This paper outlines a general typology of gender systems and locates the Slavonic systems within it. There are two reasons for adopting this approach: first, it gives a new perspective on the Slavonic data; and second, it highlights those features of gender in Slavonic which are of most interest to researchers working in general linguistics. Slavonic is indeed a rich source: its gender systems are complex and varied and a good deal of work has been done both on descriptions of individual languages and on typologies of Slavonic as a whole, as the publications referred to make clear. Moreover Slavonic scholars, notably Zaliznjak and Gladkij, have worked on the definition of gender, which lays a
foundation for typological work. In the first section we extend Zaliznjak’s approach; the problem cases which require extensions of the basic definitions are of course the most significant and interesting. Having established a method for determining the gender pattern in a given language, we examine in section II the assignment systems which allot nouns to the different genders. When assignment rules conflict, there may be nouns which do not fall completely into a single gender and have complex agreement patterns; the constraints on these agreement patterns are examined in section III. And finally, we consider the rules which determine agreement in gender with conjoined noun phrases.

I

In our analysis of gender systems we shall follow the widely accepted view that the crucial factor is agreement. This approach has been worked out consistently by Zaliznjak. Gladkij reaches similar results, from a more formal, mathematical treatment. The following definition of an agreement class is based on that of Zaliznjak but does not follow his terminology:

An agreement class is a set of nouns such that any two members standing in any grammatical form (but the same for both) require that any given agreement target in any agreement domain must take the same form (or the same set of stylistically variant forms).

The definition depends on the notion of ‘grammatical form’, which is a combination of case and number specifications. It is not unreasonable to base a definition of gender on the notions of case and number, since they are simpler notions, for which the morphology of the noun may provide sufficient evidence, without requiring reference to agreement.


The point about ‘stylistically variant forms’ covers the situation in which a given feature set has alternative realizations; for example, the Russian adjectival forms novoj and novuju (both instrumental singular feminine) do not provide grounds for postulating distinct agreement classes.

According to the definition given, the Russian nouns kniqa ‘book’ and gazeta ‘newspaper’ are in the same agreement class, since whatever their grammatical form, they require the same form of any agreeing element or ‘target’, irrespective of the syntactic configuration over which agreement operates (the ‘agreement domain’); for example o našej kniɡe/gazete, kotoruju . . . ‘about our book/newspaper, which . . .’. Nouns like pisatel’ ‘writer’, djadja ‘uncle’ are both in a second agreement class since in any of the cases, singular and plural, they take the same agreements, but not those of kniqa and gazeta. Thus far Zaliznjak’s approach gives exactly the desired results.

It is worth pointing out, however, that agreement classes lead us (after further analysis) to the number of genders into which nouns are to be divided. There is a second side to gender, the number of gender forms found in verbs, adjectives and other elements which show agreement. We must therefore distinguish controller genders (the genders into which nouns are divided) from target genders (the genders marked on agreeing elements such as verbs). Failure to make this distinction can lead to confusion, especially in debates on the number of genders in a given language. In Polish, for example, there are two target gender forms in the plural (marked, for example, on past tense verbs) but Polish clearly has more than two controller genders.6 The relations

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between controller and target genders deserve careful study. An interesting feature of Slavonic in this respect is the existence of a non-lexical gender, a target gender form with no corresponding controller gender; that is, an agreement form which cannot be controlled by nouns. In Ukrainian, predicative adjectives have such a special form:

(1) v odnij simji nam žyti i lehko i prekrasno
in one family for us to live (is) both easy and wonderful

In (1) the subject is an infinitive phrase. The agreement form in –o cannot be used with a noun phrase headed by a neuter noun as subject; the neuter form is in –e, for example, prekrasno ‘wonderful’. Target gender forms which do not permit a noun phrase headed by a noun as subject have been termed ‘neutral’ agreement forms.7

Returning now to agreement classes, it should be said that Zaliznjak’s paper has led to analyses of the agreement classes in various languages.8 Typically the number of agreement classes discovered increases steadily, becoming considerably larger than the generally accepted number of genders for a given language. Zaliznjak is fully aware of this problem. He takes the establishing of agreement classes to be only the first step in the analysis, a point missed by some later investigators. We must now consider principled ways in which agreement classes can be excluded from the list of genders.

