10-a) and (11-a) from the present section, follows from the presentative nature of existential constructions, as shown in Lambrecht (1994): existentials report the existence of a newly introduced referent and do not commit to its existence in a specific place. Conversely, the locative structures in (2-b), (3-b), (4-b), (5-b) from §3, as well as (10-b) and (11-b) from the present section, are predicative constructions, in that they predicate the actual existence of a previously introduced referent, occupying a definite location. This distinction is captured by well-known definiteness restrictions associated with the post-verbal position (Milsark 1974): unlike locatives, existentials generally disallow definite post-copular pivots. We propose that the genitive-nominative alternation in Serbian and Lithuanian follows from similar considerations: according to Kagan (2009) and Kagan (2012), indefiniteness enhances the likelihood of genitive marking on arguments of a verb, establishing a clear correlation with the lack of existential commitment.

The lack of agentivity, volitionality and definiteness, the non-nominative case, as well as the post-copular position and the lack of agreement with the copula, suggest that the existential pivot has no syntactic or interpretative subject properties. In fact, the pivot fails to satisfy a considerable number of properties that are taken to characterize a subject, in Keenan's (1976) definition. As seen in previous sections, Serbian and Lithuanian existential pivots do not control agreeement, are not definite and have non-nominative case marking. Furthermore, existential pivots fail to bind subject-oriented possessives in Serbian and Lithuanian.

- (12) a. *Ima studenata_y u svojim_y sobama. (Serbian) have.PRS.3SG student.PL.GEN in own.PL.LOC room.PL.LOC intended: 'There are students in their own rooms.'
 - b. Studenti_y su u svojim_y sobama. (Serbian) student.PL.NOM be.PRS.3PL in OWN.PL.LOC room.PL.LOC 'The students are in their own rooms.'

⁶While the present study does not specifically discuss the nature of unaccusative constructions, it should be noticed that Lambrecht (1994) shows that they are also presentative (thetic), on par with existentials; in \$5, we preliminarily extend our proposal to the genitive-nominative alternance in Serbian unaccusatives in (6-a)-(6-b), as well as Lithuanian genitive demoted subjects in passives ((13-a)). We leave a complete discussion of such constructions for future research.

- (13) a. *Yra studentų_y savo_y kambariuose. (Lithuanian) be.PRS.3 student.PL.GEN own.PL.LOC room.PL.LOC intended: 'There are students in their own rooms.'
 - b. Studentai_y yra savo_y kambariuose. (Lithuanian) student.pl.nom be.prs.3 own.pl.loc room.pl.loc 'The students are in their own rooms.'

The post-copular genitive pivot in (12-a)-(13-a) cannot bind the subject-oriented possessives *svojim* and *savo* in the coda. Conversely, the same possessives can be bound by the nominative pre-copular nominal in (12-b)-(13-b).

The lack of subject properties of the existential pivot is referred to as **desubjectiviza-tion of the pivot** in Sasse (1987): the post-copular genitive pivot is the logical subject of existential constructions, but it does not occupy the grammatical position of the subject, which is filled in by a silent expletive, as we will show in §5.

In light of the lack of subject properties of the post-copular pivot in Serbian and Lithuanian, we follow Błaszczak (2009) and propose that it is merged as an internal argument in the VP complement. In this sense, existential post-copular pivots closely resemble post-verbal subject in unaccusative constructions. As observed by Perlmutter (1978) and Burzio (1986), subjects of unaccusative verbs also behave as internal arguments: they do not receive an AGENT theta-role from the verb and are therefore interpreted as "semantic objects".

However, genitive case assignment to the post-copular pivot represents a problem for the restriction on case assignment known as **Burzio's Generalization**: according to Burzio (1986), a verb should assign nominative case to its internal argument if it does not assign a thematic role to its external argument; conversely, the verb should assign accusative to its internal argument if it assigns a thematic role to its external argument. In the case of Serbian and Lithuanian, there is no overt external argument, so we do not expect the pivot to be marked as accusative; however, the copula fails to assign nominative case to the post-copular pivot as well.

In \$5 we argue that genitive case is inherently assigned by the copula and we show that the copula assigns nominative case to a preverbal silent element. The impossibility of assigning nominative case to the post-copular pivot is therefore directly linked to the agreement pattern displayed by existential constructions in Serbian and Lithuanian: this agreement pattern is not a 'default' strategy, but results from the merge of a silent expletive in the pre-verbal subject position.

