

**SLAVIC LANGUAGES\***  
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**1. Introduction**

The Slavic (or Slavonic) languages represent a fairly homogeneous group of languages spoken in a large territory of central and eastern Europe as well as Russian Asia. This chapter familiarizes the reader with their general structure and surveys a range of problems in Slavic syntax which have received recent attention from linguists working within various formal frameworks. In selecting problems, my aim has been to present those research areas which, although specifically Slavic, should be of the most interest to general linguists. While space limitations have necessarily caused me to sacrifice some diversity in coverage, I have sought wherever possible to indicate the most useful resources for further information.

**1.1. Overview of the chapter**

The Slavic languages are traditionally divided into the following groups: East Slavic (ESl), which includes Russian (Ru), Ukrainian (Ukr) and Belorussian (Br); West Slavic (WSl), which includes Polish (Pol), Czech (Cz), and Slovak (Slk), as well as Kashubian and Upper and Lower Sorbian (Sor), minority languages spoken by smaller populations in Baltic coast Poland and southeastern Germany, respectively; South Slavic (SSl), which includes Slovenian (Slvn), Serbo-Croatian (SC), now typically referred to as "Serbian/Croatian/Bosnian" or variants thereof, Macedonian (Mac) and Bulgarian (Bg). While ESl is fairly cohesive, in WSl Cz and Slvk form a group which can be opposed both to Polish (and Kashubian, which has been sometimes regarded as a dialect of Polish) and the two Sorbians, and in SSl there is a major structural rift between Slvn and SC, on the one hand, and Bg and Mac, on the other.

In sections 3 and 4 of this chapter I treat a variety of issues in comparative Slavic morphosyntax. These include case and agreement (3.1), the genitive of negation phenomenon (3.2), numerals (3.3), argument structure and voice (3.4), clitics (3.5), *wh* movement (3.6), negation (3.7), binding (4.1), aspect (4.2) and word order (4.3). In doing so, I highlight the major phenomena, drawing attention to differences among the languages, and sketch proposals as to how to analyze these phenomena. Much of this material is drawn from my two books, *Parameters of Slavic Syntax* (Franks 1995) and *A Handbook of Slavic Clitics* (Franks and Holloway King 2000).

**1.2. Some history and resources for further study**

In the past decade research in Slavic syntax has grown considerably, and there has been a resurgence of interest among general linguists in particular types of Slavic language data which promise to elucidate problems of general linguistic analysis.<sup>1</sup> This resurgence of interest is best evidenced by the appearance of several new conferences in the field of formal Slavic linguistics. Perhaps the most effective has been the annual *Formal Approaches to Slavic Linguistics* (FASL) conference. FASL began as a small workshop organized in 1992 by Jindřich Toman of the University of Michigan, and rapidly grew into the foremost annual meeting of Slavic linguists in the United States. The proceedings, available from Michigan Slavic Publications, offer a wide range of current research, predominantly oriented towards generative syntax. In Europe, two new biennial conferences, both initiated in 1995, are *Formal Description of Slavic Languages* (FDSL) and *Formal Approaches to South Slavic and Balkan Languages* (FASSBL). The former proceedings are published as complete volumes, although only FDSL1 and FDSL3 have appeared so far,<sup>2</sup> and the proceedings from the latter have appeared as *University of Trondheim Working Papers in Linguistics*; a selection of papers from FASSBL1 are also published in

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<sup>1</sup>For some of the most influential early generative work on Slavic syntax, see Chvany (1975), Babby (1975b), and the papers in the following edited volumes: Brecht and Chvany (1974), Chvany and Brecht (1980), and Flier and Brecht (1985).

<sup>2</sup>FDSL1 was published under the title *Formale Slavistik*, edited by U. Junghanns and G. Zybatow; for details, see my review in Franks (1997). The bulk of FDSL3 appeared as Zybatow, Junghanns, Mehlhorn and Szucsich (2001); the remaining papers can be found in volume 75 of *Linguistischen Arbeitsberichte*, Leipzig 2000.