Subgenders

The notion of subgenders is a useful one, which is widely accepted in Slavonic linguistics. However, it is surprisingly difficult to formalize. A relatively simple case is provided by Serbo-Croat. Various agreement facts, including predicate agreement, require us to set up three agreement classes (corresponding to the traditional three genders). When we turn to attributive agreement we are forced to recognize a fourth agreement class, since nouns like prijatelj ‘friend’ and zakon ‘law’, which take identical predicate agreements, differ in the agreements of attributive modifiers in the accusative singular only. Our analysis


should take account of the fact that the difference between *prijatelj* and *zakon* is less significant than that between both of them and nouns like *luka* ‘harbour’ or *jezero* ‘lake’. The following is an attempt to specify when agreement classes can be analysed as subgenders rather than as full genders:

Subgenders are agreement classes which control minimally different sets of agreements, that is, agreements differing for a small proportion of the inflectional forms of the controller (typically a single one), not including the most basic form (usually the nominative singular).

This definition fits the Serbo-Croat data well. The agreement classes represented by *prijatelj* and *zakon* differ in the accusative singular only, that is, in one inflectional form out of fourteen, if we consider only attributive agreement (though syncretisms reduce the number of independent forms for any given declensional type). By analysing two agreement classes as subgenders (animate and inanimate) of the masculine gender we capture the relative similarities and differences in the system.9

In Russian there are three genders, masculine, feminine and neuter, each divided into two subgenders, animate and inanimate. This is essentially the analysis favoured by Zaliznjak and by Gladkij. Our definition appears adequate here, though for masculine, the two agreement classes differ in two forms, rather than one, the accusative singular and the accusative plural.10 Since the same case is involved in both instances and the syncretism is the same it is reasonable to treat the two agreement classes as minimally different. The type of syncretism found with the animacy features is always the same in Russian, and it has a role elsewhere in the grammar;11 the subgender analysis is therefore clearly superior to one recognizing six genders. A six-gender scheme would allow agreements for animate masculines to be completely different from other animates, whereas in all examples it

9 Note that the grammatical divisions of genders and subgenders do not reflect directly the natural semantic classifications like those proposed, for example, in L. Hjelmslev, ‘Animé et inanimé, personnel et non-personnel’ (*Travaux de l’Institut de linguistique de la Faculté des Lettres de l’Université de Paris, 1*, Paris 1956, pp. 155–99), reprinted in *Travaux du Cercle Linguistique de Copenhague, 12*, Copenhagen 1959, pp. 211–49; and in *Essais linguistiques*, Paris, 1971, pp. 220–58; in semantic terms, animate vs. inanimate is a major distinction, while in the gender systems of Slavonic it is a subgender, ranking below the main genders.

10 There is evidence that neuter animates are also beginning to take animate agreements in the singular as an alternative to inanimate forms (V. A. Icković, ‘Suščestvitel’nyje oduševlennyje i neouduševlennyje v sovremennom russkom jazyke (norma i tendencija)’ (*Voprosy jazykoznaniya*, no. 4, Moscow, 1980 [hereafter Icković, ‘Suščestvitel’nyje oduševlennyje i neouduševlennyje’] p. 98). They are thus becoming less like feminines and more like masculines. The change represents a further stage in the integration of animacy into the gender system. Compare the situation in Slovene as in J. Toporišič, ‘K teorijji spola v slovenskem (knjižnem) jeziku’ (*Slavistična revija, 29*, Ljubljana, 1981, p. 82).

is syncretism of accusative and genitive agreeing forms which is involved. Russian also provides the justification for the last part of our definition. If the agreement form for the accusative singular is analysed as equal to nominative or genitive, depending on subgender, then the only remaining difference between masculine and neuter is the agreements with the nominative singular. According to our definition, this fact prevents their being reanalysed as subgenders of a non-feminine gender. We can thus retain the accepted three genders; Zaliznjak and Gladkij also try to retain traditional insights as far as possible.

Over-differentiated targets

We continue with methods which allow us to restrict the number of agreement classes which are recognized as genders. In analyses which produce large numbers of agreement classes, marginal targets may be included. Zaliznjak discusses briefly Russian collective numerals such as dvoe 'two', which can be used with some but not all nouns.\(^\text{12}\) He does not use them to set up further agreement classes; the use of dvoe rather than than dva 'two' can be considered a matter of co-occurrence restrictions rather than a question of agreement. Several examples of such items being used greatly to complicate gender patterns can be found in the literature.

There are, however, more serious problems with apparent agreement targets which permit more distinctions than do typical targets in the language: we term such targets 'over-differentiated'.\(^\text{13}\) Consider Polish dwa 'two' (a normal numeral, not a collective) which, unlike other attributive modifiers, distinguishes feminine gender from others in the plural. Schenker bases a good deal of his analysis on it,\(^\text{14}\) while Zaliznjak, considering the similar case of oba in Russian, dismisses it in a footnote, saying that the feminine forms are being lost.\(^\text{15}\) The fact that such forms are disappearing (speakers have some problems with Polish dwa as well) confirms their marginal status. When a small number of targets serves to establish agreement classes in excess of those found on the basis of typical targets, these additional agreement classes will not be recognized as genders. Rather the over-differentiated targets should be marked lexically.

