

How Many Flowers! So Many Colors! Number Marking in Cardinality Exclamatives in Bulgarian*

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Abstract: Masculine nouns in Bulgarian inflect for three numbers: singular, plural, and “count.” The count form appears in structures with numerals (e.g., *three colors*), in cardinality questions (e.g., *How many colors?*), and declaratives (e.g., *that many colors*), but is prohibited in combination with *many*, and in cardinality exclamatives (e.g., *How! So many colors!*), where only the plural form is acceptable. That exclamatives pattern differently from their interrogative and declarative counterparts is particularly surprising because they are formed with the same *wh-/th-* pronouns seemingly directly combining with the noun phrase. This paper offers an analysis of the distinction in number marking in cardinality expressions in Bulgarian. It argues that the composition of *wh-/th-*pronouns, numerals, and *many* with noun phrases is mediated by one of two nonovert degree expressions, MEAS and MEAS_{SG}. The former imposes a semantic plurality on its nominal complement, the latter a semantic singularity, encoded by the count form. Underlying this distinction are two modes of cardinality measurement: estimation and counting. Exclamatives concern cardinality measures based on estimation, not counting, and thus require the noun phrase to be plural.

* Catherine Rudin’s work has greatly influenced my thinking about Bulgarian syntax. One of my earliest published papers, on the links between *wh*-movement and focus movement, was directly inspired by Rudin (1986), and my long-standing interest in the syntax of ‘than’-clauses and of free relatives also has its origins in Catherine’s foundational book. I have also been fortunate to collaborate with Catherine on the syntax of focus in *li*-questions, so for me that corner of Bulgarian grammar is shaped by her perspective as well. In this paper I address another topic in A’-dependencies in Bulgarian—the structure of exclamatives—although I consider the internal structure of exclamative phrases rather than their clausal syntax. Thanks to Iliyana Krapova for the initial discussion that convinced me to make my contribution to this volume be on this topic and to Steven Franks and two anonymous reviewers for their comments. Thanks also to Vesela Simeonova and Steven Franks for help with locating some of the references on the Bulgarian count form.

1. Introduction

English places restrictions on the type of *wh*-phrases that can appear in exclamatives, in contrast to questions. Only degree-denoting *wh*-expressions, in the form of *how* and *what* (e.g., *how tall*, *how many colors*, *what deserts*), can form exclamatives. The restricted distribution allows for the identification of syntactic and semantic properties that distinguish between the two types of *wh*-clauses. Bulgarian, on the other hand, allows a wider range of *wh*-expressions in exclamatives. In fact, the syntax of exclamative *A'*-dependencies in the language appears to be identical to that of *wh*-questions. This makes it difficult to identify properties that are specific to exclamatives and to establish cross-linguistic generalizations concerning this clause type.

There is one syntactic environment, however, where exclamatives in Bulgarian stand apart from their corresponding *wh*-questions, namely, number marking on the noun accompanying quantity-denoting *kolko* 'how many/much'. In combination with numerals some Bulgarian nouns appear in a special count form (*brojna forma*), distinct from the singular and plural. The same count form of the noun is used in 'how many' questions. Yet in 'how many' exclamatives the nouns can only be plural. Given that the form of the *wh*-expression *kolko* 'how many/much' is the same in exclamatives and questions, the differential number marking, count vs. plural, is puzzling.

The same number marking facts are found in another type of exclamative clause, based on demonstrative *tolkova* 'that many/much'. The English counterpart of this expression, as it is used in cardinality exclamatives, is *so many* rather than *that many*, which is used in declaratives. Arguably this is so because the *so*-proforms are degree denoting (e.g., *so tall*, *so many colors*, *such deserts*), the counterpart of the degree-denoting *wh*-expressions admissible in exclamatives. In Bulgarian, where the cardinality expression is *tolkova* 'that many/much' in both exclamatives and declaratives, there is nevertheless a distinction in the number marking on the noun. Whereas in declarative sentences, the relevant nouns take the count form in combination with *tolkova*, in exclamatives with *tolkova* the same nouns appear in the plural form.

This paper aims to provide an analysis of the distinction in number marking between cardinality exclamatives and their question and declarative counterparts in Bulgarian. I propose that cardinality exclamatives are formed with a null measure expression, which also links *mnogo* 'many/much' to NPs and which, just like *mnogo*, is only acceptable in cardinality structures with plural nouns. Cardinality questions and declaratives may include this measure expression, with the same result on nominal number marking, or they may be formed with a different measure expression which requires the count form. While analyzing cardinality expressions in exclamatives, questions, and declaratives, the paper also provides a description of the distribution of

the count form more generally and proposes that it is a semantically singular number marker.

1.1. *Wh*-Exclamatives and *Wh*-Questions

Word order in *wh*-exclamatives in Bulgarian mirrors that of *wh*-questions. The *wh*-phrase needs to be fronted to the left periphery of the clause, as seen in (1–4), and if there is more than one *wh*-phrase, all have to undergo movement, with superiority respected as in (2). Subjects cannot intervene between the *wh*-phrase and the verb; they can either precede the *wh*-phrase or appear post-verbally as in (3). What appears to be left-branch extraction is allowed in case the *wh*-pronoun originates in a predicative adjective, as in (4).

- (1) *Kakva kniga e napisala* {!/?}
 what-kind book be_{3SG} written_{FEM.SG}
 ‘What kind of book she wrote!’ / ‘What kind of book did she write?’
- (2) a. *Kolko studenti kolko statii publikovaxa* {!/?}
 wh-quantity students wh-quantity articles published
 ‘So many students published so many articles!’ /
 ‘How many students published how many articles?’
- b. **Kolko statii kolko studenti publikovaxa* {!/?}
 wh-quantity articles wh-quantity students published
- (3) (Vie) *kolko knigi (*vie) imate (vie)* {!/?}
 you_{PL} wh-quantity books have_{3PL} you_{PL}
 ‘How many books you have!’ / ‘How many books do you have?’
- (4) *Kolko e visoka Marija* {!/?}
 wh-quantity be_{3SG.PRES} tall_{FEM.SG} Maria
 ‘How tall Maria is!’ / ‘How tall is Maria?’

While word-order is, of course, only the surface manifestation of the underlying syntactic structure, the facts in (1–4) are nevertheless suggestive of a close link, if not full identity, between the structure of the *A*'-dependency in *wh*-questions and *wh*-exclamatives (with differences in form limited to the type of complementizer and prosody). For extensive discussion of the syntax of *wh*-questions in Bulgarian see Rudin (1988, 1986/2013), among many others. Rudin (1986/2013) also includes some remarks on the syntax of *wh*-exclamatives in Bulgarian.

The facts of Bulgarian are not surprising. Many analyses posit structural commonalities between *wh*-questions and *wh*-exclamatives (Michaelis and Lambrecht 1996, Michaelis 2001, Zanuttini and Portner 2003, a.o.). Nevertheless, there are differences between the two types of *wh*-clauses, most notably having to do with the specific *wh*-expressions allowed: *what* and *how* form matrix exclamatives in English but *who*, *when*, *where*, *why* do not. Other languages, including Bulgarian, allow a wider class of *wh*-expressions in exclamatives. For a detailed discussion of cross-linguistic differences in *wh*-exclamatives see Villalba (2008) and Nouwen and Chernilovskaya (2015).

1.2. So-Exclamatives and *That*-Declaratives

Similarities also exist between *so*-exclamatives and declarative clauses containing demonstrative *that* in place of degree *so*. In Bulgarian both roles are played by demonstrative pronouns (sometimes called *th*-pronouns), resulting in an ambiguity. Just as the *wh*-clauses in (1–4) give rise to a *wh*-exclamative and a *wh*-question, the sentences in (5–8) are ambiguous between a *so*-exclamative and a *that*-declarative (putting aside intonation). In the latter case, the *th*-pronouns are referential, possibly accompanied by a pointing gesture in a demonstrative use, or interpreted anaphorically. Both exclamatives and declaratives allow the *th*-expression to be fronted to the left periphery of the clause but do not require such movement.

- (5) *Takava kniga e napisala* {!/.}
 that-kind book be_{3SG} written_{FEM.SG}

‘Such a book she wrote!’ / ‘She wrote that kind of book.’

- (6) *Tolkova studenti publikovaxa tolkova statii* {!/.}
 th-quantity students published th-quantity articles

‘So many students published so many articles!’ / ‘That many students published that many articles.’

- (7) *Vie imate tolkova knigi* {!/.}
 you_{PL} have_{3PL} th-quantity books

‘You have so many books!’ / ‘You have that many books.’

- (8) *Tolkova e visoka Maria* {!/.}
 th-quantity be_{3SG.PRES} tall_{FEM.SG} Maria

‘Maria is so tall!’ / ‘Maria is that tall.’

So-exclamatives are less commonly discussed in the literature, but they appear to be closely related to their *wh*-counterparts. For instance, in English *so*-exclamatives conform to the degree restriction found in *wh*-exclamatives. In Bulgarian too, *so*-exclamatives and *wh*-exclamatives behave the same with respect to number marking in cardinality nominals, as discussed in the next section.

1.3. Number Marking in Cardinality Exclamatives, Declaratives, and Questions

Cardinality *wh*-exclamatives and *wh*-questions in Bulgarian differ, despite the identical form of their *wh*-pronouns. *Kolko doklada* ‘how many papers’ in (9a), where the noun has count morphology, yields a question only; *kolko dokladi* ‘how many papers’ in (9b), with a plural noun, forms an exclamative only, in the normative language (e.g., Stoyanov 1993: 108, Pašov 2011: 69).¹

- (9) a. *Kolko doklada predstavixa studentite vi*
 wh-quantity paper_{COUNT} present_{3PL.PAST} students_{DEF} your
 na konferencijata?
 at conference_{DEF}
 ‘How many papers did your students present at the conference?’
- b. *Kolko dokladi predstavixa studentite vi*
 wh-quantity paper_{PL} present_{3PL.PAST} students_{DEF} your
 na konferencijata!
 at conference_{DEF}
 ‘How many papers your students presented at the conference!’

