

# The importance of having a degree: On the semantics of attributive short and long form adjectives in BCMS<sup>1</sup>

Berit GEHRKE — *Humboldt-Universität zu Berlin*

Predrag KOVAČEVIĆ — *University of Novi Sad*

Marko SIMONOVIĆ — *University of Graz*

**Abstract.** This paper addresses attributive adjectives in Bosnian/Croatian/Montenegrin/Serbian (BCMS), which can appear in a short or a long form (SF vs. LF). We argue against previous accounts that correlate the SF-LF distinction with nominal definiteness or specificity, by pointing out a variety of empirical issues with such accounts. Instead, we propose that this distinction is best understood as a definiteness of degree phenomenon, as it is more equipped to capture the data. If correct, the analysis presents a case for a cross-linguistically rare morphological category of definiteness (definiteness of degrees), which sheds new light on both definiteness and degree in natural language.

**Keywords:** BCMS, adjective, degree, definiteness, specificity.

## 1. Introduction

In Bosnian/Croatian/Montenegrin/Serbian (BCMS), adjectives in attributive position can appear in long or short form (LF vs. SF) (1).<sup>2</sup>

- (1) a. plav kaput  
blue.SF coat  
b. plav-i kaput  
blue-LF coat

Long forms are generally disallowed in predicative positions (2).<sup>3</sup>

- (2) Taj kaput je {plav / \*plav-i}.  
that coat is blue.SF blue-LF  
'This coat is blue.'

Descriptively, it has been observed that there is a tendency for the attributive SF-LF distinction

<sup>1</sup>For general discussion and feedback we would like to thank Boban Arsenijević, Natasha Korotkova, Lanko Marušić, Edgar Onea, Maribel Romero, Malte Zimmermann, Sarah Zobel, as well as the audiences of the 25th Szklarska Poręba Workshop, the GLOW 47 workshop on (Universal) Paradigmatic Gaps, Sinn und Bedeutung 30, and SinFonJA 18. Marko Simonović acknowledges the support of the Austrian Science Fund (FWF) as part of the project Multifunctionality in Morphology (Grant DOI: 10.55776/I6258).

<sup>2</sup>There is significant regional variation in the use of attributive SF adjectives, with a tendency towards their loss altogether. The attributive SF-LF contrast is best preserved in NOM.SG.M forms (Stanković, 2015), which is why we employ only NOM.SG.M forms in this paper. For better readability, we leave out NOM.SG.M from all glosses.

<sup>3</sup>Note that the situation with LF/SF forms in BCMS is empirically and semantically different from Russian, which some readers might be more familiar with, even if historically they share the same source. In Russian, attributive adjectives always appear in their long form, and there is a SF-LF distinction in predicative position (see, e.g., Borik, 2014), correlating with a (possibly) semantic distinction that is quite different from what we describe in this paper for attributive adjectives in BCMS.

to correlate with nominal (in)definiteness (Maretić, 1963; Stevanović, 1986), in the absence of articles in this language: SFs often appear with indefinite NPs, for example with the numeral ‘one’ in (3a), LF with definite ones, for example with the demonstrative pronoun in (3b).<sup>4</sup>

- (3) a. jedan velik kaput  
one big.SF coat  
b. taj velik-i kaput  
this big-LF coat

There are previous (syntactic) analyses that take this mere tendency, descriptively, as a rule and as evidence for a syntactic DP layer in BCMS, even in the absence of articles, correlating the SF-LF distinction with either nominal (in)definiteness ( $\pm_{\text{DEF}}$ ) (Progovac, 1998; Leko, 1999) or nominal (non-)specificity ( $\pm_{\text{SPEC}}$ ) (Aljović, 2002). In contrast, there are analyses that explicitly argue against a DP in BCMS (e.g. Zlatić, 1997; Trenkic, 2004; Bošković, 2005), based on the observation, among others, that adjectives are optional. Nevertheless, also these authors assume that the SF-LF distinction still signals nominal  $\pm_{\text{DEF}}$  (e.g. Despić, 2011) or  $\pm_{\text{SPEC}}$  (e.g. Talić, 2017). In his dissertation, Stanković (2015) provides an extensive data overview that shows that the SF-LF distinction is empirically more complex, while still maintaining in his analysis that it is tied to nominal definiteness and specificity (additionally arguing for a DP in BCMS). Since his empirical overview is, to our knowledge, the most detailed one to date, we will discuss his generalisations and proposal in more detail in §4.

There are empirical issues with accounts that directly correlate the SF-LF distinction with either nominal  $\pm_{\text{DEF}}$  or nominal  $\pm_{\text{SPEC}}$  (see also Kovačević, 2014). On the one hand, LFs can appear in indefinite and/or non-specific contexts, such as existential constructions (4a)<sup>5</sup> (after Trenkic, 2004) or with non-specifically interpreted indefinite pronouns, such as *neki* ‘some’ in (4b).

- (4) a. Kad uđeš u sobu, na sredini je okrugl-i sto.  
when enter.2SGPRS in room on middle is round-LF table  
‘As you enter the room, there is a round table in the centre.’  
b. Treba mi neki velik-i kaput.  
needs me some big-LF coat  
‘I need a big coat.’

On the other hand, SFs can appear in definite and/or specific contexts, e.g. with demonstratives (5), which directly contrasts with (3b) (and to a certain extent also with (4b)).

- (5) Volim taj velik kaput.  
love.1SGPRS that big.SF coat  
‘I love that big coat.’

<sup>4</sup>Historically, LF forms are combinations or amalgamations of nominal endings and declined demonstrative pronouns. It is common in, e.g., descriptions of Old Church Slavonic, to label LF and SF adjectives as “determinate” (German “bestimmt”) and “indeterminate” (“unbestimmt”) (see, e.g., Leskien 1871, among many others). For example, the “indeterminate” and “determinate” DAT.SG.M forms of the Old Church Slavonic adjective ‘good’ are *dobr-u* and *dobr-u-jemu*, respectively, where *-u* is the common nominal ending for DAT.SG.M (of *o*-stems) and *-jemu* is a pronoun in DAT.SG.M. In Old Church Slavonic, both forms appear attributively and predicatively.

<sup>5</sup>Existential constructions in BCMS lack elements like English ‘there’, but commonly employ the word order PP (or similar) + copula(-like verb) + NP.