It is worth considering the difference between subgenders and agreement classes induced by over-differentiated targets. In the former case, agreement classes are separated by a distinction which is widely and consistently indicated on agreement targets, but only for a small

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14 Schenker, 'Gender Categories', pp. 402–08.
15 Zaliznjak, 'K voprosu . . . ', p. 31.
proportion of the inflectional forms of the controller. Overdifferentiated targets do not comprise a whole target type, but a small number of irregular items, which should be lexically marked as such.

**Inquorate genders**

Inquorate genders are those postulated on the basis of an insufficient number of nouns, which should be marked as exceptions in the lexicon. Consider the following nouns from Serbo-Croat:¹⁶ *akt* (masc.) ‘document’ / *akta* (neut. pl.) ‘documents’, *oko* (neut.) ‘eye’ / *oči* (fem. pl.) ‘eyes’, *mače* (neut.) ‘kitten’ / *mačići* (masc. pl.) ‘kittens’. These clearly do not fit into the same agreement patterns as ordinary masculine, feminine and neuter nouns. In principle, the agreement class consisting of nouns taking the agreement forms Ø (singular) and *a* (plural) is just as much an agreement class as that whose nouns take Ø (singular) and *i* (plural). The question is whether three new genders should be recognized for nouns like *akt*, *oko* and *mače*. Such genders can be excluded since the number of nouns is small and since an exceptional marker is readily available. An irregular feature marking can indicate that *akt*, for example, takes masculine agreements when singular, and neuter when plural. The problem can be handled in this straightforward way since the target gender forms required are all regular; it is merely the combination of forms according to the number of the controller which is exceptional. The mere fact that forms from other genders are combined does not automatically exclude the possibility that they may be an independent gender; Rumanian is a language where this is the case. But when the number of nouns involved is small, as in Serbo-Croat, we treat the class as ‘inquorate’.¹⁷ It makes sense to handle the gender by means of an exceptional marker since the morphology is also irregular; the different morphology of singular and plural in these examples is the source of the different gender agreements.

**Consistent agreement patterns**

There are further types of noun which do not belong to an agreement pattern matching any of the established genders. Zaliznjak considers

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nouns like Russian *sirola* ‘orphan’, which can take masculine or feminine agreements.\(^{18}\) He proposes to treat such nouns as comprising two homonyms, and so not to recognize a new gender.\(^{19}\) But nouns like *vrač* ‘doctor’ cause much more serious problems, which he does not consider. Once again we can treat them as having two homonyms. *Vrač*, when denoting a male, takes normal masculine animate agreements. But *vrač* denoting a female is more complex. In attributive position two forms are possible: *novýj* (masc.) / *novaja* (fem.) *vrač* ‘the new doctor’, the masculine being the more common. In the predicate too, there is a choice: *vrač prišel* (masc.) / *prišla* (fem.) ‘the doctor came’; here the feminine is more common.\(^{20}\) The relative pronoun is usually feminine and the personal pronoun is always feminine. Clearly then *vrač* (denoting a woman) does not fit into any of the main genders. Furthermore, there are many nouns like it, but these do not take exactly the same agreements. For example, *buchgalter* ‘(female) accountant’, is more likely to take feminine agreements than is *vrač*. It is likely that many nouns of this type, strictly speaking, belong to separate agreement classes, creating a large number of agreement classes, a most unwelcome result for Zaliznjak’s approach.

The solution lies in the notion of ‘consistent agreement patterns’. These are tacitly assumed in the analysis of gender systems, but this

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\(^{18}\) Zaliznjak, ‘K voprosu . . . ’, p. 27.


part of the analysis is not normally made explicit. In the case of Russian, the agreeing elements take the forms given in Table 1.

<table>
<thead>
<tr>
<th>attributive adjective</th>
<th>predicate</th>
<th>relative pronoun</th>
<th>personal pronoun</th>
<th>traditional gender</th>
</tr>
</thead>
<tbody>
<tr>
<td>yj</td>
<td>Ø</td>
<td>yj</td>
<td>on</td>
<td>masculine</td>
</tr>
<tr>
<td>aja</td>
<td>a</td>
<td>aja</td>
<td>ona</td>
<td>feminine</td>
</tr>
<tr>
<td>oje</td>
<td>o</td>
<td>oje</td>
<td>ono</td>
<td>neuter</td>
</tr>
</tbody>
</table>

(This is of course a simplified table; the full version would include all case/number combinations, and therefore the animate and inanimate subgenders.) The question is how we can justify this analysis, given that there are nouns like vrač which take other combinations of agreements. In the case of Russian there are phonological clues (−a in the feminines, for example) but this is not always a reliable indicator. There are two important factors: first, the vast majority of nouns which take −yj also take −Ø and on, and second, these are nouns for which we can give absolute rules — they always take the same agreements.