5 THE SYNTAX OF EXISTENTIAL CONSTRUCTIONS

5.1 NEUTER AGREEMENT AND EXPLETIVE pro

In order to solve the problem posed by Burzio's Generalization (Burzio 1986), we first need to define the structural properties of existential constructions: we argue that the copula fails to assign nominative case to the pivot because of the presence of a null expletive *pro* intervening between the copula and the pivot. Therefore, the agreement pattern displayed by Serbian and Lithuanian existentials does not represent an instance of default agreement, but rather an instance of regular subject-verb agreement.

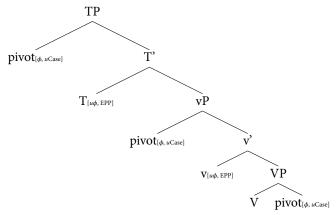
We capture the distinction between the two agreement patterns displayed by locative and existential constructions, building on the analysis presented in Kayne (1989) and Belletti (2006) for past participle agreement: full agreement between a direct object and a past participle is regarded as the outcome of internal argument fronting. We show that the same consideration holds for full agreement between a VP-internal pivot and a copula.

The type of agreement presented in Kayne's (1989) and Belletti's (2006) analysis was rephrased in minimalist terms by D'Alessandro & Roberts (2008). The main steps of their approach can be summarized as follows:

- v has unvalued ϕ -features, as well as an EPP feature.
- v probes the VP-internal nominal in order to have its features valued.
- The VP-internal nominal has valued ϕ -features and is an active goal because of its unvalued case feature.
- The nominal moves to Spec-vP; it values the EPP and ϕ -features on v.
- T has unvalued ϕ -features too, as well as an EPP feature.
- T probes for the nominal in Spec-vP in order to have its features valued.
- The nominal moves to Spec-TP; it values the EPP and ϕ -features of T and receives structural nominative case (assuming that only T is able to assign nominative case).

We adopt the minimalist model presented in D'Alessandro & Roberts (2008) and summarized here. This analysis captures the agreement pattern in locative constructions, which are associated with the promotion of a post-copular pivot to subject position: v's ϕ -features are valued when the post-copular pivot is raised to Spec-vP to satisfy the EPP feature on v; similarly, T's ϕ -features are valued when the pivot is further raised from Spec-vP to Spec-TP to satisfy the EPP feature on T. Here, the pivot receives structural nominative case from T.

(14) Locative construction



The example in (14) shows that the pivot acts in all respects as a subject: it does not simply have the interpretive properties of the subject; even at the structural level, it undergoes movement to Spec-TP, it agrees with the verb and is assigned nominative case.

The agreement pattern displayed by existential constructions results from similar structural considerations. However, §4 showed that the presentative interpretation in existential constructions emerges when the pivot is left in situ. In this case, singular neuter agreement appears on the copula: such agreement properties depend on the presence of an expletive *pro* that satisfies v's EPP feature.

This is the point where our analysis departs from D'Alessandro & Roberts' (2008) proposal: they claim that the existence of expletive *pro* is dubious, as it has no visible properties at LF or PF. However, our study showed that Serbian and Lithuanian existentials exhibit clear LF and PF effects, which motivate the presence of an expletive *pro*. With respect to LF effect, §4 showed that Serbian and Lithuanian existentials have distinct

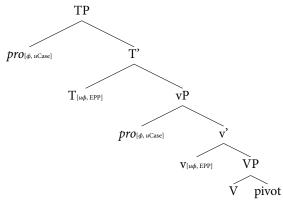
⁷D'Alessandro & Roberts (2008) do not adopt this model in their analysis; they simply restate the previous proposals by Kayne (1989) and Belletti (2006) in minimalist terms and later on argue for an alternative approach. However, we find their minimalist definition of standard agree compatible with our data and do not follow their alternative proposal.

interpretive properties, suggesting that the post-copular pivot cannot be analyzed as a subject; therefore, such properties are carried by the null expletive. As for PF effects, Serbian past existentials exhibit morphological neuter singular agreement: this specification cannot be assumed to be a default type of agreement, but rather a full agreement pattern with a singular neuter null subject.

Against D'Alessandro & Roberts (2008), we show that Serbian ((2-a), (4-a)) and Lithuanian ((3-a), (5-a)) existential constructions reflect agreement with a pre-copular null expletive. Serbian expletive *pro* is valued as a third person singular neuter: the singular neuter features on the copula in (4-a) provide clear morphosyntactic evidence that this is not a default agreement pattern 8 ; ϕ -features on the verb are fully valued by a singular neuter expletive *pro*. The same analysis can be extended to Lithuanian, even though gender is not morphologically marked on the copula.