In this paper, we depart from the majority view that the SF-LF distinction correlates with definiteness or specificity of the nominal referent and instead propose that this distinction signals definiteness of degree. We outline a semantic implementation and propose to treat LF morphology as definiteness marking on degrees, in analogy to definite articles in the nominal domain. We will show that this proposal explains (some) gaps in adjectival paradigms, where certain adjectives (in some contexts) lack or disprefer SFs or LF, and that it captures data left unaccounted for by nominal  $\pm\text{DEF}/\text{SPEC}$  accounts.<sup>6</sup>

The paper is structured as follows. §2 summarises background assumptions on definiteness and specificity in the nominal domain. §3 introduces the concept of definite degrees, outlines our theoretical proposal and provides further empirical support for it. §4 summarises the empirical generalisations and theoretical account of Stanković (2015) and points out problems for this account, which do not arise under our proposal. Finally, §5 concludes.

## 2. Definiteness and specificity in the nominal domain

(In)definites appear in both argument and predicate position, and it is common to take the argument use as basic and to derive the predicative use from it. A widespread approach to singular definites takes them to presuppose uniqueness and existence (following Frege, 1892; Strawson, 1950), commonly formalised employing the  $\iota$ -operator, while plural definites presuppose maximality (following Sharvy, 1980). For example, Heim (2011) spells out the semantics of (in)definiteness (not necessarily of *the/a*) in (6), generalising maximality to both singular and plural definites.

- (6) a.  $[[+\text{DEF}]] = \lambda P : \exists x \forall y [\text{MAX}(P)(y) \leftrightarrow x = y]. \iota x. \text{MAX}(P)(x)$   
 b.  $[[-\text{DEF}]] = \lambda P. \lambda Q. \exists x [P(x) \wedge Q(x)]$

Heim proposes that indefinites and definites form a scale, with indefinites being logically weaker. She argues that in languages that have a definite article, such as English, indefinites cannot be used in definite contexts, due to an anti-uniqueness implication with indefinites, which arises in competition with definites, assuming the principle of Maximise Presupposition.

Coppock and Beaver (2015), in turn, take the predicative use as basic and propose that (singular) definites presuppose uniqueness but not existence; existence only comes in through a covert type shift of definites in argument position. Yet in other approaches definiteness is understood in terms of familiarity: (in)definites are associated with discourse referents, and with definites the referent is anaphorically linked to a previously introduced discourse referent (Kamp, 1981; Heim, 1982).<sup>7</sup>

In addition, there is another notion that is relevant, namely specificity (see also discussion in von Stechow, 2011). Also this notion has different uses in the literature. For example, in her discussion of different series of indefinite pronouns in Russian, Geist (2010) distinguishes between

<sup>6</sup>The proposal is further supported by linear models on quantitative corpus data (Kovačević et al. 2025, Kovačević, in preparation).

<sup>7</sup>There is also a distinction between strong definites, which satisfy uniqueness, and weak definites (e.g. *go to the supermarket*), which do not seem to do so and which, e.g., Aguilar-Guevara and Zwarts (2010) treat as kind-referring. In this paper, we are mainly concerned with strong definiteness.

epistemic specificity (whether or not the speaker can identify the referent) and scopal specificity (whether an indefinite has wide or narrow scope with respect to other quantifiers or operators). In the remainder of this paper, we will mostly be concerned with epistemic specificity, or what, e.g., Ionin et al. (2009) informally label “specificity as speaker’s intent to refer”, but we will return to scopal specificity in §4.

Languages vary with respect to whether they have articles, such as, e.g., English definite *the* and indefinite *a(n)*, or whether they lack such articles, as is assumed for, e.g., many Slavic languages, including BCMS.<sup>8</sup> At the same time, languages that have article systems can vary with respect to whether these correlate with definiteness, as in, e.g., English, or with specificity or both. For example, Fuli (2007) addresses the articles *le* and *se* in Samoan, showing that the former appears in (in)definite specific contexts, while the latter appears exclusively in indefinite non-specific contexts (see also discussion in Ionin et al., 2009).

There is no consensus as to how (in)definite interpretations arise in the absence of articles in articleless languages. While there are accounts that employ covert (in)definite operators or covert type shifts of the relevant kind also for these languages (e.g. Chierchia, 1998), there are also proposals that question whether bare nominals in articleless languages should ever (semantically) be analysed as definites, even if they appear in contexts that seem to be definite. For example, Heim (2011) proposes that in articleless languages all bare nominals (in argument position) are existential, i.e. indefinite. They are also acceptable in definite contexts because these languages lack a definite article that could block them (i.e. there is no competition with definites and thus no anti-uniqueness implicature).

Heim’s (2011) line of reasoning is picked up in more recent work on the semantics of bare nominals in Russian (Šimík and Demian, 2020; Seres and Borik, 2021). Seres and Borik show that Russian bare nominals can appear fairly freely in both definite and indefinite contexts, and other factors, such as topicality and the overall context, only indirectly contribute to the impression that we get a definite interpretation. As Seres and Borik (2021: 340) put it: “The perceived definiteness in Russian is analysed as a pragmatic effect (not as a result of a covert type-shift), which has the following sources: ontological uniqueness, topicality, and familiarity/anaphoricity.” Šimík and Demian, in turn, show experimentally that factors that have been described to correlate with a definite (in the sense of unique/maximal) interpretation of Russian bare nominals (word order, prosody, number) are rather weak and that the nominals in such contexts do not behave like definites in an article language like German. They conclude that their data rather support Heim’s (2011) proposal, and therefore argue that Russian bare nominals are always indefinite. In this paper, we tentatively assume that bare nominals in BCMS semantically behave like their Russian counterparts in the relevant respect, i.e. they are also indefinite, with definiteness effects arising contextually.

### 3. Definiteness of degree

In this section, we propose that long form marking on attributive adjectives in BCMS is the adjectival counterpart to a definite article in the nominal domain, in that it signals definiteness

<sup>8</sup>This is not to say that there cannot be uses of, e.g., demonstratives and the numeral ‘one’ in semantically definite and indefinite contexts, respectively, but such uses are not grammaticalised as articles in these languages; see also Seres (2024) for a corpus study into the use of the numeral ‘one’ in several Slavic languages.

on degrees. A precedent of this idea is Marušič and Žaucer's (2014) analysis of the particle *ta* in colloquial Slovenian, although the empirical facts are somewhat different (see also Kovačević, in preparation, for further discussion).<sup>9</sup> In the following, we outline our background assumptions on degrees, spell out a formal implementation of the general idea, and then discuss empirical support for this proposal. For now, we remain agnostic as to whether this definiteness marking on degrees might be better understood in terms of a specificity marker, rather than a definiteness marker (in analogy maybe to article systems like that in Samoan, briefly mentioned in §2), and whether definiteness should be analysed in terms of uniqueness, familiarity, anaphoricity, or other notions proposed in the literature.