In cardinality declaratives and exclamatives, number morphology on the nominal plays the same disambiguating role. *Tolkova doklada* ‘that many papers’ in (10a), with a noun in the count form, results in a declarative only; *tolkova dokladi* ‘so many papers’ in (10b), with a plural noun, is interpreted as an exclamative in the normative language.²

¹ In the colloquial language (9b) can also be interpreted as a question (with suitable intonation). Still an asymmetry exists, because even colloquially (9a) cannot be interpreted as an exclamative.

² There is variation in the colloquial language, as in the case of *wh*-questions vs. *wh*-exclamatives, with the same asymmetry (see footnote 1). (10b) can be both a declarative and an exclamative, but (10a) can only be a declarative.

- (10) a. Studentite vi predstavixa *tolkova doklada*
 students_{DEF} your present_{3PL.PAST} th-quantity paper_{COUNT}
 na konferencijata.
 at conference_{DEF}
 ‘Your students presented that many papers at the conference.’
- b. Studentite vi predstavixa *tolkova dokladi*
 students_{DEF} your present_{3PL.PAST} th-quantity paper_{PL}
 na konferencijata!
 at conference_{DEF}
 ‘Your students presented so many papers at the conference!’

The differential number marking in exclamatives vs. questions and declaratives has been noted before (Stoyanov 1993, Cinque and Krapova 2007, Pašov 2011, Xristozova 2012, Franks this volume) but as far as I know there has been no formal analysis. This paper sets out to provide one.

2. Background on Number Marking in Nominals

Bulgarian masculine nouns make a three-way distinction in number: they have a so-called count form, in addition to a singular and a plural form. Feminine and neuter nouns do not have a count form. The plural inflection is varied: apart from the general and gender-neutral *-i* suffix, it involves sub-regularities and irregular suffixes, some of them specific to masculine nouns, as well as occasional changes in the stress pattern, e.g., *sin-sinové* ‘son(s)’ and vowel-zero alternations, e.g., *orél-orlí* ‘eagle(s)’. The count inflection is regular: it involves the *-a* suffix, which can predictably surface as *-ja*, and which doesn’t change the stress pattern or involve stem changes. The morphological distinction is productive, whether the nouns take the most general *-i* plural, the regular *-ove* plural for mono-syllabic masculine nouns, or one of the irregular plural suffixes, as seen in Table 1. There are only a few nouns that do not have a count form.³

³ E.g., the personal noun *bašta* ‘father’ (regular plural *bašti*) and *djado* ‘grandfather’ (irregular plural *djadovci*) have no count forms. They are atypical masculine nouns because they end in a vowel. The nonpersonal *pât* ‘time, occasion’ also doesn’t have a count form (its regular plural is *pâti*).

Table 1. Number distinctions in masculine nonpersonal and personal nouns

	Singular	Plural	Count	
Nonpersonal	kon	koné	kónja	‘horse’
	pât	pâtišta	pâtja	‘road’
	krak	kraká	kráka	‘leg’
	cvjat	cvetové	cvjáta	‘color’
	slon	slónove	slóna	‘elephant’
	orél	orlí	oréla	‘eagle’
Personal	mâž	mâžé	máža	‘man’
	sin	sinové	sína	‘son’
	kmet	kmétove	kméta	‘mayor’
	pevéc	pevcí	pevéca	‘singer’

Although the three-way distinction—singular, plural, and count—is morphologically productive with both types of masculine nouns, normative grammar prohibits the use of the count form with personal nouns. However, there is variation when it comes to the colloquial language, whether spoken or written. The next sections discuss the norms and the observed colloquial variation.

2.1. Norms: Masculine Nonpersonal Nouns

The count form is only used for masculine nonpersonal nouns in combination with exact and approximate numerals (except for *edin* ‘one’) and quantity *wh-/th*-expressions like indefinite *njakolko* ‘several’, negative indefinite *nikolko* ‘no, not any’, interrogative *kolko* ‘how many’, free relative *kolkoto* ‘how(ever) many’, and demonstrative/anaphoric *tolkova* ‘that many’, (11–12). The quantity expressions in (12) are all morphologically related.⁴

⁴ Etymologically, *kolko* and *tolkova* (and their free relative counterpart *kolkoto*) are inherited from Proto-Indo-European interrogative/relative **k^wo-* and the demonstrative **to-*, respectively, in combination with a morpheme that was likely derived from **h₂el-* ‘to grow’ and which in Old Slavic was *-li-* (Georgiev 1979: 556–57). Latin cognates of the *wh-/th*-quantity pronouns are *quālis* and *talis*. The modern stem *-lko* is derived from *-li-* and the adjectival suffix *-k^v* (Georgiev 1979: 556–57); cf. *velik^v* ‘big, great’. The prefixes *nja-* and *ni-*, added to the *wh*-quantity stem *ko-lko*, contribute existential and negative existential meaning, respectively (cf. *nja-kāde* ‘some-where’, *ni-kāde* ‘no-where’).

- (11) {deset / desetina / pet-šest} cvjata
 ten ten-or-so five-six color_{COUNT}
- (12) {njakolko / nikolko / kolko / kolkoto / tolkova}
 several not-any wh-quantity_Q wh-quantity_{FR} th-quantity
 cvjata
 color_{COUNT}

Quantifiers, and interrogative and demonstrative pronouns that do not encode cardinality require the plural or singular form, (13).

- (13) a. {edni / vsički / njakoi / koi / koito / tezi} cvetove
 some_{PL} all some_{PL} which_{Q.PL} which_{FR.PL} these color_{PL}
- b. {edin / vseki / njakoj / koj / kojto / tozi} cvjat
 one each some_{SG} which_{Q.SG} which_{FR.SG} this color_{SG}

Perhaps surprisingly, given that they too are concerned with quantity, *mnogo* ‘many/much’, *malko* ‘few/little’, and their comparative and superlative forms combine with the plural rather than the count form, (14) (Stoyanov 1993: 108, Tasseva-Kurktchieva 2006, Cinque and Krapova 2007, Pašov 2011: 69–71, Xristozova 2012, Stateva and Stepanov 2016, Mikova 2017, Franks [this volume]).⁵

⁵ Tasseva-Kurktchieva (2006) marks *nikolko* ‘no, not any’ in combination with a count noun as ungrammatical, and an anonymous reviewer agrees. My own judgments are different. Below are some relevant examples, from an internet search. No examples of the corresponding *nikolko levove* ‘no lev_{PL}’ or *nikolko kone* ‘no horse_{PL}’ were found. *Nikolko* in nominals is rare, and possibly this low frequency is behind the difference in judgments.

- (i) S *nikolko* leva njama da se uveličat zaplatite na
 with not-any lev_{COUNT} not-will SUBJ REFL increase_{3PL} the-salaries of
 lekarite.
 the-doctors
 ‘Doctors’ salaries will not increase by even a single lev.’ (*lev* is the Bulgarian currency)
- (ii) Za sto leva točno *nikolko* konja njama da kači,
 for hundred lev_{COUNT} exactly not-any horse_{COUNT} not-will SUBJ add
 garantiram ti.
 guarantee_{1SG} you
 ‘For a hundred lev, it will add no horsepower, I guarantee you.’ (on making improvements to a car)

- (14) a. {mnogo / poveče / povečeto / naj-mnogo} cvetove
 many/much more most the-most color_{PL}
 b. {malko / po-malko / naj-malko} cvetove
 few/little fewer/less the-fewest/the-least color_{PL}

2.2. Norms: Masculine Personal Nouns

The norm for masculine personal nouns combining with numerals and *wh-/th-*quantity expressions is the plural form. The numerals themselves take a special suffix (e.g., unmarked *tri* vs. masculine personal *trima* ‘three’). The suffix *-(i)ma* is widely used for the lower numerals, ‘two’ to ‘six’, but less so for higher numerals.⁶ Suffixed numerals are only available in the context of masculine personal nouns (see Hurford 2003, Cinque and Krapova 2007 for the suggestion that the suffix is a bound numeral classifier). The patterns are illustrated in (15–16).

- (15) trima mâže / dvama kmetove / petima lekari
 three_{MASC.PERS} man_{PL} two_{MASC.PERS} mayor_{PL} five_{MASC.PERS} doctor_{PL}
- (16) {njakolko / ... / kolko(to) / tolkova} {mâže / kmetove /
 several wh-quantity_{Q(FR)} th-quantity man_{PL} mayor_{PL}
 lekari}
 doctor_{PL}

When combining with non-numeral quantifiers and *many* and *few* the personal and nonpersonal nouns do not differ, and appear in the plural form. Compare (17) with (14).

