

Investigations on Mixed Agreement: Polite Plurals, Hybrid Nouns and Coordinate Structures

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Abstract: This article investigates complex agreement patterns with the polite plural pronoun *vi* and so-called ‘hybrid nouns’ in Serbian. I show how many curious agreement phenomena are to a great extent determined by the inability of an agreement target to simultaneously agree with an exclusively semantic and an exclusively formal ϕ -feature of an agreement controller. Consequently, in some cases (e.g., the polite plural pronoun *vi*) masculine emerges as the default gender value, as a result of an independently motivated mechanism. I argue that an analysis based on these two factors allows for wider empirical coverage than the analysis developed in Wechsler and Hahm (2011) and Wechsler (2011) based on an *Agreement Marking Principle*. I also discuss the so-called ‘different pronoun hypothesis’, which Wechsler and Hahm (2011) propose to explain different types of agreement triggered by the polite plural pronoun. In light of some new facts, however, I argue that the ‘different adjective hypothesis’ in fact might be on the right track. Along the way, I also develop an analysis of gender agreement with coordinated phrases consisting of singular number conjuncts and suggest that gender in Serbian should be represented in terms of binary features [\pm masculine] and [\pm feminine].

1. Overview

This paper is concerned with the so-called “hybrid agreement” in Serbian and the nature of the following three types of hybrid agreement triggers:

- (1) a. Polite Plural Pronoun: *Vi* ‘you(pl)’
- b. Type 1 Hybrid Noun: *braća* ‘brothers’, *deca* ‘children’
- c. Type 2 Hybrid Noun: *vojvoda* ‘duke’, *tata* ‘dad’

Hybrid agreement refers to a situation in which a hybrid of contrasting syntactic and semantic features triggers a different type of agreement on a different type of agreement target (e.g., Wechsler and Zlatić 2000, 2003, Wechsler and Hahm 2011, Wechsler 2011 and references therein). For example, a noun like *braća* ‘brothers’ in (1b) refers to a group of male individuals, and can therefore be argued to have semantic *masculine plural* features, but since it actually declines as a feminine singular noun, its formal/syntactic features are *feminine singular*. As shown in (2), different agreement targets agree for different (sets of) agreement features with *braća*; e.g., prenominal modifiers, like the possessive adjective/determiner *naš* ‘our’, show feminine singular agreement, while finite verbs (which in general do not inflect for gender) show plural agreement¹:

¹ Glosses: 1 = 1st person, 2 = second person, 3 = 3rd person, ACC = accusative, AUX = auxiliary verb, DAT = dative, F = feminine, GEN = genitive, INS = instrumental, LOC = locative, M = masculine, N = neuter, NOM = nominative, NUM = number, PL = plural, REFL = reflexive particle, SG = singular.

- (2) Naša braća jedu.
Our.F.SG brothers.NOM eat.PL
'Our brothers are eating.'

Other elements in (1) also display contrasting semantic and syntactic/formal features, although in a different way. The honorific pronoun *vi* 'you(pl)' is used to address a single (male or female) individual, even though its form is plural (and does not make gender distinctions). Nouns like *vojvoda* 'duke', *tata* 'dad' in (1c), on the other hand, refer to male individuals, but they decline as typical feminine nouns (e.g., *žena* 'woman'). Thus, here the contrast between semantic and syntactic feature values is present only in gender, while in the case of *braća* 'brothers' (i.e., (1b)) it is present in both gender and number.

The general goal of this paper is twofold. First, I will present new and to some extent unexpected facts regarding the availability of certain hybrid agreement patterns, which are based on a Serbian native speaker judgement survey I conducted. Second, I will develop a novel analysis of hybrid agreement in Serbian, which will aim to provide a uniform explanation for a range of seemingly unrelated agreement patterns. Also, the majority of previous analyses of this phenomenon (e.g., Wechsler and Zlatić 2000, 2003, Wechsler and Hahm 2011, Wechsler 2011 etc.) were formulated within the HPSG framework, while the analysis proposed here will be couched with the theoretical framework of Distributed Morphology (henceforth DM).

The paper is structured as follows. Section 2 presents an overview of the core facts and some major approaches to hybrid agreement. In this section I discuss the availability of different agreement patterns and draw attention to some problems that coordination facts and agreement patterns with hybrid nouns of Type 2 (cf. (1c)) raise for the existing theories. In Section 3 I introduce my analysis and its key assumptions. I also go over the Serbian declension system and briefly summarize some of the main properties of DM. The analysis developed in this section mainly focuses on agreement with the triggers in (1b-c). I show how many curious agreement phenomena are to a great extent determined by the inability of an agreement target to simultaneously agree with an exclusively semantic and an exclusively formal feature of an agreement controller. Consequently, in some cases masculine emerges as the default gender value, as a result of an independently motivated mechanism. In Section 4 I extend this analysis to the Serbian polite plural pronoun (i.e., (1a)) and develop an account of coordinate structure agreement; I suggest that gender in Serbian (and potentially other languages) should be represented with binary features [\pm masculine] and [\pm feminine]. In this section I also explore contrasting patterns of syncretism in non-nominative adjectival inflection, which show that agreement with the non-nominative polite plural pronoun is to a great extent governed by formal properties of adjectives. Such facts then seem to support a "different adjective hypothesis", as opposed to the "different pronoun hypothesis" proposed by Wechsler and Hahm (2011). Section 5 summarizes the main findings of this study.

2. Hybrid Agreement: Some Core Facts and Previous Accounts

2.1 Polite Plurals, Agreement Marking Principle and Pronoun Number Hypothesis

In an impressive and important cross-linguistic work Wechsler and Hahm (2011) and Wechsler (2011) investigate a number of phenomena related to agreement with hybrid nominals. An

important result of that investigation, for example, is the following cross-linguistic generalization:

- (3) *The Polite Plural Generalization*: A polite plural pronoun agreement controller determines plural number (i.e. syntactic rather than semantic agreement) on any agreement targets marked for person (and number). (Wechsler 2011: 1002)

It has been argued in the above mentioned papers that (3), as well as some other facts, can be best explained in a model that makes a clear distinction between two types of features: *Concord* and *Index* (Wechsler and Zlatić 2000, 2003). In the HPSG framework adopted in these works (e.g., Pollard and Sag 1994), Concord features are HEAD features which are projected into the syntax via head projection lines. Index features are features of the referential index (hence the name Index), which is mapped to a discourse referent in the interpretation of the sentence. The idea, in a nutshell, is that Concord and Index feature sets are grammaticalizations of the form and the meaning of the agreement trigger, respectively. Concord features are assumed to be closely related to the trigger's form (such as declension of the noun), whereas Index features are closely related to the trigger's meaning. For example, since concord features are accessed for nominal-internal concord, CASE is included among them, but PERSON is not, because NP-internal person agreement is extremely rare cross-linguistically. PERSON is included among the index features, which govern the personal pronoun-antecedent agreement. Broadly speaking, Concord governs agreement in local grammatical relations, while Index agreement tracks discourse referents. A well-examined example, which supports this division, is the Serbian noun *deca* 'children', mentioned in section 1 (e.g., (1b)). It declines as a second declension noun, that is, as a feminine singular noun, but its referent is neuter plural. This type of noun then triggers hybrid/mixed agreement: attributive modifiers take the feminine singular form, while finite verbs, finite auxiliaries, and personal pronouns appear in neuter plural²:

- (4) Posmatrali smo ovu dobru decu.
watched.1PL AUX this.F.SG good.F.SG children.ACC
Ona su se lepo igrala.
they.N.PL AUX.3PL REFL nicely played.N.PL
'We watched those good children. They played well.' Wechsler and Hahm (2011: 266)

Wechsler and Zlatić (2000, 2003) propose that agreement features for *deca* 'children' include the following sets: (i) CONCORD: nominative CASE, singular NUMBER, feminine GENDER, and (ii) INDEX: 3rd PERSON, plural NUMBER, neuter GENDER. Importantly, agreement targets are taken to be split between those sensitive to Concord features and those sensitive to Index features. As (4) shows, adjectives, determiners and other NP-internal modifiers are sensitive to Concord features, while bound pronouns and finite verbs are sensitive to Index features.

In addition to agreement with these two types of features there is also semantic agreement.³ Semantic agreement refers to situations in which the agreement feature of the target receives its semantic interpretation, and that interpretation is applied to the denotation of the

²Note that among the latter, only third person singular and third person nominative plural pronouns actually distinguish for gender; see section 4.1.

³Wechsler and Zlatić (2000, 2003) recognize pragmatic agreement as well, which I ignore here, since it is not relevant for the purposes of this paper.

trigger. In general, semantic agreement is taken to result from the controller lacking the phi feature needed to trigger syntactic agreement. Consider first a case of syntactic agreement: the English noun *clothes* bears the feature [NUM pl] (where NUM stands for number), while the noun *clothing* bears the feature [NUM sg]. Since the demonstrative determiner (*this/these*) in English is sensitive to the NUM feature of the common noun, we observe determiner-noun agreement in (5). At the same time, the finite verb (*is/are*) is sensitive to the NUM feature of its NP subject:

- (5) a. These(/*This) clothes are(/*is) dirty.
 b. This(/*These) clothing is(/*are) dirty.

However, there are various situations in which the grammar of syntactic agreement fails to force syntactic agreement onto the target. One such situation is when the head noun of the trigger is not marked for the feature to which the target is sensitive, like the English noun *sheep*.

- (6) This sheep/These sheep. (*this*: 1 sheep/*these*: more than 1 sheep)

Since the English noun *sheep*, by assumption, lacks a syntactic number value, the target forms *this* and *these* “...effectively impose their number semantics on the noun.” (Wechsler 2011: 1014). Semantic agreement of this type follows from an *Agreement Marking Principle*, which is informally stated in (6) below:

- (7) *Agreement Marking Principle* (informal statement)⁴
 Agreement is driven by a syntactic feature of the controller, if the controller has such a feature. If the controller lacks such a feature, then the target agreement inflection is semantically interpreted as characterizing the controller denotation.
 (Wechsler 2011: 1009)

Another example of semantic agreement comes from adjectival gender agreement with the first or second person pronouns in the subject position. As shown in (8), the French second person pronoun *tu* ‘you.SG’ lacks a gender feature, and therefore the target gender is semantically interpreted in accordance with the principle in (3). Serbian shows the same behavior (see (9)):

- (8) a. Tu es compétent. French
 you.SG are.2SG competent.M.SG
 ‘You (a *man*) are competent.’
 b. Tu es compétente.
 you.SG are.2SG competent.F.SG
 ‘You (a *woman*) are competent.’ (Wechsler 2011: 1009)
- (9) a. Ti si pametan. Serbian
 you.SG are.2SG smart.M.SG
 ‘You (a *man*) are smart.’

⁴ Wechsler and Hahm (2011) argue that, given the *Agreement Marking Principle*, the lexical representation for *deca* ‘children’ proposed in Wechsler and Zlatić (2000, 2003) could be slightly simplified by removing the plural NUMBER feature from the INDEX set. In particular, any Index target agreeing with this noun would appear in plural anyway as a consequence of the Agreement Marking Principle, since *deca* ‘children’ is notationally plural.

- b. Ti si pametna.
 you.SG are.2SG smart.F.SG
 ‘You (a *woman*) are smart.’

However, French exhibits mixed agreement with the polite second person pronoun *vous*. In particular, this pronoun triggers singular agreement on a predicate adjective, but plural agreement on the verb (10a). When the pronoun refers to multiple addressees, the plural adjective form is used (10b).

- (10) a. Vous êtes loyal. French
 you.PL be.2.PL loyal.M.SG
 ‘You (singular, formal, male) are loyal.’
 b. Vous êtes loyaux. French
 you.PL be.2.PL loyal. PL
 ‘You (plural) are loyal.’

Languages like French, which exhibit this kind of split between verbs and predicate adjectives, are called *mixed agreement languages* in Wechsler and Hahm (2011) and Wechsler (2011). The assumption is that 2nd person pronouns, including polite plurals, are specified for Index number and gender but not Concord number and gender. Thus, the French 2nd person plural pronoun *vous* has Index ϕ -features, but no Concord ϕ -features, as illustrated in (11), where the Index features are represented as subscripts of N:

- (11) vous: N_[2,pl] (n.b.: no Concord phi features)

Since finite verbs are specified for Index agreement, the finite verb *êtes* in (10a) finds the subject’s Index features, which results in normal index agreement (i.e., the 2nd person plural form). However, the adjective *loyal*, which is specified for Concord agreement, cannot find either NUMBER or GENDER Concord feature on the subject, by assumption, and therefore semantic agreement arises as a consequence of the Agreement Marking Principle. That is, the adjectives’ masculine and singular features receive their semantic interpretation and the pronoun is understood to refer to a single male individual.

Serbian is in a crucial way different from French: in Serbian a polite plural subject triggers plural agreement uniformly on both the finite verb and the adjective in the predicative position (12a). The singular form on the adjective, as in (12b), is quite marginal/ungrammatical and considered non-standard (Corbett 1983: 49, Comrie 1975: 407, fn. 3) etc.).

- (12) a. Vi ste duhovit-i. Serbian
 you.PL AUX.2PL funny-M.PL
 ‘You (one formal addressee/multiple addressees) are funny.’
 b. # Vi ste duhovita.
 you.PL AUX.2PL funny-F.SG
 ‘You (one formal female addressee) are funny.’

Languages like Serbian are therefore called *uniform agreement languages*. The difference between languages like Serbian and languages like French is assumed to follow from the following *Pronoun Number Hypothesis* (Wechsler and Hahm 2011: 269):

- (13) *Pronoun Number Hypothesis*. In mixed agreement languages, second person pronouns lack Concord phi-features. In uniform agreement languages, second person pronouns have Concord phi-features. Pronouns in both types of languages have Index features.

Thus the reason why Serbian behaves as in (12a) is because the Serbian pronoun *vi*, in particular, its nominative form, has Concord ϕ -features, in contrast to French *vous*, which lacks Concord ϕ -features. In non-standard/colloquial Serbian, which allows (12b), on the other hand, the pronoun *vi* lacks Concord ϕ -features, just like French *vous*:

- (14) nominative *Vi*
 a. ‘standard’ Serbian/Croatian: *vi*: N[CONC *nom.m.pl*]_[2nd.m.pl]
 b. colloquial/dialectal: *vi*: N[CONC *nom*]_[2nd.m.pl]
 (Wechsler and Hahm 2011: 206)

Wechsler and Hahm (2011) therefore argue that a difference in the grammatical representation of the agreement *controller/trigger* (i.e., the pronoun) is ultimately responsible for the distinction between uniform agreement and mixed agreement patterns. In other words, they argue in support of the so-called *different pronoun hypothesis*, as opposed to the *different adjective hypothesis*, according to which a difference in the agreement status of the agreement *target* (i.e., predicative adjective) would be responsible for the difference between the two agreement patterns. One of the arguments offered in support of the former is that fact that even in Serbian, a uniform agreement language, non-nominative forms of the honorific pronoun actually trigger semantic agreement on adjectives, just like in French. For instance, in (16) below, it is impossible for the plural accusative adjective form to modify the honorific plural *vas*; it is only possible if *vas* refers to multiple addressees.

- (15) Draga Ana, juče sam vas video potpuno pijanu.
 Dear Ana yesterday AUX.1SG you.PL seen completely drunk.F.SG
 ‘Dear Ana, yesterday I saw you (one formal female addressee) completely drunk.’
 (16) Draga Ana, juče sam vas video potpuno pijane.
 Dear Ana yesterday AUX.1SG you.PL seen completely drunk.PL
 *‘Dear Ana, yesterday I saw you (one formal female addressee) completely drunk.’
 ‘Dear Ana, yesterday I saw you (multiple addressees) completely drunk.’

This contrast between the nominative and non-nominative polite second person pronoun suggests, according to Wechsler and Hahm (2011), that the key to uniform agreement lies in the pronoun, not the adjective. Therefore they propose that non-nominative forms of Serbian *vi*, similarly to French *vous*, lack Concord ϕ -features and have only Case features:

- (17) accusative *vas*: N[CONC *acc*]_[2nd,m,pl]
 (Wechsler and Hahm 2011: 206)

The analysis developed in Wechsler and Hahm (2011) and Wechsler (2011) clearly makes significant contributions to our understanding of these issues and provides a simple, elegant and effective explanation for some fairly complex facts. I will argue in this paper, however, that in the case of Serbian the analysis briefly summarized above, in particular, the assumptions about the Concord features of Serbian nominative *vi* and the way the *Agreement Marking Principle* is supposed to work, does not account for the full set of data.

Note first that even though French and Serbian regular 1st and 2nd person pronouns do not make gender distinctions, the predicative adjective agreeing with them must show gender agreement (as in (8)/(9)). This is, by assumption, a consequence of the *Agreement Marking Principle* – these pronouns lack the Concord gender feature, which results in semantic agreement. This mechanism is also responsible for the agreement pattern we see with French polite plural *vous*, as shown in (10a). This is consistent with the general idea that Concord features are grammaticalizations of the form of the agreement trigger; i.e., 1st and 2nd person pronouns do not distinguish for gender in their form, so it is natural to assume that they lack the Concord gender feature. Crucially, however, this must not be the mechanism that governs agreement with Serbian polite plural *vi* (12a); i.e., *vi* is specified for Concord plural NUMBER and *masculine* GENDER, because the predicative adjective takes the masculine plural form. But, this is a somewhat unexpected result since Concord features are usually represented in the form; for example, it is clear that *deca* ‘children’ has feminine singular Concord features from its declension suffixes. However, Serbian polite plural pronoun *vi* does not encode *masculine* (or any other) gender in its form, just like other 1st and 2nd person French or Serbian pronouns.

A more serious problem for this analysis is that it seems to make incorrect predictions about some coordinate agreement facts. A relatively well-known property of Serbian (and generally Slavic) coordinate structure agreement is that the participle must show *masculine* plural agreement whenever one of the conjuncts of a coordinated phrase subject is masculine (Bošković 2009, Wechsler and Zlatić 2003: Chapter 8, etc.). For example, in (18) the coordinated phrase in the subject position consists of one masculine and one feminine conjunct, and the participle must show masculine, not feminine agreement.

- (18) Dečak i devojčica su došli/*došle.
 Boy.NOM and girl.NOM AUX.3PL arrived.M.PL/arrived.F.PL
 ‘The boy and the girl arrived.’

In fact, the masculine form is obligatory whenever the conjuncts do not match in gender, even when none of them is masculine; thus, in (19) one conjunct is feminine and the other one neuter, which results in masculine plural agreement.

- (19) Majka i dete su došli/*došle/*došla.
 Mother.NOM and child.NOM AUX.3PL arrived.M.PL/arrived.F.PL/ arrived.N.PL
 ‘The mother and the child arrived.’