### 3.1. The proposal

Let us first spell out our background assumptions on degrees. With, e.g., Kennedy and McNally (2005) [K&McN], we take gradable adjectives to involve scale structure and to express a relation between an entity  $x$  and a degree  $d$  (a point on the scale), (7) (K&McN: 349).

$$(7) \quad [[\text{expensive}]] = \lambda d \lambda x. \text{expensive}(x) = d$$

K&McN propose that the degree argument gets existentially closed in the further derivation and outline two options. In the absence of degree modification, existential closure of  $d$  comes about by a null degree morpheme *pos*, which locates  $d$  on the scale with respect to a contextually determined standard (8a) (K&McN: 350, where **C** is the comparison class). Degree modification, on the other hand, imposes some restriction **R** on the degree argument of the adjective and simultaneously existentially closes  $d$  (8b) (K&McN: 367).

$$(8) \quad \begin{array}{ll} \text{a.} & [[\text{pos}]] = \lambda G \lambda x \exists d [\text{standard}(d)(G)(\mathbf{C}) \wedge G(d)(x)] \\ \text{b.} & [[\text{Deg}(\mathbf{P})]] = \lambda G \lambda x \exists d [\mathbf{R}(d) \wedge G(d)(x)] \end{array}$$

Concrete examples for K&McN's analysis of the semantic contribution of the degree modifiers *two metres* and comparative morphology can be found in (9) and (10), respectively (in the latter example,  $d_c$  is the degree introduced by the comparative clause; cf. K&McN: 368f.).

$$(9) \quad \begin{array}{ll} \text{a.} & [[\text{two metres}]] = \lambda G \lambda x. \exists d [d \geq \text{two metres} \wedge G(d)(x)] \\ \text{b.} & [[\text{two metres tall}]] = \lambda x. \exists d [d \geq \text{two metres} \wedge \text{tall}(x) = d] \end{array}$$

$$(10) \quad [[\text{er/more than } d_c]] = \lambda G \lambda x. \exists d [d > d_c \wedge G(d)(x)]$$

We propose the following modifications to this system. First, we assume that the degree (the point on the scale) can in principle be (in)definite (unique or anaphoric) and (epistemically and/or scopally) (non)specific, in analogy to individual arguments. Second, following Sassoon (2013), we assume that also non-gradable adjectives involve scale structure, and that gradability is a reflex of vagueness resolution: Less vague or sharp predicates appear less or non-gradable because they involve a trivial 2-point scale ([0,1]). Third, we propose to dissociate the core semantic contribution of degree modification from existential closure of  $d$ , following Bierwisch

<sup>9</sup>Syntactically, this idea can be implemented by proposing a functional Degree projection above AP, following Corver (1997), but in this paper we set the full syntactic account aside to focus on the semantics (see Kovačević, in preparation, for further discussion).

et al. (2024). In particular, we take degree modification to add further conditions on  $d$  (again, in analogy to, e.g., adjectival modifiers within the NP) but existential (or other) import does not depend on this.

More concretely, we assume that existential closure is just one way of binding  $d$ . This is the standard way in languages that lack definiteness marking in the degree domain, such as English, and we could assume that it happens by default, possibly through a covert type shift (in analogy to the proposal for nominals found in Coppock and Beaver, 2015), or when the AP domain is closed off (similar to the existential binding of the event argument in the verbal domain). In contrast, we argue that BCMS has a definite marker in the degree domain, namely adjectival LF morphology, and we tentatively formalise its semantic contribution as in (11).

$$(11) \quad [[pos + \text{LF morphology}]] = \lambda G \lambda x. \iota d [\text{standard}(d)(G)(C) \wedge G(d)(x)]$$

In proposing this, we draw direct parallels to nominal definiteness in article vs. articleless languages, as outlined in §2: In the absence of (in)definite articles, languages like, e.g., Russian, always involve existential closure of  $x$ , and definiteness effects are due to context and/or world knowledge; this is what happens with degrees in English. In BCMS, on the other hand, there is definiteness marking on degrees, directly responsible for a definite interpretation of the degree.

The prediction of the general idea underlying this account is that when  $d$  is (contextually) unique (possibly also anaphoric to another degree in the context) and/or specific, we get the LF, and the SF should be banned. This, again, is in analogy to the definite article in the nominal domain blocking the use of indefinites in definite contexts. In the following section, we discuss empirical support for this proposal.

### 3.2. Empirical support

Our first argument for the proposal that LF marking signals definiteness on degrees comes from a paradigmatic gap we observe with relational and spatial As, which lack SFs altogether (12).

- (12) a. { \*seo-sk- $\emptyset$  / seo-sk-i } put  
village-ADJ-SF village-ADJ-LF road  
'village road'
- b. { \*glav-an- $\emptyset$  / glav-n-i } istraživač  
head-ADJ-SF head-ADJ-LF researcher  
'head/main researcher'
- c. { \*pred-anj- $\emptyset$  / pred-nj-i } točak  
front-ADJ-SF front-ADJ-LF wheel  
'front wheel'

We argue that this paradigmatic gap is directly related to another gap we observe with these adjectives, namely that they lack comparative forms, i.e. are non-gradable (unless coerced) (13).

- (13) a. \*seo-sk-ij-i  
village-ADJ-COMP-LF

- b. ??glav-n-ij-i  
head-ADJ-COMP-LF
- c. \*pred-nj-ij-i  
front-ADJ-COMP-LF

Our explanation for the correlation of the two gaps is that relational and spatial As are sharp predicates, which involve definite/specific points on the scale (1; nothing in between 0 and 1). This explains both that they lack SF forms (they involve definite degrees) and that they cannot be graded, following Sassoon (2013).<sup>10</sup>

The lack of SFs with these adjectives cannot be explained phonologically, at least not for all such adjectives. A phonological explanation is available only for a subset of these adjectives: Some of the most frequent suffixes that derive adjectives lacking SFs introduce phonological structures that are not attested word-finally (e.g. the suffix *-sk* in (12a)), so that the SF would require a phonological repair (Simonović, 2016). However, there are also minimal pairs that show that the phonological explanation cannot be extended to those; see, for instance, the suffix *-(a)n* in (14).