- (17) {mnogo / ... / malko / ...} {mâže / kmetove / lekari }
 many/much few/little man_{PL} mayor_{PL} doctor_{PL}

2.3. Variation: Masculine Non-Personal Nouns

Non-personal nouns show considerable variation in departing from the norms in colloquial registers. The use of the plural instead of the count morphology for nonpersonal nouns is noted even in grammars which otherwise tend to be prescriptive in favor of more formal styles. Stoyanov (1993: 108) lists the doublet forms in (18), and in fact notes that the plural form is preferred to the

⁶ In the case of *sedem* ‘seven’ and *osem* ‘eight’ where, for phonological reasons, the form is rarely, if ever, used. Sometimes the approximative form ending in *-ina* is used instead of the masculine personal form for these numerals.

count form. All such nouns use the general *-i* suffix to form the plural; indeed, it seems to me that the irregular plural suffixes are more easily blocked by the count suffix. But at best this is a tendency, and “incorrect” plural forms can be found with all types of masculine nonpersonal nouns; see (19) and (20a–b), from the Bulgarian National Corpus (BNC)⁷ and (20c), from an internet search, where the nouns form irregular plurals. Importantly, these are not isolated examples, and they can appear with numerals (apart from *dva* ‘two’⁸) and with quantity *wh-/th*-expressions.⁹

- (18) tri {{prozoreca / prozorci} / {orela / orli} / {ovena /
 three window_{COUNT} window_{PL} eagle_{COUNT} eagle_{PL} ram_{COUNT}
 ovni}}
 ram_{PL}

- (19) a. Ne moga dori da kaža kolko kone smenix
 not can_{1SG} even subj say_{1SG} wh-quantity horse_{PL} change_{1SG}
 po pătja.
 on road_{DEF}

‘I can’t even say how many horses I changed while I was on the road.’

- b. Dostavjal xrana, paša i pari za 8000 duši
 bring_{3SG.PAST} food fodder and money for 8000 people
 i tolkova kone.
 and th-quantity horse_{PL}

‘He used to bring food, fodder, and money for 8000 people and that many horses.’

- c. Polovinata ot konvoja kapna ot umora, njakolko
 half of konvoj_{DEF} drop_{3SG.PAST} from fatigue several
 kone padnaxa.
 horse_{PL} fall_{3PL.PAST}

‘Half of the convoy suffered extreme fatigue; several horses fell down.’

⁷ <http://dcl.bas.bg/bulnc/en/>

⁸ The count form is derived historically from the dual form. Likely this is the reason that the count form is obligatory with *dva*. In addition to number, *dva* also agrees with the NP in gender. It is unambiguously marked masculine (the feminine and neuter form is *dve*), and is the only numeral apart from *edin* ‘one’ to be marked for gender.

⁹ I find all examples, from (18) to (22), acceptable, provided the discourse is colloquial.

- (19) d. Namerixa se samo deset kone za [v]sički ni, a
 found_{3PL.PAST} REFL only ten horse_{PL} for all us and
 poveče njamaše.
 more there-wasn't
 'Only ten horses were found for all of us, and there were no more.'
- (20) a. Kolko pâtišta vodjat do stenite na krepostta?
 wh-quantity road_{PL} lead_{3PL.PRES} to walls_{DEF} of fortress_{DEF}
 'How many roads lead to the walls of the fortress?'
- b. Sâstestvuvat *tolkova* pâtišta kolkoto odelni duši
 exist_{3PL.PRES} th-quantity road_{PL} wh-quantity separate souls
 'However many different souls there are, there are that many roads.'
- c. Sofia e razpoložena čudesno ... na krâstopât pone na
 Sofia is situated wonderfully on crossroad at-least of
sedem, osem pâtišta.
 seven eight road_{PL}
 'Sofia is wonderfully situated [...] on the crossroad of at least seven, eight roads.'

Such variation between count and plural forms can be found even within the same sentence; see (21) from Xristozova (2012: 307) where the 'incorrect' plural form is used in one case (plural *vârbove* instead of count *vârxa* 'summits') but not in another (count *kontinenta* 'continents').

- (21) Alpinistât Džordan e pokoril *sedemte vârbove* na
 the-alpinist Jordan is conquered the-seven summit_{PL} of
sedemte kontinenta.
 the-seven continent_{COUNT}
 'The mountain climber Jordan conquered the seven summits of the seven continents.'

Another factor for the acceptability of the plural form is the presence of intervening adjectives (Pašov 2011: 70, Xristozova 2012, Stateva and Stepanov 2016). (22) is a "violation" (Xristozova 2012: 308), where the plural *centrove* 'centers' is used instead of the normative count *centâra*. The attributive modifiers are plural. Stateva and Stepanov (2016) treat such cases as agreement attraction errors and show that the use of the plural form increases with the increase in the number of intervening adjectives (with distance measured in terms of structural nodes).

- (22) *njakolko golemi obštinski centrove*
 several large_{PL} county_{PL} center_{PL}
 ‘several large county centers’

To conclude, contexts with numerals and *wh-/th*-quantity expressions readily allow variation between the count and the plural form in the colloquial language, although the count form is prescribed for nonpersonal nouns. Nevertheless, the interchangeability is unidirectional: the contexts in (13a) and (14) require the plural and do not permit the count form (occasional examples with the count form are very rare and possibly reflect idiolectal variation).^{10, 11}

2.4. Variation: Masculine Personal Nouns

There is also variation in the number marking of masculine personal nouns with numerals and *wh*- and *th*-quantity expressions in the colloquial language. Often one finds the count form instead of the plural (e.g., in Pašov 2011: 69).

¹⁰ In partitives a count form may appear in place of the expected plural. Consider (i) (Pašov 2011: 70), where the NP is not directly selected by the numeral. According to the norms, the NP needs to be plural (*prepisi* ‘copies’). On the other hand, Xristozova (2012: 38) gives the partitive in (ii), with a plural NP (*uroci* ‘lessons’), as an example of an incorrect use, suggesting that the count form *uroka* ‘lessons’ should be used instead. Clearly there is variation in this area as well. (I find both forms acceptable.)

- (i) *Originalât e zaguben, no se pazjat pet ot negovite prepisa.*
 the-original is lost but REFL keep_{3PL.PRES} five of its copy_{COUNT}
 ‘The original is lost but five of its copies are being preserved.’
- (ii) *pet ot naj-trudnite uroci*
 five of most-difficult_{DEF} lesson_{PL}
 ‘five of the most difficult lessons’

¹¹ One can find examples of the use of the count form with *mnogo* ‘many/much’ as well as with *njakoi* ‘some’ and *tezi* ‘these’, though they are very few. The examples in (i) are from an internet search (they do not sound acceptable to me). A search of BNC yielded no such forms, but had many examples of *many* with plural masculine nonpersonal (and personal) nouns, as the norm dictates.

- (i) a. ... *polučete kato podarâk zabavna ximikalka s mnogo*
 receive_{2PL.IMP} as present fun pen with many/much
cvjata v neja.
 color_{COUNT} in it
 ‘... receive as a free gift a fun pen that has many colors.’
- b. *Bojan Kostov pâk e s naj-mnogo glasa— 331...*
 Bojan Kostov INTERJ is with est-many/much vote_{COUNT} 331
 ‘Bojan Kostov has the most votes: 331.’

The count forms in (23–24), from BNC, are acceptable for me, as would be their normative plural forms (with the general plural *-i*). Examples where the count form substitutes an irregular plural form can be found, but they are rarer, and to me at least they do not sound that great, e.g., the count form in (25), from BNC, which is used instead of the irregular plural *mâže* ‘men’. Monosyllabic nouns that take the regular *-ove* plural (*popove* ‘priests’) sound more acceptable to me when used in their count form, as in (26), from BNC.

- (23) I kakvo šte praviš ti s tvoite sto vojnika
 and what will do_{2SG} you with your hundred soldier_{COUNT}
 sreštu sto xiljadi?
 against hundred thousand
 ‘And what will you do with your hundred soldiers against a hundred thousand soldiers?’
- (24) Tja pokani *njakolko studenta* da posetjat klinikata ì...
 she invited several student_{COUNT} SUBJ visit clinic_{DEF} her
 ‘She invited several students to visit her clinic.’
- (25) Kojto piše za istorijata na Oxrid, trjabva edro da
 who_{FR} write about history_{DEF} of Ohrid must notably SUBJ
 otbeleži *njakolko mâža*, koito opropastixa vsičkite si
 recognize several man_{COUNT} who ruin_{3PL.PAST} all_{DEF} REFL
 kapitali po narodnoto delo.
 capital on national_{DEF} cause
 ‘Whoever writes about the history of Ohrid should strongly recognize several men who spent all their possessions for the national cause.’
- (26) *Njakolko popa* otslužili molitvi ...
 several priest_{COUNT} serve_{3PL.PAST} prayers
 ‘Several priests said prayers...’

Xristozova (2012: 307) gives examples where in the same sentence one numerically quantified masculine personal NP has the “wrong” count form (count *sina* instead of plural *sinove* ‘sons’) while others have the normative plural form.

- (27) Djado Teodosij ima *dvama* *sina*, četirima
 Grandfather Teodosij has two_{MASC.PERS} son_{COUNT} four_{MASC.PERS}
vnuci, četirima *pravnucci* i *dvama*
 grandson_{PL} four_{MASC.PERS} great-grandson_{PL} and two_{MASC.PERS}
prapranucci.
 great-great-grandson_{PL}

‘Old Teodosij has two sons, four grandsons, four great grandsons, and two great-great-grandsons.’

I have not found attested examples of the count form of personal nouns after *mnogo* ‘many’. There doesn’t seem to be variation of the type that nonpersonal nouns allow marginally (see fn. 11).

2.5. Summary

Masculine nouns make a three-way morphological distinction between singular, plural, and count forms. The count form is only available in combination with numerals and with *wh-/th-*quantity expressions. In such contexts count inflection is the norm for nonpersonal nouns, while plural inflection is the norm for personal nouns, but often the two are used interchangeably with both types of nouns in the colloquial language. *Mnogo* ‘many/much’ in all its degree forms combines with plural nouns, personal or nonpersonal. Table 2, on the opposing page, gives a summary (*/? marks the restricted, possibly idiolectal, variation; √norm marks the prescribed norm, and the rest reflects common use).