If Serbian polite plural *vi* has *masculine* plural Concord features, then we predict that when this pronoun is a conjunct of a coordinated phrase, a participle agreeing with that phrase would have to show *masculine* plural agreement, just like it does in (18). Surprisingly, this agreement pattern is not obligatory. For example, if two polite plural pronouns *vi* are coordinated, each of which

refers to a female individual, feminine plural agreement (semantic agreement) on the participle becomes quite possible, as shown in (20):

- (20) Vi (draga Ana) i Vi (draga Jelena) ste obe bile veoma
You.PL (dear Ana) and you (dear Jelena) AUX.PL both.FEM were.FEM.PL very
zauzete.
busy.FEM.PL
'You (dear Ana: one formal addressee) and you (dear Jelena: one formal addressee) were
both very busy.'

The same holds for (21), in which the polite pronoun is coordinated with a feminine gender NP referring to a female individual:

- (21) Vi i vaša kćerka ste bile veoma zauzete.
You.PL and your daughter AUX.2PL been.F.PL very busy.F.PL
'You (one formal female addressee) and your daughter were very busy.'

The contrast between (20) and (21), on the one hand, and (12b), on the other, is quite striking: even the speakers of the standard Serbian who immediately reject (12b) and accept only (12a) easily accept both (20) and (21). Furthermore, many such speakers also allow *masculine* plural agreement for (20) and (21) in addition to feminine plural agreement, as shown in (22) and (23). This agreement pattern seems to be somewhat marked compared to the feminine plural pattern, but it is nevertheless possible; importantly, (20)-(23) are all clearly much better than (12b).

- (22) Vi (draga Ana) i Vi (draga Jelena) ste bili veoma
You.PL (dear Ana) and you (dear Jelena) AUX.PL were.M.PL very
zauzeti.
busy.MASC.PL
'You (dear Ana: one formal addressee) and you (dear Jelena: one formal addressee) were
both very busy.'
- (23) Vi i vaša kćerka ste bili veoma zauzeti.
You.PL and your daughter AUX.2PL been.F.PL very busy.F.PL
'You (one formal female addressee) and your daughter were very busy.'

I will argue in this article that basically two factors govern this state of affairs. First, I will argue that an agreement target cannot simultaneously agree with an exclusively semantic and an exclusively formal ϕ -feature of an agreement controller; this is also implicitly assumed in the above mentioned work. If we have a noun like *deca* 'children', for example, which has semantic (or Index) features plural and neuter, and formal (or Concord) features singular and feminine, some targets will show plural neuter agreement, and some targets feminine singular agreement. However, *no* target will ever show *plural feminine* or *neuter singular* agreement.

- (24) Ta /*te /*to deca.
That.F.SG/ that.F.PL / that.N.SG children

Similarly, no target that agrees with the second person polite plural referring to a female individual will ever show feminine plural agreement – this just simply *never* happens (e.g., (25)). Any account of hybrid agreement in Serbian must be able to exclude examples like (24) and (25).

- (25) Vi ste duhovit-e.
you.PL AUX.2PL funny-F.PL
*‘You (one formal addressee) are funny.’
‘You (multiple female addressees) are funny.’

Second, when an agreement target which in general must show agreement for certain features does not find one of the features in the relevant set on the agreement controller, it receives a predesignated default value for the missing feature. For example, the participle in (12a) must be specified for some gender and some number value, this is just part of its morphological well-formedness requirements. It agrees with the formal features of the second person polite plural, which I assume consist only of plural number, but crucially no gender (simply because gender is not part of the form of *vi*). However, since the formal feature set does not provide any gender value, and the participle cannot agree with the semantically-based feminine gender, by assumption, it is assigned masculine by a default value mechanism. I will argue in Sections 3 and 4 that an analysis based on these two assumptions and an appropriate theory of coordinate structure agreement can explain all the relevant facts including the examples in (20)-(23).

2.2 Hybrid Agreement and Two Types of Hybrid Nouns

2.2.1 Agreement Patterns with “Double-Mismatch Nouns”

The account I propose will also seek to explain some novel observations about hybrid nouns, which as shown in (1b-c) come in two types.⁵ Hybrid nouns like *deca* ‘children’ or *braća* ‘brothers’ (see (1b)) display contrastive formal/syntactic and semantic features over two fronts: number and gender. I will therefore call them *double-mismatch* nouns since two features, namely, number and gender have contrastive syntactic and semantic values. For instance, *braća* ‘brothers’ is formally feminine and singular, but its semantically-based gender and number values are masculine and plural.

Now, hybrid nouns have been closely examined in the context of the so-called Agreement Hierarchy (e.g., Corbett (2006)). In particular, the observation is that when an agreement trigger is a hybrid of contrasting semantic and syntactic features, the choice of semantic versus syntactic agreement depends on the type of agreement target in a systematic way. According to this hierarchy attributive modifiers are the most likely to show syntactic agreement, whereas pronouns are the most likely to show semantic agreement; predicates, on the other hand, lie in between. Nouns like *deca* ‘children’ have been argued to support this hierarchy (e.g., Wechsler and Zlatić 2003); e.g., they, for instance, trigger syntactic agreement on attributive adjectives and semantic agreement on pronouns (see (4)).

However, there are some quite interesting contrasts when it comes to adjectival agreement with hybrid nouns. I asked 42 native speakers of Serbian (23 females and 19 males) to rate the acceptability of semantic and syntactic agreement patterns in a variety of contexts.

⁵ See also Arsenijević (2014) for discussion of similar facts.

Participants were all native speakers of Serbian from different parts of the country (Belgrade, Novi Sad, Užice etc.) and they varied with respect to age and education. In a nutshell, for each context the speakers were presented with two relevant forms, and asked to choose according to their native intuition among the following options: (i) both forms are equally acceptable, (ii) both forms are in principle acceptable, but one is more preferable, and (iii) only one form is acceptable. *All* of the speakers I consulted accept only syntactic/formal agreement (feminine singular) on the adjective when the adjective is in the prenominal/attributive position, as in (26a). The adjective here shows feminine singular agreement with the hybrid noun *braća* ‘brothers’, which like *deca* ‘children’ belongs to second declension.⁶ On the other hand, *all* of the informants reject semantic, masculine plural agreement (26b)⁷:

- (26) a. Naša braća su se rodila u Novom Sadu.
 Our.F.SG brothers AUX.3.PL REFL born.F.SG in Novi Sad
 ‘Our brothers were born in Novi Sad.’
 b. *Naši braća su se rodila u Novom Sadu.
 Our.M.PL brothers AUX.3.PL REFL born.F.SG in Novi Sad
 ‘Our brothers were born in Novi Sad.’

However, the speakers’ judgements change dramatically when the adjective is in the accusative or instrumental secondary-predicate position. For example, when the adjective is in the post-nominal, secondary-predicate position agreeing with the noun *braća* ‘brothers’ in accusative case, the semantic (masculine plural) agreement becomes quite possible.⁸ More precisely, 25 speakers (%59.5) chose the feminine singular pattern (27b); 21 of those speakers completely reject the plural form in (27a), while 4 of them accept the plural form as well, but prefer the feminine singular pattern. On the other hand, 15 speakers (%35.7) chose the plural agreement pattern; 10 of them reject the feminine singular form altogether, whereas the remaining 5 accept both forms but give preference to the plural form. Finally, 2 speakers (%4.8) find both forms equally acceptable.

⁶ I will focus on the noun *braća* in this article as a representative of this type of hybrid nouns, because the noun *deca* ‘children’ introduces an unnecessary complication. In particular, as already mentioned, *deca* has neuter plural semantic features, given its meaning, and feminine singular formal features, since it declines as a feminine singular noun. However, in nominative, neuter plural nouns and feminine singular nouns in Serbian happen to have a homophonous ending *-a*, which in principle makes it unclear what kind of agreement is involved with agreement targets ending in *-a* and agreeing with the nominative form of *deca* (this is also discussed in detail in Wechsler and Zlatić 2003, section 3.3). There is no such complication with the noun *braća* ‘brothers’, however, since its semantic features are masculine plural, and masculine plural nouns and feminine singular nouns in Serbian have different endings in nominative (*-i* and *-a*, respectively). Thus, it can be assumed with reasonable certainty that agreement targets ending in *-a* and agreeing with the nominative form of *braća* agree for formal (feminine singular) features.

⁷ Note that the form of the participle, which in (26) is feminine singular, does not affect prenominal adjectival agreement. That is, even in examples like (i), where the verb *žive* ‘live’ does not show any gender agreement, the prenominal adjective still must be strictly formal (i.e., feminine singular). A separate study which I conducted with 12 different informants (7 females/5 males) also confirms this:

- (i) Naša braća žive u Novom Sadu.
 Our.F.SG brothers live.PL in Novi Sad
 ‘Our brothers live in Novi Sad.’

⁸ Note, however, that plural non-nominative adjectives and third person pronouns do not distinguish for gender. I return to this point in the next section.

- (27) a. Ivan je braću juče video potpuno pijane.
 Ivan AUX.3.SG brothers.ACC yesterday seen completely drunk.PL.ACC
 ‘Ivan yesterday saw the brothers completely drunk.’
 b. Ivan je braću juče video potpuno pijanu.
 Ivan AUX.3.SG brothers.ACC yesterday seen completely drunk.F.SG.ACC
 ‘Ivan yesterday saw the brothers completely drunk.’

A similar type of contrast appears with adjectives in the secondary-predicate instrumental positions. 24 speakers (%57.2) chose the formal agreement pattern in (28b), and the majority of those speakers (i.e., 22 speakers) completely rejected the plural form in (28a). At the same time, 13 (% 30.9) informants chose the form in (28a) and 10 of those speakers completely rejected the feminine singular form. 5 speakers (%11.9) found (28a) and (28b) equally acceptable.

- (28) a. Ivan smatra braću iz Novog Sada veoma duhovitim.
 Ivan considers brothers from Novi Sad very funny.PL. INS
 ‘Ivan considers the brothers from Novi Sad very funny.’
 a. Ivan smatra braću iz Novog Sada veoma duhovitom.
 Ivan considers brothers from Novi Sad very funny.F.SG.INS
 ‘Ivan considers the brothers from Novi Sad very funny.’

These results are summarized in Table 1 below:

Table 1

<i>Adjectival Agreement</i>	Prenominal		Postnom. ACC		Postnom. INS	
Only formal	42(23f/19m)	%100	21(12f/9m)	%50	22(12f/10m)	%52.4
Formal preferred	0	0	4(4m)	%9.5	2(1f/1m)	%4.8
Only semantic	0	0	10(5f/5m)	%23.8	10(5f/5m)	%23.8
Semantic preferred	0	0	5(4f/1m)	%11.9	3(1f/2m)	%7.1
Formal and semantic equally possible	0	0	2(2f)	%4.8	5(4f/1m)	%11.9

As already mentioned in footnote 7, I conducted another separate study with 12 different speakers (7 females and 5 males), which confirms the general pattern of the results given in (29); i.e., while there is a significant variation in acceptability of the two types of agreement patterns with postnominal adjectives, prenominal adjectival agreement is exclusively formal (i.e., feminine singular).

Any theory dealing with hybrid nouns and mixed agreement should be able to say something meaningful about this acceptability split between prenominal and postnominal agreement. I will argue that my analysis of polite plurals can be naturally extended to these cases as well.⁹

⁹ There are other types of interesting nouns in Serbian that could be tested in this way, such as masculine nouns of profession which may be used of women (e.g., *pesnik* ‘poet’). There is, however, strong tendency for many speakers of modern Serbian to use feminine nouns in such cases (e.g., *pesnikinja* ‘female poet’), which can be an important intervening factor. For a discussion of some nouns of profession in Serbian see Wechsler and Zlatić (2003: Chapter 4) and for a general discussion of the contrast between male and female nouns of profession see Bobaljik and Zocca (2011).

2.2.2 Agreement Patterns with “Single-Mismatch Nouns”

Serbian has another type of hybrid nouns (see (1c)), which pose all sorts of challenging questions for theories of mixed agreement. I will call these nouns *single-mismatch* nouns, since unlike double-mismatch nouns, they display contrast between semantic and syntactic values only for one feature. For instance, nouns like *tata* ‘dad’, *vojvoda* ‘duke’, or *Nikola* denote male individuals, but decline as feminine nouns; i.e., there is a meaning-form contrast between feminine and masculine gender. However, there is no such contrast in number values – *vojvoda* declines as a feminine noun in both singular and plural, and the meaning distinction between non-aggregate and aggregate is reflected in the form.

Table 2: Declension II: *žena* ‘woman’; *vojvoda* ‘duke’

	SINGULAR		PLURAL	
N	žen-a	vojvod-a	žen-e	vojvod-e
A	žen-u	vojvod-u	žen-e	vojvod-e
G	žen-e	vojvod-e	žen-a:	vojvod-a:
D	žen-i	vojvod-i	žen-ama	vojvod-ama
L	žen-i	vojvod-i	žen-ama	vojvod-ama
I	žen-om	vojvod-om	žen-ama	vojvod-ama

Now, in contrast to *braća* ‘brothers’, which, as we saw, triggers obligatory syntactic/formal agreement on prenominal, attributive adjectives, a single-mismatch noun like *tata* ‘dad’ or *vojvoda* ‘duke’ triggers *semantic* (i.e., masculine) agreement on prenominal and predicative adjectives, as well as on participles:

- (27) a. Lepi /?*Lepa Nikola/vojvoda/tata
 Beautiful.M.SG/Beautiful.F.SG Nikola/duke/dad
 ‘Handsome Nikola/duke/dad.’
- b. Naš /?*Naša vojvoda/tata je stigao /?*stigla.
 Our.M/ our.F duke /dad is arrived.M arrived.F
 ‘Our duke/dad has arrived.’
- c. Tata/vojvoda je pametan/?*pametna.
 Dad/duke is clever.M/clever.F
 ‘The dad/duke is clever.’

The question is, of course, why would *braća* ‘brothers’ and *vojvoda* ‘duke’ behave differently in this respect (for some discussion see Wechsler and Zlatić 2003: Chapter 2 and references therein)? Moreover, the agreement pattern changes dramatically in plural: the plural form *vojvode* ‘dukes’ triggers *feminine* plural agreement on adjectives and participles. In particular, out of 42 informants I consulted, 39 chose the feminine pattern on the attributive adjective (35 of those speakers completely reject the masculine form, while 4 of them allow the masculine form, but do not prefer it), whereas only 3 speakers overall chose the masculine form (completely rejecting the feminine form).¹⁰

¹⁰ The feminine (formal) agreement is preferred for predicative adjectives and participles as well, although to a bit lesser degree. For predicative adjectives 36 speakers prefer the feminine form vs. 4 speakers who chose the masculine pattern (1 speaker finds them equally acceptable), while for participles 32 speakers favor the feminine form as opposed to 9 speakers who chose the masculine form (1 speaker again find the two patterns equally

- (28) a. Naše vojvode dolaze sa severa.
 Our.F.PL dukes come.PL from north
 ‘Our dukes come from the North.’
 b. *?Naši vojvode dolaze sa severa.
 Our.F.PL dukes come.PL from north
 ‘Our dukes come from the North.’

The question here is why would plural number have such an effect on agreement? In other words, why would the value of *number* have any effect on whether agreement in *gender* is semantic or formal/syntactic? Note again that this pattern is rather systematic and that there are quite a few single-mismatch nouns in Serbian.

So, the challenging properties of the three hybrid agreement triggers in (1) (repeated below in (30)) discussed in this section are summarized in (29):

- (29) Summary of the relevant facts and questions:
 a. If the Serbian polite plural pronoun *vi* is specified for masculine concord gender (which explains why it triggers masculine plural agreement on the participle/adjective), why doesn't it trigger obligatory masculine agreement in coordinate structures?
 b. Prenominal adjectival agreement with double-mismatch nouns is strictly formal/syntactic, while both semantic and formal agreement patterns are in principle possible with postnominal adjectives.
 c. Gender agreement with single-mismatch nouns is affected by the value of number: while gender agreement is semantic in singular, it is overwhelmingly formal/syntactic in plural. Why would this be the case and why are single-mismatch nouns different from double-mismatch nouns in this respect?
- (30) a. Polite Plural Pronoun: *Vi* ‘you(pl)’
 b. Double-Mismatch Hybrid Nouns: *braća* ‘brothers’, *deca* ‘children’
 c. Single-Mismatch Hybrid Nouns: *vojvoda* ‘duke’, *tata* ‘dad’

The goal of this paper is to explain all of these seemingly unrelated facts in a uniform manner and within an internally consistent set of independently motivated assumptions. The main focus of the next section, where I present my analysis and its key assumptions, is the hybrid triggers in (30b-c). In this section I argue for a theory of morphological markedness, which determines which features, or combinations of features are marked. I show how such a theory accounts for a number of phenomena of Serbian (and Slavic) inflectional morphology, such as the lack of gender distinction in plural non-nominative adjectives and third person pronouns. I also briefly go over some main properties of the Serbian declension system and the theoretical framework I adopt, namely, DM. I return to the analysis of the polite plural pronoun in Section 4.

acceptable). Notice that since in plural gender is distinguished only in nominative (as discussed in detail in the next section), plural secondary-predicate accusative or instrumental adjectives cannot be used in this respect.

3. Towards an Account: Hybrid Agreement, Markedness and Underspecification

3.1. Theoretical Preliminaries

In this paper I will assume the theoretical framework of *Distributed Morphology* (DM) (e.g., Halle and Marantz 1993, Embick and Noyer 2007, Arregi and Nevins 2012, Bobaljik to appear etc.). This model advances a piece-based view of word formation, in which the syntax/morphology interface is as transparent as possible. In this essentially syntactic theory of morphology, the syntactic component generates (via *Merge* and *Move*) an abstract representation which in turn serves as the input to two interpretative components: PF and LF. In the morphological component, which is a part of PF, a mapping procedure takes a syntactic structure as its input and incrementally alters it in order to produce a phonological form. For example, a process called *Vocabulary Insertion* (VI hereafter) adds phonological material to the abstract morphemes, whereas some PF rules linearize the hierarchical structure generated by the syntax. One of the core positions of DM with respect to features is the so-called *Separation Hypothesis*, i.e., morphosyntactic and morphophonological features are distinct from each other. On this view, syntax proper operates with sets of features that are visible to both PF and LF, whereas post-syntactic morphological operations operate with morphophonological features of vocabulary items that do not affect syntax or have any ramifications on interpretation. As discussed in Embick (2000), for instance, a clear consequence of the hypothesis that Late Insertion is universal is that features that are purely phonological, morphological or arbitrary properties of vocabulary items, such as declension class, are not present in syntax, and are thus invisible to semantics. Conversely, syntactic/semantic features cannot be inserted in morphology.

For the purposes of this paper it is particularly important how *competition* and *blocking* function and affect allomorphy in DM. During the process of VI, for each terminal node, a specific *vocabulary item/entry* is chosen, that maximally realizes features at that node. As discussed in Bobaljik's (to appear) recent exposition of DM, the formal statements of VI are guided by the following two general principles of rule interaction:

- (31) *Rules Apply*
A rule applies wherever its structural description is met.
- (32) *Elsewhere Condition*
Where more than one mutually exclusive rule may apply, (only) the most highly specified rule applies.