Dimitrova-Vulchanova and Hellan (1999) and many FASSBL3 papers appear as a special journal issue, *Balkanistica* 15, edited by Dimitrova-Vulchanova, Dyer, Krapova and Rudin (2002). As with FASL, most of the papers presented at these European conferences are concerned with syntax. There have also been a variety of smaller, one time meetings which have produced useful material. Two hosted by Indiana University were *Comparative Slavic Morphosyntax: "The State of the Art"*, in 1998, and *The Future of Slavic Linguistics in America*, in 2000.<sup>3</sup> Very recently a group of Polish syntacticians founded *Generative Linguistics in Poland* (GLiP); they have had five meetings in the 1999-2002 period, four devoted to (morpho)syntax and one to (morpho)phonology. GLiP-2 proceedings appeared as Przepiórkowski and Bański (2001); for further GLiP details, consult (1f) below. Finally, another important new outlet for research in Slavic linguistics, although much more eclectic in scope, is the *Journal of Slavic Linguistics* (JSL) founded in 1993 and published by Slavica, at Indiana University. In addition, there is a burgeoning body of work on Slavic languages, especially Pol, on the part of practitioners of Head-Driven Phrase Structure Grammar. An excellent resource for this work is Borsley and Przepiórkowski (1999).<sup>4</sup>

Web pages for most of these ventures are readily accessible and some, such as those for the Indiana workshops, offer downloadable versions of papers. Some of these sites, although hardly guaranteed to continue to be accurate, are listed in (1).

- (1)
- a. <http://www.indiana.edu/~slavconf/>
  - b. <http://www.lsa.umich.edu/slavic/FASL/index.html>
  - c. <http://www.umass.edu/linguist/FASL11/FASL11.html>
  - d. <http://www.slavica.com/jsl/>
  - e. <http://www.ipipan.waw.pl/mmgroup/slavic-hpsg.html>
  - f. <http://venus.ci.uw.edu.pl/~glip/>
  - g. <http://www.uni-leipzig.de/~jungslav/fdsl/fdsl-3/fdsl-3.html>
  - h. <http://www.uni-potsdam.de/u/slavistik/wsw/fdsl4/index.htm>

There is also a useful discussion listserv for Slavic and East European languages, known as SEELANGS, and questions about Slavic syntax can be posted there.<sup>5</sup>

There are of course many useful written resources about Slavic languages, as well as some monographs on Slavic syntax. The latter will be mentioned at appropriate points in the following sections, but for general information by far the best resource is the compendious volume edited by Comrie and Corbett 1993. This massive reference, with chapters by leading experts about each of the languages, provides inter alia in depth and highly accessible descriptions of morphosyntactic phenomena. A popular older book, although with far less information about syntax, is De Bray 1969.

## 2. A brief sketch of Slavic typology

Probably the most salient and well known property of the Slavic languages is their robust case systems. Most of the languages have a six case system: nominative (nom), accusative (acc), genitive (gen), dative (dat), locative (loc; sometimes known as "prepositional"), and instrumental (inst). Some languages also have special vocative forms, but only on nouns. As one travels south and east across the Slavic territory, however, the case systems become simpler and the verbal systems more complex. Hence Bg and Mac display case systems surprising like that of French or Spanish (i.e. impoverished to the point of being essentially limited to nom, acc, and dat pronominal forms); these are in fact perhaps best analyzed as (object) agreement markers rather than case. Concomitantly, while all the languages have grammaticalized aspect, with most verbs coming as imperfective-perfective pairs, Bg and Mac

<sup>3</sup>The contributions by A. Przepiórkowski and J. Bailyn to the February 2000 *The Future of Slavic Linguistics* meeting have been of particular use to me in writing this review of the field, as they offer excellent surveys of the GB/Minimalism and HPSG Slavic literature; see the site in (1a) below.

<sup>4</sup>See also the review of Borsley and Przepiórkowski by Rappaport in *JSL* 7.2 (1999). Przepiórkowski, Kupść, Marciniak and Mykowiecka (in press) offers a comprehensive HPSG treatment of Pol, written however in Polish.

<sup>5</sup>Contact SEELANGS@LISTSERV.CUNY.EDU to subscribe. SEELANGS archives can also be searched using the linguist list archives facility, at <http://lloyd.emich.edu/archives/seelang.html>.

have highly complex tense systems.<sup>6</sup> It will be seen that many of the topics to be discussed below revolve in one way or another around case.

Another significant property of Slavic languages is their relatively free word order, which generally serves to express functional sentence perspective information rather than grammatical relations. This freedom of word order, however, is more restricted in Bg and Mac,<sup>7</sup> and of course breaks down so far as clitics are concerned, since these are required to appear in specific positions. All WSl and SSl languages have rich pronominal and verbal auxiliary clitic systems, and are to a large extent null subject languages. The ESl languages however show neither property, and these languages similarly lack present tense copula forms and person marking on past tense verbs, facts which are surely related.

### 3. Popular research areas

This section, the core of the chapter, presents a selection of those research areas in Slavic syntax which have generated the greatest amount of investigation within recent formal models.