Each horizontal line of the table above represents a ‘consistent agreement pattern’, which we define as follows:

A consistent agreement pattern is a set of target gender forms such that:
1. the agreement class it induces is as large as possible;
2. agreement rules relating to this agreement class will be simple and exceptionless.

Bear in mind that the number of target genders in the singular may differ from that in the plural and that different targets may distinguish different numbers or patterns of target genders. However, when targets make the same distinctions, then forms which occur within the same consistent agreement patterns are realizations of the same target gender. The notion of consistent agreement pattern gives us a principled way of capturing the intuition that, for example, a feminine marker on an attributive modifier is ‘the same as’ a feminine marker on a verb, even if they are phonologically different. The obvious method of matching, say, attributive and predicate agreement forms, that is by requiring that they should occur with one and the same noun, proves inadequate; the problem is that there are nouns like Russian vrač ‘doctor’, which can take different agreements at the same time:

(2) naš (masc.) vrač prišla (fem.)
or our doctor came
It is the notion of consistent agreement pattern which allows us to differentiate the agreements in (2), and so to give an account of nouns like vrač. Of course, the majority of nouns belong to agreement classes which have a consistent agreement pattern and which are recognized as genders or subgenders. But our concern here is with those, like vrač, which do not. Such nouns take part of their agreements from one consistent agreement pattern and part from another. They are therefore labelled ‘hybrids’; they must be marked as exceptional (which is confirmed by the degree of variability within the group) and, since the agreements they take do not comprise a consistent agreement pattern, we do not recognize them as a gender. The interesting agreement patterns of nouns of this type will be discussed in Section III.

In this section we have seen how Zaliznjak’s analytical technique can be refined so as to attain the goal he set, namely to give a sounder theoretical basis for the traditional gender classification. We have seen how certain agreement classes are not recognized as independent genders. The purpose is not of course that they should be excluded from consideration, but rather that their specific interest should be highlighted.

II

The agreement class approach provides the analytical technique for the linguist to determine the gender pattern in a given language and for establishing the gender of any given noun. Clearly, however, we must also account for the fact that the native speaker must ‘know’ the gender of each noun, in order to produce the required agreements. One hypothesis would be that the gender of each noun is remembered individually. This appears unlikely. An alternative view is that gender can be derived from other information which must in any case be part of the lexical entries of nouns. The rules involved are termed ‘gender assignment rules’. They are of practical and theoretical importance, even if they allow a proportion of exceptions, a point made forcefully by Mel’čuk. In some languages, for example in Dravidian languages like Tamil and Telugu, the meaning of a noun is sufficient to determine its gender. Slavonic does not have any strict semantic systems of this type.

22 For textual examples like (2) see Janko-Trinickaja, ‘Naimenovanije . . .’, pp. 192–94. Nouns like vrač are too numerous to be treated as an inquirate gender. Given their ability to take two types of agreement, and especially the variability involved, we need the notion of consistent agreement pattern to ensure that such nouns do not form the basis of genders, rather than the more straightforward ones.
Of course, semantic criteria are sufficient for many nouns in Slavonic; this is fully expected since all gender systems have a semantic core. Typically in Slavonic, for sex-differentiable nouns (those denoting humans and those denoting animals whose sex matters to humans, notably domestic animals), sex determines gender, males being masculine and females feminine. The situation is not invariably so straightforward; in some Polish dialects, nouns denoting girls and unmarried women are neuter and, in one small dialect area, masculine.24

Though many nouns can be assigned to a gender by the semantic criterion, a large proportion remains as a semantic residue. In some languages, for example the Cushitic language Afar,25 phonological information is sufficient to determine gender in such cases. This is not so in Slavonic, as consideration of sets of examples like Russian портфель (masculine) ‘briefcase’ and пыль (feminine) ‘dust’ shows. If, as many believe, the stem rather than the nominative singular is stored, this makes the attempt to base assignment on phonological data more difficult, since we should now add stems like недель– ‘week’ and пол– ‘field’ to the list. On the other hand, since morphological information is required in the lexical entries of nouns in Slavonic, this information can be used for gender assignment. Given an appropriate account of the declensional classes, the declension of a noun provides adequate information to predict its gender. This point has been argued at length elsewhere and so the evidence will not be presented in detail here.26 The analysis provides the motivation for postulating four declensional classes for Russian. Note too that indeclinability is also a predicting factor, as is information concerning the noun’s derivation in the case of diminutives. While Russian is a particularly clear case (some other Slavonic languages appear to allow more exceptions),27 we may