Mikova (2017) notes a change in normative grammars with respect to the prescribed number marking on personal nouns. In 1945 both count and plural forms were listed as acceptable, in 1983 a preference was expressed for the plural form, particularly after numerals with the suffix *-(i)ma*, and in 2012 only the plural form was considered acceptable. On the other hand, the normative grammars consistently recognize only the count form of nonpersonal nouns as “correct,” though in 1983 the forms in (18) were listed as doublets. We can conclude that a change in progress has been underway, whereby an older grammar of count marking on personal nouns is replaced by a grammar where such nouns are marked plural. A similar change must be underway in the case of nonpersonal nouns, though the progress of the newer plural-marking grammar has been slower or more recent and is not yet acknowledged in normative grammars. The present-day variation in the colloquial language reflects the effects of the older and newer grammars in competition.

Table 2. Number distinctions for masculine nouns including normative and colloquial varieties

	Nonpersonal <i>cvjat</i> 'color'		Personal <i>kmet</i> 'mayor'	
	<i>cvjata</i> _{COUNT}	<i>cvetove</i> _{PL}	<i>kmeta</i> _{COUNT}	<i>kmetove</i> _{PL}
Numerals	√norm	√	√	√norm
{ <i>nja-/ni-</i> } <i>kolko</i> 'several' / 'not any'	√norm	√	√	√norm
<i>kolko(to)</i> 'how many' (free rel.)	√norm	√	√	√norm
<i>tolkova</i> 'that many', 'so many'	√norm	√	√	√norm
(<i>naj-</i>) <i>mного</i> 'many' ('the most')	*/?	√norm	*	√norm
<i>poveče(to)</i> 'more' ('most')	*/?	√norm	*	√norm

3. Exclamatives

Against the background in section 2, consider again number marking in exclamatives vs. questions and declaratives. Because neuter *cvete* 'flower' does not have a count form, the fragments in (28a) and (28b) are ambiguous. But for masculine nonpersonal *cvjat* 'color' there is no ambiguity in the normative language: the plural brings about the exclamative reading, (29), while the count form yields the question or declarative reading, (30).

- (28) a. Kolko cvetja {!/?}
wh-quantity flower_{PL}
'How many flowers {!/?}'
- b. Tolkova cvetja {!/?}
th-quantity flower_{PL}
'So many flowers!' / 'That many flowers.'
- (29) a. Kolko cvetove!
wh-quantity color_{PL}
'How many colors!'
- b. Tolkova cvetove!
th-quantity color_{PL}
'So many colors!'
- (30) a. Kolko cvjata?
wh-quantity color_{COUNT}
'How many colors?'
- b. Tolkova cvjata.
th-quantity color_{COUNT}
'That many colors.'

In colloquial usage, there is variation between the plural and count form in questions and declaratives, as seen in (19) and (20). Two other examples are (31), from an internet search, and (32), from BNC, with a plural (*cvetove*) instead of a count noun (*cvjata*) of *cvjat* 'color'.

- (31) Razgledajte kartinkata i vnimatelno prebrojte *kolko*
 look-at picture_{DEF} and carefully count wh-quantity
cvetove različavate.
 color_{PL} differentiate
 'Look at the picture and carefully count how many different colors
 you see.'
- (32) Roklite na ženite bjaxa našareni s *tolkova*
 dresses_{DEF} of women_{DEF} were colored with th-quantity
cvetove, kolkoto izobšto imaše.
 color_{PL} wh-quantity_{FR} even there-were
 'The women's dresses had that many colors on them, however many
 colors even existed.'

In light of (19), (20), (31), and (32), it is clear that in the colloquial language the plural form of nouns allows both an exclamative and a question or a declarative reading of cardinal *wh-/th*-expressions. The variation is one-sided though. While questions and declaratives allow plural nouns in lieu of count nouns, exclamatives do not allow count nouns. Table 3, on the opposing page, gives a summary.

Since the exclamative and interrogative *kolko* 'how many' are morphologically the same, it is surprising that they differ with respect to the number marking on the noun they combine with. The same holds for the pair of *th*-expressions: they are identical in form, yet declarative *tolkova* 'that many' combines with the count form, or optionally with the plural, while the *so*-exclamative only allows the plural. What sets exclamatives apart from their interrogative/declarative counterparts? Exclamative *wh-/th*-expressions also stand out among the wider class of nominal cardinality expressions such as those with numerals, numeral quantifiers *njakolko* 'several' and *nikolko* 'no, not any', and free relative *kolkoto* 'how many', which too allow variation in number marking.

Table 3. Number distinctions for masculine nouns in questions and declaratives vs. exclamatives including normative and colloquial varieties

	Nonpersonal <i>cvjat</i> ‘color’		Personal <i>kmet</i> ‘mayor’	
	<i>cvjata</i> _{COUNT}	<i>cvetove</i> _{PL}	<i>kmeta</i> _{COUNT}	<i>kmetove</i> _{PL}
<i>kolko</i> ‘how many’ (question)	√norm	√	√	√norm
<i>tolkova</i> ‘that many’ (declarative)	√norm	√	√	√norm
<i>kolko</i> ‘how many’ (exclamative)	*	√norm	*	√norm
<i>tolkova</i> ‘that many’ (exclamative)	*	√norm	*	√norm

3.1. A Null *Mnogo* ‘Many’?

A possible line of analysis is that exclamatives contain a nonovert *MNOGO* ‘many/much’. On this view, in (29) it is not the *wh-/th*-pronoun that determines the number marking on the noun, but a nonovert *MNOGO*, as in (33b). The count form is unacceptable, because nonovert *MNOGO*, like its overt counterpart, does not combine with count-marked nouns. The covert element is in small caps.

- (33) a. *question/declarative: count or plural*
 {*kolko* / *tolkova*} {*cvjata* / *cvetove*}
 wh-quantity th-quantity color_{COUNT} color_{PL}
- b. *exclamative: plural*
 {*kolko* / *tolkova*} *MNOGO* *cvetove*
 wh-quantity th-quantity many/much color_{PL}

A nonovert *MNOGO* may also seem attractive because of a semantic property that is obvious enough to be noted in traditional grammars (Pašov 2011: 69). The exclamatives in (29) convey that the number of colors is large (for the context at hand); the question and the declarative in (30) do not carry such an implication. If a child has a set of 120 colored pencils but draws a picture that only has the colors red, blue, and yellow, the exclamatives in (29) would not be felicitous. However, if told that the child drew a picture with a very small number of colors, it would be felicitous to ask the question in (30a) or to answer it with the declarative in (30b). This meaning component—exceeding the standard degree on the relevant scale—is known as evaluativity (Rett 2015).

Cardinality exclamatives are always evaluative while cardinality questions and declaratives need not be. A covert *MNOGO* can be the reason exclamatives are evaluative. The positive form of ‘many’ (‘many colors’) is evaluative, conveying that the number of colors is large.

An overt intensifier *mnogo* may be added to cardinality exclamatives without a noticeable difference in meaning, since cardinality exclamative phrases already express a high number. The same is true about the addition of the degree intensifier *very* in English.¹²

- (34) a. Kolko *mnogo* cvetove!
 wh-quantity many/much color_{PL}
 ‘How (very) many colors!’
- b. Tolkova *mnogo* cvetove!
 th-quantity many/much color_{PL}
 ‘So (very) many colors!’

The intensifier *mnogo* can also be added to questions and declaratives but with a noticeable effect on meaning. Its presence contributes evaluativity.¹³ And, in apparent support of the idea that the obligatory plural marking in cardinality exclamatives is due to a null *mnogo*, and that the overt intensifier *mnogo* requires the presence of a null *mnogo*, questions and declaratives with an overt *mnogo* only accept the plural form of nouns.¹⁴

- (35) a. Kolko *mnogo* cvetove?
 wh-quantity many/much color_{PL}
 ‘How very many colors?’

¹² The degree intensifier ‘very’ is also *mnogo* in Bulgarian.

(i) Marija e *mnogo* visoka i osven tova tiča *mnogo* bârzo.
 Maria is very tall and besides this runs very fast
 ‘Maria is very tall and she also runs very fast.’

¹³ This effect of *mnogo* ‘many’ in questions was noted by Rett (2008: 111, 2015: 150). The proposal in Rett (2006) is not meant to account for this effect.

¹⁴ As noted in fn. 11, *mnogo* may appear with the count form in rare cases, and the same holds for *kolko/ tolkova mnogo* expressions; see (i), from an internet search yielding four distinct results for the string *kolko mnogo cvjata*.

(i) Vižte ošte *kolko mnogo cvjata* očakvam.
 see_{2PL.IMP} more wh-quantity many color_{COUNT} expect_{1SG}
 ‘See how many more colors I am expecting.’

- (35) b. Tolkova *mnogo* cvetove.
 th-quantity many/much color_{PL}
 'That very many colors.'

Positing a null *MNOGO* may resolve the issue of number marking, but it does not immediately account for evaluativity. Positive degree adjectives in general (e.g., *tall*) are evaluative, and the role of contributing this aspect of meaning is often attributed to the presence of a null degree *POS-*, in complementary distribution to comparative *-er*, superlative *-est*, and degree *how* and *that* (e.g., Cresswell 1976). *Pos-* encodes the meaning of exceeding a contextual standard on the scale associated with the adjective. Thus, *Mary is pos-tall* means that Mary's height is above the standard of height in the given context; *pos-many colors* expresses that the number of colors exceeds the contextual standard for a large number. But in *wh-/th*-expressions, *kolko* and *tolkova* should preclude the presence of *pos-* as they fill the same position. More needs to be said about the internal structure of such expressions before we could adopt the idea of a null *MNOGO*.

Moreover, evaluativity is a general feature of all *wh*-exclamatives that contain degree expressions and not just of cardinality exclamatives. The examples in (36) are evaluative, with or without *very*. The same would hold for their counterparts in Bulgarian (not illustrated here).