#### 3.1 Case and agreement

As stated, research into morphosyntactic problems which hinge on case facts has been very productive.<sup>8</sup> Here I mention just one such problem.

In a seminal study, Comrie (1974) drew attention to the phenomenon of the so-called “second dative” in Ru (and, to a lesser extent, Pol).<sup>9</sup> Ordinary predicate adjectives either agree with their nominal antecedents in case or appear in a “default” inst, which is obligatory whenever agreement is impossible (and, in Pol but not Ru, agreement is obligatory whenever possible);<sup>10</sup> within simple clauses agreement is only viable with subject and direct object antecedents. The two “semipredicatives” *sam* ‘alone’ and *odin* ‘one’, however, display a default dat instead, which has a much more limited distribution than the predicate instrumental, since it only occurs in embedded environments.<sup>11</sup> In subject control contexts agreement obtains, a phenomenon I refer to descriptively as “case transmission”, as in the following Ru examples:<sup>12</sup>

<sup>6</sup>In addition to the descriptions in Comrie and Corbett (1993), an excellent resource for the Mac verb is Friedman (1977) and, for Bg, see Aronson (1967).

<sup>7</sup>While in these languages one frequently finds deviations from SVO order (sometimes even required, as, for example, in interrogatives), scrambling phenomena typical of colloquial Ru, such as long-distance scrambling and rampant splitting of constituents, are absent.

<sup>8</sup>This is surely due to the Jakobsonian tradition, in that the analyses of Russian case features in Jakobson (1936, 1958) long served as standard fare in U.S. Slavic graduate programs and have inspired among students of Slavic more response than any other single proposal. Some useful discussions of his case features can be found in Neidle (1982/1988), Chvany (1986), Young (1988), and Franks (1995).

<sup>9</sup>There is a veritable industry of research on the second dative. The following is a short list of relevant works: Comrie (1974), Chvany (1975), Schein (1982), Neidle (1982/1988), Greenberg (1983), Greenberg and Franks (1991), and Laurençot (1997).

<sup>10</sup>Predicate NPs also appear in the inst, obligatorily in Pol and optionally (with complex conditioning factors) in Ru.

<sup>11</sup>Another difference is that, whereas the instrumental is often optional, the dative, whenever possible, is obligatory. Wayles Browne (p.c.) suggests Ru (i) as a matrix example of the second dative:

(i) *Nam pojti samim ili ne idti?*  
 we.dat to-go alone.pldat or neg to-go  
 ‘Should we go alone or (just) not go?’

Alternatively, this may be agreement (with dative subject *nam*), rather than the default use of *samim*, or it could be analyzed as embedding of an infinitival clause after a covert modal (whose subject is *nam*). See also Moore and Perlmutter (2000).

<sup>12</sup>Throughout this chapter all examples are drawn from published works, referred to in the text or notes. I do not cite specific sources. Note that there is agreement in gender/number independent of case. Masculine is the default form, as in e.g. (3c); see also Franks and Schwartz (1994).

- (2) a. Ivan           xočet [PRO poiti       na večerinku   **sam**].  
 Ivan.nom       wants           to-go toparty       alone.mnom  
 'Ivan wants to go to the party alone.'  
 b. Ljuba           priexala [PRO pokupat'   maslo**sama**].  
 Lyuba.nom came           to-buy       butter alone.fnom  
 'Lyuba came to buy the butter herself.'

In contexts of non-subject control, arbitrary control, or whenever there is overt material in COMP (either in C° or SpecCP), the dative appears, shown in (3).

- (3) a. Maša       ugovorila Vanju [PRO prigotovit' obed **odnomu**].  
 Masha persuaded Vanya.acc       to-cook   lunch alone.mdat  
 'Masha persuaded Vanya to cook lunch by himself.'  
 b. Dlja   nas utomitel'no [PRO delat' èto **samim**].  
 for us exhausting           to-do this alone.pldat  
 'It's exhausting for us to this on our own.'  
 c. Nevozmožno [PRO perejti   ètot most   **samomu**].  
 impossible           to-cross this bridge alone.mdat  
 'It is impossible to cross this bridge by oneself.'  
 d. Ljuba           priexala [   čtoby [PRO pokupat' maslo**samoj**]].  
 Lyuba.nom came       in-order   to-buy   butter alone.fdat  
 'Lyuba came in order to buy the butter herself.'  
 e. Ivan ne znaet [ kak [PRO tuda dobrat'sja **odnomu**]].  
 Ivan not knows how           there to-reach alone.mdat  
 'Ivan doesn't know how to get there by himself/oneself.'