26 G. G. Corbett, ‘Gender in Russian: an Account of Gender Specification and its Relationship to Declension’ (Russian Linguistics, 6, Dordrecht, 1982, pp. 197–232). In this paper it is shown that the alternative, predicting declension from gender, cannot account for the difference between the two classes of feminine (комната vs. но́т’). (It also includes an extensive bibliography on gender in Russian.) See also O. G. Revzina, ‘Osnovnyje čerty struktury grammatičeskoj kategorii roda’ in Demina, Slavianskoje i balkanskeje jazykoznajenie, pp. 10–14. Ivić, ‘Obeležavanje . . .’ and id., ‘Gender and Number’ shows how gender relates to morphology in Serbo-Croat.
nevertheless say that morphological information plays a key role in
gender assignment in Slavonic.  
While a substantial proportion of nouns in Slavonic is not covered by
the semantic criterion for assignment to gender (and so the morpho-
logical criterion operates), the subgenders are largely semantic. Thus
in Russian, animate nouns are those denoting entities which live and
move, with relatively few exceptions. Some other languages allow
larger numbers of semantically inanimate nouns into the animate
category; a good example is Polish. On the other hand, the
subsequent development in West Slavonic, the masculine personal, is
more closely tied to semantics.  
Slavonic data on the rise of these new subgenders, initially more
clearly dependent on semantics than are the older main genders, is of
crucial importance for understanding the development of gender
systems. We are more likely to learn how genders are formed by
examining the hard data from Slavonic than by speculating about the
origin of gender in Indo-European.

28 See, for example, H. I. Aronson, ‘The Gender system of the Bulgarian
Noun’ (International Journal of Slavic Linguistics and Poetics, 8, Columbus, 1964, p. 94) and M. Ivčić,
‘Obeležavanje imeničkog roda u (standardnom) slovenačkom jeziku upoređeno s
odgovarajućom srpskohrvatskom situacijom’ (Zbornik za filologiju i lingvistiku, 11, Novi Sad, 1968, pp. 49–55).
29 For which see A. Gallis, ‘Ein eigentümlicher Gebrauch des Gen.-Akk. bei Trediakovskij
und Lomonosov’ (Annaire de l’Institut de philologie et d’histoire orientales et slaves, 18, Brussels,
30 Wertz, ‘Genders in Polish’.
31 A useful survey of the subgenders of Slavonic is provided by D. Huntley, ‘The Evolution
Historical Morphology (Trends in Linguistics, 17), The Hague, 1980, pp. 189–212; for the
development of the masculine personal see Zieniukowa, Rodzaj męskiego osobowu.
32 There is, for instance, a good deal of published work on the development and function
of animacy in Russian, concerning both the agreement data, which justify the claim that it is a
subgender, and the morphological data on syncretism within the nominal paradigm: Ju. S.
Azarch, ‘K istorii kategorii oduševlennosti/neoduševlennosti v russkom jazyke. 1.
Izmenenija v slovoobrazovanii suščestvitel’nykh mužskogo roda s suffixami ličnosti/
neričnosti’, Obščeljavskij lingvističeskij atlas: Materialy i issledovanija 1980, Moscow, 1982,
pp. 151–76. A. V. Bondarko, ‘K interpretacii oduševlennosti-neoduševlennosti, razrjadov
pola i kategori roda (na materiale russkogo jazyka)’, in Demina, Slavjanskoje i balkanskoje
Noun Inflection’ (Papers in Linguistics, 5, Edmonton, 1972, pp. 213–26); id., ‘Old Russian
Declension: a Synchronic Analysis’ in L. Matejka, ed., American Contributions to the Seventh
American Contributions to the 8th International Congress of Slavists, 1 (Linguistics and Poetics),
and their Motivation’ (International Review of Slavic Linguistics, 3, Edmonton, 1978, pp. 27–
42); id., ‘Morphological Classification of Cases in the Slavonic languages’ (Slavonic and East
other Slavonic Languages: where Syntax and Semantics Fail to Match’, in C. V. Chvany
and R. D. Brecht, eds, Morphosyntax in Slavic, Columbus, 1980, pp. 43–61; id., ‘Naturalness
and Markedness of Morphological Rules: the Problem of Animacy in Russian’ (Wiener
Slavistischer Almanach, 6, Vienna, 1980, pp. 251–60); J. Dietze, ‘Die Entwicklung der
For confirmation of the assignment rules proposed, we may look to data on child language acquisition, and on the treatment of borrowings. Unfortunately, a few authors fail to distinguish clearly between declensional class and gender, which makes their data difficult to use.