- (36) a. How (very) much wine we drank!
 b. How (very) tall you are!

Clearly, a closer look is needed at the issue of evaluativity in exclamatives and its possible source. But first I will consider another precedent for positing null structure in exclamatives.

3.2. The Degree Restriction in Exclamatives

A notable feature of English *wh*-exclamatives is that they accept only a subset of *wh*-pronouns: *what*, manner *how*, and degree *how* (e.g., *how tall*, *how many*). As Rett (2011) notes, potential exclamatives with perfectly natural interpretations are ungrammatical (see (37), her ex. (14d–f)).

- (37) a. *Who that lovely woman married! (...He's so acerbic!)
 b. *Where she goes out partying! (...It's so seedy!)
 c. *When she gets out of bed in the morning! (...I eat lunch at that hour!)

If one wanted to express surprise at the identity of the individual who the lovely woman married, (37a) should be the way to do it, but the exclamative is not well-formed. The corresponding *wh*-question would be grammatical.¹⁵ Similar considerations apply to the other examples in (37).

Michaelis and Lambrecht (1996) and Rett (2011) suggest that English exclamatives are restricted to degree interpretations, which precludes *who*, *where*, *when*, and *why*: these *wh*-pronouns do not range over degrees. In contrast, *what* ranges over both individuals and degrees, and while only the individual reading is available in questions (Zanuttini and Portner 2003, Rett 2011, 2015), only the degree reading is found in *wh*-exclamatives. Rett (2011) gives the example in (38) (her (17)). Even in the absence of a degree predicate, its content is about a gradable quality of the desserts, e.g., being tasty or exotic. It cannot express surprise that John baked a particular set of desserts (a baklava and a tikvenik) instead of an expected other set (an apple pie and a blueberry pie).

(38) (My,) What desserts John baked!

The degree restriction extends to all (matrix) exclamatives, even those that do not involve a *wh*-dependency, yet it is not present in declarative exclamations, suggesting that it cannot be attributed to the speech act of exclamation.¹⁶ The structure of exclamatives must be responsible. Rett (2011) proposes that English exclamatives contain a null measure function (M-OP) mapping individuals to degrees in the absence of an overt degree predicate (e.g., *what M-OP desserts*). M-OP is valued contextually. In (38) M-OP can be associated with a scale of deliciousness, richness, etc.

¹⁵ However, these *wh*-expressions are acceptable in embedded contexts under what are sometimes called “exclamative predicates”, as noted in Michaelis (2001), Rett (2011), Nouwen and Chernilovskaya (2015). Analyzing these as embedded questions, and restricting exclamatives to only matrix contexts, is appealing, but is not without difficulties.

- (i) a. You wouldn't believe who that lovely woman married!
- b. I am amazed where she goes out partying!
- c. You wouldn't believe when she gets out of bed in the morning!

We can identify a scalar meaning, yet it does not concern gradable properties of individuals, but a scale of likelihood. Thus (ia) expresses surprise that the woman married the specific person (an individual, not a degree reading) and additionally conveys that the person is the least likely for her to have married among the relevant alternatives.

¹⁶ Rett (2011: ex. (24b) and (25b)) shows that only the declarative exclamation in (ii) can express surprise at the fact that Sue likes banana bread; in (i), in the form of a question, the surprise is about the degree of her love of banana bread.

- (i) (Boy,) Does Sue like banana bread!
- (ii) (My,) Sue likes banana bread!

There is a suggestive link between the putative null *mnogo* in cardinality exclamatives and the null measure function M-OP. Yet there are also difficulties with equating the two. First, a quantity measure function must already be present in all cardinality *wh-/th*-expressions as well as in nominal phrases with numerals. Second, the conditions under which a null M-OP is obligatorily triggered in exclamatives but not in questions or declaratives remain unclear, and Rett (2011), while noting the problem, does not offer a solution. And finally, the degree requirement does not hold for exclamatives cross-linguistically, with some languages allowing *wh*-pronouns that do not range over degrees to form exclamatives (Nouwen and Chernilovskaya 2015). The last issue is particularly relevant, because Bulgarian allows a wider range of *wh*-exclamatives. Below are some examples of exclamatives (from an internet search) that would not be well-formed as English matrix exclamatives, and that do not express a surprise at the degree to which an individual has a gradable property but rather at the identity of the referent of the *wh*-expression.

- (39) Bože gospodi, *kakvo* namerix v edin arxiviran doklad na
 God Lord what find_{1SG.PAST} in one archived report of
 Johanes Han ...
 Johannes Hahn

Lit. 'Oh my God, what I found in an archived report of Johannes Hahn!'

- (40) Lele *koj* ni bie stanaxme za smex!
 INTERJ who us beat_{3SG.PRES} become_{1PL.PRES} for laughter

Lit. 'Wow, who beat us! We've become a laughing stock!'

(on the occasion of the loss of the Bulgarian national volleyball team to Germany)

Given these facts, it is difficult to maintain that a null measure function like M-OP plays a central role in Bulgarian *wh*-exclamatives. If it is available in the first place, it does not have to be present. Plus, our specific concerns are with cardinality expressions, and these must independently involve a measure function to turn the predicate of individuals (the denotation of the NP) into a predicate of degrees whose degree argument is then saturated by numerals or bound by degree quantifiers.

3.3. Back to Evaluativity

Rett (2015: 163,167) notes that in addition to positive adjectives like *tall* and positive quantity expressions like *many*, indefinite quantity nominals like those

in (41) (her ex. (33a)) are also evaluative. This underscores the point that evaluativity should not be built into the semantics of the nonovert *POS-* morpheme, commonly posited in the representation of positive degree expressions, as here the degree argument is bound by an overt *some* so *POS-* cannot be present.

(41) Doug owns some number of shoes.

In earlier work, Rett (2008) characterized evaluativity as the contribution of a null degree modifier *eval*, limiting the role of the degree quantifier in positive *tall* and *many* to existential quantification (the counterpart of *some*). Rett (2015) argues instead that evaluativity arises as an implicature in the case of expressions that would otherwise be trivial: if *tall* simply means to have a degree of height, it, like *some number*, would be uninformative. The strengthening of meaning results in the interpretation that the degree predicate holds to a high degree. Evaluativity is pragmatically accomplished rather than lexically encoded in the degree quantifier *POS-* or modifier *eval*.

With respect to exclamation, Rett (2015) proposes that evaluativity also arises as the result of an implicature. Exclamatives contribute the meaning of speaker's surprise and so their content needs to be noteworthy. In that context, the literal semantic content of the exclamation is strengthened to a meaning concerning an unusually high degree. Consider the illustration in (42) (Rett 2011, 2015). In combination with an illocutionary exclamation operator, existential quantification obtains over the degree variable contributed by the measure expression *many*. The weak meaning is overcome through an implicature and is strengthened to degree intensification.

- (42) a. How many shoes you have!
 b. EXCL-FORCE ($\exists d$ [you have *d*-many shoes])

The upshot of this discussion is that no extra structure needs to be posited in degree exclamatives to account for their evaluativity, according to Rett (2011, 2015). However, this does not help us resolve our original question as to why exclamatives differ from other *wh-/th-*quantity expressions in requiring the plural form of NPs and not accepting the count form. Pragmatic strengthening cannot directly be responsible for the selection of one type of number inflection over another.

The next section aims to examine closely the semantic composition of cardinality expressions, to see whether a null *MNOGO* may be posited for exclamatives, and if so, to elucidate the details of its relation to the measure functions independently found in expressions with overt *mnogo* as well as with numerals and with question/declarative *wh-/th-*quantity pronouns.

4. The Morpho-Semantics and Syntax of Cardinality Expressions

4.1. Q-Adjectives and *Wh-/Th*-Quantity Expressions

Many and *much*—called ‘Q(uality)-adjectives’ in Bresnan (1973)—play a measurement role. A common approach to their semantics (e.g., Hackl 2009) posits that they incorporate a measure function: they combine with a predicate of individuals (the denotation of the NP *color(s)*), and they map an individual of which the predicate is true (a portion of color or a plurality of colors) to a degree, i.e., to a unit of measurement on a cardinality (*many*) or noncardinality (*much*) quantity scale. On this view, the lexical semantics of Q-adjectives is very similar to that of adjectives like *tall*. However, the distribution of Q-adjectives is broader: for instance, they also appear as differentials in comparatives (*much taller*, *many more colors*) and in other environments where adjectives cannot (Schwarzschild 2006, Rett 2014, 2018, Solt 2015, among others). For this reason, the role of introducing the measure function in quantity nominals is sometimes attributed to a null element rather than to the Q-adjectives. I represent the null element in the extended nominal functional sequence as Meas(ure) with the lexical semantics in (43) (essentially as in Rett 2018: ex. (29) and similar to Solt 2015: ex. (35); cf. MON^0 in Schwarzschild 2006). Meas includes an underspecified measure function m , which yields cardinality or noncardinality measures depending on other properties of the nominal structure, e.g., number marking on NP, the type of binder of the degree argument. A semantically plural NP would typically determine that the measurement involves the dimension of number rather than any other quantity dimension.