This can be illustrated quickly with the main verb present tense inflection in English: (33) shows the vocabulary entries for the present English tense, which are competing for insertion at the T node:

- (33) Vocabulary of English (fragment)
 - a. [3S, PRESENT] \Leftrightarrow -s
 - b. [PRESENT] \Leftrightarrow \emptyset

If the subject happens to be, for instance, 1st person plural, features [1 PL, PRESENT] will constitute the input to VI. Then the item in (33a) cannot apply, as its structural description is not met; only the entry in (33b) is compatible with this context. However, if the subject is 3rd person

singular, both exponents in (33) are eligible for insertion, but since (33a) is more specific, *-s* must be inserted – this follows from the elsewhere condition in (32) (which is, of course, just a version of other older similar conditions; e.g., Kiparsky 1973, Halle 1997 etc.).

Note that for many types of terminal nodes there will be an elsewhere vocabulary item, “...which carries very few inherent features (i.e. it is *underspecified*), and for this reason is compatible with a wide variety of apparently heterogeneous feature bundles.” (Arregi and Nevins 2012: 11). Also, in certain morpho-syntactic contexts prior to VI, morphological features (or just their values) may be deleted at a given node, which directly affects the choice of the vocabulary entry for that node, leading to the insertion of the underspecified/elsewhere item and general feature neutralization. Such feature-deletion rules are called *Impoverishment Rules* (e.g., Bonet 1991, 1995, Arregi and Nevins 2012 etc.) and they may vary with respect to how many features they delete in a given context. Many such rules are often the result of markedness constraints (Noyer 1997, Calabrese 1995, 2005, 2011 etc.), as discussed in section 3.3.1.

3.2 Grammatical Gender and Declensions in Serbian

In this paper I adopt the declension system from Stanojčić and Popović (1992) (see also Stevanović 1962). According to this system there are four main declensions in Serbian, which I summarize here briefly, but I will be mainly concerned with those that have hybrid nouns and are therefore relevant for the discussion of hybrid agreement.

The first declension (Declension I) comes with two sub-declensions, which I label as Declension I_M and Declension I_N. Table 3 shows the singular case endings for a Declension I_M noun (*dečak* ‘boy’), and an adjective agreeing with it (*lep* ‘beautiful’). It also gives different case forms for the singular masculine pronoun (both the clitic and the full pronoun). The first important generalization about Serbian declensions is that all I_M nouns are masculine. That is, all nouns belonging to this class trigger the same type of agreement (i.e., masculine), as given in Table 3. This, however, does not mean that all nouns whose referents are males belong to this declension; i.e., the dependency goes in one direction, as shown below.

Table 3

SG	Adjective	Decl. I _M	Pronoun	Clitic
NOM	lep- i	dečak	on	<i>pro</i>
ACC	lep- og(a)	dečak- a	nje- ga	ga
GEN	lep- og(a)	dečak- a	nje- ga	ga
DAT	lep- om(e)	dečak- u	nje- mu	mu
LOC	lep- om(e)	dečak- u	nje- mu	-
INS	lep- im	dečak- om	nj- im	-

Singular forms for Declension I_N nouns (*selo* ‘village’) are given in Table 4. Apart from nominative and accusative, adjectival and nominal endings of Declensions I_M and I_N are identical, for which reason these two are traditionally classified as subgroups of a single declension. Table 4 also gives forms for Declension II (*ime* ‘name’), which are very similar to Declensions I_N. Both declensions trigger the same type of agreement on the adjective, and both declensions display syncretism in nominal and adjectival nominative and accusative forms. As discussed in the next section, this syncretism is present in plural forms as well. The main difference between the two is that the stem of Declension II nouns is extended with a suffix (*-en* or *-et*) in non-nominative/accusative cases. Also, in nominative/accusative, Declension II nouns

end in *-e*, while Declension I_M nouns in either *-o* (e.g., *selo* ‘village’) or *-e* (e.g., *polje* ‘field’).¹¹ What is important for our purposes is that nouns from both Declension I_M and Declension II trigger identical agreement, namely neuter, on all agreement targets, including adjectives. Thus, the second generalization is that all neuter nouns (i.e., nouns that trigger this type of agreement) belong to Declensions I_M and II. At the same time, all nouns from these two declensions are neuter nouns.

Table 4

SG	Adjective	Decl. I _N	Decl. II
NOM	lep- o	sel- o	im- e
ACC	lep- o	sel- o	im- e
GEN	lep- og(a)	sel- a	imen- a
DAT	lep- om(e)	sel- u	imen- u
LOC	lep- om(e)	sel- u	imen- u
INS	lep- im	sel- om	imen- om

Singular forms of a Declension III noun (*žena* ‘woman’) and the adjective *lep* ‘beautiful’ agreeing with it are given in Table 5. Declension III nouns are prototypical feminine nouns and they generally trigger feminine agreement – they can be either animate/human (*žena* ‘woman’, *devojka* ‘girl’ etc.) or inanimate (*knjiga* ‘book’, *lopta* ‘ball’ etc.). Table 5 also gives corresponding pronominal feminine forms.

Table 5

SG	Adjective	Decl. III	Pronoun	Clitic	Decl. IV
NOM	lep- a	žen- a	on- a	<i>pro</i>	stvar
ACC	lep- u	žen- u	nj- u	je/ju	stvar
GEN	lep- e	žen- e	nj- e	je	stvar- i
DAT	lep- oj	žen- i	nj- oj	joj	stvar- i
LOC	lep- oj	žen- i	nj- oj	-	stvar- i
INS	lep- om	žen- om	nj- om	-	stvar- i/ju

However, not all Declension III nouns trigger this type of agreement. This declension also includes quite a few male-denoting nouns, which decline like *žena* ‘woman’, but trigger masculine agreement. That is, they have the same case endings as *žena* ‘woman’ (given in Table 5), but adjectives agreeing with them take masculine forms (as in Table 3). I called these nouns in section 2 single-mismatch hybrid nouns and they include proper names *Nikola*, *Nemanja*, or *Strahinja* and common nouns like *tata* ‘dad’, *vojvoda* ‘duke’, *papa* ‘pope’, *delija* ‘hero/paladin’, *vladika* ‘bishop’ etc. The type of agreement mismatch they trigger is illustrated in Table 6:

¹¹ One exception to this seems to be the noun *govno* ‘shit, crap’, which ends in *-o* in nominative (and should therefore be classified as Declension I_M), but allows both extended and non-extended stems (e.g., DAT: *govnet-u* or *govn-u*).

Table 6

SG	Adj. (masculine)	Decl. III (male)	
NOM	lep(i)	tat- a	vojvod- a
ACC	lep- og(a)	tat- u	vojvod- u
GEN	lep- og(a)	tat- e	vojvod- e
DAT	lep- om(e)	tat- i	vojvod- i
LOC	lep- om(e)	tat- om	vojvod- om
INS	lep- im	tat- om	vojvod- om

Going back to Table 5, the last column gives forms of a Declension IV noun (*stvar* ‘thing’). All Declension IV nouns trigger feminine agreement and the majority of them denote inanimate and usually abstract objects (*mladost* ‘youth’, *ljubav* ‘love’ etc.), although they include a few animate/human nouns (e.g., *kokoš* ‘hen’, *kćer* ‘daughter’). Note also that Declension IV nouns display deep syncretism; i.e., they essentially have two forms: one with zero ending for nominative/accusative, and one ending in *-i* for all other cases (with the exception of instrumental which has the ending *-ju* in addition to *-i*¹²). In the next section I will introduce my analysis, in which I will mainly focus on Declensions I_M and Declension III, since they are of central relevance to hybrid agreement. However, I will also try to show how other declensions fit into the general system I propose.

3.3 On Markedness and Hybrid Agreement

In this section I will outline my analysis and key assumptions. I adopt a theory of morphological markedness, which determines which features, or combinations of features, are marked. It has been known since Trubetzkoy’s work (see also Jakobson 1932/1984) that feature systems of any kind tend to be more efficient if an unmarked or default value is contrasted with a marked value. In simple terms, “markedness is the asymmetric treatment of two categories within an opposition where equal patterning might otherwise be expected” (Nevins 2011: 417). As thoroughly discussed in Nevins (2011), there are a number of diagnostics for markedness within the pre-generative and typological work. For example, it has been established that a marked category is usually mastered later in acquisition, more likely to be lost in language change, and typologically rarer (Jakobson 1941, Nevins 2011). Another markedness diagnostics involves an inventory-based implication, such that a marked category is one that implies the presence of the unmarked category. See Nevins (2011) (also Bobaljik and Zocca 2011) for discussion and a comprehensive list of typological diagnostics of markedness based on Greenberg (1966) and Croft (1990) (see also Zwicky 1978 etc.)¹³

¹² It is not clear whether these two instrumental endings are always completely interchangeable – there is variation among speakers and the syntactic context seems to matter (see Stanojčić and Popović 1992: 82 for some discussion).

¹³ Haspelmath (2006) argues that the formal concept of markedness as used here and in references given above is inadequate and should be replaced by frequency asymmetries in usage. However, it has been shown that this proposal faces a number of problems, which I cannot go into here in detail – I refer the reader to Bobaljik and Zocca 2011, Nevins 2011 and references therein for relevant discussion. It is useful to note, though, that frequency of use is more likely a symptom, rather than a cause, of grammatical asymmetries, as observed in Nevins (2011: 420, footnote 2). As Nevins notes, it has been known since Greenberg (1966: 45) that frequency counts for the category of person are highly unreliable, owing to genre-dependence of the texts chosen for counting (see also Bobaljik 2008: section 3.1 on the (lack of) correlation between attested person categories and the functional load). At the same time, Bobaljik and Zocca (2011: 154-156) provide clear evidence, which is based on actual corpus studies of gender

I will be mainly concerned here with Case and ϕ -features, whose marked and unmarked values are given in Table 7. This particular division should be uncontroversial for number and case; I explain my position with respect to gender in the next section. Thus, in the domain of case, nominative is unmarked with respect to non-nominative cases, while in the domain of number, singular is unmarked with respect to plural (e.g., Nevins 2011 and references therein). Given common diagnostics for *morphological markedness* (e.g., Croft 1990, Greenberg 1966) it is quite standard to assume that nominative and singular are unmarked; for example, both singular and nominative often have no phonological content, in contrast to plural and non-nominative cases.

Table 7

Features	Unmarked	Marked
<i>number</i> [NUM]	<i>singular</i> [SG]	<i>plural</i> [PL]
<i>case</i> [CASE]	<i>nominative</i> [NOM]	<i>non-nominative</i> [-NOM]
<i>gender</i> [GEN]	[GEN] _D	[GEN] _{SEM}

I argue that [PL], [-NOM] and [GEN] induce markedness accumulation when they appear together (e.g., Calabrese 2005, 2011). A strong piece of evidence for this claim comes from adjectival and pronominal forms: in Serbian all [PL] [-NOM] adjectives (with the exception of neuter, which I discuss in the next section) and 3rd person pronouns lack gender distinctions. I argue here that in this case an excessively marked situation is resolved by a feature deletion operation/Impoverishment (Bonet 1991, Noyer 1997, 1998, Nevins 2011). The main idea is that when morphologically marked features accumulate to the extent that exceeds language-specific or universal thresholds of complexity, some of those features get deleted by post-syntactic deletion rules and are not morphologically realized.

I will mark Case and ϕ -features and their values with bracketed capitalized letters, as already shown in Table 7. Only features marked this way can enter grammatical (syntactic or morphological) processes. Thus, to meet the requirements of morphological well-formedness, an adjective, for instance, has to be supplied with grammatical values of number: [NUM], case: [CASE], and gender: [GEN], and certain values for them. Gender in turn can either be semantic - [GEN]_{SEM}, or specified by the noun's arbitrary declension feature - [GEN]_D. I will argue that [GEN]_{SEM} is more marked than [GEN]_D. In other words, [GEN]_D is the default gender value. I take plural [PL] to be marked as opposed to singular [SG]. In the realm of case, nominative [NOM] is taken to be unmarked as opposed to all non-nominative [-NOM] cases, (e.g., nominative is the only case value which may lack an overt affix). Finally, marked features can accumulate resulting in "markedness overload" situations which may trigger feature deletion operations (e.g., Calabrese, 2005, 2008).

3.3.1 Markedness and Gender Neutralization

As already mentioned, an important generalization about Serbian adjectives and 3rd person pronouns is that gender distinction is neutralized in their plural non-nominative forms. Table 8 shows this: plural non-nominative adjectives (*lep* 'beautiful') and pronouns are compatible with both masculine and feminine plural non-nominative nouns (*dečak* 'boy' and *žena* 'woman').

markedness, that Haspelmath's proposed correlation between frequency and markedness effects is "strikingly not supported" (Bobaljik and Zocca 2011: 156).

Table 8

PL.	Adj.	Noun _{MASC}	Noun _{FEM}	Pronoun	Clitic
ACC	lep- e	dečake	žene	nj- ih	ih
GEN	lep- ih	dečaka:	žena:	nj- ih	ih
DAT	lep- im(a)	dečacima	ženama	nj- ima	im
LOC	lep- im(a)	dečacima	ženama	nj- ima	-
INS	lep- im(a)	dečacima	ženama	nj- ima	-

Unlike in Tables 3-5 above, where both adjectives and pronouns distinguish for gender, regardless of case (i.e., just by looking at the adjectival or pronominal form we are able to determine the gender of the noun modified by the adjective), plural non-nominative adjectives and pronouns in Table 5, do not make gender distinctions. For example, *lep-ih*_{GEN.PL} ‘beautiful’ or *njih*_{GEN.PL} ‘them’ may refer to a group of either male or female individuals. I propose that a markedness accumulation constraint in (34a) is responsible for this state of affairs. It specifies that no gender can be expressed on the adjectival agreement suffix or a pronoun in the environment of the marked feature values [PL] and [-NOM]. [PL] and [-NOM] accumulate markedness to a degree that triggers complete impoverishment/deletion of gender, via the rule in (34b). The hierarchy in (35), which presumes that of all Case and ϕ -features, gender is the least grammatically relevant, ensures that number and case win out over gender when no other considerations establish order (see Noyer 1997, Harley and Ritter 2002 etc. for approaches to feature hierarchies).¹⁴

- (34) a. *[[PL], [-NOM], [GEN]]/+____]w
 b. [GEN] → ∅ / [__ [PL] [-NOM]]
- (35) Number/Case > Gender

The rule in (34a) is an impoverishment rule, which, as already discussed, operates on fully specified syntactic inputs, but deletes features prior to VI – this results in systematic neutralizations in surface forms. In other words, at the point of vocabulary insertion no node will ever bear plural, non-nominative *and* gender in Serbian. For example, an underlying combination [FEM, PL, DAT] will lose the [FEM] feature and surface as [PL, DAT]. Note, however, that different languages may draw markedness accumulation lines at different points. In Serbian, plural adjectives and pronouns make a gender distinction in nominative, which is the unmarked value for Case. Only when plural is combined with non-nominative cases, which are marked Case values, do we see gender neutralizations triggered by (34). In Russian, however, the markedness accumulation line is arguably at a lower point – gender is neutralized in all plural cases, including nominative, as shown in Table 9 (e.g., Timberlake 1993: 844-846). This is also

¹⁴ The assumption is that different morphological features carry different levels of cognitive significance and therefore exist in some type of hierarchical relation; the Person > Number > Gender hierarchy is, for instance, a common example (e.g., Greenberg 1963, Harley and Ritter 2002 etc.). It has also been proposed that there are subhierarchies within features; e.g., first and second person are more highly ranked than third person (Silverstein 1985). For evidence from production and processing in support of feature hierarchies see Carminati (2005) and Malovrh and Lee (2010).

true for Belorussian (Mayo 1993: 906-908), Ukrainian (Shevelov 1993: 962-963), Bulgarian (Scatton 1993:204) and Macedonian (Friedman 1993: 265)¹⁵:

Table 9

	SG	PL
Masculine	On-Ø	On-i
Feminine	On-a	On-i
Neuter	On-o	On-i

The markedness accumulation constraint for Russian then would be specified as in (36a), and the related impoverishment rule as in (36b) (see Bobaljik, to appear, and references therein):

- (36) a. *[[PL], [GEN]]/+____]w
 b. [GEN] → Ø / [__ [PL]]

The logic behind this approach then is that morphologically marked information accumulates and that different languages (and potentially different speakers) may vary as to at which point of accumulation impoverishment rules are triggered.

Now, notice that neuter adjectives introduce an interesting complication, which needs to be addressed here. In particular, neuter plural *accusative* (i.e., non-nominative) adjectival form is different from the plural accusative form used for masculine and feminine gender (*lepe* in Table 8). As shown in Table 10, neuter plural accusative form of the adjective ‘beautiful’ is *lepa*. Thus, it seems that there is no complete gender neutralization in all plural non-nominative cases: neuter plural accusative is different from masculine/feminine plural accusative.

Table 10

	Adj.SG	Noun _{NEUT} SG	Adj.PL	Noun _{NEUT} PL
NOM	lep-o	sel-o	lep-a	sel-a
ACC	lep-o	sel-o	lep-a	sel-a
GEN	lep-og	sel-a	lep-ih	sel-a
DAT	lep-om(e)	sel-u	lep-im(a)	sel-ima
LOC	lep-om(e)	sel-u	lep-im(a)	sel-ima
INS	lep-im	sel-om	lep-im(a)	sel-ima

However, what is crucial here is that Serbian adjectives and nouns display complete syncretism between accusative and nominative in neuter, in both singular and plural, as the shaded cells in Table 10 indicate. In other words, there is a gender distinction in neuter plural accusative not because there is a special, unique form for the combination of features [NEUT, PL, ACC], but because the plural accusative form is in neuter identical to the plural nominative form, which, on the other hand, *does* distinguish for gender. The effect that this general nominative=accusative syncretism in neuter has on plural adjectives is illustrated in Table 11:

¹⁵ Note that in Bulgarian and Macedonian pronouns have only two cases in addition to nominative: (full and short forms of) accusative and dative, while adjectives have no case. However, only singular forms of both pronouns and adjectives make gender distinctions.

Table 11

PL	Masculine	Feminine	Neuter
NOM	lep- i	lep- e	lep- a
ACC	lep- e	lep- e	lep- a
GEN	lep- ih	lep- ih	lep- ih
DAT	lep- im(a)	lep- im(a)	lep- im(a)
LOC	lep- im(a)	lep- im(a)	lep- im(a)
INS	lep- im(a)	lep- im(a)	lep- im(a)

Serbian plural adjectives make the regular three-way gender distinction in nominative. This gender distinction is almost completely neutralized in plural non-nominative forms; the only form that distinguishes gender in non-nominative part of Table 11 is exactly the one that is *identical* to the gender-distinguishing nominative form, namely accusative neuter. So, the real generalization is that gender is neutralized in all plural non-nominative adjectival forms that are non-syncretic with nominative (or other gender-distinguishing forms). This didn't have to be this way: gender could have been distinguished in non-nominative plural just like in singular (or nominative plural), i.e., via unique forms, which are not necessarily syncretic with anything else. For example, *lepu* (the feminine, singular, accusative form of 'beautiful') from Table 5 signals feminine gender and it is not syncretic with any other (feminine or non-feminine) form. This is a significant point, which requires an adequate explanation. The framework of DM adopted here, which makes use of impoverishment rules and underspecification, accounts for this state of affairs quite straightforwardly.