There is, of course, a considerable overlap between gender determined by semantics and gender determined by declensional class.


Thus in Russian, most nouns denoting males are masculine; but they also belong to the typically masculine declensional class. When the two types of assignment rule conflict, normally the semantic rule overrides the morphological rule completely. Thus Russian *djadja* 'uncle', which is semantically male, but follows a declensional pattern which is primarily for femines, takes all the agreements of a masculine animate noun. In some instances, however, the semantic rule does not dominate completely; these interesting nouns are considered in the next section.

III

There are various types of noun for which the conflict between semantic and morphological factors does not lead to the total dominance of semantics. Such nouns do not take a 'consistent agreement pattern'; they are what we earlier termed 'hybrids'. One of the best studied examples is Russian *vраč* 'doctor', when denoting a woman, which can take both masculine and feminine agreements. Given the existence of nouns which can take more than one agreement form, and with different possibilities according to the target involved, the number of agreement patterns which could theoretically occur is extremely large. Only a small subset of the theoretical possibilities is actually found in natural languages, since they are constrained by the Agreement Hierarchy. This hierarchy consists of the following positions:

attributive < predicate < relative pronoun < personal pronoun

The claim made is as follows:

(I) For any controller that permits alternative agreement forms, as we move rightwards along the Agreement Hierarchy, the likelihood of agreement forms with greater semantic justification will increase monotonically.

In the case of *vраč* 'female doctor', we indeed find, as mentioned above, that masculine (syntactic) agreement is much the more likely in attributive position, both forms are found in the predicate, with the feminine (semantic) form being the more common; the semantic form is much the more common in the relative pronoun, and is the exclusive form in the personal pronoun. The Agreement Hierarchy was proposed on the basis of agreement options in a range of languages.\(^35\) However, the Slavonic languages provide particularly strong confirming data; besides nouns like *vраč*, there are other hybrids, such as Serbo-Croat *gazda* 'boss' and similar nouns which, when in the plural, can take both masculine

and feminine agreements. The idiosyncratic use of gender agreement by Gogol' in Šinel' also follows a pattern sanctioned by the Agreement Hierarchy. The Slavonic data have been analysed in detail elsewhere, and that evidence will not be repeated here.

Let us concentrate on two lines of recent research on the Agreement Hierarchy. The first is the attempt to break down the four main positions into sub-hierarchies. Given that the predicate can be further analysed in this way, an attempt has been made to establish other sub-hierarchies, including one for the attributive position. Slavonic data, specifically Bulgarian, prove helpful here. The noun bašta 'father' is at first sight like Russian djadja; it denotes a male but has the morphological shape of a feminine. It controls masculine agreement of pronouns (relative and personal), of the verbal predicate, and of most attributive modifiers: moj bašta 'my father', dobrijat bašta 'the good father'. This last example includes the definite article, attached to an attributive adjective, and this article is also in the masculine form. However, when in the absence of modifiers the article is attached to the noun, it takes the feminine form: baštata 'the father'. This is the only circumstance in which bašta takes feminine agreement; otherwise it is consistently masculine. These data indicate that the attributive position must indeed be subdivided and that, surprisingly, there can be a distinction between the article attached to the noun on the one hand and all other attributive modifiers on the other.

A second line of enquiry has been directed to the question as to whether the Agreement Hierarchy constrains only controllers which permit alternative agreement forms, or whether it can be motivated by other constructions. Once again Slavonic data prove crucial. The construction of interest here involves the possessive adjective. In Upper Sorbian, the possessive adjective can control an attributive modifier. This is shown by the fact that the modifier takes its gender from the noun underlying the possessive adjective and not from the head noun:

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36 S. V. Marković, 'O kolebljivosti slaganja u rodu kod imenica čiji se prirodni i gramatički rod ne slažu (i o rodu ovih imenica)' (Pitanja književnosti i jezika, 1, Sarajevo, 1954, pp. 87-110); this situation existed even in Old Church Slavonic: K. I. Chodova, 'K voprosu o različitých gramatických rodov v staroslavjanskom jazyke' (Slovo, 25-26, Zagreb, 1976, pp. 139-45).