- (43) [[Meas]] = $\lambda P_{\langle e,t \rangle} \lambda d \lambda x [P(x) \ \& \ \mu(x) \geq d]$
- a. [[Meas colors]] = $\lambda d \lambda x [\text{colors}(x) \ \& \ \mu(x) \geq d]$ where μ = number
- b. [[Meas color]] = $\lambda d \lambda x [\text{color}(x) \ \& \ \mu(x) \geq d]$ where μ = volume /
surface size

The expressions in (43a, b) have the type of gradable adjectives, $\langle d, et \rangle$. Therefore, in principle, degree quantifiers like *-er*, *-est*, and *wh-/th*-pronouns that can range over degrees, like *how* and *that*, could combine directly with [-MEAS wine(s)] and bind its degree variable. This, I suggest, is the case for Bulgarian *wh-/th*-quantity pronouns *kolko* and *tolkova*; see (44). The interpretation of this structure is straightforward: *kolko* is a *wh*-degree indefinite (of the type of individuals, predicates, or quantifiers—all approaches to *wh*-words have been pursued in the literature and we do not need to make a choice here), and *tolkova* denotes a definite degree. The *wh-/th*-expressions themselves are not specified for cardinality or noncardinality dimensions; they are compatible with both interpretations in (43a, b). The individual argument of MEAS is

existentially bound by a nonovert determiner or a mechanism of existential closure, as commonly assumed.

(44) [*kolko / tolkova* [Meas NP]]

English *how* and *that* may not saturate the degree argument of [Meas NP], and neither may English degree quantifiers *-er* and *-est*, nor their Bulgarian counterparts *po-* and *naj-*. I will assume here that the reason is morpho-syntactic, concerning the category distinction between NPs and the expressions that can appear in their extended projections, such as lexical adjectives and Q-adjectives. So even though [Meas NP] has the same <d,et> type as *tall*, its nominal category precludes the merge of *how*, *that*, and degree quantifiers, which otherwise combine with *tall*. To appear in cardinality nominal structures, these expressions need to merge with a Q-adjective first.

Q-adjectives have the semantics in (45) (cf. Schwarzschild 2006: ex. (124), Solt 2015: ex. (32), Rett 2018: ex. (25), which differ in the details but share key aspects of this meaning)—they are gradable predicates of degree intervals, i.e., predicates of intervals with an extra degree argument.

(45) [[*many / much*]] = $\lambda d \lambda D_{\langle d, t \rangle}$ [the size of $D \geq d$]

The Q-adjective phrase merges with [MEAS NP], as in (46). Before the Q-adjective phrase and [MEAS NP] compose semantically, the individual variable of the latter needs to be existentially bound. The interpretation of the structure in (46) is as in (47); compare with (43a, b).

(46) [[Q-adjP *many/much*] [Meas NP]]

(47) a. [[[Q-adjP *many*] [Meas colors]]]
 = $\lambda d'$ [the size of $\{d: \exists x [\text{colors}(x) \ \& \ |x| \geq d]\} \geq d'$]
 b. [[[Q-adjP *much*] [Meas color]]]
 = $\lambda d'$ [the size of $\{d: \exists x [\text{color}(x) \ \& \ \mu(x) \geq d]\} \geq d'$]

How, *that*, and the degree quantifiers saturate the degree argument of Q-adjectives. The structure behind English cardinality *wh*-questions and declaratives is as in (48a), in contrast to their Bulgarian counterparts in (44). In positive forms of Q-adjectives such as *many colors* and *much color* a POS- degree quantifier merges as the degree argument of the Q-adjective, as in (48b), and in comparative and superlative forms, *-er* and *-est* do so.

- (48) a. [[Q-adjP *how/that many/much*] [Meas NP]]
 b. [[Q-adjP POS- *many/much*] [Meas NP]]

The Bulgarian Q-adjective *mnogo* ‘many/much’ may appear in the structure in (48b) and be interpreted in the same way as its English counterpart, and the same is true for its comparative and superlative forms. However, the *wh-/th-* quantity expressions *kolko* and *tolkova* do not appear in the structure in (48a) with an overt *mnogo*, only in the structure in (44). Recall that when *mnogo* surfaces overtly with *kolko* and *tolkova*, the result is an evaluative question or declarative, as in (35), with an additional inference that the quantity meets or exceeds a contextual standard for a large quantity. In English, the structure in (48a) does not result in an evaluative interpretation. Therefore, the overt *mnogo* accompanying *kolko* and *tolkova* in Bulgarian is not the Q-adjective *mnogo* ‘many/much’ but the intensifier *mnogo* ‘very’. The meaning of this degree intensifier is as in (49). It introduces a *pos-* quantifier binding the degree argument of its sister adjective, contributing evaluativity and measures the degree interval in excess of the standard. The latter aspect of meaning underlies the syncretism between the intensifier and the Q-adjective *mnogo*.

- (49) [[*mnogo* intensifier]] = [[*very*]] = $\lambda A_{\langle d, et \rangle} \lambda d \lambda x \exists d' [A(d')(x) \ \& \ d' > d_s \ \& \ \text{the size of } \{d'' : d' \geq d'' > d_s\} \geq d]$
 a. [[*mnogo* intensifier *visok*]] = [[*very* tall]] =
 $\lambda d \lambda x \exists d' [x\text{'s height} \geq d' \ \& \ d' > d_s \ \& \ \text{the size of } \{d'' : d' \geq d'' > d_s\} \geq d]$
 b. [[*mnogo* intensifier [Q-adjP *mnogo* Q-adjective [Meas colors]]]] = [[*very many colors*]] =
 $\lambda d \lambda x \exists d' [\text{the size of } \{d_1 : \exists x [colors(x) \ \& \ |x| \geq d_1]\} \geq d' \ \& \ d' > d_s \ \& \ \text{the size of } \{d'' : d' \geq d'' > d_s\} \geq d]$

(49a, b) illustrate the composition of the intensifier with a lexical adjective and with a pre-nominal Q-adjective; the latter is the structure of questions, declaratives, and exclamatives with an overt *mnogo*, as in (34) and (35), with the *wh-/th-* pronouns *kolko* and *tolkova* binding the degree variable that is the measure of the size of the interval in excess of the standard. If instead a *pos-* quantifier binds that variable, an evaluative interpretation arises that the size of that interval is large.

Only one *mnogo* is pronounced in (49b), likely because of the identical form of the intensifier and Q-adjective. This also happens in positive structures: the counterpart of *very many colors* is not **mnogo mnogo cvetove* but *osobeno mnogo cvetove* ‘particularly many colors’. Yet there is also an alternative that cannot be ruled out: the intensifier *mnogo* could be combining not with the structure in (46) but with the one in (44), the structure without a Q-adjective. The semantic types of the two are identical and both are semantically suitable for

combination with the intensifier, with degree quantifiers, and with *wh-/th-* degree pronouns. What ruled out (44) in the case of English *how*, *that*, and degree quantifiers and in the case of Bulgarian degree quantifiers was the mismatch of category. But while there are good empirical reasons to claim that *very* only combines with adjectives, whether lexical or Q-adjectives, it is not clear that the same is true for the Bulgarian intensifier *mnogo*. Thus, it is possible that another structure is behind evaluative questions, declaratives, and exclamatives with an overt *mnogo*, in addition to (49b), namely (50).

- (50) $[[mnogo \text{ intensifier } [Meas \text{ colors}]]] =$
 $\lambda d \lambda x \exists d' [colors(x) \ \& \ |x| \geq d' \ \& \ d' > d_s \ \& \ \text{the size of } \{d'' : d' \geq d'' > d_s\} \geq d]$

To summarize, English cardinality question, declarative, and exclamative nominals have the structure in (51). Their Bulgarian counterparts without overt *mnogo* have the structure in (52a), and those with overt *mnogo* have either the structure in (52b) or the one in (52c).

- (51) $[[Q\text{-adjP } \textit{how/that (very) many}] [Meas \text{ NP}]]$

- (52) a. $[kolko / \textit{tolkova} [Meas \text{ NP}]]$
 b. $[kolko / \textit{tolkova} [mnogo \text{ intensifier } [Q\text{-adjP } \textit{mnogo} \text{ Q-adjective } [Meas \text{ NP}]]]]$
 c. $[kolko / \textit{tolkova} [mnogo \text{ intensifier } [Meas \text{ NP}]]]$

Now that we have an explicit syntax and semantics for *wh-/th-* cardinality nominals, we can see that there is no reason to attribute evaluativity to a null *MNOGO*. The same structure in (51) yields nonevaluative questions and declaratives and evaluative exclamatives in English. The facts should be the same for Bulgarian (52a). Adding an overt *mnogo* results in evaluativity in both questions and declaratives and in exclamatives in either of the structures in (52b, c). One could of course posit that evaluativity in exclamatives comes from the obligatory merge of a null intensifier, but this will apply to English as much as it will to Bulgarian.

We can now turn to the question of how these structures relate to number marking on the NP. For measurement along a cardinality dimension the complement of *MEAS* needs to be semantically plural, i.e., denote a predicate of singular and plural individuals. That cardinality measurement depends on semantic plurality was suggested in Hackl (2001) and linked there to a generalization that measure functions are order preserving: if two individuals are ordered with respect to a dimension, their respective degrees on the relevant scale are similarly ordered. Concerning the dimension of number, a plural NP but not a singular count NP would allow for a nontrivial, order-preserving mapping of individual sums to degrees on the scale of natural numbers.

On the assumption that morphologically singular NPs denote predicates of singular individuals, at least in English and Bulgarian where NPs are not number neutral, singular-marked NPs will be prohibited as complements of MEAS. Empirically this is correct. In combination with *how/that many* and *kolko/tolkova*, singular count NPs are prohibited. (51) and (52) require plural NPs.

4.2. Numerals

One approach to the semantics of numerals is to say that they denote numbers: the numeral *five* denotes the number 5, etc. How then is *five colors* formed and interpreted? The answer is to posit a nonovert expression which incorporates a cardinality measure function and then have the numeral saturate its degree argument. A null counterpart of the Q-adjective *many* is sometimes suggested for that role. But as we discussed above, Q-adjectives should not be treated as relations between degrees and individuals. Such a function is better served by MEAS. Accordingly, MEAS can also be implemented as the link between numerals and NPs, as in (53). A determiner, possibly null, further binds the individual variable (*the five colors*, *five colors*); as was assumed to be the case for *the many colors* and *many colors*.