To explain the general nominative=accusative syncretism in neuter, we can assume the impoverishment rule in (37), which always deletes the accusative feature in the context of neuter, regardless of number. This will result in nominative, as expected, since nominative is the underspecified/elsewhere form.

(37) [ACC] → ∅ / [___ [NEUT]]

This rule precedes the impoverishment rule in (34b) and bleeds it – it removes the non-nominative case (i.e., accusative), which combined with [PL] triggers the deletion of gender. For this reason, we do not have total gender neutralization in the neuter plural non-nominative paradigm – we see it in accusative, because accusative always looks like nominative. So the prediction is that if there is no nominative=accusative syncretism in neuter singular (i.e., (37) does not apply), then we should have complete gender impoverishment (covering neuter) even in accusative plural, since (34b) would apply. This is exactly what happens with Serbian 3rd person pronouns: the nominative singular neuter pronoun *ono* is non-syncretic with the accusative singular pronoun (*nje*)*ga*, indicating that in the case of pronouns (37) does not apply, and consequently gender is completely neutralized in accusative plural: the form *nj(ih)* is used for all three genders.

On closer examination other Slavic languages that make gender distinctions in plural behave similarly. In Czech, for example, the soft adjectival declension makes no gender distinction in plural including nominative, while the hard declension is very similar to Serbian adjectives. In particular, while there is a three-way gender distinction in nominative plural, gender is neutralized in other plural forms, apart from neuter accusative which is, just like in Serbian, syncretic with neuter nominative plural (*nová* 'new') (Short 1993a: 476). And just like in Serbian, third person plural non-nominative pronouns make no gender distinctions (Short

1993a: 471). Polish makes a two-way gender distinction in nominative plural (between groups including males and groups not including males; see section 4.2.1 for a discussion). Other plural cases do not distinguish for gender apart from accusative, in which, again, the non-male form is syncretic with the nominative non-male form (*ładne* ‘pretty’) (Sadowska 2012: 234-235). Syncretism in Slovak is quite similar in this respect (Oscar and Gálová-Lorinc 1990: 465 and Short 1993b: 550). Slovene has a three-way gender distinction in plural nominative adjectives, and behaves exactly like Serbian with respect to the nominative=accusative syncretism in neuter (singular and plural) (Herrity 2000: 72, Priestly 1993: 412). That is, gender distinction is completely neutralized in plural non-nominative forms, apart from neuter accusative. The nominative=accusative syncretism is also present in Slovene dual, which in contrast to plural, makes a two-way gender distinction in nominative (masculine vs. non-masculine in Standard Slovene¹⁶). Again, other non-nominative dual forms make no gender distinctions. The general point is that across different Slavic languages quite a systematic pattern arises: if there is a lack of complete gender neutralization in plural non-nominative adjectival forms, it (i) happens in accusative (not, say, in instrumental or dative) and (ii) is a result of syncretism with nominative, which otherwise makes gender distinctions. This is clearly rather different from what happens in singular, and cannot be treated in the same way. In a model which is based on concepts such as underspecification and elsewhere items and which uses markedness-induced impoverishment rules, this state of affairs is expected and is explained quite easily, as shown in (34)-(37).

3.3.2 Gender, Declension and Hybrid Nouns

Recall from section 2 that single-mismatch nouns like *tata* ‘dad’ or *vojvoda* ‘duke’ trigger masculine agreement in singular, but feminine agreement in plural. That is, they trigger semantic agreement in singular, given that they denote male individuals, and formal/syntactic agreement in plural, given that they belong to Declension III (which generally triggers feminine agreement).

- (38) a. Lep-e vojvod-e ‘Beautiful dukes’. (Decl. **III** agreement)
 b.*?Lep-i vojvod-e ‘Beautiful dukes’. (Decl. **I_M** agreement)

I argue in this section that there is a direct, meaningful connection between this contrast and the general gender neutralization in non-nominative, and that markedness of plural number plays a central role in both cases.

I first propose, building on some of the ideas of Corbett (1991), the following set of declension-gender matching rules.

- (39) a. Semantic assignment rules
 $\text{♀} \rightarrow [\text{FEM}], \text{♂} \rightarrow [\text{MASC}] \circ \rightarrow [\text{NEUT}]$
 b. Declension assignment rules
 $\text{DCL III and IV} \rightarrow [\text{FEM}]$
 $\text{DCL I}_N \text{ and II} \rightarrow [\text{NEUT}]$
 c. Redundancy rule
 $[\text{FEM}] \rightarrow \text{DCL III or IV}$
 $[\text{NEUT}] \rightarrow \text{DCL I}_N \text{ or II}$

¹⁶ I come back to this point in section 4.2.1; see Nevins 2011 for a detailed discussion of dual and gender in different dialects of Slovene.

The idea is that every nominal vocabulary item has to be associated with at least one grammatical gender ([GEN]) value specification, in order to meet its well-formedness requirements. Nouns denoting animate/human entities are marked with “♀”, “♂” and “○” diacritics for their “real world” sex. For example, *sestra* ‘sister’ denotes a female human individual, and is specified for the “♀” diacritic, which according to the rule in (39a) assigns [FEM] to this vocabulary item. The rules in (39b), on the other hand, assign [GEN] to nouns that lack the “real world” sex diacritics: [GEN] is assigned by arbitrary declension features (DCL I_N, II, III and IV), simply to satisfy morphological well-formedness conditions. That is, all nouns are specified for [GEN] and all adjectives agree for [GEN], but the fact that, say, *knjiga* ‘book’ is Declension III and hence specified for [FEM], whereas *brdo* ‘hill’ is Declension I_N and therefore [NEUT] is completely arbitrary and irrelevant for semantics. Finally, the rules in (39c) are redundancy rules that assign declension diacritics to the feminine and neuter “real world” sex nouns, which do not have them.

The idea underlying this particular formulation of the rules in (39) is that [MASC] is a gender value with a special status. That is, Declension I_M nouns are [MASC] either because they have the “♂” diacritic, or because they lack any diacritic whatsoever. Crucially, there is no DCL I_M diacritic that assigns [MASC]. This is important since we need to derive the fact that there are no Declension I_M nouns that trigger feminine agreement on the adjective. That is, there is no opposite case of *vojvoda* ‘duke’, i.e., a noun that belongs to Declension I_M, denotes a female individual *and* triggers feminine agreement on adjectives.¹⁷ This kind of mismatch should in principle be possible if there were a DCL I_M diacritic assigning [MASC] and [FEM] was assigned by ♂. This is a substantial language-internal generalization, which should fall out naturally from the analysis. I suggest that nouns which lack any source of gender specification (i.e., Declension I_M inanimate nouns) are assigned [MASC] by default, for purposes of morphological well-formedness. In particular, Declension I_M inanimate nouns are not assigned any gender value either by a “real world” sex diacritic (because they are inanimate) or by a DCL diacritic (because they don’t have them, by assumption). However, every noun in Serbian needs to be specified for some value of [GEN], and when it is missing one it is assigned [MASC] (which is the default value in many other languages). My proposal is thus consistent with the well-known observation that masculine often indicates the absence of gender/sex specification. That is, there is plenty of evidence from Slavic and other languages that masculine is not only the unmarked gender (with respect to feminine), but that the masculine form is in many cases neutral as to sex – one type of evidence comes from coordination, which I discuss in section 4.2 (for other types of evidence, see Bobaljik and Zocca 2011, Jakobson 1984 etc.).¹⁸ The [MASC]-as-default mechanism proposed here will play an important role in the analysis of coordinate structure agreement as well (see section 4.2).

Given the rules in (39), nouns like *vojvoda* ‘duke’ are viewed as specified for both “♂” and DCL III, which assign [MASC] and [FEM], respectively. Since [MASC] is assigned by the “real-world sex” ♂ diacritic it drives the agreement in singular. If a DCL I_M diacritic also existed we would expect to see a reverse situation where some nouns would be specified with “♀” and

¹⁷ Wechsler and Zlatić (2003) discuss the noun *devoјčurak* ‘small girl’, which declines as Declension I_M and denotes a female individual, but this noun crucially cannot trigger feminine agreement (**lepa_{FEM} devoјčurak*) – the masculine agreement is obligatory *lep_{MASC} devoјčurak*. Note also that unlike nouns like *vojvoda*, *devoјčurak* is clearly morphologically complex: it is based on the root *devoјk-* ‘girl’ and the diminutive suffix *-urak*, which contributes the Declension I_M specification.

¹⁸ This is just one possible implementation of the masculine-as-default logic; for a somewhat different formal characterization of similar ideas, see Bobaljik and Zocca (2011).

DCL I_M. These would assign [FEM] and [MASC], respectively, and the singular agreement for these Declension I_M nouns would be driven by [FEM]. Since this never happens, the assumptions behind the above rules and the assumption that [MASC] is somehow special gain important empirical justification.

Note that making a formal distinction between [GEN] assigned by diacritics like “♀” and “♂”, and [GEN] assigned by the DCL diacritics clearly predicts that only nouns denoting animate/human entities may show gender agreement mismatches of this sort, which is also confirmed by the facts. For instance, there are no inanimate Declension III (feminine) nouns that trigger masculine agreement (e.g., *moj knjig-a* ‘my(masc) book(fem)’).¹⁹ To keep the distinction clear, I henceforth label these two types of [GEN] as [GEN]_{SEM} and [GEN]_D, respectively. Below I offer some examples of how the rules in (39) function:

- | | |
|---|---|
| <p>(40) a. Declension I_M animate/human:
 <i>muškarac</i> ‘man’
 ♀, ♂, ○: [MASC]
 DCL: ∅</p> | <p>b. Declension I_M inanimate:
 <i>rečnik</i> ‘dictionary’
 ♀, ♂, ○: ∅_↓ DCL: ∅
 [MASC] by default</p> |
| <p>c. Declension III animate/human:
 <i>majka</i> ‘mother’
 ♀, ♂, ○: [FEM]
 DCL: → DCL III by (39c)</p> | <p>d. Declension III inanimate:
 <i>knjiga</i> ‘book’
 ♀, ♂, ○: ∅
 DCL: DCL III → [FEM] by (39b)</p> |
| <p>e. Declension III animate, denoting a male
 (single-mismatch hybrid):
 <i>vojvoda</i> ‘duke’
 ♀, ♂, ○: [MASC]
 DCL: DCL III → [FEM] by (39b)</p> | <p>f. Declension IV inanimate:
 <i>stvar</i> ‘thing’
 ♀, ♂, ○: ∅
 DCL: DCL IV → [FEM] by (39b)</p> |

The opposite of (40e) is not possible, since there is no diacritic for Declension I_M – Declension I_M is the absence of a DCL diacritic, which inevitably comes out as [MASC]. Every noun that is marked with ♀ (i.e., denoting a female individual) and therefore marked with [FEM] by (39a), cannot be left without a declension diacritic, since the redundancy rule in (39c) assigns DCL III or IV to every noun marked with [FEM]. The system set up this way derives this state of affairs, assigning a special status to [MASC] within the Serbian grammar, for which there is strong additional empirical evidence, as we will see in section 4.2.

Note also that Declension IV feminine nouns (Table 5, last column) do not have hybrids of the *vojvoda* type, and this could be simply because the vast majority of these nouns are, for independent reasons, inanimate. That is, it could be the case that Declension IV in principle allows for the *vojvoda* type mismatch, but that this pattern does not arise because, statistically speaking, there are very few animate Declension IV nouns that could produce it. Recall that with

¹⁹ For this to happen, the noun would, in addition to the DCL III (feminine) diacritic, have to be specified for the DCL I_M diacritic, which would trigger masculine agreement. I argue there is no DCL I_M diacritic, but even if there were, nouns can be specified only for one DCL diacritic (i.e., declension), not two or three. DCL diacritics determine nominal case endings, and if it were possible for an inanimate noun to be specified simultaneously for two different DCL declensions, we would expect it to have a mixed type of case endings – e.g., some masculine and some feminine. This never happens, however; i.e., if a noun like *knjiga* ‘book’ (Declension III) ends in *-u* in accusative singular, its other case endings always come from the same set and are completely predictable (see Table 5).

nouns like *vojvoda*, semantic agreement is masculine, because their referents are male (i.e., human/animate). On the other hand, a noticeable characteristic of Declension IV nouns (in contrast to Declension III) is that there is a considerable case neutralization in their forms; i.e., as already noted, they essentially have two forms: one for nominative and accusative and one for all other cases (where instrumental has an additional form ending in *-ju*; see footnote 12). Thus, it seems that the presence of the DCL IV diacritic leads to case feature deletion/impoverishment prior to VI (*Vocabulary Insertion*), which indicates that DCL IV is in some sense marked. It therefore wouldn't be surprising if nominal roots specified for DCL IV did not tolerate the presence of another diacritic (e.g., ♀ or ♂) that could create the gender mismatch. I leave pursuit of this possibility for future work.²⁰ But I need to emphasize here that in the theoretical framework of DM, neutralizations in nominal forms (i.e., forms of the agreement trigger) do not necessarily lead to neutralizations in adjectival forms (i.e., form of the agreement target) – it is, thus, possible for a noun like *stvar* 'thing' from Declension IV to have only two forms, but still trigger the regular feminine agreement on the adjective, as shown in Table 5. This is because the operation of agreement or feature sharing/copying *precedes* impoverishment (feature deletion) rules and VI (e.g., Arregi and Nevins 2012); i.e., at the point when agreement happens, the agreement trigger still has features that later might not be visible in its morpho-phonological form due to impoverishment (see also footnote 26 in section 4.1).²¹

Now, the interesting agreement pattern with the *vojvoda* type nouns in plural nominative is similar in terms of marked features to the situation in (34a). The only difference is that it includes one marked feature less than (34a) in that it has [NOM] instead of [–NOM]. However,

²⁰ The impoverishment rules in question would probably have to involve a more elaborate, binary-value, case feature system, such as those developed in Calabrese (2006) and Halle and Vaux (1997), for instance. A detailed presentation of such an approach is, however, beyond the scope of this article.

²¹ An extreme case of this is undeclined nouns like *Miki* 'Miki' or *Meri* 'Marry', discussed in Wechsler and Zlatić (2001), which are similar to Declension IV nouns. These nouns (generally female loan names) have just one form, but they trigger regular feminine agreement on adjectives, just like standard Declension III nouns (see Table 5):

- (i) Video sam lepu Meri.
 Saw AUX.1.SG beautiful.F.SG.ACC Marry
 'I saw beautiful Marry.'

On the current analysis, these nouns are specified for a full set of features at the point when agreement happens, so that features like [FEM], [SG], and [ACC] are copied on the agreement target. However, in the case of this particular set of nouns, *all* features in their inflectional suffix are deleted prior to VI, which results in the complete feature neutralization in their form; i.e., these nouns will have a single morpho-phonological form (there are also undeclined adjectives like *braon* 'brown' or *fer* 'fair' and similar assumptions can be made for them as well). Wechsler and Zlatić (2001) also observe that undeclined nouns are incompatible with oblique cases like dative or instrumental, unless they are modified by a regularly inflected adjective (see (ii) below). Note that this kind of incompatibility does not arise when the oblique case is assigned by a preposition.

- (ii) Divim se *(mojoj) Miki.
 Admire.1.SG REFL my.SG.DAT Miki
 'I admire my Miki.'

(Wechsler and Zlatić 2001: 547)

This shows that oblique cases like instrumental and dative (assigned by verbs) are subject to a condition whereby they must be morpho-phonologically realized at PF within the NP they are assigned to (see Despić 2013). Such a condition would in spirit be very similar to Wechsler and Zlatić's (2001: 550) *Case Realization Constraint* and would create the same effect. For more on the difference between oblique cases assigned by verbs and prepositions see Despić (2013), Bošković (2006), Franks (1995) etc.

unlike the majority of “regular” nouns, it involves two distinct gender values (i.e., [GEN]_{SEM}, [GEN]_D) and it is reasonable to assume that these two values together would induce a situation of accumulated markedness when they combine with [PL] (41a). I propose that in this case the impoverishment rule in (41b) deletes [GEN]_{SEM} in the adjectival agreement suffix.

- (41) a. *[[PL], [GEN]_{SEM}, [GEN]_D, [NOM]]/+____]w
 b. [GEN]_{SEM} → ∅ / [____ [GEN]_D [PL] [NOM]]

Thus, this strange and typologically uncommon pattern is directly explained by independently needed assumptions, once the marked nature of [PL] is recognized. Why should it be [GEN]_{SEM} and not [GEN]_D that gets deleted; i.e., why is [GEN]_D assumed to be unmarked? The reason is I believe quite simple: [GEN]_D is always unmistakably present in the noun’s form, namely, its case suffix. That is, in a situation of accumulated markedness, or some type of information overload, [GEN]_D is, in contrast to [GEN]_{SEM}, always easily retrievable from the noun’s form. As shown below, it is [FEM] assigned by the declension diacritic and not the real-world based [MASC], that is visible in the suffix position of a noun like *vojvoda* ‘duke’:²²

- (42) √*vojvod* - [[FEM]]_{SUFFIX} ‘duke’
 DCL III → [FEM] ←↑
 ♂ → [MASC]

Now, recall from the previous section that the prenominal adjectival agreement with the so-called double mismatch nouns like *braća* ‘brothers’ is quite different. In the case of *vojvoda*, Serbian prenominal adjectives in singular show the semantically-based, masculine agreement. However, with *braća* ‘brothers’, prenominal, attributive elements must show the *formal* feature agreement pattern, i.e., feminine singular. The semantically-based, masculine plural pattern is, on the other hand, completely unacceptable. This is an island of complete stability, where all 42 speakers show complete agreement in judgments.

- (43) Naša/*Naši braća su se rodila u Novom Sadu.
 Our.F.SG/Our.M.PL brothers AUX.3.PL REFL born.F.SG in Novi Sad
 ‘Our brothers were born in Novi Sad.’

Why would there be such a dramatic contrast in agreement between the two types of hybrid nouns? And furthermore, why are both semantic and formal agreement patterns in principle possible with *braća* when the adjective is in the postnominal, secondary-predicate position?

²² Note that Croatian behaves differently from Serbian in this respect. That is, in contrast to the majority of Serbian speakers, who reject the masculine agreement in plural, the majority of Croatian speakers actually seem to prefer it to the feminine pattern. This indicates that the markedness constraint in (41a) does not apply in Croatian, which shouldn’t be surprising given the discussion of the contrast between Serbian and Russian from above. That is, whether or not a markedness constraint and a related impoverishment rule will apply in a language may depend on a number of different factors, which I don’t have much to say about (recall that even in Serbian there are some speakers (3 out of 42 in this study), who choose the masculine pattern in plural). However, this analysis makes a clear prediction about the direction in which markedness may accumulate: there shouldn’t be any speakers (Croatian or Serbian), who strictly follow the declension (feminine) agreement in singular (e.g., *lepa vojvoda*) and choose strictly masculine (semantically based) agreement in plural (e.g., *lepi vojvode*) – to the best of my knowledge this prediction is borne out.