Expletive *pro* is merged in Spec-vP: it satisfies v's EPP and ϕ -feature and blocks agreement with the VP-internal pivot. The derivation then follows the same steps as the ones seen for locatives: *pro* is raised to Spec-TP, satisfying the EPP on T and valuing its ϕ -features. *pro* finally receives nominative case from T.

(15) Existential construction



The structure in (15) shows that existentials and locatives are derived in a very similar fashion; the agreement pattern displayed by existentials depends on the presence of an expletive *pro* that acts as the closest Goal for agreement with the copula in T, which is valued as singular neuter.

5.2 GENITIVE CASE ASSIGNMENT

Given the properties of post-copular genitive pivots discussed in 4.2 and the structure of existentials presented in 5.1, we can now present an analysis of genitive case assignment.

We argue that genitive case on the pivot is an instance of non-structural (inherent) case assignment in the sense of Woolford (2006), which can be summarized as in (16):

(16) Inherent case is licensed by a v-head to a theta-position in its c-commanding domain. (Adapted from Woolford 2006: 117)

As shown in (Schütze 1993), the rule in (16) captures cases of "quirky" dative case in languages like Icelandic: genitive is shown to be inherently assigned to nouns by the verb in v^9 . Similarly, we argue that post-copular existential pivots are assigned inherent

(Felser & Rupp 2001: 18)

(iv) Það fannst einhverjum hann vera duglegur. there find.pst.3sg someone.dat he be.inf clever

⁸Similar considerations may hold for the unaccusative agreement pattern in (6-a); this is a matter of current investigation.

⁹As shown, among others, in Schütze (1993) and Felser & Rupp (2001), experiencers may appear in a quirky dative case in Icelandic:

genitive case by the copula in v. This allows us to solve the problem posed by Burzio's Generalization discussed in 4.2 and to preliminarily extend our analysis to the cases of Serbian unaccusatives and Lithuanian passives presented in 4.1.

Even if existential and unaccusative/passive constructions represent different constructions, we assume that post-copular pivots in the former and post-verbal subjects in the latter have a property in common: they receive a theta-role from v, but this role cannot be AGENT. This is consistent with the idea that all these constructions are presentative (thetic) and the genitive-marked nominal is structurally analyzed as an internal argument that has the semantic properties of an object, as proposed in Burzio (1986).

With specific reference to existential pivots, in 4.2 we showed that they have no structural nor interpretive properties of subjects and 5.1 showed that the only way they could receive nominative case is by movement to Spec-TP to satisfy the EPP on T (as in the case of locative constructions). In our analysis of existentials, the pivot does not raise to Spec-TP and the EPP on T is satisfied by a null expletive *pro*, which is structurally assigned nominative case and agrees with the copula. At the same time, the internal argument cannot receive accusative case: according to Burzio's Generalization, internal arguments may only receive accusative case if the external argument also receives a thetarole. However, *pro* in Spec-TP is an expletive subject, so it is not assigned a theta-role.

We argue that genitive assignment in the case of existential post-copular pivots applies as an elsewhere principle:

- (17) Genitive case is inherently licensed on post-copular pivots in there-existential constructions iff:
 - •the pivot has the structural and interpretive properties of an internal argument, and:
 - •the pivot is not assigned an AGENT theta-role by v, and:
 - •a dummy form, lacking theta-roles, satisfies EPP on T.

The principle in (17) can be extended to the the unaccusative and passive examples in 4.1; however, the question of whether (17) really holds across the board in Serbian and Lithuanian remains open.

For the purpose of this work, we showed that post-copular pivots in Serbian and Lithuanian existential constructions are assigned inherent genitive case by the copula in v. In §5.3, we show that the existential copula has specific lexical and featural properties: it represents a distinct lexical item, with an argumental structure that requires an internal genitive-marked argument.

5.3 EXISTENTIAL COPULA IN SERBIAN AND LITHUANIAN

In this section, we show that the distinction between existential and locative agreement patterns crucially depends on a difference in the choice of copulas in the two types of constructions.

The structure in (15) shows that existential copulas in Serbian and Lithuanian require two nominals: an expletive *pro* to be merged in Spec-vP and a pivot in the VP complement. This contrasts with the locative structure in (14), where the only required nominal, the pivot, is raised to Spec-TP.