- (53) a. $[[\text{five}]] = 5$
 b. $[[\text{five colors}]] = [[\text{five Meas colors}]] = \lambda x [\text{colors}(x) \ \& \ \mu(x) \geq 5]$ where $\mu = \text{number}$

This approach to numerals crucially relies on combination with plural NPs. Given that it is the same Meas that supplies the measure function, as in the cases discussed in the previous section, the expectation is that singular-marked count NPs will be precluded from structures with numerals. This is empirically so in both English and Bulgarian.

4.3. The Count Form of NPs

The count form in cardinality expressions with *wh-/th*-pronouns and numerals may not appear in (52a) or (53b). These structures require a plural NP. A different nonovert measure expression must be responsible for the count inflection on NPs.

There is cross-linguistic variation in whether numerals combine with plural or singular NPs. In Finnish, Turkish, and other languages, numerals combine with singular-marked (bare) NPs and not with plural-marked NPs. Partly because of this, Ionin and Matushansky (2006) propose that numerals need to compose with NPs that denote predicates of atomic individuals, i.e., singular count NPs. Bale et al. (2011) have questioned this account, arguing

that in some languages bare NPs are not semantically singular but number neutral, i.e., they denote predicates of singular and plural individuals, much like plural NPs in English. Yet, I suggest that the Bulgarian count form is precisely a case of a semantically singular NP combining with numerals (and *wh-/th-* quantity pronouns). In this, I depart from tradition, as grammars treat the count form as a special plural marker (Pašov 2011: 69, Xristozova 2012: 301), and this is also the proposal in Ouwayda (2014).

Specifically, I propose that the count form spells out singular number and objective case. It is the direct counterpart of the genitive singular form of Russian nouns in combination with paucal numerals ‘two’, ‘three’, and ‘four’, as in (54) (Pesetsky 2013: 1, adjectives omitted).¹⁷ The Russian and the Bulgarian form are historically related (Duridanov 1993: 141; Stepanov and Stateva 2018).

- (54) èti dva stol-a
 these_{NOM.PL} two_{MASC.NOM} table_{MASC.GEN.SG}
 ‘these two tables’

In support of the proposal that the count form has singular number and objective case, consider the following fact. Bulgarian nouns do not mark case overtly, except for singular masculine nouns. These are the only nouns which overtly distinguish between a nominative and a non-nominative, or objective, form. The distinction emerges in definite nominals, as seen in (55). And the singular objective form for masculine nouns is the same as the count form.

- (55) a. {Konjat / mâžât / prizrakât} padna
 horse_{DEF.SG.NOM} man_{DEF.SG.NOM} ghost_{DEF.SG.NOM} fall_{3SG.PAST}
 ‘{The horse / the man / the ghost} fell.’
- b. Vidjax {konja / mâža / prizraka}
 see_{1SG.PAST} horse_{DEF.SG.OBJ} man_{DEF.SG.OBJ} ghost_{DEF.SG.OBJ}
 ‘I saw the horse / the man / the ghost.’

Although semantically singular, the meaning of the count inflection differs from that of the singular number marker, which, I suggest, encodes a presupposition that the DP denotes a single entity (Sauerland et al. 2005). This

¹⁷ Alternative accounts suggest that the Russian NP marks paucal number (Bailyn and Nevins 2008, Pereltsvaig 2010, and others); or that it marks neither number nor case but is an expression of a functional category related to atomization and countability (Stepanov and Stateva 2018). I do not have the space to defend the singular-marking account here, though note its simplicity, as it posits that morphology transparently reflects interpretation. Pesetsky’s (2013) proposal that the Russian form is not marked for number is compatible with my suggestion that the form is semantically singular.

presupposition precludes singular-marked NPs from combination with numerals in general, since unless the numeral is *one* the presupposition of the singular morpheme will not be satisfied. The count form, lacking such a presupposition, can combine with numerals, following the semantics of Ionin and Matushansky (2006).

I illustrate Ionin and Matushansky's (2006) semantics below, but modify it to accommodate the idea that numerals denote numbers (for them numerals are predicate modifiers). A null degree modifier needs to be posited, as in (56) (cf. Ionin and Matushansky 2006: 318–19). I will call it Meas_{SG} to reflect the fact that it combines with semantically singular NPs and makes available atomic units for counting. Meas_{SG} combines with a degree d , whose value is provided by the numeral and a predicate of atomic individuals P and returns a predicate of plural individuals that has d -many atoms. It is important that P be a predicate of singularities, otherwise a partition into plural individuals would satisfy (56) and *five colors* could mean a plurality of colors with five parts, each part being of unspecified cardinality.¹⁸

$$(56) \quad [[\text{Meas}_{SG}]] = \lambda P \lambda d \lambda x \exists S [\Pi(S)(x) \ \& \ |S| \geq d \ \& \ \forall s [s \in S \rightarrow P(s)]]$$

A set of individuals S is a partition Π of a plural individual x iff the members of S exhaust all nonoverlapping parts of x

Numerals universally denote numbers, but in English they combine with *Meas* and thus with a plural NP, whereas in Bulgarian they may combine both with *Meas* and thus with plural NPs, and with Meas_{SG} and thus with the semantically singular count NPs. Variation that exists across languages here exists in a single language. In normative registers, NPs combine with Meas_{SG} when their head noun is masculine nonpersonal and with *Meas* when the head noun is feminine or neuter. The situation with masculine personal nouns is more complex, because of variation with the *-ma* suffix, which is optional, in addition to the variability between plural and count form.

In the idealized grammar of the current normative language, the *-ma* suffix is obligatory for masculine personal nouns, and the nouns themselves are plural. The co-occurrence of the *-ma* suffix with the count form, encountered in the colloquial language, is a remnant of an older grammar, normatively acceptable in 1945 and 1983 according to Mikova (2017). Presumably in that older grammar *-ma* is a masculine personal agreement marker. In the newer normative grammar, *-ma* signals a classifier structure. A classifier is necessary to turn a semantically plural NP into a predicate of atomic individuals, which is then an appropriate argument to MEAS_{SG} . In this grammar all masculine

¹⁸ The cardinality-plurality link discussed earlier is still satisfied here. MEAS_{SG} in effect makes predicates of singularities plural before measuring their cardinality. It thus has a more complex semantics than *Meas*.

nouns, personal and nonpersonal, need to combine with $MEAS_{SG}$, but a classifier corresponding to *-ma* is available only for masculine personal nouns. This is in agreement with Cinque and Krapova (2007), who propose that *-ma* is a suffixal classifier doubling the features of an overt or covert classifier, as can be seen in (57) (their (4b)) (see also Hurford 2003).¹⁹

- (57) trima (dúši) aktjori
 three_{MASC.PERS} person actor_{MASC.PL}
 'three actors'

The expression *dúši* behaves like a numeral classifier: it appears only after numerals and *wh-/th*-quantity expressions.²⁰ Another example of a numeral classifier structure is in (58). *Broj* 'count' is a classifier for both nonpersonal and personal nouns, and like *dúši*, it can only appear with numerals and *wh-/*

¹⁹ Ouwayda (2014) proposes that the *-ma* suffix on the numeral and the count *-a* suffix on the NP are merged in the same functional projection, #, and so are in complementary distribution.

²⁰ *Dúši* is formally plural but this probably reflects its origin in the feminine noun *dušá* 'soul'. It also likely has formal masculine features, so it can spell out the masculine personal classifier which triggers the suffix *-ma* on the numeral. *Dúši* can be used in reference to female individuals and to groups including them (see (i) and (iii) from an internet search), but it does not combine directly with female-denoting NPs, whether they are formally feminine or neuter; see (ii). Neuter nouns denoting male individuals are reasonably acceptable, see (iii), though such uses are very rare in the contemporary language; most results were from the 19th century.

(i) V salona e imalo 5 dúši —vsički ženi.
 in salon_{DEF} be_{3SG.PRES} have_{SG.PART} 5 person all women
 'There were five people in the salon—all of them women.'

(ii) *tri(-ma) dúši {aktrisi / momičeta}
 three_(MASC.PERS) person actor_{FEM.PL} girl_{NEUT.PL}

(iii) Obadete se do 23.01.2011 g. [...]s informacijata— [...]
 call REFL until 23-Jan-2011 year with information_{DEF}

kolko dúši momčeta i momičeta šte učastvat.
 wh-quantity person boy_{NEUT.PL} and girl_{NEUT.PL} will participate

'Call until 23 January 2011 with the following information: how many boys and girls will participate.'

th- quantity pronouns.^{21, 22} Its complement NP must be plural. In the absence of *broj* the normative language dictates that masculine nonpersonal NPs appear in the count form.

- (58) tri broja {bileti / *bileta } {zajci /
 three count_{COUNT} ticket_{MASC.PL} ticket_{MASC.COUNT} rabbit_{MASC.PL}
 *zaeka }
 rabbit_{MASC.COUNT}
 'three tickets' / 'three rabbits'

The attested and impossible structures for numerals other than *edin* 'one' and masculine nouns in the current normative language is given in (59). All masculine NPs combine with $MEAS_{SG}$.