- (14) a. {rad-n-i / rad-an-Ø / rad-n-iji} čovek  
work-ADJ-LF work-ADJ-SF work-ADJ-COMP man  
'a/the (more) diligent/hardworking man'
- b. {rad-n-i / \*rad-an-Ø / \*rad-n-iji} dan  
work-ADJ-LF work-ADJ-SF work-ADJ-COMP day  
'a/the work day'

Under the reading 'hardworking, diligent', this adjective is vague so that it allows both comparative morphology and a SF, when the degree is not definite. Under the reading in (14b), on the other hand, this adjective is a sharp predicate (either it is a work day or it is not) and therefore it involves a definite degree, i.e. only appears in the LF and cannot be graded.

A second argument in favour of our account comes from the strong preference for LF forms with specific degree modifiers, such as specific measure phrases (15) and comparative (and superlative) forms, which always appear in LF (16).<sup>11</sup>

- (15) dva metra {??visok-Ø / visok-i} čovek  
two metres tall-SF tall-LF man  
'a/the two-metre tall man'
- (16) a. {novij-i / bolj-i / plavlj-i} kaput  
newer-LF better-LF bluer-LF coat  
'(a/the) newer / better / bluer coat'

<sup>10</sup>The correlation of the two gaps is also supported quantitatively (Kovačević et al. 2025, Kovačević, in preparation): In a sample of over 1100 most frequent BCMS adjectives in Ljubešić and Klubička (2016), the frequency of SFs is strongly associated with the frequency of comparatives for a given adjective.

<sup>11</sup>Stanković (2015), whose account of the SF-LF distinction in terms of nominal definiteness/specificity will be outlined in §4, also notes that comparative and superlative forms always appear in the LF, even in contexts where, according to his empirical generalisations, one would expect SF adjectives; he leaves this as a puzzle for future research.

- b. \*{novij-Ø / bolj-Ø / plavlj-Ø} kaput  
 newer-SF better-SF bluer-SF coat

We assume with Bierwisch et al. (2024) that both measure phrases and comparatives operate on degree intervals. With measure phrases, the degree interval is fully specified as  $D = (0, d)$  (starting at 0 and ending at  $d$ ), with the cardinality of  $D$  specified by the measure phrase (for the full formalisation see Bierwisch et al., 2024: §4.3). This makes  $d$  specific so that measure phrases require definiteness marking on the adjective in BCMS. Comparatives also require a specified difference interval and arguably involve anaphoric definiteness, which is brought in by the (implicit or explicit) comparison phrase. This also fits the gist of the analyses of measure phrases and comparatives proposed in Kennedy and McNally (2005) (recall (9) and (10)). The main difference between their account and our proposal, however, is that we do not assume that modification through measure phrases or comparative structures automatically leads to existential closure of the degree argument.

A third argument in favour of our account comes from non-specific degree modifiers like *veoma* ‘very’, which disprefer LFs:

- (17) *veoma* {mlad-Ø / ??mlad-i} čovek  
 very young-SF young-LF man  
 ‘a/the very young man’

We assume with Kennedy and McNally (2005) and others that expressions like ‘very’ are mere standard boosters in that they just raise the contextually determined standard (it is now higher than it would be for the adjective without ‘very’), but the vagueness and context-dependence remain; see (18) (from Kennedy and McNally, 2005: 370, where  $c$  stands for the context).

- (18)  $[[\text{very}]]^c = \lambda G \lambda x. \exists d [\text{standard}(d)(G)(\lambda y. [[\text{pos}(G)(y)]]^c) \wedge G(d)(x)]$

Since the vagueness is not resolved, modification by ‘very’ still only involves an indefinite degree on the scale; in fact, the use of ‘very’ seems to make a precise specification or identification by the speaker rather unlikely. Similarly, wh-degree words like *koliko* ‘how much’ block LFs (19).<sup>12</sup>

- (19) *Koliko* {značajan-Ø / \*značajn-i} faktor si otkrio?  
 how-much significant-SF significant-LF factor AUX.2SG discovered  
 ‘How significant a factor did you discover?’

A fourth argument comes from co-occurring SFs and LFs within the same NP, which challenge nominal  $\pm\text{DEF}/\pm\text{SPEC}$  accounts because these predict co-occurring adjectives to uniformly appear in SF with indefinite/non-specific nominals and in LF with definite/specific ones. Take, for example, (20) (attested online).

<sup>12</sup>There is quantitative support also for these two empirical claims (Kovačević et al. 2025, Kovačević, in preparation): While LF is significantly more frequent overall ( $t = 16.745$ ,  $p < 2.2 \times 10^{-16}$ ), the SF is significantly more frequent in combination with *veoma* ‘very’ ( $t = -14.256$ ,  $p < 2.2 \times 10^{-16}$ ) and with *koliko* ‘how-much’ ( $t = -3.6678$ ,  $p < 0.0003$ ).

- (20) Treba mi običn-i jeftin-i pouzdan quartz sat.  
 need me regular-LF cheap-LF reliable.SF Quartz watch  
 ‘I need a regular reliable cheap Quartz watch.’

In this example, *obični* ‘regular’ appears in LF because it is a relational adjective, a non-gradable (sharp) predicate, which also lacks a comparative form: <sup>??</sup>*običniji*. The LF *jeftini* ‘cheap’, in turn, signals discourse-uniqueness of the degree (according to native speakers’ intuition), while with the SF *pouzdan* ‘reliable’, the degree of reliability is arguably not unique in the context of (Quartz) watches.

Let us then revisit the problems for nominal  $\pm_{\text{DEF}}/\pm_{\text{SPEC}}$  accounts from §1. Recall from (4), repeated as (21), that LFs can appear in indefinite and/or non-specific contexts.

- (21) a. Kad uđeš u sobu, na sredini je okrugl-i sto.  
 when enter.2SGPRS in room on middle is round-LF table  
 ‘As you enter the room, there is a round table in the centre.’  
 b. Treba mi neki velik-i kaput.  
 needs me some big-LF coat  
 ‘I need a big coat.’