We capture the requirement to merge an expletive *pro* in existentials by assuming a difference in the featural composition of the two copulas in Serbian and Lithuanian. This difference is realized at the morphological level in the present tense, by means of an alternation of *have* and *be* forms in Serbian and of overt and null forms of *be* in

^{&#}x27;Someone found him to be clever.'

The dative-marked pivot in (i) is assigned a theta-role by the verb in v.

Lithuanian. Recall that the morphological difference is neutralized in the past tense: both existentials and locatives use be forms in Serbian and overt forms in Lithuanian.

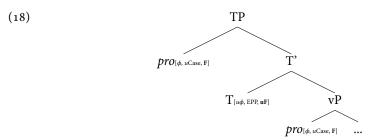
The presence of an existential copula with specific featural, thematic and formal properties was already discussed for Lithuanian in Holvoet (2005) (as reported in Aleksandravičiūtė 2013) and for Slavic (Polish) in Błaszczak (2009).

The existential copula constitutes a separate lexical item, which represents a requirement of the LF interface, for interpretive purposes. As discussed in §4, existentials are defined as presentative structures and are therefore interpreted as new information. This interpretation is obtained by the use of an expletive pro that moves to the structural subject position (Spec-TP) leaving the pivot in the VP complement.

In syntactic terms, we interpret this as a special requirement of T in existentials. Given the presentative interpretation associated with existentials, Spec-TP may not be filled by any type of subject. Crucially, only an element carrying an additional interpretive feature may be raised to Spec-TP in existentials.

This possibility is in line with the approaches discussed in Rizzi & Shlonsky (2007) and Sigurðsson (2010). Using a cartographic framework, both analyses showed that there can be special EPP effects, associated with interpretive features such as topic or focus, triggering movement of a (null or overt) expletive to a functional projection higher than TP (a dedicated SubjP in Rizzi & Shlonsky 2007, a projection in the lower CP field in Sigurðsson 2010). This movement is captured in Rizzi & Shlonsky (2007) as a Subject **Criterion**, defined as the requirement for an element to move to a position dedicated to a discourse-interpretive property (a criterial position, see Rizzi 2004).

While the presence of *pro* is motivated at PF by agreement facts, we have no structural evidence that a null expletive needs to move to a dedicated position. Therefore, we depart from previous analyses and assume no special types of EPP requirements. In our model, the presentative interpretation carried by existentials is derived as an additional unvalued interpretive feature uF on T, which needs to be valued by a constituent carrying a valued interpretive feature F. In Agree terms, T probes down to find a compatible Goal to value its uF. Expletive *pro* carries a valued interpretive F feature, making it a compatible Goal for T. Therefore, the uF and F features play a crucial role in the derivation of existentials (18).



(18) represents the last steps of the derivation of existentials: an expletive pro, carrying F is merged in Spec-vP. pro is then raised to Spec-TP, satisfying the EPP on T and valuing its ϕ -features, as well as the interpretive uF feature.

The distinct PF realization of the existential copula (a form of have in Serbian, an obligatory be-copula in Lithuanian) morphologically signals the different featural composition of the copula in T¹⁰. This provides additional support for the necessity of analyzing the pattern displayed by existentials as an agreement relationship holding between an expletive pro and T carrying special interpretive properties. The presence of pro is therefore motivated with both LF and PF effects.

Finally, the analysis of the existential copula as a separate lexical item implies that

¹⁰Our proposal may be extended to other languages using special existential copulas. This is the case of many Romance varieties using complex copulas with an incorporated clitic, like French y a (cf. 2), Spanish ha-y and Venetan ghe-ne, as well as other languages using distinct existential copulas, like Albanian ka (have), Swedish finns (find) or German gibt (give).

it has no relation to the argumental structure of other types of copulas in Serbian and Lithuanian, such as the one used in locative constructions. With respect to the inherent genitive case assignment discussed in 5.2, we argue that the existential copula requires the pivot to be realized as an internal argument, which in turn provides further support for the principle in (17).

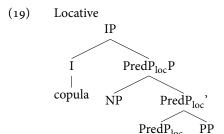
6 THE QUANTIFICATION ANALYSIS OF SERBIAN EXISTENTIALS

Serbian locative and existential constructions have been analyzed before in Hartmann & Milićević (2008) and Hartmann (2008). The analyses differ somewhat in their implementation but their core idea is that existential constructions in Serbian are in some way quantificational. The authors build on the fact that both post-copular nominals in existential constructions and quantified nominals are genitive case-marked in Serbian. In Serbian, there are two types of quantifiers: adjective-like quantifiers that agree in ϕ -features with the noun and adverb-like quantifiers that do not.