38 Corbett, Hierarchies pp. 8-41, 81-86.


41 See H. Fasske, Grammatik der obersorbischen Schriftsprache der Gegenwart: Morphologie, Bautzen, 1981, pp. 382-85, from whom examples (3) and (5) are taken; example (4) is from R. Lötzh, 'Das sog. Possessivadjektiv im Slawischen, speziell im Sorbischen, und seine Stellung im System der Redeteile' (Forschungen und Fortschritte, 39, pt 12, Berlin, 1965, p. 378).
mojeho (gen. sg. masc.) mužova (nom. sg. fem) sotra (nom. sg. fem.)

my husband's sister

In (3) mojeho is masculine since muž 'husband', which underlies mužova, is masculine. The possessive adjective is also able to control a relative pronoun:

(4) slyšetaj . . . Wićazowy hlós, kotryż je zastupil
(t) hear Wićaz’s voice, who is gone in

The relative pronoun kotryż is masculine singular; the sense shows that its antecedent is Wićaz, the noun underlying the possessive adjective, and not hlós.

The possessive adjective can similarly control personal pronouns:

(5) To je našeho (gen. sg. masc.) wučerjowa (nom. sg. fem.)
That is our teacher’s
garden.

zahrodka (nom. sg. fem.). Wón (nom. sg. masc.) wjle w njej dźêla.
He [our teacher] a lot in it works.

The personal pronoun wón takes as its antecedent the noun phrase naš wučer ‘our teacher’, which underlies the phrase headed by the possessive adjective.

Upper Sorbian is unusual in that the possessive adjective can control three different types of target. Across the Slavonic family, and in the course of development of individual languages, the control possibilities of the possessive adjective vary dramatically. However, the following generalization holds:42

(II) The possessive adjective can control attributive modifiers only if it can also control relative pronouns, and it can control relative pronouns only if it can also control personal pronouns.

This generalization recalls the Agreement Hierarchy; there is a difference in that the predicate is not involved as a target for possessive adjectives. (This would require a construction with a subject of the type mužova sotra, ‘husband’s sister’ and a predicate in the masculine, agreeing with muž rather than with sotra.) There are independent reasons why the predicate is excluded in this way.43 First, in the Slavonic languages predicate verbs agree with subjects which stand in the nominative. (The case of the possessive adjective for agreement purposes is genitive, as attributive modifiers show.) A second point is that the phenomena covered are of rather different types. The

agreement cases typically cover situations where agreement is required but where the controller is such as to permit a choice as to the form of agreement; the Agreement Hierarchy constrains the distribution of the options. The targets of the possessive adjective differ in that their actual presence is optional. There is no requirement that an attributive modifier, relative clause or anaphorically related personal pronoun be present, while the existence of a predicate is typically essential. Thus the control possibilities of the possessive adjective are constrained by those parts of the Agreement Hierarchy which relate to optional elements (all but the predicate). The third and major argument, related to the second, concerns coherence. If there were sentences of the type: husband's sister came in which came was controlled by husband, then sister, the head of the subject noun phrase, would have no role, syntactic or semantic, and the sentence would simply be incoherent.

While the possessive adjective cannot control predicate agreement for quite independent reasons, its control possibilities are constrained by the remainder of the Agreement Hierarchy. As we move rightwards along the Agreement Hierarchy, the likelihood of control by a possessive adjective will increase monotonically. Thus the Agreement Hierarchy, which constrains the agreement patterns of controllers which permit alternative agreements (notably those of hybrid nouns), also constrains the control possibilities of the possessive adjective.

IV

When the agreement controller consists of conjoined noun phrases, special rules are required to determine the form of agreement used. These rules are termed 'resolution rules', and of them, gender resolution rules are the most complex and interesting. The Slavonic situation has been analysed in detail by the present author.44 We shall therefore take the basic facts to be established and, following the pattern of this paper, concentrate on the typological implications.

There are two basic types of gender resolution system: semantic and syntactic.45 In the semantic type agreement is determined according to the meaning of the nouns which are heads of the noun phrases, irrespective of their grammatical gender (as determined by the types of factor discussed in Section II). For example, in several Bantu languages the gender agreement form to be used with conjoined noun phrases depends on whether the noun phrases denote humans or not.

44 Corbett, 'Resolution Rules for Predicate Agreement in the Slavonic Languages' (Slavonic and East European Review, 60, London, 1982, pp. 347-78); Corbett, Hierarchies, pp. 177-214. References to sources of data are included in both.

irrespective of the gender of the nouns involved. This type of gender resolution is not found in Slavonic.