Our explanation of these data is as follows. (21a) involves a sharp predicate, which therefore occurs in the LF. This is supported by the fact that it also lacks a comparative form: <sup>??</sup>*okrugliji*. In (21b), in turn, ‘big’ appears in the LF because the speaker knows their coat size and therefore asks for a coat of a specific degree of bigness.

We also saw that SFs can appear in definite and/or specific contexts, e.g. with the demonstrative in (5), repeated as (22).

- (22) Volim taj velik kaput.  
 love.1SGPRS that big.SF coat  
 ‘I love that big coat.’

We argue that ‘big’ appears in the SF here because the degree of ‘big’ is neither specific nor discourse-unique in this context. In the following section, we compare our proposal to a recent, elaborate account of the SF-LF distinction in terms of nominal definiteness and specificity.

#### 4. Comparison with a previous account: Stanković (2015)

Based on a qualitative analysis of corpus data and constructed examples, Stanković (2015) provides an extensive empirical overview that shows that the SF-LF distinction in BCMS is empirically more complex than previous accounts suggest. He argues that the use of SFs presupposes what he calls non-partitivity/non-exhaustivity and thus marks the absence of a unique link between the expression containing the SF and a referent. This account, he argues, is supported by the generalisation that SFs do not allow for unique, familiar (discourse-old / anaphoric), or scopally specific<sup>13</sup> readings, unless they are accompanied by determiners that bring in the re-

<sup>13</sup>Stanković (2015) uses the terms “epistemic indefiniteness/non-specificity”, but the examples he discusses involve nominals interpreted in the scope of ‘want’ or a universal quantifier, and whether or not the speaker can identify

spective semantics. LFs, on the other hand, can appear in all contexts he examines, which is why Stanković proposes to treat them as semantically unmarked.

Syntactically, Stanković (2015) assumes a split DP (building on Giusti 2005), the general (and somewhat simplified) structure of which is given in (23), where each DP layer subdivides into Spec(ific)P and Def(inite)P; the heads of these projections carry either + or – values for the respective categories.

(23) [DefP [SpecP [#P [PartP [DefP [SpecP [NP]]]]]]]

Stanković distinguishes three types of attributive modification: direct and indirect modification (in the sense of Cinque, 2010), as well as high attributive modification. Direct modification happens at the lower DP-layer, associated with the kind-level, below the functional projections for number (#P) and partitivity (PartP); this is a context where only LF occurs. Indirect modification, in turn, takes place at a higher NP-layer above the projection for number, so at the object-level; following Cinque, this kind of modification happens in a reduced relative clause structure. At this level, both SF and LF can occur; SF signals the absence of any + values for DEF or SPEC, whereas an LF adjective appears if it agrees with a + value in any of the projections SpecP or DefP. Finally, we get high attributive modification when the referent is modified, and here we can also get SFs in nominals with familiar, unique or specific reference. The way we understand this, then, is that these are cases of clear non-restrictive modification, as in ‘the damn dog’ or ‘angry Marko’. Stanković stipulates that in the case of high attributive modification, there is covert movement of the adjective (at Logical Form) in order to ensure binding to operators of functional projections (e.g. speaker attitude/evaluation). Due to this movement, the adjective escapes the domain where it would otherwise agree and appear in the LF.

A potential conceptual problem for Stanković’s (2015) account is that it involves a mismatch in morphological and semantic markedness, which he himself acknowledges. On the other hand, the way his system is set up, the SF comes with an anti-uniqueness presupposition, which the LF lacks, so in that sense there is an argument for semantic markedness of the possibly logically stronger SF. However, this is quite unusual from a cross-linguistic perspective, because under most semantic accounts of definiteness (whether we are dealing with familiarity or with uniqueness) definites are logically stronger than indefinites and therefore correlate with semantic markedness. For the moment, we set the conceptual issues aside and focus on the empirical arguments.

While we cannot address all the empirical generalisations and data that Stanković’s (2015) dissertation brings forward, we will discuss some key ones relevant to our account.<sup>14</sup> For example, he argues that nouns assumed to generally associate with unique referents, such as ‘my father’, cannot combine with the SF (24a) (cf. p. 220), unless the SF appears postnominally as an appositive (24b) (cf. p. 221).

(24) a. Moj {dobri / #dobar} otac nikada nije voleo da kasni.  
my good.LF good.SF father never NEG.AUX like.PST COMPL be.late.3SGPRS

the referent, i.e. epistemic specificity, is not really discussed.

<sup>14</sup>Since the dissertation is written in Serbian, all glosses and translations are added by us; we tried to provide translations that reflect the description of the data in the dissertation.

- ‘My dear father never liked to be late.’
- b. Moj otac, dobar kao anđeo, nikada nije podigao ruku na nas decu.  
 my father good.SF as angel never NEG.AUX raise.PST hand on us children  
 ‘My father, good as an angel, never raised his hand against us children.’

Appositive postnominal adjectives are generally not attributive but predicative adjectives so that they always appear in SF and disallow LFs (recall (2)). We assume this as well, and in this position definiteness of degrees does not play a decisive role. The ban on the SF in (24a), on the other hand, needs to be addressed under our account. Here we assume that ‘good’ is not so much used as a scalar predicate but rather more absolute (as in the English translation ‘dear’), and under this use it would also be odd to have a comparative (*#moj bolji otac* ‘my better/dearer father’).

Furthermore, Stanković argues that with nominals that in principle allow for either unique or non-unique reference, the SF correlates with non-uniqueness whereas the LF allows for both readings (25) (cf. Stanković, 2015: 222).

- (25) a. Idi do moje kancelarije i donesi mi iz prve fioke prazan papir.  
 go.IMP to my office and bring.IMP me from first drawer empty.SF paper  
 ‘Go to my office and bring me a blank paper from the first drawer.’  
 (There have to be more pieces of paper in the drawer.)
- b. Idi do moje kancelarije i donesi mi iz prve fioke prazni papir.  
 go.IMP to my office and bring.IMP me from first drawer empty.LF paper  
 ‘Go to my office and bring me a/the blank paper from the first drawer.’  
 (There can also be just one piece of paper in the drawer.)

He interprets the alleged requirement of (25a) for there to be more pieces of paper in the drawer as an anti-uniqueness presupposition of SFs, which is argued to be absent with LFs. If correct, our analysis cannot account for this particular contrast. However, the two authors of this paper that are native speakers of BCMS disagree with the assessment that (25a) has an anti-uniqueness presupposition; rather it is completely irrelevant whether there is one or more pieces of paper in the drawer.

