Anja Šarić. *Nominalizations, double genitives, and possessives: Evidence for the DP-hypothesis in Serbian.* Berlin and Boston: De Gruyter Mouton, 2018. 169 pp. [Linguistics and Philosophy, 8.]

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A lot has been written and said about the universality of the DP projection in the last decade, especially if we consider all the work that has been done with South Slavic languages. And yet it seems that there are still phenomena and data that need to be considered in more detail in order to understand the nominal domain better. This book, a revision of Anja Šarić's PhD thesis, makes a valuable contribution to the literature on the NP/DP debate. The author addresses one phenomenon—the double adnominal genitive construction in Serbian-in detail, but also considers other related phenomena. The book's analysis of the central data falls into three parts-double genitives, nominalizations, and possessives. Šarić does not argue for either a DP or an NP analysis, despite addressing the issue several times. In fact, she does not end up claiming that the DP layer is universal (or the opposite), but rather that the DP needs to be assumed in Serbian if we are to account for the data presented in the book. Unfortunately, however, in much of the discussion, DPs are assumed without showing how the analysis would "suffer" if we assumed an NP structure. Still, Šarić presents counterevidence and alternative accounts for many of the claims against the universal DP. However, potential alternative accounts for the central data, such as recent work by Pereltsvaig (2018) who shows that (Russian) double genitives cannot be taken as an argument for or against a DP layer, are insufficiently presented.

The monograph (or, if we use the author's words, dissertation/thesis) consists of 8 chapters, of which chapter 1 is the introduction and chapter 8 the conclusion. In these chapters, the author undertakes the formidable task of presenting the vast background of literature relevant for the NP/DP debate and literature that itself can be described as a part of the debate, as well as presenting novel data. In what follows I give an overview of the monograph, together with my comments.

Chapter 1 is the introduction to the central topic of the book, the double adnominal genitive construction in Serbian. The decision to refer to the language in question as Serbian is addressed in footnote 1. Serbian is used since it is not clear to the author whether the same judgments hold in Bosnian

or Croatian, as she consulted only Serbian speakers who are not speakers of varieties that have definite articles (varieties of Serbian which have a Macedonian influence, see fn. 36 (p. 41) and Stanković 2019 for details). This is worth noting since it has been proposed that languages without articles do not allow transitive nominals with two genitives (the adnominal genitives parameter, Bošković 2008: 116). In fact, it has been stated previously that Serbian, a language without articles, does not have double genitives, and this apparent lack of the double genitive construction has in turn been taken as evidence for Serbian being an NP language (like Polish, Czech, Russian, Latin). However, in the monograph, the author uses data gathered from Serbian speakers to establish that the double adnominal genitive constructions are in fact available in Serbian under certain conditions. I sum up the relevant data below (all examples are taken from the book).

Serbian data reveals an interesting interplay between possessives and double genitives. Šarić shows that while double genitives with two simplex nouns are ungrammatical, (1a), we can find double genitives in instances where the agent argument of the deverbalized (process) noun (also called *nominalization* in the book) is a complex proper name, (1c), or a noun modified by an adjective, (2c), that is, phrases that cannot be turned into possessives. When a possessive is available, the agent cannot be expressed with a genitive, see the contrast in (2) and (3). Similar observations also hold for result nouns like *fotografija* 'photograph', but while the agent of process nouns can also be expressed by *od strane* 'from side', this does not hold for result nouns, (4). Finally, in passives, the agent nominative can only be expressed with *od strane*.

- (1) a. $^{??/*}$ osvajanje Rima Hanibala simplex proper name conquest Rome $_{GEN}$ Hannibal $_{GEN}$
 - b. Hanibalovo osvajanje Rima possessive Hannibal $_{POSS}$ conquest Rome $_{GEN}$ 'Hannibal's conquest of Rome'
 - c. osvajanje Rima Hanibala Barke complex proper name conquest Rome $_{GEN}$ Hannibal $_{GEN}$ Barca $_{GEN}$ 'Hannibal Barca's conquest of Rome' (Šarić 2018: (5a–c))
- (2) a. ^{??/*}osvajanje Rima generala bare noun phrase conquest Rome_{GEN} general_{GEN} (6b)

¹ Šarić also provides data that shows that double genitives are also possible in Russian and in Polish (neither of which has definite articles) with result nouns such as the Russian *fotografija* 'photograph', further weakening the adnominal genitives parameter. See also Norris 2018 for Estonian.