The other basic type, which operates according to the syntactic gender of the nouns involved, irrespective of their meaning, is found in Slavonic. In Slovenian, for example, if all conjuncts are feminine, the feminine form is used, and in all other cases the masculine. As illustrations of these rules, consider the following sentences:

(6) Marina (fem.) in Marta (fem.) sta prizadevni (fem. dual)

Marina and Marta are assiduous

(7) ta streha (fem.) in gnezdo (neut.) na njej mi

that roof and nest on it to me

bosta ostala (masc. dual) v spominu

will remain in memory

‘that roof and the nest on it will remain in my memory’

Furthermore, Slavonic has mixed systems. This Polish example is of particular interest:

(8) Hania (fem.) i Reks (masc.) bawili (masc. pers.) się piłką

Hania and Rex played with a ball

The masculine personal form, which is that preferred by the majority of Zieniukowa’s informants, results from the combination of a semantically personal conjunct and a syntactically masculine one.

Perhaps the most interesting gender resolution system in Slavonic is that of Serbo-Croat. At first sight, the system appears to be as in Slovenian, that is, feminine agreement is found if all conjuncts are feminine, and masculine elsewhere. But there are exceptions:

(9) Vredali (masc. pl.) su ga nebriga (fem.) i

Offended him carelessness and

lakomislenost (fem.) Tahir-begova. (Andrić, Travnička Hronika)

capriciousness of Tahir-beg

‘The carelessness and capriciousness of Tahir-beg offended him.’

47 The data are from R. Lenček, ‘O zaznamovanosti in nevtralizaciji slovnice in kategorije spola v slovenskem knjižnem jeziku’ (Slavistična revija, 20, Ljubljana, 1972, p. 61), discussed in Corbett, Hierarchies, pp. 189–86.
49 J. Zieniukowa, ‘Składnia zgody w zdańach z podmiotem szeregowym we współczesnej polszczyźnie’ (Slavia occidentalis, 56, Warsaw, 1979, pp. 117–29).
It seems that when one of the nouns involved is a feminine which ends in a consonant then, optionally, masculine agreement may be used. However, examples have also been found where all conjuncts have as their heads feminine nouns in -a, but still the agreement is masculine:

(10) Krošnja (fem.) i grane (fem. pl.) zahvatili (masc. pl.) su Crown (of tree) and branches occupied

čitavo nebo . . . (B. Ćosić)
whole sky

Clearly Serbo-Croat does not fit in a straightforward way within the suggested typology. An exciting possibility is that we may have here a case of a language moving from a syntactic resolution system to a semantic one. The significant point is that all the examples like (g) and (10) involve inanimates. (There are of course few inanimates in the feminine consonant declension.) Serbo-Croat may therefore be moving towards a semantic system in which the feminine would be used provided all conjuncts referred to females, and the masculine elsewhere. It deserves particular attention.

V

Gender continues to be one of the most puzzling and fascinating problems in linguistics. In this paper an attempt has been made to

51 V. P. Gudkov, 'Prilog o pravilima kongruencije' (Književnost i jezik, 21, 1, Belgrade, 1974, p. 61).
52 In work on Slavonic it was pointed out that gender resolution and number resolution interact in unexpected ways. The sentences in question involved plural nouns of the same gender (Corbett, Hierarchies pp. 208-09):

(i) ... ta sečanja (neut. pl.) i razmatranja (neut. pl.)

those memories and reflections

sve su više ustupala ((neut. pl.) mesto novim

ever have more yielded place to new

utiscima . . . (Andrić, Trajnička Hronika)

impressions . . .

'those memories and reflections increasingly gave way to new impressions'
The point is that the form which would result from gender resolution (the masculine) is unacceptable; similar data were quoted from Czech. The solution proposed was that gender resolution could be triggered in two ways: either by the operation of number resolution or by the presence of nouns of different gender in the conjunct. Neither of these conditions applies in the example just given and so agreement is with the nearer conjuncts. This solution fits the data; it follows that in all cases of plural conjuncts of the same gender, agreement is with the nearest conjunct (even though, in some cases, the resolution rule would give the right result). The condition on the operation of gender resolution is surprising, and it might be suspected that it would prove to be an idiosyncratic feature of Slavonic. However, it has recently been shown that an identical condition operates in the Bantu language Chichewa (G. G. Corbett and A. D. Mtenje, 'Gender Agreement in Chichewa' (Studies in African Linguistics, 18, 1, Los Angeles, 1987)). Chichewa has a larger number of genders, and so the data are more convincing. Thus the claim about the interaction of gender and number in resolution rules, made originally on the basis of Slavonic data, gains support from an unexpected source.
show the areas in which Slavonic data are of special value for improving our understanding of gender, and also to give bibliographical indications as to some of the previous research. Slavonic languages provide important evidence for each of the major areas of investigation into gender systems; there are therefore excellent possibilities for profitable interaction between those working in typology and those analysing individual Slavonic languages.