As most recently discussed by Moore and Perlmutter (2000), there are essentially two approaches to the second dative. Comrie's original insight about the second dative was that *t* arises through agreement with a dative subject subsequently deleted under Equi. In Franks (1995) and related work, I rejected this approach because, following the GB paradigm, I did not want PRO to have case when it could not be overt, and devised instead a special mechanism for assigning *dat* to the semipredicative directly whenever it failed to agree with its overt antecedent.

Checking theory now resolves this dilemma: the semipredicative can be *dat* regardless of where in the derivation that case is in fact checked. Moreover, PRO can have a "null case" which will resemble *dat* for purposes of access by the semipredicative but which will not suffice for PRO itself to be overt.

The clinching argument that the PRO subject of infinitives has null *dat* case comes from a fact recently unearthed by Leonard Babby about contrastive *samomu* in gerundive phrases.<sup>13</sup> Crucial examples are given in Ru (4c) and (5c).

- (4) a. Ja vse videl, [**sam**/\**samomu* ostavajas' nezamečennym].  
 I.nom everything saw self.nom/self.dat remaining unseen.inst  
 'I saw everything, myself remaining unseen.'  
 b. Ja staralsja [PRO vse videt',  
 I.nom tried everything to-see  
 [**sam**/\**samomu* ostavajas' nezamečennym]].  
 self.nom/self.dat remaining unseen.inst  
 'I tried to see everything, myself remaining unseen.'  
 c. Ščel' v doskax dala mne vozmožnost' [PRO vse videt',  
 crack in boards gave me opportunity everything to-see  
 [**\*sam/samomu** ostavajas' nezamečennym]].  
 self.nom/self.dat remaining unseen.inst  
 'The crack in the boards gave me the opportunity to see  
 everything, myself remaining unseen.'
- (5) a. Ivan žil v dovol'stve, [**sam**/\**samomu*  
 Ivan.nom lived in contentment self.nom/self.dat  
 ne trevožas' o trude bednyx].  
 not troubling about burden poor.gen  
 'Ivan lived in contentment, he himself untroubled by the  
 plight of the poor.'

<sup>13</sup>For discussion, see Babby (1998) or Babby and Franks (1998).

- b. Ivan xotel [PRO žit' v dovol'stve, [sam/  
Ivan.nom wanted to-live in contentment self.nom/  
\*samomu ne trevožas' o trude bednyx]].  
self.dat not troubling about burden poor.gen  
'Ivan wanted to live in contentment, himself untroubled  
by the plight of the poor.'
- c. [PRO Žit' v dovol'stve, [\*sam/samomu ne  
to-live in contentment self.nom/self.dat not  
trevožas' o trude bednyx]] —užasno.  
troubling about burden poor.gen awful  
'To live in contentment, oneself untroubled by the plight  
of the poor, is awful.'

Contrastive *sam* agrees with the subject of its clause, as in the (a) examples, or with the controller of that subject, as in the (b) examples. Babby's generalization is about the (c) examples, which show that contrastive *samomu* only appears on gerundive phrases inside infinitival clauses with dative PRO subjects, i.e., non-obligatory control ones. His solution to the problem of why they do not appear elsewhere is that the PRO subject of infinitives is always dat in Ru, but under obligatory control there is no PRO, just a bare VP. Although Babby's account is inspired by Williams (1995), it seems to me to have more in come with the LFG analysis found in Neidle (1982/1988).

Alternatively, more in keeping with the GB tradition, there could always be a PRO in infinitival clauses. Then, as I proposed in Franks (1998), PRO will need to come in a variety of null cases. Good evidence for this comes from Icelandic, where a floated quantifier can agree in case with what the subject *would be* if it were overt (in a finite clause), rather than PRO; cf. e.g. Sigurðsson (1991). This suggests that PRO is always present and necessarily has null case, which is itself some silent version of an otherwise available full case.

There is considerable other work on additional aspects of agreement in Slavic. One type of puzzle which has received much attention is that of gender (and number) resolution with conjoined structures. Corbett (1983, in press) provides the SC example (6a), in which coordination of a neuter and a feminine noun results in masculine plural agreement, and the Slvn example (6b) in which coordination of two neuters behaves similarly:

- (6) a. **Znanje** i **intuicija** su kodnjega  
knowledge.n and intuition.f aux.3pl in him  
sarađivali i dopunjavali se...  
worked.mpl and supplement.mpl refl  
'Knowledge and intuition have worked together and supplemented each  
other in him ...'
- b. To **drevo** in **gnezdo** na njem mi bosta  
that tree.n and nest.n on it me.dat fut.du  
ostala v spominu  
remained.m.du in memory  
'That tree and the nest on it will remain in my memory'

In these two languages, at least, although coordination of feminines results in a feminine plural, all other variants lead to masculine plural agreement. See especially Corbett (in press) for further details.