(2)	b.	generalovo osvajanje Rima possessive general $_{POSS}$ conquest Rome $_{GEN}$
		'general's conquest of Rome' (8a)
	c.	osvajanje Rima velikog generala modified noun phrase conquest Rome_ GEN great GEN general GEN
		'great general's conquest of Rome' (6a)
	d.	*veliki generalovo osvajanje Rima complex possesive great general $_{POSS}$ conquest Rome $_{GEN}$ (10a)
(3)	a.	$^{??/*}$ osvajanje Rima njega pronoun conquest Rome $_{GEN}$ he $_{GEN}$ (7)
	b.	njegovo osvajanje Rima possessive his $_{POSS}$ conquest Rome $_{GEN}$
		'his conquest of Rome' (8b)
(4)	a.	osvajanje Rima od strane (velikog) generala/ conquest Rome $_{GEN}$ from side $_{GEN}$ general $_{GEN}$
		Hanibala Barke Hannibal $_{GEN}$ Barca $_{GEN}$
		'the conquest of Rome by the (great) general/Hanibal Barca' (11a)
	b.	*fotografija Frankfurta od strane Marka Kostića

A crucial observation based on this data is that the agent argument is typically expressed as a possessive, but the adnominal genitive can be used to express the agent if a possessive cannot be formed. That is, neither complex proper names nor nouns modified by an adjective can be expressed by possessives. Hence the availability of double genitives in these cases.

[Intended]: 'photograph of Frankfurt by Marko Kostić'

Marko_{GEN} Kostić_{GEN}

(13c)

photograph Frankfurt_{GEN} from side

Based on the data, several questions emerge with respect to the genitive-agent argument. What licenses it? What case-marks it and makes it visible for theta marking? Is this agent in fact a full-fledged argument of the nominal? Further questions include: How does the agent genitive acquire genitive morphology (i.e., Is D crucial for this?) What is the status of the possessive (Is it an adjective or is it a D-like element?) How to deal with the strict word order of arguments in the nominal domain? And finally: What does the Serbian data tell us about the universality of the DP? These questions are addressed throughout the book, with the big-picture conclusion being that Serbian, in fact, can have a DP layer.

Chapter 2 gives an overview of the literature dealing with the DP hypothesis cross-linguistically and specifically related to Serbian. Based on previous findings, in this chapter D is established as having the following properties: (i) it is the locus of definiteness, (ii) it is responsible for reference assignment (i.e., turning a predicate into a syntactic argument by anchoring it to the extralinguistic entity), and (iii) it serves as a case assigner. The natural question is What happens in languages that do not have definite articles (i.e., in languages that are assumed not to have a DP layer)? In this context, Šarić reviews some of the arguments that have been made in favor of Serbian, a language without definite articles, being a DP-less language and presents counterarguments and alternative analyses for them, for example, Bašić 2004 for LBE.² Chapter 2 also gives the background on case theory, but the theoretical background presentation is also extended into Chapter 3, as a summary of meanings and functions of adnominal genitives and an overview of the nouns with which these genitives appear is given in section 3.1. Specifically, Šarić follows Đurić (2009) in separating these nouns into ones that take arguments obligatorily, the so-called (i) argument-taking nouns that include complex event nominals (e.g., opisovanje 'describing'), and the ones that take arguments optionally, the so-called (ii) quasi-argument-taking nouns, which include, among others, result nominals (e.g., opis 'description').

What is perhaps the most important part of the monograph, the data related to genitives and possessives, is presented in section 3.2. This section is an overview of the questionnaire that was used to gather the data from 25 Serbian speakers (who were not speakers of the definite-article varieties of Serbian). The examples tested had the form, process noun—theme—external argument, with the external argument, crucially, coming in five different variants (all in the genitive): bare count noun, modified count noun, simple proper name, complex proper name, pronoun. Included in the survey were 14 different nominalizations (complex event nominals). The speakers judged the examples on a 1 to 4 scale, where 4 was considered to be unacceptable (*). If the speakers judged a sentence as completely unacceptable (4/*) or almost unac-

(21c)

While the majority of arguments are valid, the 'within-category' stacking of adjectives does not hold up. That is, Šarić mentions that possessives (and demonstratives) are treated as adjectives in the contra-DP camp and claims that if this were the case, we should be able to find possessive stacking within a noun phrase, which we do not, (i). However, the lack of possessive stacking (or demonstrative stacking) cannot be taken as evidence that possessives are not adjectives, as we also cannot find adjective stacking if we consider classes of adjectives in the cartographic sense, see for example Scott 2002, i.e., stacking two adjectives for size is ungrammatical despite both being adjectives.