- (44) Ivan je braću juče video potpuno pijane/pijanu.
 Ivan AUX.3.SG brothers.ACC yesterday seen completely drunk.PL.ACC/drunKF.SG.ACC
 ‘Ivan yesterday saw the brothers completely drunk.’
- (45) Ivan smatra braću iz Novog Sada veoma duhovitim/duhovitom.
 Ivan considers brothers from Novi Sad very funny.PL.INS/funny.F.SG.INS
 ‘Ivan considers the brothers from Novi Sad very funny.’

I will first assume that the elements in the attributive (prenominal/concord) position are, in terms of feature values they can be specified for, exclusively limited to the noun they modify. Apart from the noun they modify, they cannot get their feature values from any other source – this is one of the traditionally assumed hallmarks of concord agreement (see Baker 2008 and references therein for discussion). But there is an important difference between the features that prenominal elements agree for, which hasn’t been discussed much in the literature, but is crucial to the present discussion. Prenominal elements like determiners and adjectives in Serbian (and many other languages) agree for three features: gender [GEN], number [NUM], and case [CASE]. However, only *gender* (and its value) is an inherent property of the nominal stem/root – number and case are not. The nominal stem/root carries a meaning that can assign a gender feature value (i.e., [GEN]_{SEM}) and a declension diacritic that can also assign a gender value (i.e., [GEN]_D) – as in the case of *vojvoda* above, when these two gender values differ, the declension gender (i.e., [GEN]_D) ends up being visible in the suffix position. But in terms of agreement, both of these two gender values are in principle available and visible for agreement from the prenominal position because they are an inherent property of the noun. Thus, in Serbian, adjectives in the attributive position agreeing with *vojvoda* agree for [GEN]_{SEM} in singular, and due to the markedness constraint in (41), with [GEN]_D (or less frequently with [GEN]_{SEM}) in plural, as already discussed.

Number and case, however, are clearly quite different from gender in this respect. An inherent property of a noun/nominal stem is whether or not it is, say, count or mass; i.e., whether or not it can take singular and plural suffixes. But, in general, number values like [SG] or [PL] are not inherent properties of nominal roots – the number value of a noun is dictated by the real-world information and the entity the noun refers to.²³ The number of referents then determines whether the nominal stem takes the singular or plural suffix. Crucially, this information is quite independent from the nominal stem - it is *only* visible in the inflectional suffix. Case is very similar: whether a noun is specified for a case value like [ACC] clearly depends on the syntactic context and is not a property of individual nominal roots. Again, this kind of information is only visible in the inflectional suffix. The following picture then emerges: case and number values are in general properties of the inflectional suffix, while the gender value is an inherent property of the nominal stem/root, which is also visible in the inflectional suffix. When a noun has two gender values, i.e., when [GEN]_{SEM} and [GEN]_D differ, as in the case of *vojvoda* ‘duke’, [GEN]_D is the one which is visible in the suffix position:

²³ Sometimes a particular number value on the suffix may trigger morpho-phonological processes on the root/stem of certain nouns, but that is a completely separate issue; e.g., the root/stem of the masculine noun *rob* ‘slave’ is extended by *-ov* in plural (i.e., *rob-ov-i*), while that does not happen with masculine nouns like *konj* ‘horse’ (i.e., *konj-i*) or *zub* ‘tooth’ (i.e., *zub-i*).

$$(46) \quad \sqrt{\text{Root}} - \{[\text{GEN}]_D, \{[\text{NUM}], [\text{CASE}]\}\}_{\text{SUFFIX}}, \quad \text{where } [\text{GEN}]_{\text{SEM}} \neq [\text{GEN}]_D$$

$$\begin{array}{l} [\text{GEN}]_D \\ \longleftarrow \uparrow \\ [\text{GEN}]_{\text{SEM}} \end{array}$$

The main observation here is that when an element like an adjective, which agrees for case, number and gender, is in the prenominal, concord position (and is therefore limited to the modified noun in terms of inflection), it *must* get its case and number values from the nominal inflectional suffix - there is simply no other source for them. Gender values are, on the other hand, visible both in the nominal stem and the inflectional suffix. Thus, the first part of my proposal can be stated as a general principle in (47):

(47) Agreeing elements (adjectives, demonstratives) in the prenominal position must copy case and number feature values from the nominal inflectional suffix.

Now, the exceptional and unexpected property of the double-mismatch nouns like *braća* ‘brothers’ is that their roots are in fact specified for a particular *number* value, namely singular, which stands in contrast to their meaning. In other words, in the case of *braća* the declension diacritic contributes not only a formal gender feature specification (which is different from the semantically-based gender), but also an exclusively formal number feature specification. Thus, *braća* ‘brothers’ declines as a Declension III noun (e.g., *žena* ‘woman’), as shown in Table 12 below, but obviously refers to a (non-singular) group of male individuals. It has two exclusively formal features, which are contributed by the declension diacritic DCL III: [FEM] and [SG], and two exclusively semantic features: [MASC] and [PL]. As with gender, the strictly semantic and strictly formal number features in (48) are marked with [NUM]_{SEM} and [NUM]_D, respectively. Notice, however, that the strictly formal number specification [SG] is represented in the inflectional suffix; i.e., as discussed for the *vojvoda*-type nouns above, if a noun makes a contrast between exclusively formal and exclusively semantic features, the former must be represented in the suffix. This is shown in (48) for *braća*:

Table 12

SG	Adj.	Decl. III	
N	lep-a	žen-a	brać-a
A	lep-u	žen-u	brać-u
G	lep-e	žen-e	brać-e
D	lep- oj	žen- i	brać- i
L	lep- oj	žen- i	brać- i
I	lep- om	žen- om	brać- om

$$(48) \quad \sqrt{\text{Brać}} - \{[\text{FEM}], [\text{SG}], [\text{CASE}]\}_{\text{SUFFIX}}, \quad \text{where } [\text{GEN}]_{\text{SEM}} \neq [\text{GEN}]_D$$

$$\begin{array}{l} \left\{ \begin{array}{l} [\text{GEN}]_D = [\text{FEM}] \\ [\text{NUM}]_D = [\text{SG}] \end{array} \right\} \longleftarrow \uparrow \\ \left\{ \begin{array}{l} [\text{GEN}]_{\text{SEM}} = [\text{MASC}] \\ [\text{NUM}]_{\text{SEM}} = [\text{PL}] \end{array} \right\} \end{array}$$

$$[\text{NUM}]_{\text{SEM}} \neq [\text{NUM}]_D$$

This fact, in combination with the principle in (47), provides an answer to why prenominal elements agreeing with *braća* must show *singular* agreement. (47) requires that such elements copy number (and case) feature values directly from the nominal suffix, and in the very special

case of nouns like *braća*, the number value visible in the suffix is the exclusively formal feature value [SG]. The question which remains then is why gender agreement must be *feminine*. That is, why is it not possible for these elements to show singular, *masculine* agreement? In this case, however, the pronominal element would have to agree with one exclusively formal feature (singular), and one exclusively semantic feature (masculine), which simply never happens; i.e., as mentioned in section 2, agreement which mixes features of exclusively different types is impossible. Regardless of the syntactic position, an agreement target agreeing with *braća* can either show *feminine singular* or *masculine plural* agreement, but all other combinations are strictly excluded:

- (48) Ta /*te /*taj braća.
That.F.SG/that.F.PL/that.M.SG brothers

Similarly, no target that agrees with the second person polite plural referring to a female individual can ever show feminine plural agreement:

- (49) Vi ste duhovit-e.
you.PL AUX.2PL funny-F.PL
*‘You (one formal addressee) are funny.’
‘You (multiple female addressees) are funny.’

To exclude these possibilities I will adopt the principle in (50):

- (50) An agreement target cannot agree with one exclusively formal and one exclusively semantic feature of the agreement controller. If an agreement target agrees with one exclusively formal feature, it must agree with all other exclusively formal features. Conversely, if an agreement target agrees with one exclusively semantic feature, it must agree with all other exclusively semantic features.

The principle in (50), or a version of it, must be assumed by any analysis of these facts (and is implicitly assumed by Wechsler 2011 and Wechsler and Hahm 2011). It is quite possible that (50) can be derived from other, independently motivated principles of grammar, but I will not explore this question here since it is outside of the scope of this paper.²⁴ What is sufficient for the present purposes is that something like (50) is independently needed to account for (48)-(49); I argue that the same principle is also responsible for why pronominal elements agreeing with *braća* must show singular *feminine* agreement. As discussed above, pronominal elements must agree with [SG], which is the exclusively formal number value of *braća*. (50) then ensures that they also agree with the other exclusively formal feature, namely, [FEM]. Thus, (47), (50) and the fact that the exclusively formal features are always visible in the inflectional suffix explain why pronominal elements must show feminine singular agreement with *braća*. At the same time,

²⁴ For example, if exclusively formal features are properties of vocabulary items, which are inserted post-syntactically, while exclusively semantic features are present in syntax, then agreement with these two types of features would happen in separate components of the grammar, which would (at least in part) derive (50). But, (50) is clearly compatible with any system that assumes a deep grammatical division between these two types of features (Index/Concord in HPSG, or interpretable/uninterpretable in Minimalism). I leave these questions for future research.

this set of assumptions also accounts for the contrast in prenominal agreement between the double mismatch nouns (e.g., *braća*) and the single mismatch nouns, like *vojvoda*.

Finally, we can also explain why in the post-nominal, secondary-predicate position both feminine singular and masculine plural agreement patterns are allowed, as shown in (44)-(45). The crucial property of these examples is that the adjective here is clearly in a (secondary) predicate position. For instance, adjectives here can quite easily modify pronouns, which in general resist prenominal (attributive) adjectival modification. Since it is not in the concord position, the adjective in (44)-(45) is not limited to the noun and its inflectional suffix in terms of feature specifications (i.e., agreement). This is particularly obvious in (45), where the adjective and the noun it modifies are marked with different cases (even though otherwise the adjective agrees with the noun in gender and number): the adjective is marked with instrumental and the object noun with accusative. So, it cannot be the case that the adjective gets its case specification from the noun, like in prenominal agreement. A standard analysis of these facts is that the predicate adjectives and the argument noun are assigned case separately, even when they have the same case (e.g., accusative in (44)). For instance Bailyn (2001) (see also references therein, especially Bowers 1993, 2001) explores secondary predicates across Slavic and argues, in a nutshell, that instrumental secondary predicates involve a PredP whose head is responsible for instrumental case assignment to the predicate, and when this option is blocked the predicate is assigned the regular, structural case (Bailyn 2001: 13). Thus, even when they are marked with the same case, the predicate adjective does not get its case specification directly from the noun, that is, from its inflectional suffix. The locality of the concord agreement configuration, which underlies the principle in (47), is simply absent in examples like (44)-(45). In this kind of structures the predicate adjective is not dependent on the nominal suffix for its case specification. It is also reasonable to assume that it is not dependent on it for its number specification either. If this is the case, then the adjective in the predicate position agreeing with *braća* ‘brothers’ does not have to agree with its exclusively formal number value (i.e., [SG]) visible in the inflectional suffix, which is what happens in the prenominal agreement pattern. It can in principle agree with either [SG] or [PL], but it cannot violate (50), which ensures that only feminine singular and masculine plural agreement patterns are possible.²⁵ The more general point is that nouns like *braća*, despite the fact that they are rare and may seem insignificant, reveal a lot about the nature of prenominal, concord agreement through the agreement patterns they allow or disallow.

In the next section I show how the analysis developed in this section, in particular the assumptions behind (50) and the special status of masculine gender, can be extended to the agreement patterns with the polite plural pronoun *vi* ‘you’.

4. Hybrid Agreement and the Honorific Pronoun

Recall from section 2 that Wechsler (2011) and Wechsler and Hahm (2011) propose the following Agreement Marking Principle:

²⁵ Recall from the discussion in section 2.2.1 (Table 1) that the feminine singular pattern is somewhat preferred in examples like (44)-(45). At this point I can only speculate that a possible cause of this might be analogy with prenominal agreement, which is exclusively feminine singular.

(51) *Agreement Marking Principle* (informal statement)

Agreement is driven by a syntactic feature of the controller, if the controller has such a feature. If the controller lacks such a feature, then the target agreement inflection is semantically interpreted as characterizing the controller denotation.

(Wechsler 2011: 1009)

One example of semantic agreement is gender agreement with 1st or 2nd person pronouns. For instance, the French 2nd person pronoun *tu* ‘you.SG’ lacks a gender feature, and therefore the target gender is semantically interpreted in accordance with the principle in (51). Serbian shows the same behavior, as illustrated in (53):

- (52) a. Tu es compétent. French
you.SG are.2SG competent.M.SG
‘You (a *man*) are competent.’
b. Tu es compétente.
you.SG are.2SG competent.F.SG
‘You (a *woman*) are competent.’ (Wechsler 2014: 1009)
- (53) a. Ti si pametan. Serbian
you.SG are.2SG smart.M.SG
‘You (a *man*) are smart.’
b. Ti si pametna.
you.SG are.2SG smart.F.SG
‘You (a *woman*) are smart.’

There is, however, a difference between Serbian and French in agreement with honorific pronouns. In French, this pronoun triggers singular agreement on a predicate adjective, but plural agreement on the main verb (54a). When the pronoun refers to multiple addressees, the plural adjective form is used (54b).

- (54) a. Vous êtes loyal. French
you.PL be.2.PL loyal.M.SG
‘You (singular, formal, male) are loyal.’
b. Vous êtes loyaux. French
you.PL be.2.PL loyal. PL
‘You (plural) are loyal.’

In Serbian, on the other hand, the polite pronoun triggers plural agreement uniformly on both the finite verb and the adjective in the predicative position (55a).

- (55) a. Vi ste duhovit-i. Serbian
you.PL AUX.2PL funny-M.PL
‘You (one formal addressee/multiple addressees) are funny.’
b. # Vi ste duhovit-a.
you.PL AUX.2PL funny-F.SG
‘You (one formal female addressee) are funny.’

The explanation offered for French by Wechsler and Hahm (2011) and Wechsler (2011) is that 2nd person pronouns, including polite plurals, are specified for Index number and gender but not Concord number and gender. Thus, *vous* has Index ϕ -features, but no Concord ϕ -features:

(56) *vous*: N_[2,pl] (n.b.: no Concord phi features)

To account for the difference between Serbian, a uniform agreement language, and French, a mixed agreement language, the following hypothesis is proposed (Wechsler and Hahm 2011: 269):

(57) *Pronoun Number Hypothesis*. In mixed agreement languages, second person pronouns lack Concord phi-features. In uniform agreement languages, second person pronouns have Concord phi-features. Pronouns in both types of languages have Index features.

The Serbian pronoun *vi*, in particular, its nominative form, has Concord ϕ -features, in contrast to French *vous*, which lacks Concord ϕ -features. In non-standard/colloquial Serbian, which allows (55b), on the other hand, the pronoun *vi* lacks Concord ϕ -features, just like French *vous*:

(58) nominative *Vi*
 a. 'standard' Serbian/Croatian: *vi*: N[CONC *nom.m.pl*]_[2nd.m.pl]
 b. colloquial/dialectal: *vi*: N[CONC *nom*]_[2nd.m.pl]

(Wechsler and Hahm 2011: 206)

On Wechsler and Hahm's analysis, a difference in the grammatical representation of the agreement *controller/trigger* (i.e., the pronoun) is ultimately responsible for the distinction between uniform agreement and mixed agreement patterns. In other words, they argue in support of the so-called *different pronoun hypothesis*, as opposed to the *different adjective hypothesis*, according to which a difference in the agreement status of the agreement *target* (i.e., predicative adjective) would be responsible for the difference between the two agreement patterns. This seems to be empirically supported by that fact that even in Serbian, a uniform agreement language, non-nominative forms of the polite plural pronoun actually trigger semantic agreement on adjectives, just like in French:

(59) Draga Ana, juče sam vas video potpuno pijanu.
 Dear Ana yesterday AUX.1SG you.PL seen completely drunk.F.SG
 'Dear Ana, yesterday I saw you (one formal female addressee) completely drunk.'

(60) Draga Ana, juče sam vas video potpuno pijane.
 Dear Ana yesterday AUX.1SG you.PL seen completely drunk.PL
 *'Dear Ana, yesterday I saw you (one formal female addressee) completely drunk.'
 'Dear Ana, yesterday I saw you (multiple addressees) completely drunk.'

As already mentioned in section 2, it is impossible for the plural accusative adjective form to modify the honorific plural *vas* in examples like (60); it is only possible if *vas* refers to multiple addressees. Since according to their analysis the key to uniform agreement lies in the pronoun, not the adjective, Wechsler and Hahm (2011) propose that non-nominative forms of Serbian *vi*, similarly to French *vous*, lack Concord ϕ -features and have only Case features:

(61) accusative *vas*: N[CONC acc]_[2nd,m,pl]

(Wechsler and Hahm 2011: 206)

As already discussed in section 1, there are two problems with the analysis based on (58a). First, it is somewhat unusual to assume that nominative *vi* is specified for Concord masculine gender, since Concord features are usually represented in the form, and *vi* (as well as other 1st and 2nd person pronouns) does not distinguish for gender in form. Second, predicates agreeing with a coordinate phrase which has, as one of its conjuncts, a nominal specified for masculine gender must show masculine agreement. In (62) the coordinated phrase in the subject position consists of one masculine and one feminine conjunct, and the participle must show masculine, not feminine agreement.

(62) Dečak i devojčica su došli/*došle.
Boy.NOM and girl.NOM AUX.3PL arrived.M.PL/arrived.F.PL
'The boy and the girl arrived.'

The masculine form is in fact obligatory whenever the conjuncts do not match in gender, even when none of them is masculine; i.e., in (63) one conjunct is feminine and the other one neuter, which results in masculine plural agreement.

(63) Majka i dete su došli/*došle/*došla.
Mother.NOM and child.NOM AUX.3PL arrived.M.PL/arrived.F.PL/ arrived.N.PL
'The mother and the child arrived.'

If Serbian polite plural *vi* has *masculine* Concord features, then it should trigger only masculine agreement when it is coordinated. This is not the case, however; if two polite plural pronouns *vi* are coordinated, each of which refers to a female individual, feminine plural agreement (semantic agreement) on the participle becomes quite possible, as shown in (64):

(64) Vi (draga Ana) i Vi (draga Jelena) ste obe bile veoma
You.PL (dear Ana) and you (dear Jelena) AUX.PL both.FEM were.FEM.PL very
zauzete.
busy.FEM.PL
'You (dear Ana: one formal addressee) and you (dear Jelena: one formal addressee) were both very busy.'