The latter, according to Hartmann & Milićević (2008) are specifiers of a silent head, NUMBER OF AMOUNT.¹¹

In Hartmann (2008) and Hartmann & Milićević (2008) locative and existential constructions differ in that the former represents a case of standard predication, while the latter involves a special information-structure related existential predication.

The analysis of locative constructions is sketched in (19). The locative constructions are derived from a special predication structure, $\operatorname{Pred}_{loc}$, in which a noun phrase is merged in its specifier and a prepositional phrase is its complement.



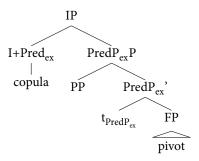
The analysis of existential constructions is sketched in (20). The locative constructions are derived from a special predication structure, Pred_{ex} . The analysis of existential constructions rests on two assumptions. First, the optional prepositional phrase (when it is present) is spelled out in the specifier of the existential predicate. Second, the post-copular pivot is the complement of a null quantifier, which heads the FP projection. The authors argue that the same FP projection is responsible for the assignment of genitive case to overtly quantified nominals in Serbian.

(v) a. Šiandien atėjo dauguma studentų. (Lithuanian) today came.PST.3 majority.SG.NOM student.PL.GEN
'Most of the students came today.'

b. Šiandien atėjo visi studentai. (Lithuanian) today came.pst.3 all.pl.nom student.pl.nom 'All students came today.'

¹¹A similar pattern obtains in Lithuanian: quantifiers that do not agree in ϕ -features with the noun (e.g. daug 'many', dauguma 'majority', mažuma 'minority', keletas 'a few') occur with genitive case-marked nominals as shown in (v-a). Quantifiers that agree in ϕ -features with the noun (e.g. keli 'several', visi 'all') occur with nominative case-marked nominals as shown in (v-b).

(20)Existential construction



The are two main differences between the analysis proposed in this paper and the quantificational analyses. First, the quantificational analyses assume that the genitive case on post-copular NP is due to a silent quantifier. In our analysis, genitive case is the result of an inherent case assignment by the copula.

Second, the locative prepositional phrase in this analysis surfaces in the specifier of $Pred_{ex}$. The analysis proposed in this paper suggests that the optional locative is an adjunct.

With respect to the former difference, our approach has the advantage of reducing the number of null categories to those that are strictly necessary for structural or interpretive reasons. With respect to the latter difference, we capture the different syntactic behaviour without invoking different types of predication, a desirable goal in terms of derivational and representational economy (Chomsky 1995).

7 CONCLUSION

This paper set out to propose a theoretically and empirically adequate analysis of existential and locative constructions in Serbian and Lithuanian. In order to account for the structural and interpretive differences between the two constructions, we proposed that existential constructions use a special type of copula, which is responsible for the agreement pattern displayed by such constructions: it requires an expletive *pro*, carrying an interpretive feature, to fill the subject position and it assigns inherent genitive case to the post-copular pivot. This model captures the LF and PF effects exhibited by existentials: at LF, a presentative interpretation is assigned to the existential structure, which at PF exhibits full singular neuter agreement with the expletive pro. At the structural level, both existential and locative constructions are derived in a minimalist fashion, with a feature-driven Agree operation. With respect to previous analyses of Serbian existentials, our approach makes use of fewer dedicated theoretical tools and is generalized to Lithuanian existentials too.

ACKNOWLEGMENTS

We would like to thank Olga Kagan for the very inspiring discussion on our first idea about Serbian existentials. We are grateful to the audience of FASL 32 at Indiana University for the discussion of our ideas. In particular, we would like to thank Steven Franks, Ljiljana Progovac and Damir Ćavar for the useful suggestions. This research was supported by the Polish National Science Center (NCN) grant SONATA BIS-11 HS2 (2021/42/E/HS2/00143).

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ABBREVIATIONS

ACC	accusative	NOM	nominative
DEF	definite	PART	partitive
EXPL	expletive	PL	plural
F	feminine	PRS	present
GEN	genitive	PST	past
INS	instrumental	PTCP	participle
LOC	locative	REFL	reflexive
M	masculine	SG	singular
N	neuter		

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