⁽i) *moj tvoj kompjuter my your computer

⁽ii) *small tall woman

ceptable (i.e., 3/??), they were asked to change the sentence so that it was well formed. Unfortunately, the author only summarizes the results in a descriptive table and does not provide all the relevant results (an exception being the tables 3.2 and 3.3 for examples 'conquest of Rome' and 'discovery of electricity', respectively). Because of this it is not clear what the criteria were for a condition to be described as well or ill formed (was this decided on a conditioncompared-to-condition case or was it predetermined). It is also not completely clear whether there was any variation between the nominalizations-there is a claim made that not all examples are discussed as "their acceptability judgments comply with the results from the two discussed examples with respect to what arguments they take" (p. 42), which indicates that not much variation was found, but at the same time, there are indications that there are factors other than the type of the genitive that play a role, such as grammatical number, see footnote 38. Unfortunately, these factors are not discussed in detail. Still, the author does address each of the five different variations of the external argument individually and, based on the data provided, it is clear why only examples with modified count nouns and complex proper names are taken to be grammatical. Furthermore, the author provides information on additional questionnaires that showed that bare nouns can be used as external arguments in double-genitive constructions if these nouns "sound odd in the possessive form" (p. 47). In doing so, the author shows that double genitives are acceptable if the possessive is not available.

Two additional questionnaires are mentioned. In the first one, 11 subjects judged examples with nouns that sound odd when in a possessive form to show that in these cases genitives are preferred. Another questionnaire checked (with 10 speakers of Serbian) what type of constructions can appear as possessives. Unfortunately, it is not clear what the set-up of the questionnaire was, and the results are only given as a general description of the acceptability of each individual possessive. Still, these results can be summarized as follows: acceptable structures comprise possessives from bare singular nouns, pronouns, simple proper names (either first or last name), a combination of a proper name and a kinship term (exceptions being otac 'father' and brat 'brother'), a combination of a profession and a proper name (but the longer the profession word, the lower the acceptability—this also influences the acceptability of female profession terms which are typically longer; the length of the proper name, however, has no influence). Completely unacceptable structures comprise possessives from bare plurals, modified nouns, and proper names consisting of first and last name (exceptions being examples in which the first name follows the last name and it is the first name that gets the possessive suffix). In the second part of the subsection, the author accounts for the unacceptable possessives, showing that the components of the possessive must essentially act a single unit.

Further important data points follow in chapter 4. However, it is not clear whether the 11 consulted speakers only provided grammaticality judgments or were also consulted about the interpretation of the key examples. That is, in sections 4.1 and 4.2 Šarić gives an overview of Longobardi 1994 and Kovačević 2014, respectively, while in section 4.3 she adds an observation about the interpretation of arguments in the Serbian nominal domain, and then offers an account of the data, following Longobardi (1994), in section 4.4. Specifically, Šarić shows that the external argument (singular or plural) in Serbian receives a generic interpretation (but this interpretation can become definite if the noun is joined by either a demonstrative or a possessive, indicating that demonstratives and possessives are different from other adjectives), while internal arguments receive an existential reading when they are plural bare nouns or plural nouns modified by an adjective (and a definite reading when they consist of a noun and a possessive or a demonstrative). Building on work by Kovačević (2014), who observes parallels between Longobardi's generalizations about the clausal domain in Italian and the distribution of arguments in the Serbian nominal domain, Šarić takes this data and proposes that Serbian behaves just like what Longobardi claims for English. Specifically, internal argument positions are lexically governed and can therefore host Null D-a phonetically empty element positioned in D and restricted to mass and plural nouns, which are, as suggested in Longobardi, the only nouns that have existential interpretation. External arguments, on the other hand, are not lexically governed and therefore cannot have a Null D. In these cases, the N raises to D at LF and the phrase receives a generic interpretation in both English and Serbian. As for both internal and external arguments that receive a definite interpretation with possessives or demonstratives, Šarić suggests that these elements are moved to the DP. Šarić therefore argues that both internal and external arguments in the Serbian nominal domain can be treated as DPs, which serves as a starting point for an account of genitive assignment in Serbian.

In section 5.1 Šarić follows Bošković 2013 (cited as Bošković 2010) and assumes that adnominal case in Serbian is an instance of structural case, as also proposed in Zlatić 1997. This is taken as a starting point in an analysis of case assignment in result and process nominals. In this analysis, Šarić relies on two sources—Rappaport 1998 and Pesetsky 2013—and since the analysis for case assignment to Russian double genitives that appear with result nouns, which was proposed by Rappaport (1998), cannot be straightforwardly extended to both instances of double genitives in Serbian (i.e., with result and process nouns), Šarić opts for the analysis proposed in Pesetsky 2013. Under this approach, case is an affixal realization of different parts of speech—genitive of Ns, nominative of Ds, obliques of Ps, and accusative of Vs. These affixes are either lexically assigned or feature-assigned via feature copying in instances of merger. Crucially, in following Pesetsky (2013), Šarić assumes the