Stanković (2015: 223) furthermore notes that the SF-N combination in (25a) allows for a unique interpretation when it appears in topic position (26).

- (26) Prazan papir u prvoj fioci me je podsetio da moram napisati  
 empty.SF paper in first drawer me AUX remind.PST COMP must.1SGPRS write.INF  
 mesečni izveštaj o radu.  
 monthly report about work  
 ‘The blank paper in the first drawer reminded me that I need to write a monthly work report.’

Stanković argues that the topic position itself conditions uniqueness, rather than the SF adjective, whereas the referent is discourse-new, and this is why an SF is used. However, this is not the general view from the literature on topics: The discourse topic position often correlates with familiarity (discourse-old status) of the referent so that in articleless languages bare nominals in this position can receive such an interpretation and are then preferably translated as definites

into article languages like English (see Šimík and Demian 2020 for discussion on Russian). For example (26) can occur quite naturally after the sentence ‘I found a blank sheet of paper in my desk’. At the same time, because the referent is discourse-old we can also get a discourse-unique interpretation (uniqueness in the discourse context). This data point, then, is a problem for Stanković’s claim that SFs correlate with non-familiarity or with non-uniqueness.

Let us then turn to specificity and Stanković’s (2015) claim that SFs require non-specificity. Since his discussion of the data is less systematic we construed our own example with an indefinitely interpreted nominal<sup>15</sup> and tested whether continuations that favour epistemically specific, epistemically non-specific/scopally specific, and scopally non-specific readings are equally available (building on Geist, 2010). (27) shows that they are, and the same would hold for, e.g. ‘short film’.

- (27) Iga hoće da gleda (jedan) dug film.  
 Iga wants COMP watch.3SGPRS one long.SF film  
 ‘Iga wants to watch a long film.’
- a. To je Titanik.  
 that is Titanic  
 ‘It is Titanic.’ EP. SPECIFIC / SCOPALLY SPECIFIC
- b. ... ali ne znam koji.  
 but NEG know.1SG which  
 ‘... but I don’t know which one.’ EP. NON-SPECIFIC / SCOPALLY SPECIFIC
- c. Planira da vidi šta se nudi na Netfliksu.  
 plans COMP see.3SGPRS what REF offers on Netflix  
 ‘She is going to check out what is available on Netflix.’ SCOPALLY NON-SPECIFIC

This shows that SFs are compatible with both epistemic and scopal specificity, contra Stanković. Thus, the SF-LF distinction is independent of specificity. Let us then illustrate the meaning difference we do get between SF and LF with the following example.

- (28) Iga hoće da gleda {kratak / kratki} film.  
 Iga wants COMP watch.3SGPRS short.SF short.LF film  
 ‘Iga wants to watch a short film.’

The LF in this example strongly suggests a special class of short films (say, 10-20 minutes), whereas the SF appears with a movie that is on the shorter end of the normal movie length scale (which could be, e.g., 60, 70, 80 minutes). Thus, the difference can again be explained in terms of definiteness of degree.

A more general empirical problem for Stanković (2015) is that in combination with determiners SFs can freely occur in familiar, unique, or specific contexts, and we have already seen such an example in (5), repeated in (29).

- (29) Volim taj velik kaput.  
 love.1SGPRS that big.SF coat

<sup>15</sup>Note that the numeral ‘one’ is not needed for the indefinite interpretation, and the continuations are fine for either sentence, with or without the numeral.

‘I love that big coat.’

Stanković acknowledges this problem and bypasses it by stipulating LF movement of the AP outside the domain of both DP layers, escaping syntactic agreement. While this kind of LF escape may look intuitively plausible for clearly referent-modifying or strongly evaluative adjectives (his high attributive modification), it is much less clear to us that the same move is independently motivated for the remaining environments in which SFs appear in definite or specific contexts. More generally, the LF movement solution appears somewhat stipulative and risks unfalsifiability.

There is a further problem for Stanković’s (2015) account and its application of Cinque’s (2010) model to the SF-LF distinction, at least in its strong version (as suggested by Cinque himself), according to which SFs always involve indirect modification. If this were the case, SFs should always involve reduced relative clause structures, which are islands for extraction. Still, it is possible to extract degree modifiers out of APs headed by SF adjectives, indicating that the structures they are in do not constitute islands for extraction, contrary to the prediction of the reduced relative-clause analysis of SF APs (30).<sup>16</sup>

- (30) Izuzetno<sub>i</sub> je kupila t<sub>i</sub> lijep kaput.  
 extremely AUX bought beautiful.SF coat  
 ‘She bought an extremely beautiful coat.’ (from Talić, 2017: 207)

Finally, the co-occurring SF and LF adjectives in (20), repeated in (31), are also a problem for Stanković’s (2015) account. Stanković claims that when LF and SF co-occur, the SF (an indirect modifier) appears further away from the noun than the LF (a direct modifier), but in (31) we get the opposite order.

- (31) Treba mi [običn-i jeftin-i pouzdan quartz sat].  
 need me regular-LF cheap.LF reliable.SF Quartz watch  
 ‘I need a regular reliable cheap Quartz watch.’

In fact, we can construe examples in which the order of co-occurring LF and SF does not affect acceptability at all, such as (32).

- (32) a. luksuzn-i nov automobil  
 luxurious.LF new-SF car  
 ‘a luxurious car, new but not necessarily brand new’  
 b. nov-i luksuzn-i automobil  
 new-LF luxurious-LF car  
 ‘a brand new car, of the luxury kind’  
 c. luksuzan nov-i automobil  
 luxurious.SF new-LF car  
 ‘a luxurious brand new car’  
 d. nov-i luksuzan automobil  
 new-LF luxurious.SF car  
 ‘a new car, luxurious to some degree’

<sup>16</sup>As a side note, with determiners such as the one in (29) the adjective cannot move out of the nominal overtly either, so it is even less clear why it should be able to move covertly, in the case of high attributive modification.

On our proposal, the use of SF and LF correlates with subtle semantic differences captured by our English translations, and these follow from an account of the SF-LF distinction in terms of definiteness of the degree involved.

## 5. Conclusion

In this paper, we proposed that the SF-LF distinction in attributive adjectives in BCMS is best understood as a definiteness of degree phenomenon, rather than a marker of nominal definiteness or specificity. If correct, the analysis presents a case for a cross-linguistically rare morphological category of definiteness (definiteness of degrees), which sheds new light on both definiteness and degree in natural language.