The example in (61) behaves identically: here the honorific pronoun is coordinated with a feminine noun referring to a female individual:

(65) Vi i vaša kćerka ste bile veoma zauzete.
You.PL and your daughter AUX.2PL been.F.PL very busy.F.PL
'You (one formal female addressee) and your daughter were very busy.'

The contrast between (64)/(65) and (55b), which is extremely marginal/ungrammatical, is rather remarkable. Furthermore, for the majority of speakers *masculine* plural agreement is also allowed in (64)-(65). This agreement pattern seems to be somewhat marked compared to the

feminine plural pattern, but it is nevertheless quite possible. Crucially, all the examples in (64)-(67) are all clearly much better than (55b).

- (66) Vi (draga Ana) i Vi (draga Jelena) ste bili veoma
 You.PL (dear Ana) and you (dear Jelena) AUX.PL were.MASC.PL very
 zauzeti.
 busy.MASC.PL
 ‘You (dear Ana: one formal addressee) and you (dear Jelena: one formal addressee) were both very busy.’
- (67) Vi i vaša kćerka ste bili veoma zauzeti.
 You.PL and your daughter AUX.2PL been.F.PL very busy.F.PL
 ‘You (one formal female addressee) and your daughter were very busy.’

In the next section I lay out my analysis of the nominative form of the honorific pronoun *vi* and the agreement types it triggers; I also explore coordinate structure agreement in Serbian. The facts discussed in the section suggest that ‘the different pronoun approach’ is not on the right track. In section 4.2, I turn to the non-nominative forms of *vi* and show that patterns of syncretism in non-nominative adjectival inflection support the ‘different adjective hypothesis’.

4.1 *Vi and Coordinate Structures in Serbian*

An important property of all 1st and 2nd pronouns in Serbian (and many other languages), including the honorific *vi*, is that they do not overtly mark gender. However, elements that in general encode gender distinctions (e.g., adjectives) do show gender agreement when they agree with these pronouns:

- (68) a. Ti si pametan. Serbian
 you.SG are.2SG smart.M.SG
 ‘You (a *man*) are smart.’
- b. Ti si pametna.
 you.SG are.2SG smart.F.SG
 ‘You (a *woman*) are smart.’

The assumption in Wechsler and Hahm (2011) is that these pronouns are not specified for gender, and the agreement patterns in (68) are the result of the Agreement Marking Principle; it is the adjective in (68) that ‘contributes’ a particular gender/sex interpretation. I will assume here just the opposite: Serbian 1st and 2nd pronouns *are* marked for gender but gender is not encoded in their form. There is a long history of analyzing 1st and 2nd person as special as opposed to 3rd person (Silverstein 1985, Ingram 1978, Noyer 1997, Harley and Ritter 2002, Bobaljik 2008 etc.): 1st and 2nd person refer to discourse participants and are *marked*, in contrast to 3rd person, which is in general treated either as unmarked or as the complete lack of person. Because they are marked, 1st and 2nd person features create a context of accumulated markedness when they combine with case, number and gender, which is very similar to the situations discussed in section 3.3. Since these pronouns are mono-morphemic and in that sense very similar to inflectional suffixes, they cannot express too much marked information. As a consequence, gender is excluded from the overt expression – only person, case and number are overtly realized. But

gender is, I propose, still underlyingly present and can trigger agreement on elements that inflect for gender (like the adjective in (68)).²⁶

- (69) *Ti* [PER: [2], Num: [SG], Case: [NOM]] 'you'(sg) (female)
 Addressee → PER: [2]
 Single individual → Num: [SG]
 ♀ → Gen: [FEM]

The pronoun in (69) is a bundle of features, similar to a nominal suffix - it refers to a female, non-aggregate (singular) addressee. The crucial assumption here, however, is that gender is never represented in the form of 1st and 2nd person pronoun, and is therefore always an *exclusively semantic feature*.²⁷ Given the principle in (50) from the previous section, the prediction is that no agreement target should be able to agree with gender of 1st and 2nd person pronouns, and some other, *exclusively formal feature* at the same time. Regular 1st and 2nd person pronouns do not involve that particular combination of features, but the honorific pronoun *vi* 'you(pl)' actually does. *Plural* number of the honorific pronoun is an *exclusively formal feature*, since it is present in the form, but the pronoun's referent is clearly a single individual (i.e., not a (non-singular) group). Thus, if the honorific pronoun is used to address a female individual, feminine *plural* agreement should be impossible, as shown in (49).

- (70) *Vi* 'honorific' [PER: [2], Num: [PL], Case: [NOM]]
 Addressee → PER: [2]
 { Honorification → Num:[PL] } *exclusively formal*
 { Non-aggregate → Num:[SG] } *exclusively semantic*
 { ♀ → Gen: [FEM] }

The only two available agreement patterns are *feminine singular* and *masculine plural*. The former arises if the agreement target agrees with singular number, an exclusively semantic feature. Given (50), the same target must show feminine agreement since this is another strictly semantic feature. A separate question then is why participles and primary predicative adjective

²⁶ It could be the case that similarly to Declension IV nouns (see section 3.3.2), at the point when agreement happens, 1st and 2nd person pronouns are specified for all features, including gender, but that gender is deleted prior to VI in the context of 1st and 2nd person features. Gender would then be neutralized in the pronoun's form, but it would be visible in the form of the agreeing adjective (unless further impoverishment happens, as with plural non-nominative adjectives).

²⁷ 3rd person pronouns encode gender distinction, which can be easily accounted for by assuming that 3rd person is unmarked and therefore does not trigger accumulation of markedness. Also, since pronouns do not have declensions, gender that appears with pronouns is always semantic; i.e., there are no mismatches of the sort we see with the *vojvoda*-type nouns:

- | | |
|---|--|
| (i) a. On je došao.
He AUX.3 arrived.M.SG
'He arrived.' | b. Ona je došla.
She AUX.3 arrived.F.SG
'She arrived.' |
| c. *On je došla.
He AUX.3 arrived.F.SG | d. *Ona je došao.
She AUX.3 arrived.M.SG |

resist singular agreement, in contrast to French, i.e., why is (71) extremely marginal, or unacceptable:

- (71) # Vi ste duhovita.
you.PL AUX.2PL funny.F.SG
'You (one formal female addressee) are funny.'

At this point I can only speculate that this is because primary predicate adjectives and participles are part of a bigger predicative unit headed by the main verb/auxiliary, which always agrees for plural.²⁸

The masculine plural pattern, on the other hand, arises when the agreement target agrees with plural; in this case, the adjective cannot agree with the feminine feature (given (50)), but it still needs to be specified for a gender value. Gender then comes out as masculine, since this is the default option, as argued section 3.3.2. In other words, the reason why the honorific pronoun triggers *masculine* plural agreement (even when its referent is female), is not because it is *specified* for masculine feature (as in Wechsler and Hahm 2011), but because plural agreement forces default masculine value, since feminine agreement in this case is blocked via (50).

Unlike the nouns discussed in the previous section, there is no distinction between a root/stem and an inflectional suffix in the case of the honorific pronoun (and other 1st and 2nd person pronouns) - *vi* is a bundle of features, just like any inflectional suffix. Thus, all features that this pronoun has should be available for prenominal agreement, to the extent that this type of agreement is possible with pronouns. And certain affective adjectives like *poor* are allowed in the prenominal position; in such cases, as shown in (72), both feminine singular and masculine plural agreement patterns are possible. And again, feminine plural is disallowed, as predicted.²⁹

- (72) a. Jadna Vi!
Poor.F.SG you
'Poor you!' (one formal female addressee)
b. Jadni Vi!
Poor.M.PL you
'Poor you!' (one formal female or masculine addressee)
c. Jadne Vi!
Poor.F.PL you
* 'Poor you!' (one formal female addressee)
Only: 'Poor you' (multiple female addressees)

Now, the question that needs to be answered is why feminine agreement on a predicative adjective/participle becomes possible when the honorific pronoun is a conjunct in a coordinated phrase. In order to answer this question we first need to look at some core facts of coordinate agreement in Serbian.

²⁸ This would of course have to be independently supported; for instance, one could expect predicate phrases in French to be different.

²⁹ Wechsler and Hahm (2011) also note that (72a) (their (50b)) is possible for some speakers. Native speakers I consulted find examples like (72a) much better than (71). Many of them allow both (72a) and (72b), but some of them prefer (72b), possibly due to analogy with the contrast in the primary predicate agreement pattern (e.g., (55)).

4.2. Coordination and Agreement in Serbian

I will focus here on coordination of singular number conjuncts.³⁰ When two (or more) feminine singular arguments are coordinated, the participle/predicative adjective must take the *feminine plural* form.

- (74) Ova žena i ona devojka su stigl-e. *Feminine*
This woman and that girl are arrived.F.PL
'This woman and that girl arrived.'

This indicates, first, that plural number must be a property of the coordinated phrase itself, since none of its conjuncts is plural (i.e., they are both singular). Thus, I will assume that CoordP is always automatically assigned plural number, which, given its meaning, shouldn't be controversial. The participle in (74) then agrees with this plural number. Second, since both conjuncts of this CoordP are feminine, it seems reasonable to assume that CoordP is assigned a particular gender value when *all* of its conjuncts match in gender (although see the next section); in (74) both conjuncts are feminine and the whole CoordP is therefore assigned feminine gender (it is quite unlikely that feminine in (74) would somehow be an intrinsic property of CoordP, independent of its conjuncts).

Similarly, when two (or more) *masculine* singular arguments are coordinated in the subject position, the participle shows *masculine* plural agreement, as expected. Here again both conjuncts match in masculine gender.

- (75) Ovaj čovek i onaj dečak su stigl-i. *Masculine*
This man and that boy are arrived.MASC.PL
'This man and that boy arrived.'

However, when there is no complete matching in gender among *all* conjuncts, the participle/adjective must show *masculine* plural agreement. This is true of any combination of masculine and some other gender (76a-b), but importantly, this is also true when none of the conjuncts is masculine; e.g., when feminine and neuter are combined (76c):

- (76) a. Jedan dečak i jedna devojčica su došli / *došle.
One.M.SG boy and one.F.SG girl AUX.3.PL arrived.M.PL/arrived.F.PL
'One boy and one girl arrived.'
- b. Jedan dečak i jedno pile su došli / *došla.
One.M.SG boy and one.N.SG chicken AUX.3.PL arrived.M.PL/arrived.N.PL
'One boy and one chicken arrived.'
- c. Jedna devojčica i jedno pile su došli / *došla /*došle
One.F.SG girl and one.N.SG chicken AUX.3.PL arrived.M.PL/arrived.N.PL/arrived.F.PL
'One girl and one chicken arrived.'

³⁰ Coordination of plural conjuncts in Serbian (and other Slavic languages) has been examined in detail, especially in the context of first and/or last conjunct agreement (Arsenijević and Mitić 2015, Bošković 2009, Marušić et al. 2007 and references therein). For agreement with CoordPs consisting of singular number conjuncts see Wechsler and Zlatić (2003: Chapter 8) and references therein.

These facts strongly suggest again that masculine is indeed the default gender value, as argued in the previous section. I will assume that when there is no complete match in gender among all conjuncts, CoordP will simply be unspecified for gender value; i.e., it will just be specified for plural number. Since CoordP cannot provide a gender value for agreement targets like adjectives or participles, which in general need to be specified for some gender value in these contexts, they will take the masculine form by default.

4.2.1 Coordination, Gender and Binary Features

Now, there is an interesting and in a way separate fact about coordinate agreement in Serbian, which needs to be mentioned here. The participle must take *masculine* plural form when two (or more) *neuter* conjuncts are coordinated, even when they all match in neuter gender (77) (see Corbett 1983, Franks 1995, Wechsler and Zlatić (2003: Chapter 8)). This is quite puzzling because, as we saw in section 3, there is an independent neuter plural form, which is otherwise required with neuter plural nouns (e.g., (78)).

- (77) Naše selo i celo jedno brdo su ✓izgorel-**i** / *izgorel-**a**. *Neuter*
 Our village and whole one hill AUX.3.PL burned.M.PL /burned.N.PL
 u požaru.⁷
 in fire
 ‘Our village and one whole hill were burned in the fire.’
- (78) Sela/Brda su ✓izgorel-**a** / *izgorel-**i**.
 Villages/Hills Aux.3.PL burned.N.PL /burned.M.PL
 ‘Villages/Hills were burned.’

Thus, there is an asymmetry between neuter and masculine/feminine which potentially indicates that neuter is in some sense special. As argued in Despić (2016) one way of analyzing this contrast is to assume that the Serbian gender system is based on the following binary-value feature system:³¹

- (79) a. [GENDER ± masculine and ±feminine]
 b. **Masculine**: [+masc, –fem]
 c. **Neuter**: [–masc, –fem]
 d. **Feminine**: [–masc, +fem]
 e. *Not possible*: [+masc, +fem]

On this analysis, the feature system is actually simplified, since instead of *three* features [FEM], [MASC] and [NEUT], we have *two* features with binary values: [±masc] and [±fem]. Neuter is special because it involves two minus values of [masc] and [fem]. The neuter plural suffix *–a* of

³¹ Binary feature systems have been proposed for other domains as well. For instance, Nevins (2011) argues that the number system in languages with singular, plural and dual are based on features [±singular], [± augmented], where dual is represented with the combination [–singular, –augmented] (for a similar type of analysis of languages with singular, plural and paucal see Despić 2013). In the domain of person, binary feature systems based on [±speaker], [± hearer] (Bobaljik 2008 and references therein) or [±participant], [± author] (Nevins 2007, Harbour 2006) have been proposed.

the participle *izgorela* ‘burned’ in (78) would then be represented by the following combination of features:

(80) $-a \Leftrightarrow [[-masc, -fem], [PL], [NOM]]$

To account for why coordination of neuter arguments triggers masculine plural agreement (and not neuter plural agreement) I propose that only [+] gender values can be ‘passed on’ to CoordP. That is, CoordP will be marked for a gender value only if every conjunct is marked with a [+] gender value of the same kind (i.e., there is no mismatch) – this is the case in (74) and (75). CoordP is unmarked for gender in two types of situation: (i) the conjuncts have mismatching [+] gender values, as in (76a) where [+masc] is in conflict with [+fem], or (ii) at least one of the conjuncts is not marked with a [+] gender value, in which case CoordP is *underspecified* for a gender value; this happens whenever CoordP includes at least one neuter conjunct, as in (76b-c) (or when all conjuncts are neuter, as in (77)). In such cases CoordP will simply lack a value for [GEN], and masculine will come up as default. Thus, the neuter plural participle form *izgorela* is not possible in (77) because CoordP, which triggers agreement, is not specified for the appropriate [GEN] value, even though it is specified for [PL] and [NOM]. Consequently, the requirements for insertion of the suffix *-a* in (80) are not satisfied.

There is independent evidence that this kind of binary-value system is on the right track, since it provides a natural explanation for some core facts of Serbian grammar (see also Despić 2016). First, adjectives and participles agreeing with infinitive clauses in the subject position take the *neuter* singular form:

(81) Prihvatiti krivicu nije lak-**o**.
 Accept.INF fault not easyN.SG
 ‘To admit one’s fault is not easy.’

Second, Serbian adverbs (VP-modifiers) are, in terms of morphological form, in fact always *neuter* singular adjectives (e.g., (82)). The natural question, of course, is why not masculine or feminine?

(82) a. Marko trči spor-**o**. b. Jedn-**o** spor-**o** dete.
 Marko runs slowN.SG One.N.SG slowN.SG child
 ‘Marko runs slowly.’ ‘One slow child.’

On a natural assumption that VPs and infinitives are, in contrast to nouns, inherently genderless it is expected that the form with two [–] gender feature values (neuter) would be most compatible with them. In other words, VPs and sentences cannot be associated with grammatical gender because they do not fall into declension classes; i.e., unlike nominals, they do not decline in terms of case. The picture that emerges then is that neuter encompasses elements with a complete absence of grammatical gender/declension, which is not surprising, since neuter is formally a negation of gender (a combination of two [–] values). Masculine, on the other hand, is the default form in the domain of things that do have grammatical gender/declension, but lack a value for it. This is further supported by the fact that coordinating two (or more) infinitives never leads to *plural* agreement – the predicate always takes the *singular* neuter form (83). This shows that the neuter singular form appears in contexts where there are no ϕ -features to agree with,

including number (note that other types of sentential subjects also trigger neuter singular agreement, as expected, since they as well lack declensions and cannot be pluralized). In the case of the default masculine plural form, on the other hand, there are ϕ -features to agree with, but they are underspecified; i.e., the feature [GEN] is present but it lacks a value. This analysis is thus able to make a meaningful connection between Serbian coordinate agreement and the facts in (81)-(83), while on other approaches any similarity between them appears accidental.³²

- (83) *Prihvatiti krivicu i izviniti se nije lak-o /*nisu laki/laka*
 Accept.INF fault.ACC and apologize REFL not.AUX.SG easyN.SG/not.AUX.PL easyM.PL/N.PL
 ‘To admit one’s fault and apologize is not easy.’

Additional argument for the binary system in (79) comes from another type of gender neutralization in plural adjectives/pronouns, which arises in some Slavic languages. As discussed in section 3.3.1, languages like Serbian, Slovene and Czech make the regular three-way gender distinction in nominative plural pronouns and adjectives, while languages like Russian, Belorussian and Ukrainian completely neutralize gender in plural, including nominative. However, in languages like Polish or Slovak gender neutralization in plural nominative is partial: they make a two-way gender distinction in plural, even though singular forms have the regular three genders (masculine, feminine and neuter) just like in Serbian. In particular, nominative plural forms make a distinction between groups that contain a male and groups that do not contain a male. For instance, in Polish “the third person plural pronoun *oni* ‘they’ refers to a group of male human beings, or to a mixed group with at least one male human being—the male human form, and *one* ‘they’ refers to everything else—the no male human form” (Sadowska 2012: 268). Plural nominative adjectives make exactly the same kind of distinction: male (e.g., *ładni* ‘pretty’) vs. non-male (*ładne* ‘pretty’) (Sadowska 2012: 235). Slovak is similar in this respect: “In Slovak, one distinguishes in the 3rd person plural pronoun between male and non-male groups” (Swan and Gálová-Lorinc 1990: 86). The male form (groups including a male) is *oni* and the non-male form *ony*. At the same time, “Slovak adjectives exhibit a male-nonmale distinction in the plural similar to the *oni/ony* distinction” (Swan and Gálová-Lorinc 1990: 87); i.e., the ending of the plural nominative male adjectival form is *-í* (*hotoví* ‘ready’), while the ending of the non-male form is *-é* (*hotové* ‘ready’) (see also Short 1993b). This kind of partial gender neutralization is shown in Table 13:

³² As discussed in Franks (1995) and Wechsler and Zlatić (2003: Chapters 7 and 8), Serbian QPs like *pet glumica* ‘five actresses(gen)’ also trigger neuter singular agreement. Furthermore, CoordP consisting only of QPs of this type also triggers neuter singular agreement in Standard Serbian. I interpret this to mean that CoordP based only on QP-conjuncts is not automatically assigned plural number by an independent mechanism, in contrast to regular NP-coordination. In other words, CoordP based exclusively on QP-conjuncts is a QP itself and triggers QP-like agreement (while CoordP based on NP-conjuncts has NP-like properties). The reason why this is neuter singular, I suggest, is that QPs are simply not specified for features like [GEN] and [NUM] that characterize regular NPs, which should not be surprising - QPs do not have declensions and cannot be pluralized (or de-pluralized). Thus, they are expected to trigger the same type of agreement as infinitives in (81), for instance. Alternatively, one could argue that they are underlyingly specified for features neuter singular (e.g., Franks 1995: 115 but see Wechsler and Zlatić 2003: 163 for some criticism of this view). I leave further exploration of these possibilities for future work, since morpho-syntactic properties of Serbian and generally Slavic QPs are notoriously complex and are clearly outside of the scope of this paper (for discussion of QPs and paucal number in Serbian, see Despić 2013; for the relationship between QPs and case see Bošković (2006) and the abovementioned references).