phase theory at this point (though, interestingly, approaches to the nominal domain within the phase theory were not included in chapter 2) and posits that all nouns under consideration are DPs (as Pesetsky assumes for Russian). In this approach, this means that the two adnominal genitives are merged as DPs and as such bear nominative markers but get genitive affixes via feature assignment in essentially two steps. First the theme is merged as a D while the head noun is merged as a genitive. The head feature assigns genitive to the internal argument and the two are sent to Spell-Out as they are a phase. Next, as Šarić concludes for Russian result nominals and consequently Serbian external arguments, the external argument is merged as a nominative DP and has its genitive assigned from the head noun. Another Spell-Out follows and it is only then that the whole phase is merged with a D, which now modifies the affixes on the head noun. This means that Šarić treats the entire phrase as a DP, but she does not say anything about the consequences of such an analysis (for example, under some accounts, such as Bošković 2005, treating such examples as DPs would mean that no LBE of adjectives modifying such phrases would be possible).^{3,4} Unfortunately, there is also no synthesis of this proposal with the account given in chapter 4, leaving the reader wondering about the details of the account.

Chapter 6 focuses on possessives. In section 6.1 previous proposals about possessive formation are put forward (such as Zlatić 2000), followed by a discussion of the categorial status of possessives in section 6.2. Specifically, the question is whether Serbian possessives are exponents of D or adjectives. Šarić shows that there are issues with several pieces of evidence that have been taken to be indicators of possessives being adjectives. In challenging the presented evidence, Šarić claims that it is unlikely that possessives are adjectives, but some of her new evidence also falls short. For example, she shows that one cannot stack possessive adjectives in Serbian, but see footnote 1 above. Furthermore, while Šarić shows that possessive pronouns can be coordinated with genitives, she does not show whether this also holds for other possessives, which would strengthen their similarities. More than that, Šarić does show that one cannot coordinate a possessive with an adjective, which would indicate that possessives are in fact not adjectives. However, it is not necessarily the case that any two types of adjectives can be coordinated. For example,

 $^{^3\,}$ Note however that she does mention the treatment of LBE proposed in Bašić (2004) in chapter 2.

⁴ Treating the entire phrase as a DP phase is also problematic for the so-called Principle of Distinctness (Richards 2010), according to which linearizing two nodes with the same morphosyntactic features within one Spell-Out domain (i.e., phase without its edge) should cause the derivation to crash. Since, following Richards (2010), Serbo-Croatian is subject to the Principle of Distinctness, finding two genitive phrases within one phase is surprising for reasons beyond the NP/DP-debate.

according to my informant, one also cannot coordinate a classifying and descriptive adjective in Serbo-Croatian, (5). This means that the unacceptability of coordinating a possessive with an adjective could simply be a consequence of the type of adjective.

(5) *ovo su nemačka i crvena kola this are German and red cars

So, while I am sympathetic to not treating possessives on a par with adjectives, I do not believe that the evidence presented in this chapter is enough to make this claim. However, making the claim that possessives are exponents of D is crucial for the application of Pesetsky's (2013) proposal about possessive formation in Russian to Serbian. Šarić therefore again offers an overview of the proposals about possessives in Russian from Rappaport 1998 and Pesetsky 2013, both of which argue that possessives in Russian are genitive nominals (and not adjectives) and, building on similarities between Serbian and Russian, extends Pesetsky's (2013) treatment of Russian possessives to Serbian.

In chapter 7 Šarić focuses on nominalizations, and Distributed Morphology is assumed as evidence for a functional structure; the structures presented in Bašić 2010 are taken to propose a functional structure of Serbo-Croatian nominalization. Furthermore, in section 7.2 Šarić builds on the groundwork presented in previous chapters to give an account of all the constructions under discussion, i.e., phrases in which the external argument is either a genitive, a possessive, or the *od strane*-phrase. Chapter 8 concludes the monograph.

The monograph, in my opinion, offers an important contribution to both Slavic linguistics and the NP/DP debate, as Šarić convincingly introduces new data into the discussion. In doing so, she indirectly voices an important caution that linguists too often forget—look at the data closely, as conclusions that are made based on an unacceptable phrase or two will typically turn out to be problematic. Still, the data could be further supported (or not) by investigation of other South Slavic varieties without articles (i.e., checking whether the same judgements apply in Croatian and Bosnian), and giving more detailed information on the surveys presented in the book. Nonetheless, Šarić does a great job at navigating through the vast NP/DP literature, creating a clear picture of the framework and background in addition to presenting new material. Unfortunately, the book falls somewhat short in explaining why the chosen theories were adopted and how they relate to each other; therefore it offers a somewhat fragmented view of the central topics. And yet, this does not take away from the value of the book, which I believe lies primarily in the new data, though the theoretical contribution should not be minimalized either. Still, even with this monograph, the NP/DP debate is far from over. And yet Nominalizations, double genitives, and possessives: Evidence for the DP-

hypothesis in Serbian will open up new lines of research that will help us better understand the nominal domain in Slavic and in general.

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