There are a number of open issues and further implications of the proposal. First, it is not clear whether we are dealing with (in)definiteness of the degree (and then uniqueness, anaphoricity, familiarity, or other concepts of definiteness) or with (non)specificity (epistemic, scopal, or partitive). Uniqueness is most likely too strong, since in many cases it seems to be more about familiarity or referential anchorability (on the latter see discussion in von Stechow, 2011). In order to tackle this issue, we need to further explore the parallels to the nominal domain and look for inspiration in the literature on languages that have a grammaticalised definite (or specific) article.

A point we mostly ignored in this paper is the tendency to replace attributive SFs by LFs in some dialects, and the potential loss of attributive SFs overall. Corpus data indicate that with some (highly frequent) As, which display a lexically determined preference for LFs, this process might be more advanced. The biggest gap in the literature and the biggest task for further research is a clear empirical picture of rules and preferences which hold across BCMS as well as of variation within BCMS. To this extent, we need to explore regional and dialectal variation by collecting data from other (modern and historical) varieties of BCMS.

A further open question is whether all adjectives have a degree argument. For example, modal and temporal adjectives (33), as well as privative ones (34) only appear in LF; note that these adjectives are also non-gradable.

- (33) a. navodni / \*navodan  
           alleged.LF   alleged.SF  
       b. budući / \*buduć  
           future.A.LF   future.A.SF

- (34) lažni / \*lažan  
       fake.LF   fake.SF

This could be explained on our account by treating them as sharp predicates, but it might be more likely that these are actually adjectives that lack a degree argument altogether.

There are further paradigmatic gaps that might follow from the current proposal. For example, some deverbal adjectives, such as present active participles (35) or attributive perfect *l*-participles with unaccusatives (36) also lack SF and comparative forms.

- (35) a. { \*let-eć-Ø / let-eć-i } objekt  
fly-ing-SF fly-ing-LF object  
'flying object'  
b. \*let-eć-ij-i  
fly-ing-COMP-LF
- (36) a. { \*umr-l-Ø / umr-l-i } čovek  
die-L-SF die-L-LF man  
'deceased man'  
b. \*umr-l-ij-i  
die-L-COMP-LF

This gap can possibly be integrated into our proposal, but it requires additional research into the semantics of these deverbal derivations and possibly also into the event/scale structure underlying these verbal predicates.

Finally, there are open issues that definitely fall outside the current scope of the proposal. For example, possessive adjectives, which are derived from proper names (and also some nominals) by the suffix *-ov* (in the case of masculine names/nouns) and are best translated into English employing the Saxon genitive, lack LFs altogether and appear only in the SF (37a); they also lack comparative forms (37b).

- (37) a. { Petr-ov-Ø / \*Petr-ov-i } auto  
Peter-POSS-SF Peter-POSS-LF car  
'Peter's car'  
b. \*Petr-ov-ij-i  
Peter-POSS-COMP-LF

Simonović and Kovačević (2022) propose that *-ov* attaches to a referential, gender-marked N (a full phasal *n* head), based on prosodic faithfulness to N, full productivity, and semantic transparency. We could assume, then, that such adjectives contain too much (independent) nominal structure to allow for additional adjectival structure responsible for LF. Note that relational adjectives are different: the N inside such adjectives (e.g. 'wood' in 'wooden') is always non-referential, and we are dealing with "true" adjectives (see, e.g., McNally and Boleda, 2004; Boleda et al., 2012; Arsenijević et al., 2014).

## References

- Aguilar-Guevara, A. and J. Zwarts (2010). Weak definites and reference to kinds. In N. Li and D. Lutz (Eds.), *Proceedings of SALT 20*, pp. 179–196. Ithaca, NY: CLC Publications.
- Aljović, N. (2002). Long adjectival inflection and specificity in Serbo-Croatian. *Recherches Linguistiques de Vincennes* 31, 27–42.
- Arsenijević, B., G. Boleda, B. Gehrke, and L. McNally (2014). Ethnic adjectives are proper adjectives. In R. Baglini, T. Grinsell, J. Keane, A. Roth Singerman, and J. Thomas (Eds.), *CLS 46-I The Main Session: Proceedings of the 46th Annual Meeting of the Chicago Linguistic Society*, pp. 17–30. Chicago, IL: Chicago Linguistic Society.

- Bierwisch, M., H. Kamp, and A. Rossdeutscher (2024). Internal syntactic structure of adjectival forms and their semantics. Ms. Berlin/Stuttgart.
- Boleda, G., S. Evert, B. Gehrke, and L. McNally (2012). Adjectives as saturators vs. modifiers: Statistical evidence. In M. Aloni, V. Kimmelman, F. Roelofsen, G. W. Sassoon, K. Schulz, and M. Westera (Eds.), *Logic, Language and Meaning: 18th Amsterdam Colloquium, Amsterdam, The Netherlands, December 19–21, 2011. Revised selected papers*, pp. 112–121. Dordrecht: Springer.
- Borik, O. (2014). The argument structure of long and short form adjectives and participles in Russian. *Lingua* 149(B), 139–165.
- Bošković, (2005). Left branch extraction, structure of NP, and scrambling. In J. Sabel and M. Saito (Eds.), *The Free Word Order Phenomenon: Its Syntactic Sources and Diversity*, pp. 13–74. Berlin/New York, NY: De Gruyter Mouton.
- Chierchia, G. (1998). Reference to kinds across languages. *Natural Language Semantics* 6, 339–405.
- Cinque, G. (2010). *The Syntax of Adjectives: A Comparative Study*. Cambridge, MA: MIT Press.
- Coppock, E. and D. Beaver (2015). Definiteness and determinacy. *Linguistics and Philosophy* 38, 377–435.
- Corver, N. (1997). The internal syntax of the Dutch extended adjectival projection. *Natural Language & Linguistic Theory* 15, 289–368.
- Despić, M. (2011). *Syntax in the Absence of Determiner Phrase*. Ph. D. thesis, University of Connecticut, Storrs, CT.
- Frege, G. (1892). Über Sinn und Bedeutung. *Zeitschrift für Philosophie und philosophische Kritik* 100, 25–50.
- Fuli, L. (2007). Definiteness vs. specificity: An investigation into the terms used to describe articles in Gagana Samoa. Master's thesis, University of Auckland, Auckland.
- Geist, L. (2010). Indefinitpronomina im Russischen und Spezifität. *Zeitschrift für Slawistik* 55(2), 206–221.
- Giusti, G. (2005). At the left periphery of the Romanian noun phrase. In M. Coene and L. Tasmowski (Eds.), *On Space and Time in Language*, pp. 23–49. Cluj: Clusium.
- Heim, I. (1982). *The Semantics of Definite and Indefinite Noun Phrases*. Ph. D. thesis, University of Massachusetts, Amherst, MA.
- Heim, I. (2011). Definiteness and indefiniteness. In K. von Stechow, C. Maienborn, and P. Portner (Eds.), *Semantics: An International Handbook of Natural Language Meaning*, Volume 33.2 of *Handbücher zur Sprach- und Kommunikationswissenschaft / Handbooks of Linguistics and Communication Science [HSK]*, pp. 996–1025. Berlin: de Gruyter.
- Ionin, T., M. Zubizarreta, and V. Philippov (2009). Acquisition of article semantics by child and adult L2-English learners. *Bilingualism: Language and Cognition* 12(3), 337–361.
- Kamp, H. (1981). A theory of truth and semantic representation. In J. Groenendijk, T. Janssen, and M. Stokhof (Eds.), *Formal methods in the study of language*, pp. 277–322. Amsterdam: Mathematisch Centrum.
- Kennedy, C. and L. McNally (2005). Scale structure, degree modification, and the semantics of gradable predicates. *Language* 81(2), 345–381.
- Kovačević, P. (2014). A very minimal syntax: On the relationship of DP, scrambling and case. Master's thesis, University of Novi Sad.
- Kovačević, P. (in preparation). Definiteness in the adjectival domain: A degree-based approach to long and short form adjectives. Ms. University of Novi Sad.