Table 13

	SG	PL: Polish	PL: Slovak
Masculine	On-∅	On-i	On-i
Feminine	On-a	On-e	On-y
Neuter	On-o	On-e	On-y

A system based on binary-value gender feature system in (79) directly explains this. In languages like Russian gender is completely neutralized in plural, via (36b) (repeated below as (84)), due to markedness accumulation:

$$(84) \quad [\text{GEN}] \rightarrow \emptyset / [_ [\text{PL}]]$$

That is, in Russian the whole feature [GEN] is deleted in the context of [PL]. However, markedness accumulation in Polish and Slovak in nominative is resolved not by completely eliminating gender, but by eliminating [\pm feminine], which is more marked than [\pm masculine], as in (85a) (see Bobaljik and Zocca 2011 for overview or arguments that feminine is more marked than masculine). In the more marked context involving non-nominative cases, the complete gender neutralization applies, as in (85b).

$$(85) \quad \begin{array}{l} \text{a. } [\pm\text{feminine}] \rightarrow \emptyset / [_ [\text{NOM}], [\text{PL}]] \\ \text{b. } [\text{GEN}] \rightarrow \emptyset / [_ [-\text{NOM}], [\text{PL}]] \end{array}$$

In the absence of [\pm feminine], the only possible gender distinction in nominative plural will be between groups specified with [+masculine] and groups specified with [-masculine]. This gives us exactly the contrast in Polish in Slovak, given how binary features are supposed to be interpreted; i.e., as discussed in Heim (2008) and Watanabe (2013) the positive value is interpreted as *inclusion* of the relevant sex or gender. That is, a group denoted by the expression containing [+masculine] includes a male individual. On the other hand, a male individual is not included in the case of groups marked with [-masculine].³³

As discussed in Nevins (2011: Section 6), the same kind male vs. non-male contrast arises in Standard Slovenian nominative *dual* (and accusative dual which is syncretic with nominative; see section 3.3.1). Nevins, who also adopts binary-value gender features system, argues that [\pm feminine] is deleted in the environment of dual number (instead of plural as in Polish and Slovak). Thus, in all three cases the markedness overload is resolved by eliminating [\pm feminine] from the representation, giving rise to this particular kind of partial gender syncretism. But, the overall markedness of these contexts could in principle be reduced by removing [\pm masculine] instead of [\pm feminine], even though the latter is more marked than the former. And this is exactly what happens in Ljubljana Slovenian, as shown in Nevins (2011); in this dialect masculine and neuter are systematically syncretic, as opposed to feminine. Table (14) gives forms of the number ‘two’ *dva* in Standard and Ljubljana Slovenian (Nevins 2011: 436-437):

³³ This point becomes particularly clear in the domain of binary-value person features. Thus, [+speaker] is not a simple identification with the speaker, i.e., *inclusive* [+speaker, +hearer] does not mean ‘someone who is the speaker and the hearer at the same time’ (see Bobaljik 2008 and Watanabe 2013).

Table 14

Dual	Masculine	Neuter	Feminine
<i>Standard</i>	dva	dve	dve
<i>Ljubljana</i>	dva	dva	dve

Both of these partial gender neutralization patterns in nominative non-singular number are exactly expected on the analysis based on features [\pm masculine] and [\pm feminine]. In a system which has a separate feature [NEUT] in addition to [FEM] and [MASC], we would actually expect a richer variety of neutralization patterns. For instance, we would expect some Slavic languages to make a neuter vs. non-neuter distinction in nominative non-singular, which does not happen.³⁴ Or, in a context where [FEM] is eliminated, we would expect to see (at least) a three-way contrast between groups that include [MASC], groups that include [NEUT], and a third form which would cover groups without [MASC] and [NEUT] (e.g., all females) *and* groups that include both [MASC] and [NEUT]. Or maybe the last one would be represented by yet another form. But these are unattested in Slavic.

Another advantage of the binary-value feature system is that it can provide a natural characterization for various syncretisms that happen between neuter and masculine/feminine. This is because neuter is represented as the combination of [$-$ masc, $-$ fem] and, thus, shares one feature with feminine and one feature with masculine: it shares [$-$ masc] with feminine and [$-$ fem] with masculine. Recall from section 3.2 that in singular, for example, neuter and masculine are syncretic in non-nominative and non-accusative cases. On this approach this is easily explained by assuming that these endings are simply represented by [$-$ fem] in the relevant cases (either as a result of the way rules of exponence are defined, or because of feature impoverishment).

Finally, in contrast to the binary system presented here, theories based on three traditional genders face a more serious problem of overgeneration. That is, if plural and dual are not marked and do not trigger impoverishment and feature neutralizations (as I argue they do) and if the gender system has three separate gender features [MASC], [FEM], and [NEUT] then, given the meaning of plural, we would actually expect to see more gender distinctions in plural than in singular, contrary to fact. In the system of 3rd person plural pronouns, for example, in addition to forms for groups that have only [MASC] members, we could have a special form for groups that have only [MASC] and [FEM] members, but exclude [NEUT] members. Or there could be a special form for groups including all three genders, etc.; a list of different possible gender forms in plural is given in (86):

³⁴ Recall from section 3.3.1 that the apparent neuter vs. non-neuter distinction arises in Serbian accusative plural, but this is qualitatively different from the two-way gender neutralization in Polish, Slovak and Slovenian, which happens in nominative non-singular, and covers both adjectives and pronouns. Serbian nominative has the standard three-way gender distinction in both singular and plural, and the neuter vs. non-neuter contrast in accusative plural is an effect of two independent principles: (i) the general gender neutralization in plural non-nominative, which, among other things, removes gender distinction between masculine and feminine in accusative plural, and (ii) the general nominative=accusative syncretism in neuter, which makes neuter plural accusative syncretic with neuter plural nominative, by removing the [ACC] feature before the gender impoverishment can apply (see again (37)). But as the discussion of Serbian pronouns from section 3.3.1 shows, gender impoverishment is complete even in accusative plural, exactly when there is no nominative=accusative syncretism in neuter singular; i.e., the nominative singular neuter pronoun *ono* is non-syncretic with accusative singular pronoun (*nje*)ga, and therefore gender is completely neutralized in accusative plural (i.e., *nj(ih)* for all three genders).

- (86) Possible gender forms for 3rd person plural pronouns
- a. A = [MASC] only
 - b. B = [FEM] only
 - c. C = [NEUT] only
 - d. D = [MASC] and [FEM] only
 - e. E = [MASC] and [NEUT] only
 - f. F = [NEUT] and [FEM] only
 - g. G = [MASC] and [FEM] and [NEUT]

Here we have 7 different possible forms, to which we could hypothetically add groups based on [MASC] and “unknown” gender, or [FEM] and “unknown” gender, etc. And given that there are 6 different cases in Slavic, the number of different forms in plural would rise dramatically, and would clearly be much higher than in singular. But the actual situation is exactly the opposite – plural has much fewer forms than singular and is characterized by extensive syncretism. The analysis developed here, which is based on markedness, impoverishment and binary features, employs a limited set of explicit tools that make the right cut between what is attested and what is unattested.

4.2.2 Coordination, Hybrid Nouns and the Polite Plural Pronoun

In the interest of space and consistency, I will continue to mark gender with the privative features [MASC], [FEM], [NEUT] in the rest of the paper. Note that replacing these features with the binary features from above does not affect my analysis of markedness from Section 3 and what is about to come in any way.³⁵ Before I move to the analysis of the puzzle raised by the coordinated polite plural pronoun, I need to mention some implications of my approach to coordinate gender agreement for hybrid nouns. Specifically, one of my assumptions is that whenever conjuncts of a CoordP clash in [MASC] and [FEM] gender (or, [+masc] and [+fem]), CoordP cannot be assigned a uniform gender value, and masculine would come out as default. But hybrid nouns like *tata* ‘dad’ or *vojvoda* ‘duke’ *always* introduce such gender conflict in coordination, because they are simultaneously specified for two different gender values; they are specified for [FEM] by their declension (the DCL III diacritic) and for [MASC] by their meaning. So the prediction is that the singular noun *tata* ‘dad’ would always trigger *masculine* plural agreement in coordination, even though its plural form *tate* ‘dads’ triggers feminine agreement, as shown in (87a). Recall that such nouns trigger feminine agreement in plural, because [PL] and two genders create a marked context, which is resolved by deleting [MASC], as discussed in section 3. But, the markedness issue does not arise in coordination: CoordP consisting of singular number conjuncts is always specified for one number (i.e., [PL]) and one gender, depending on the gender of its conjuncts. And if there is a conflicting gender specification within CoordP, the default masculine will appear. But a noun like *tata* always introduces gender conflict when it is coordinated because of its double [MASC]-[FEM] gender specification. Thus, such CoordPs will always trigger default masculine agreement, as shown in

³⁵ For instance, replacing [NEUT] with [-masculine, -feminine] would not undermine the common assumption that among gender values neuter is most marked; in fact, Nevins (2011) convincingly shows that dual, which is also represented with a combination of two minus values ([-singular, -augmented]), is more marked than singular and plural.

(87b), where two singular nouns *tata* are coordinated, and in (87c), where *tata* is coordinated with a feminine noun.

- (87) a. Tate su došle.
 Dads.NOM.SG AUX.3.PL arrived.F.PL
 ‘Dads arrived.’
- b. Tata moje drugarice Ivane i tata njenog
 Dad.NOM.SG my.GEN friend.GEN Ivana.GEN and dad.NOM.SG his.GEN
 druga su došli /*došle.
 friend.GEN AUX.3PL arrived.M.PL/ arrived.F.PL
 ‘The dad of my friend Ivana and the dad of her friend arrived.’
- c. Tata i Marija su došli /*došle.
 Dad.NOM.SG and Marija AUX.3.PL arrived.M.PL/ arrived.F.PL
 ‘Dad and Marija arrived.’

At the same time, feminine plural agreement is ungrammatical in both of (87b-c), as predicted by my analysis.³⁶

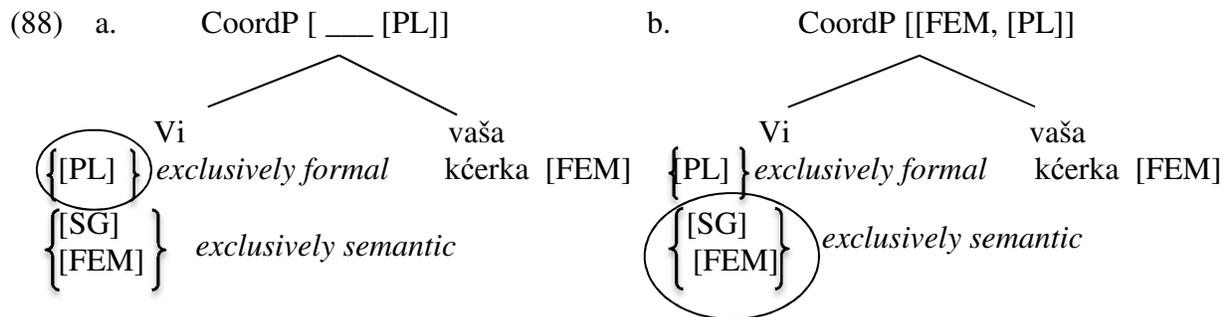
Recall now that the honorific pronoun referring to a female individual triggers masculine plural agreement on the participle (55a). The Serbian participle (just like the main verb) agrees with plural number of the honorific pronoun, for independent reasons. Since this is an exclusively formal feature, agreement with the strictly semantic gender feature feminine is excluded via the condition in (50). The result of this is the default masculine specification. Recall also that both feminine plural and masculine plural agreement is possible when the honorific pronoun referring to a female individual is coordinated with another feminine noun (or another honorific *vi* with a female referent), as shown in (64)-(67). That is, feminine agreement becomes possible when *vi* is coordinated. But in this case the participle is not agreeing with the honorific pronoun itself, but with the whole CoordP, which depending on its conjuncts may or may not have gender specification, as discussed above. And since CoordP is always marked for plural, the participle will show plural agreement.

³⁶ Similar can be said about double-mismatch hybrids *braća* ‘brothers’ and *deca* ‘children’, which also trigger the default masculine plural agreement when they are coordinated with feminine singular nouns. That is, even though they have [FEM] [SG] formal features, they do not trigger feminine plural agreement when they are coordinated with regular feminine singular nouns:

- (i) a. Braća i Marija su došli /*došle.
 Brothers.NOM and Marija AUX.3.PL arrived.M.PL/ arrived.F.PL
 ‘Brothers and Marija arrived.’
- b. Deca i Marija su došli /*došle.
 Children.NOM and Marija AUX.3.PL arrived.M.PL/ arrived.F.PL
 ‘Children and Marija arrived.’

The reason is quite simple: like *tata* in (87b-c), these nouns are marked for two different gender values (semantic and formal) and, therefore, whenever they are coordinated they automatically introduce conflicting gender information within CoordP. As a result, default masculine is triggered. This effect is most obvious when *braća* and *deca* are not the last conjunct, because of the “last conjunct agreement” effect. That is, in certain context the participle can agree exclusively with the last conjunct of a CoordP (instead of the whole CoordP) if the last conjunct is plural (this has been the subject of extensive research in recent years; see Arsenijević and Mitić 2015, Bošković 2009, Marušić et al. 2007 and references therein). Since *braća* and *deca* are hybrids that do have a [PL] specification (unlike *tata* or *vojvoda*), to control for this effect, it is more appropriate not to put them in the last conjunct.

Consider the case when *vi* is coordinated with the feminine noun *vaša kćerka* ‘your daughter’, as in (64)/(67). In order for the whole CoordP to be marked as feminine, each of its conjuncts must be marked with a feminine feature, which is always true for a noun like *kćerka* ‘daughter’. Now, unlike hybrid noun discussed above (*tata* or *braća*), the honorific pronoun is *not* specified for two gender values – it just has the exclusively semantic gender. There is never any gender in the form and therefore never any formal gender feature. Thus, when coordinated, the honorific pronoun does not automatically introduce gender specification conflict within CoordP, which would then immediately trigger default masculine agreement (as in (87)). This is the crucial difference between the honorific pronoun and hybrid nouns. But, the honorific pronoun has two different number specifications; i.e., there are two ways in which the honorific pronoun can be interpreted in terms of number: singular or plural. If it is interpreted as singular it will also have to be interpreted as feminine, since both of these features are exclusively semantic (i.e., not represented in the form). In this case both conjuncts will be taken to be marked as feminine and therefore the whole CoordP will be marked as feminine, which will trigger feminine plural agreement on the participle (88b). On the other hand, if *vi* is interpreted as plural, an exclusive formal feature, it will not be interpreted as feminine, since feminine is an exclusively semantic feature (88a); i.e., the logic behind (50) is that grammatical operations cannot target an exclusively formal and an exclusively semantic feature at the same time. Thus, if *vi* is interpreted as plural, it will be taken as not marked for gender at all and therefore the whole CoordP will not be assigned a uniform gender value, given our assumptions from above. That is, one conjunct will not provide a gender value to the CoordP, and consequently the value of the CoordP [GEN] feature will not be specified. As a result, the default [MASC] value will be triggered.



Masculine comes out as default both when the participle agrees with *vi* directly, and when it agrees with the CoordP which has *vi* as one of its conjuncts. Masculine is obligatory in the first case because participles/predicative adjectives in Serbian-type languages chose to agree with the strictly formal feature plural *vi* for independent reasons, which forces default masculine. In the latter case, however, masculine is not obligatory precisely because plural agreement on the participle is triggered by the plural feature of CoordP, and is independent of the honorific pronoun’s plural feature. Feminine agreement then becomes a possibility provided all other conjuncts are marked with feminine too. This state of affairs is surprising if, as suggested by Wechsler and Hahm (2011), honorific *vi* is marked with the Concord masculine feature which directly triggers masculine agreement on the participle, since nominals which are marked with such a feature generally trigger obligatory masculine plural agreement when they are coordinated, as shown in (75)-(76a-b). It seems that on such an analysis a special, ad hoc assumption would have to be made to exclude this single exception to the general pattern.

In the next section I will go over Wechsler and Hahm's (2011) 'different pronoun hypothesis' and present evidence from patterns of syncretism in plural adjectives that the 'different adjective hypothesis' is a plausible alternative to it.

4.3. *Vi, Adjectives and Patterns of Syncretism*

Wechsler and Hahm (2011) argue in support of the 'different pronoun analysis', on the basis of the contrast in agreement between nominative and accusative honorific *vi*. Nominative *vi* triggers plural (formal) agreement on the participle (89), while accusative *vas* in (90) obligatorily triggers singular (semantic) agreement. Thus, in (91), accusative *vas* cannot be interpreted as the honorific pronoun; i.e., it must refer to multiple addressees:

- (89) a. *Vi ste duhovit-i.* Serbian
 you.PL AUX.2PL funny-M.PL
 'You (one formal addressee/multiple addressees) are funny.'
 b. # *Vi ste duhovita.*
 you.PL AUX.2PL funny-F.SG
 'You (one formal female addressee) are funny.'
- (90) *Draga Ana, juče sam vas video potpuno pijanu.*
 Dear Ana yesterday AUX.1SG you.PL seen completely drunk.F.SG
 'Dear Ana, yesterday I saw you (one formal female addressee) completely drunk.'
- (91) *Draga Ana, juče sam vas video potpuno pijane.*
 Dear Ana yesterday AUX.1SG you.PL seen completely drunk.PL
 *'Dear Ana, yesterday I saw you (one formal female addressee) completely drunk.'
 'Dear Ana, yesterday I saw you (multiple addressees) completely drunk.'

The conclusion reached by Wechsler and Hahm (2011) is quite reasonable given these facts, since agreement possibilities clearly depend on the form of the honorific pronoun. The 'different pronoun hypothesis' therefore indeed looks like a good starting point. They propose that nominative and accusative honorific pronouns should be represented as in (92):

- (92) a. nominative *Vi* (standard Serbian): N[CONC *nom.m.pl*]_[2nd.m.pl]
 b. accusative *Vas*: N[CONC *acc*]_[2nd.m.pl]

(Wechsler and Hahm 2011: 206)

As shown in (92b), accusative *vas* lacks Concord ϕ -features and has only Case features.