- (59) Masculine NPs, normative language
- | | | |
|-------------------------------|---|--------------------------------------|
| a. *Numeral | $MEAS_{SG}$ | NP_{PL} |
| b. *Numeral | $MEAS_{SG}$ | NP_{SG} |
| c. $\sqrt{\text{Numeral-}ma}$ | $MEAS_{SG} CL_{MASC.PERS}$ | NP_{PL} (personal nouns) |
| d. $\sqrt{\text{Numeral}}$ | $MEAS_{SG} CL_{MASC.NON-PERS} -a_{COUNT}$ | NP_{PL} (non-personal nouns) |
| e. $\sqrt{\text{Numeral}}$ | $MEAS_{SG}$ | $NP -a_{COUNT}$ (non-personal nouns) |

$MEAS_{SG}$ precludes direct combination with plural-marked NPs (59a) since it needs a predicate of atomic individuals. Singular-marked NPs are prohibited because the presupposition of the singular number marker only allows

²¹ The classifier *broj* is possible with personal nouns, see (i), but likely because of competition with *dúši* it tends to primarily appear with nonpersonal nouns.

(i) kandidatât e bil naučen râkovoditel na 3 broja diplomanti, ...
 candidate_{DEF} is been scientific advisor to 3 count_{COUNT} graduate_{MASC.PL}
 'the candidate has been the advisor to three graduates ...'

²² *Broj* has a use as a regular noun with the meaning of 'number', in which case it can appear without numeral expressions.

(i) dâržavnata im izdrâžka zavisi ot broja studenti, koito
 state_{DEF} their benefit depends on number_{DEF} student_{PL} who_{PL}
 obučavat
 educate_{3PL}
 'their state benefit depends on the number of students who they educate'

combination with numeral *one*, (59b). A classifier turns plural-marked NPs into predicates of atomic individuals, and so (59c) is acceptable. The personal noun is plural-marked, the numeral is suffixed with *-ma*, and the classifier may or may not be pronounced, as in (57), though it is always present. A classifier structure is available for nonpersonal nouns as well, as in (59d), but the classifier *broj* (as in (58)) is always pronounced. The classifier turns the plural-marked NP into a predicate of atomic individuals, suitable for combination with $MEAS_{SG}$. Finally, the count form is semantically singular and so it meets the requirement of $MEAS_{SG}$, (59e).

In sum, masculine NPs in the normative language do not obtain cardinality measures through $MEAS$. $MEAS$ measures plural individuals without direct access to the atoms of the plurality. A (precise) cardinality measure is assigned to the plurality without counting through a process we can call estimation (following O'Connor and Biswas 2017). A useful comparison is with container and measure pseudo-partitives (*a basket of cherries, three pounds of cherries*). Container/measure nouns partition the plurality into nonoverlapping parts (concretely or abstractly), map the parts to units (conventional units like *pound* or contextual units like *basket*), and then count or measure the units (*three pounds, a large basket*). In the case of *mnogo cvetove* 'many colors' or *five colors* in English, cases that involve $MEAS$, the pseudo-partitive unit is particularly abstract: a quantity. No reference is made to atoms (individual colors), what is measured is the size of the collection of colors.

On the other hand, $MEAS_{SG}$ yields cardinality measures through counting, i.e., through reference to the atoms of the pluralities. The restriction on Bulgarian masculine NPs, in the normative language, is that cardinality measures be obtained by counting, and so with $MEAS_{SG}$. This must have been the case too in the older grammar (described in 1945 and 1983; see Mikova 2017), remnants of which are still observed today. $MEAS_{SG}$ combined with personal nouns in the absence of a classifier, but the noun was in the count form, and *-ma* was just an agreement marker.

For current colloquial Bulgarian I propose that the system is as in (60).

(60) Masculine NPs, colloquial language

a. *Numeral	$MEAS_{SG}$	NP_{PL}
b. *Numeral	{ $MEAS_{SG}$ / $MEAS$ }	NP_{SG}
c. $\sqrt{\text{Numeral}}$ (<i>-ma</i>)	$MEAS_{SG}$ $CL_{MASC.PERS}$	NP_{PL} (personal nouns)
d. $\sqrt{\text{Numeral}}$	$MEAS_{SG}$ $CL_{MASC.NON-PERS}$	NP_{PL} (nonpersonal nouns)
e. $\sqrt{\text{Numeral}}$	$MEAS_{SG}$	NP - <i>a</i> $_{COUNT}$
f. $\sqrt{\text{Numeral}}$	$MEAS$	NP_{PL}

It retains (59a, b, c, d) but the classifier agreement marker *-ma* becomes optional. (59e) is generalized to all masculine nouns, not just the nonpersonal ones, as in (60e). Both changes involve weakening of the personal/nonpersonal distinction, which remains encoded only on the classifiers. Finally, combination with MEAS is permitted to masculine nouns, as in (60f). With *-ma* optional and the masculine personal classifier not necessarily overt, structures (60c, f) are pronounced the same, so evidence against positing MEAS with masculine personal nouns is no longer available. But once MEAS can be used with personal nouns, its use is extended to nonpersonal nouns as well, given that the personal/nonpersonal distinction is now obligatorily expressed only on the classifiers and the personal classifier is null. Once the importance of the personal vs. nonpersonal marking is undermined, the special status of masculine nouns is also undermined: they no longer have to obtain cardinality measures through counting and can combine with MEAS just like feminine and neuter nouns.

5. Back to Exclamatives

The extensive discussion of the grammar of cardinality expressions in the previous section was necessary because as far as I know there is no existing analysis of the pattern of distribution of the plural and count forms. Now that we have a theory of the structure and meaning of these forms, we can turn to the question that we started with: what explains the fact that the count form is possible in interrogative and declarative *wh-/th-* expressions (and other numeral contexts) but not in exclamative *wh-/th-* expressions.

I posit that cardinality exclamatives must be formed with MEAS rather than with MEAS_{SG}. This amounts to saying that exclamatives obtain cardinality measures through estimation, not counting. While I cannot offer a definitive proof here, intuitively this seems right to me. Cardinality exclamatives express surprise that the referenced quantity is large and not surprise at the number value of the cardinality measure. Recall that Bulgarian is more flexible than English in allowing individual readings for exclamatives, and accordingly a wider range of *wh*-expressions, as in (39–40). One could imagine that individual-like readings (i.e., readings about number values) will be available for cardinality exclamatives in Bulgarian as well, i.e., that *How many colors!* in (29) could be used to express surprise at the particular number value of the cardinality of colors. If we expect an artist to draw a sketch using only one color and then we see that she used three colors instead, it would be felicitous to express surprise at the number three in this context, but the Bulgarian exclamative in (29) cannot be used to convey that meaning. Cardinality estimation with MEAS_{SG} focuses on the number of individual atoms in the plurality, but what is needed in an exclamative is focus on the size of the plurality irrespective of the atoms, which is what MEAS delivers.

Given that exclamatives are formed with $MEAS$, exclamative *kolko* and *tolkova* combine only with plural NPs, just like overt *mnogo* does. Interrogative and declarative *kolko* and *tolkova* can combine with $MEAS_{SG}$ and thus with the count form or with $MEAS$ and thus with the plural form. This is where the difference in number marking between the two types of numeral *wh-/th*-expressions comes from. See (61–62).

- (61) *wh*-interrogative and *th*-declarative cardinal nominals (without overt *mnogo*)
- a. [*kolko* / *tolkova* [$MEAS$ NP]]
 - b. [*kolko* / *tolkova* [$MEAS_{SG}$ NP]]
- (62) *wh*- and *th*- exclamative cardinal nominals (without overt *mnogo*)
- [*kolko* / *tolkova* [$MEAS$ NP]]

There is no null $MNOGO$ in exclamatives (a possibility discussed in section 3.1). What is responsible for the plural marking on NPs in exclamatives is the same measure-function containing nonovert $MEAS$ found with questions and declaratives in the case of feminine and neuter nouns, as well as with masculine nouns in the colloquial language (as in (60f)). Masculine nouns also have available another null measure-function containing expression, $MEAS_{SG}$. Exclamatives are notable in relying on the estimation structure for cardinality measurement and resisting the counting structure.

6. Conclusions

Bulgarian exclamatives formed with the numeral *wh-/th*-pronouns *kolko* and *tolkova* differ from their interrogative and declarative counterparts in only accepting the plural form of masculine nonpersonal NPs. According to the normative language, interrogative *kolko* has to combine with the count form of masculine nonpersonal NPs and so does declarative *tolkova*. Given that the pronouns are identical in form, the differential number marking calls for an explanation. And the contrast is particularly surprising, given that there is significant variation in the colloquial language when it comes to number marking after interrogative *kolko* and declarative *tolkova*: both personal and nonpersonal nouns can appear in either the count or the plural form, yet exclamative *kolko* and *tolkova* resist such variation.

Given that there seems to exist no comprehensive analysis of number marking in Bulgarian, the paper set out to provide one. It was argued that *wh-/th*-pronouns, like numerals, connect with NPs through the help of two nonovert degree expressions, $MEAS$ and $MEAS_{SG}$. The former imposes a semantic plurality on its NP complement (in cardinality contexts), the latter a semantic

singularity. Underlying this distinction are two modes of cardinality measurement: estimation and counting. Both singular-marked and count-marked NPs in Bulgarian were argued to denote predicates of atomic individuals, i.e., to be semantically singular, but the former was also said to be associated with a further presupposition that the DP denotes a single entity. The proposal that count NPs are semantically singular departs from usual assumptions about this form in grammars and linguistic analyses. With these parameters in place, the pattern of number marking in cardinality expressions follows, both in the normative language and its colloquial variety. The change between the two registers involves a weakening of the personal/nonpersonal distinction in masculine nouns and a corresponding erosion of the special status of masculine nouns in the language.

The resistance of exclamatives to count-marked NPs follows by the proposal that exclamatives are formed on the basis of MEAS, i.e., they concern a cardinality measure based on estimation, not counting. This is related to the evaluativity aspect of the meaning of exclamatives, which persists even in a language like Bulgarian that does not restrict its exclamatives to degree readings only but also allows individual readings.

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