- Kovačević, P., B. Gehrke, and M. Simonović (2025). The importance of having a degree: Missing short and long form adjectives in BCMS. Paper presented at the GLOW workshop (*Universal Paradigmatic Gaps*, Göttingen, March 24, 2025).
- Leko, N. (1999). Functional categories and the structure of the DP in Bosnian. In M. Dimitrova-Vulchanova and L. Hellan (Eds.), *Topics in South Slavic syntax and semantics*, pp. 229–252. Amsterdam: John Benjamins.
- Leskien, A. (1871). *Handbuch der altpulgarischen (altkirchenslawischen) Sprache*. Weimar: Hermann Böhlau.
- Ljubešić, N. and F. Klubička (2016). Serbian web corpus srWaC 1.1. <http://hdl.handle.net/11356/1063>.
- Maretić, T. (1963). *Gramatika i stilistika hrvatskoga ili srpskoga književnog jezika* (3rd ed.). Zagreb: Matica hrvatska. Originally published in Zagreb, 1899.
- Marušić, F. and R. Žaucer (2014). A definite article in the AP: Evidence from Colloquial Slovenian. In L. Schürcks, U. Etxeberria, and A. Giannakidou (Eds.), *The Nominal Constructions in Slavic and Beyond*, pp. 183–208. Berlin: De Gruyter Mouton.
- McNally, L. and G. Boleda (2004). Relational adjectives as properties of kinds. In O. Bonami and P. Cabredo Hofherr (Eds.), *Empirical Issues in Formal Syntax and Semantics 5*, pp. 179–196. <http://www.cssp.cnrs.fr/eiss5>.
- Progovac, L. (1998). Determiner phrase in a language without determiners (with apologies to Jim Huang 1982). *Journal of Linguistics* 34(1), 165–179.
- Sassoon, G. (2013). *Vagueness, Gradability and Typicality: The Interpretation of Adjectives and Nouns*. Leiden/Boston, MA: Brill.
- Seres, D. (2024). The grammaticalization of numeral ‘one’ in Slavic: From quantification to (non-) referentiality. *Catalan Journal of Linguistics* 23, 299–324.
- Seres, D. and O. Borik (2021). Definiteness in the absence of uniqueness: The case of Russian. In A. Blümel, J. Gajić, L. Geist, U. Junghanns, and H. Pitsch (Eds.), *Advances in Formal Slavic Linguistics 2018*, Open Slavic Linguistics, pp. 339–363. Berlin: Language Science Press.
- Sharvy, R. (1980). A more general theory of definite descriptions. *The Philosophical Review* 89(4), 607–624.
- Šimík, R. and C. Demian (2020). Definiteness, uniqueness, and maximality in languages with and without articles. *Journal of Semantics* 37, 311–366.
- Simonović, M. and P. Kovačević (2022). Possessive, kind and not so kind: The different uses of adjectival -ov in Serbo-Croatian. *Annual Review of the Faculty of Philosophy, Novi Sad* 47(3), 87–109.
- Simonović, M. (2016). Nepostojano ili nepostojeće? Generativni pristup nepostojanom a u srpskohrvatskom. In B. Arsenijević and S. H. Rešetar (Eds.), *Srpski jezik u savremenoj lingvističkoj teoriji*, pp. 15–34. Niš: Univerzitet u Nišu, Filozofski fakultet.
- Stanković, B. (2015). *Sintaksa i semantika određenog i neodređenog pridevskog vida u srpskom jeziku*. Ph. D. thesis, University of Kragujevac.
- Stevanović, M. (1986). *Savremeni srpskohrvatski jezik (gramatički sistemi i književnojezička norma)* (5th ed.). Beograd: IRO Naučna knjiga.
- Strawson, P. (1950). On referring. *Mind* 59(235), 320–344.
- Talić, A. (2017). Long-form and short-form prenominal adjectives are not reduced relative clauses in Bosnian/Croatian/Serbian. *Linguistic Inquiry* 48(1), 194–212.
- Trenkic, D. (2004). Definiteness in Serbian/Croatian/Bosnian and some implications for the general structure of the nominal phrase. *Lingua* 114(11), 1401–1427.

- von Heusinger, K. (2011). Specificity. In K. von Heusinger, C. Maienborn, and P. Portner (Eds.), *Semantics: An International Handbook of Natural Language Meaning*, Volume 33.2 of *Handbücher zur Sprach- und Kommunikationswissenschaft / Handbooks of Linguistics and Communication Science [HSK]*, pp. 1025–1058. Berlin: de Gruyter.
- Zlatić, L. (1997). *The Structure of the Serbian Noun Phrase*. Doctoral dissertation, University of Austin, Austin, TX.