In this section I will present some evidence in support of the 'different adjective hypothesis' and try to show that it is a plausible alternative to (92). The 'different pronoun hypothesis' is based on the logic that manipulations of the form of the honorific pronoun affect available agreement options. I will show in this section that the opposite is true as well; i.e., whether or not *vi* 'you(pl.)' can be interpreted as the polite plural is determined by inflectional properties of different adjectival forms.

So, the first question for the analysis developed here is how it would explain the fact that the accusative polite plural *vas* resists formal (i.e., plural) agreement, unlike its nominative counterpart. The relevant generalization can be stated as follows: nominative plural adjectives and participles agreeing with the nominative plural 2nd person pronoun *vi* are compatible with

both its regular, true plural meaning (i.e., multiple addressees) and its honorific interpretation (i.e., a single addressee). That is, the sentence in (89a) is ambiguous: the same nominative masculine plural adjective *duhovit-i* is compatible with both *vi* refereeing to multiple male addressees and the polite version of *vi*, which has a single (male or female) referent. Just like in the case of [GEN], we can assume that in the domain of number, [PL] comes in two versions: a semantic version, marked as [PL]_{SEM}, which is used for true plural (i.e., (non-singular) groups, multiple referents), and a purely formal version, marked as [PL]_{FORM}, which does not encode true plurality and is used in the case of a singular referent (i.e., the polite plural). Both of these versions of [PL] apparently can be encoded in the nominative form of the adjective, or any agreement target which agrees with nominative *vi* (participles, auxiliaries, etc.). And since they are always represented by the same morpho-phonological exponent/vocabulary item, they will create ambiguities like the one in (89a).

On the other hand, in non-nominative cases, like accusative in (92), the plural form of the adjective agreeing with *vas* ‘you(pl.acc)’ is incompatible with the honorific interpretation of the pronoun. The plural accusative adjective *pijane* ‘drunk’ is only compatible with the true plural (multiple addressees) meaning of *vas*. Or, in terms of features, *pijane* can encode only [PL]_{SEM} but not [PL]_{FORM}. That is, the non-nominative adjectival forms can express fewer numbers of features than nominative forms; i.e., nominative plural adjectives can express both versions of [PL] ([PL]_{SEM} and [PL]_{FORM}) while non-nominative plural adjectives are limited to [PL]_{SEM} and cannot express [PL]_{FORM}. This is quite consistent with our observation from section 3 that gender is eliminated from the representation of adjectival suffixes in the environment of non-nominative case and plural due to markedness considerations. It is therefore possible that in the same context of accumulated markedness created by plural and non-nominative case, plural number itself will lose one of its versions, namely [PL]_{FORM}, in order to reduce the overall markedness level. That is, to resolve the markedness problem, [PL] is reduced to [PL]_{SEM} in the context of non-nominative case, while [GEN] is completely deleted. Thus, at least for Serbian, I adopt the following informal statement:³⁷

(93) In the environment of [PL] and [-NOM], [GEN] is deleted and [PL] loses its [PL]_{FORM} version.

The effect of (93) is that [PL] of all non-nominative plural adjectives in Serbian would have to be interpreted as true plural, marking multiple referents (i.e., [PL]_{SEM}), which explains (91) and the contrast with (89). This approach then predicts that if a non-nominative and seemingly plural adjective actually lacks the [PL] specification, it would in principle be compatible with the non-nominative honorific pronoun, since the issue of incompatibility would not arise. I will argue that

³⁷ Given the general goal of this paper, I have to leave spelling out technical details of the formal relationship between [PL]_{SEM} and [PL]_{FORM} for some other occasion. What is important for our purposes is that [PL]_{FORM} is always morpho-phonologically identical to [PL]_{SEM} (there’s no special [PL]_{FORM} inflectional suffix different from [PL]_{SEM}) and that [PL]_{FORM} always entails [PL]_{SEM}; that is, whenever the [PL]_{FORM} interpretation is possible, the [PL]_{SEM} interpretation is available as well (as in (89a)). The opposite is not true: there are cases like (91) where just [PL]_{SEM} is available. Also, there are no case where just [PL]_{FORM} is possible; i.e., the opposite of (91). This clearly indicates that [PL]_{SEM} is the norm and that [PL]_{FORM} is an extra option available in certain contexts (e.g., (89a)). The statement in (93) simply says that this extra option is not available in the context of accumulated markedness created by the presence of non-nominative case, which is consistent with the fact that other features, like gender, are neutralized in the same context.

instrumental has precisely these properties. Consider first inflectional properties of accusative adjectives again, given in Table 15 for the adjective *lep* ‘beautiful’:

Table 15

ACCUSATIVE	MASC	FEM	NEUT
SG	lep-og	lep-u	lepo
PL	lep-e	lep-e	lepa

Recall from section 3.3.1 that Serbian adjectives and nouns display complete syncretism between accusative and nominative in neuter, in both singular and plural (see Tables 10 and 11). The rule in (37) (repeated below as (94)) was proposed to explain this general nominative=accusative syncretism in neuter. This rule always deletes [ACC] in the context of neuter, regardless of number. The result is nominative, since nominative is the underspecified/elsewhere form.

(94) [ACC] → ∅ / [___ [NEUT]]

The rule in (94) precedes the gender impoverishment rule and bleeds it – it removes the non-nominative case (i.e., [ACC]), which combined with [PL] triggers the deletion of gender. But gender is neutralized in other plural accusative forms as shown in the shaded cells of Table 15. And such forms are incompatible with the honorific pronoun (see (91)), given the statement in (93).³⁸ Since no other non-nominative case is subject to a rule like (94), in all of their plural forms the gender impoverishment will take place and gender will be neutralized. This is illustrated with genitive in Table 16, where the form *lepih* is characterized with features genitive and plural, but no gender.

Table 16

GENITIVE	MASC	FEM	NEUT
SG	lep-og	lep-e	lep-og
PL	lep-ih	lep-ih	lep-ih

However, in instrumental the feature neutralization runs deeper – instrumental has only two forms: one for feminine singular (*lepom*) and another for everything else (*lepim*). Crucially, there is no single form that is strictly dedicated to plural, since *lepim* also covers masculine and neuter singular.

Table 17

INSTRUMENTAL	M	F	N
SG	lep-im	lep-om	lep-im
PL	lep-im	lep-im	lep-im

This can be analyzed a case of complete underspecification, where *-im* is treated as an elsewhere case in instrumental.

³⁸ Note that the general nominative=accusative syncretism in neuter does not have any bearing on the facts involving the honorific pronoun, whose use is pragmatically restricted to male and female individuals.

- (95) a. -om ⇔ [[FEM], [SG], [INS]]
 b. -im ⇔ [INS]

Recall also that formal statements of VI like (95) are guided by the principles in (96):

- (96) a. Rules Apply
 A rule applies wherever its structural description is met.
 b. Elsewhere Condition
 Where more than one mutually exclusive rule may apply, (only) the most highly specified rule applies.

(95b) is not specified for [PL] and is compatible with any context which includes [INSTR], regardless of gender or number. Both (95a) and (95b) are eligible for insertion in the context of instrumental, feminine and singular features, but as (95a) is more specific, it must be inserted in such a context. In all other instrumental contexts (95b) must be inserted: thus, the pronoun *vas* in (97a) can be interpreted either as the regular 2nd person pronoun referring to multiple addressees, or as the honorific pronoun referring to a male addressee. *Vas* in (97b), on the other hand, may be interpreted only as the honorific pronoun referring to a female individual:

- (97) a. *Smatramo vas odgovorn-im za ovu situaciju.*
 Consider.2.PL. you.ACC responsible.INS for this situation
 ‘We consider you (multiple addressees) responsible for this situation.’
 ‘We consider you (one formal male addressee) responsible for this situation.’
 b. *Smatramo vas odgovorn-om za ovu situaciju.*
 Consider.2.PL. you.ACC responsible.INS for this situation
 Only: ‘We consider you (one formal female addressee) responsible for this situation.’

Crucially, however, when the sex of the referent of the honorific pronoun is unknown, only (95b) can be inserted, as predicted - this is illustrated in (98a). Inserting (95a) in the context of (98a) would entail that the person in question is female, even though we might not know her exact identity. This is exactly the state of affairs predicted by (95):

- (98) a. *Ko god da ste, smatramo vas odgovorn-im za ovu situaciju.*
 whoever you are consider.2.PL. you.ACC responsible.INS for this situation
 ‘Whoever you are, we consider you (multiple addressees) responsible for this situation.’
 ‘Whoever you are, we consider you (one formal male addressee) responsible for this situation.’
 ‘Whoever you are, we consider you (one formal addressee of unknown sex) responsible for this situation.’
 b. *Ko god da ste, smatramo vas odgovorn-om za ovu situaciju.*
 whoever you are consider.2.PL. you.ACC responsible.INS for this situation
 Only: ‘Whoever you are, we consider you (one formal female addressee) responsible for this situation.’

This clearly shows that the availability and interpretation of the honorific pronoun is directly affected by the change in form of *adjectives*, which supports the ‘different adjective hypothesis’.

The representation of plural accusative or genitive adjectives includes [PL], which is incompatible with the meaning of the honorific pronoun. The instrumental forms *lep-im*, or, *odgovorn-im* (Table 17) are not ‘true’ plural forms – they are ‘elsewhere’ forms, whose representation does not involve [PL] and they are in principle compatible with both the regular 2nd person plural pronoun and the honorific pronoun, as shown above.³⁹

The final piece of evidence in support of this theory comes from an alternative instrumental inflectional pattern. The inflectional paradigm given in Table 17 is a relatively modern development in Serbian, adopted by the majority of speakers. However, there is another, somewhat old-fashioned pattern, which is still recognized and used by some speakers (Stevanović’s (1962: 163-166) traditional grammar gives these forms for plural instrumental adjectives):

Table 18

INSTRUMENTAL	M	F	N
SG	<i>lep-im</i>	<i>lep-om</i>	<i>lep-im</i>
PL	<i>lep-ima</i>	<i>lep-ima</i>	<i>lep-ima</i>

The plural form ending here consists of *-im* and an additional *-a*: *-ima*. That is, this inflectional pattern contains a suffix, which is strictly restricted to plural forms and is therefore sensitive to the presence of [PL]. Thus, the forms ending with *-ima* are predicted to be possible only with the regular, non-honorific 2nd person plural pronoun *vi*, since the honorific interpretation of *vi* is incompatible with [PL], as proposed above. This is exactly the case – speakers who I have consulted, and who accept and use the pattern in Table 18, all agree that there is a clear contrast between (99) and (97a); i.e., (99) is acceptable only if *vas* refers to multiple addressees, and not if it is used as the honorific pronoun, in contrast to the minimally different example in (97a), which allows both interpretations.⁴⁰

- (99) *Smatramo vas odgovorn-ima za ovu situaciju.*
 Consider.2.PL. you.ACC responsible.INS for this situation
 Only: ‘We consider you (multiple addressees) responsible for this situation.’
 Not: ‘We consider you (one formal addressee) responsible for this situation.’

This subtle and seemingly insignificant contrast between the two instrumental inflectional patterns reveals, I believe, a great deal about the nature of agreement with the honorific pronoun and in a fairly neat way provides support for the analysis developed in this paper. The meaning of the honorific pronoun is incompatible with non-nominative plural adjectives that actually do include [PL] in their representation.⁴¹ However, the adjectival forms whose grammatical

³⁹ Note that facts similar to those in (97)-(98) have also been reported independently by Arsenijević (2014); I believe that the analysis developed here can be extended to them as well.

⁴⁰ For such speakers the patterns in Tables 17 and 18 seem to co-exist. Speakers who would accept only the pattern in Table 18 and reject the one in Table 17 would be predicted to find (97a) possible only with the honorific interpretation; I haven’t been able to find such speakers (which should not be surprising given that the pattern in Table 18 is somewhat old-fashioned).

⁴¹ Note that the statement in (93), in particular the part that [PL]_{FORM} is unavailable in the context of non-nominative cases, would not necessarily have to hold for other Slavic languages, given that they vary with respect to markedness thresholds (as discussed in Section 3). But if it did hold, one possible prediction would be that Slavic languages that neutralize gender in nominative plural, would prefer singular (mixed) agreement with the polite

representation is independently shown to lack [PL] are perfectly compatible with the honorific pronoun, once other factors (like gender/sex) are controlled for.

5. Summary and Outlook

This article has provided a novel analysis of mixed agreement with the honorific pronoun and hybrid nouns in Serbian, as an alternative to the one proposed in Wechsler and Hahm (2011) and Wechsler (2011), which is mainly based on the *Agreement Marking Principle*. On this principle an agreement target checks the trigger for a syntactic ϕ -feature, assigning that feature's semantic interpretation to the trigger denotation if no syntactic feature is found. I have tried to show, instead, that the agreement phenomena in question are to a great extent determined by the inability of an agreement target to simultaneously agree with an exclusively semantic and an exclusively formal ϕ -feature of an agreement controller (which is also implicitly assumed in the above mentioned works). As a result, in certain cases masculine emerges as the default value. In particular, the masculine specification of a participle agreeing with the honorific pronoun is, on the analysis proposed here, a result of an independently motivated default mechanism, and not a result of direct agreement with the Concord masculine feature for which the (nominative form of the) honorific pronoun is assumed to be specified in Wechsler and Hahm (2011). The crucial evidence for this claim comes from agreement in coordinated structures. Thus I have also developed an analysis of agreement with coordinated phrases consisting of singular number conjuncts and suggested that gender in Serbian should be represented in terms of binary features [\pm masculine] and [\pm feminine]. I have shown that such a system does not only provide a natural explanation for some core facts of Serbian and Slavic grammar but it also makes good predictions about possible gender distinctions in plural, unlike the traditional system based on three features [MASC], [FEM], and [NEUT], which overgenerates. I have tried to argue in support of what Wechsler and Hahm (2011) call 'different adjective hypothesis', i.e., the assumption that the grammatical representation of adjectives is responsible for different agreement patterns with the honorific pronoun. I have provided empirical support for this view from contrasting patterns of syncretism in non-nominative adjectival inflection.

In Section 3 I have focused on agreement with different types of hybrid nouns: 'single-mismatch' nouns like *vojvoda* 'duke', and 'double-mismatch' nouns like *braća* 'brothers'. Although the latter are rare and may seem insignificant, they reveal a lot about the nature of prenominal, attributive agreement since they force the strictly formal (syntactic) agreement pattern (unlike the former). The main ingredient of the explanation is the observation that in contrast to the gender value, which is an intrinsic property of the nominal root/stem, the value for number is in general a property of the inflectional suffix. However, *braća* 'brothers' is special exactly because its stem/root is specified for an exclusively formal number (singular), which

plural pronoun, since the nominative form of plural adjective/participle would also be limited to [PL]_{SEM}, given markedness considerations. Studies done by Corbett (1983, 2000, 2006), as discussed in Wechsler (2011: 1001-1002), suggest that this might be true: Bulgarian, Macedonian, Ukrainian, Belorussian, and Russian (long form adjectives) all favor the mixed agreement pattern. Russian short form adjectives, on the other hand, prefer plural agreement but they are special in many ways. Their syntactic distribution is limited and they preserve only the nominal endings of the nominative case (Timberlake 1993: 845). Thus, they only have 4 forms: 3 singular forms for each gender and one plural form. But given this, the plural form might be analyzed as an elsewhere form (along the lines of Serbian instrumental; Table 17) without any feature specification, including plural, which would make it compatible with the honorific pronoun. This is, of course, just a speculation at this point and I leave a more careful investigation of these issues for future work.

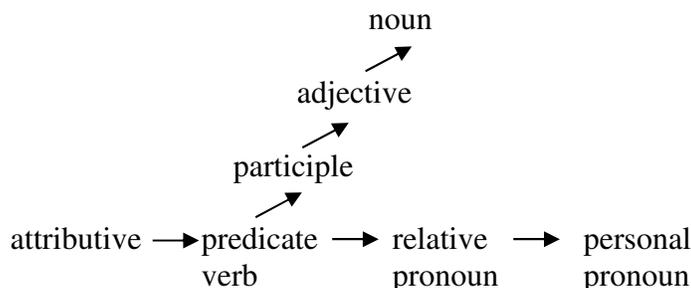
given the general principles of the language, ends up being visible in the suffix. Since concord elements, like attributive adjectives, get their number value directly from the suffix, and given the principle in (50) on agreement with exclusively formal and exclusively semantic features, their agreement with *braća* ‘brothers’ is restricted to the strictly formal features. This set of assumptions then also explains why post-nominal adjectives agreeing with *braća* ‘brothers’ in principle allow both types of agreement, i.e., they are not in the prenominal, concord position.

I have also argued for the general theory of markedness and showed how it can explain not only the extensive gender neutralization in non-nominative plural adjectives and pronouns in Serbian and other Slavic languages, but also why Serbian single mismatch hybrids trigger formal (feminine) agreement in plural, but not in singular.

There are many interesting questions which still need to be addressed, like, for instance, what are the factors that for different speakers govern the choice between the two agreement patterns in the postnominal position, and why certain speakers even find them equally acceptable? Although these questions are certainly important, they are, I believe, more appropriate for another type of study. My aim in this article was to develop a theory that would make the right empirical cut between what is in principle allowed and what is never allowed; i.e., I have tried to identify and motivate the grammatical principles which determine what kinds of facts are possible and what are impossible.

Also, the data presented here may have interesting implications for *The Agreement and Predicate Hierarchies* (Corbett 2006: 233):

(100)



According to this hierarchy, attributive modifiers are more likely to show formal/syntactic agreement than verbs are, and verbs more so than participles, participles more than predicate adjectives etc. We saw in the case of the single-mismatch hybrids that number properties of the trigger determine the type of agreement: semantic in singular and formal in plural. In the case of double-mismatch hybrids, we saw that prenominal adjectives undergo strictly formal/syntactic agreement, while postnominal secondary predicate adjectives allow both patterns in principle, with some preference for formal agreement. An interesting element to test in this respect would be the relative pronoun (*koji* ‘which’), which agrees in the same way as adjectives. The question is then whether the relative pronoun would behave exactly like postnominal adjectives or would it display more preference for semantic agreement, as predicted by the hierarchy. Also, in the case of plural forms of nouns like *vojvoda* ‘duke’ or *tata* ‘dad’, would the relative pronoun tend to show formal (feminine plural) agreement just like adjectives, or would it prefer more semantic (masculine plural) agreement? The bottom line is whether the hierarchy in (100) could be reformulated in terms of more general features (as in Wechler and Hahm 2011), and whether it could be derived from other independent principles.

Finally, although I have couched my analysis within a purely derivational model of DM, I leave open the question of what kind of implications the facts discussed here may have for different types of theoretical frameworks.

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