Another interesting phenomenon is so-called "nearest conjunct agreement", which Babyonyshev (1996) discusses at length. In this construction the verb optionally agrees with the closest conjunct, as in Ru (7):

- (7) a. Na stole stajala pepel'nica i stakan.  
on table stood.f ashtray.f and glass.m  
'On the table stood an ashtray and glass.'
- b. Na stole stajal stakan i pepel'nica.  
on table stood.m glass.m nad ashtray.f  
'On the table stood a glass and ashtray.'

As noted by Vassilieva (2001),<sup>14</sup> the following conditions typically hold of nearest conjunct agreement: the verb is unaccusative, there is a PP that begins the sentence, and the verb precedes the conjoined

<sup>14</sup>Her paper concerns the comitative construction, in which coordination involves the preposition 'with' (s, in Ru). See McNally (1993) and Dalrymple, Hayrapetian and King (1998), for detailed discussion.

subject. One interesting approach to this problem may involve LF feature lowering, in the spirit of Bošković's (1997a) account of the *there*-construction in English. Essentially, the formal features of the expletive subject (which in Ru is silent) would lower in LF to its associate NP. If the shortest downwards move is to the higher, first conjunct, then the agreement facts will follow.

### 3.2. Genitive of negation

Two phenomena which have received wide attention concern the use of gen in quantificational contexts. In this section I discuss the so-called "genitive of negation" (gen-NEG) and in the next the genitive with numerals (gen-NUM). In the canonical gen-NEG construction, sentential negation causes a direct object NP which would ordinarily appear in the acc to be gen instead. This is illustrated for Ru in (8a) and for Pol in (8b).

- (8) a. My ne obnaruzili (nikakix) dokumentov.  
 we neg found any.gen documents.gen  
 'We did not find any documents.'  
 b. Ewa ne lubi piwa.  
 Eva neg likes beer.gen  
 'Eva does not like beer.'

The gen-NEG construction has been discussed extensively; some of the most important monograph treatments are Babby (1980) and Brown (1999);<sup>15</sup> two classic dissertations that examine gen-NEG (along with gen-NUM) are Pesestky (1982) and Neidle (1982/1988).<sup>16</sup> There are a large number of articles and sections of book length studies which deal with this subject; for the former, see for example Bailyn (1995a) and Brown and Franks (1995), and for the latter, appropriate sections of Chvany (1975) and Franks (1995). A somewhat dated but impressively comprehensive bibliography of gen-NEG materials can be found in Corbett (1986).

Two hallmark properties of gen-NEG are the focus of many relevant discussions. First, only those direct objects which would otherwise be acc can appear in the gen under negation; obliques (i.e. quirky cased direct objects) remain oblique.<sup>17</sup> Compare Ru (9), in which inst is required, with (8a):

- (9) Maša ne vladeet (nikakimi) inostrannymi jazykami.  
 Masha neg command any.inst foreign.inst languages.inst  
 'Masha does not have command over any foreign languages.'

This fact is usually explained by assuming that the verb *vladet* 'to speak, to command' requires that its complement be in the inst case in order for the theta-role it assigns to be visible at LF. Second, some intransitive subjects, which would otherwise appear in the nom, can be gen under negation. Note that the effect of this is to restrict gen-NEG to *structural* case contexts. Two examples from Babby (1980), which offers an invaluable discussion of this phenomenon in Ru, are given in (10):

- (10) a. V supe ne plavalo nikakogo mjas.  
 in soup neg floated any.gen meat.gen  
 'There was no meat (floating) in the soup.'  
 b. Dokumentov ne obnaruzilo -s'/obnaruzeno.  
 documents.gen neg found refl/found.pass  
 'No documents were found.'

Note that the genitive "subject" appears in existential contexts and, as (10b) shows, can be a derived subject.<sup>18</sup> The verb shows "default" 3sg/neuter agreement. A standard treatment of this, following

<sup>15</sup>For a review of Brown (1999) see Haegeman (1999). An influential monograph which, *inter alia*, treats negation in SC is Progovac (1994). For issues of negation, scope, and polarity in Slavic in general, the reader is referred to these studies by Brown and Progovac, as well as the papers in Brown and Przepiórkowski (in press).

<sup>16</sup>A new dissertation that treats gen-NEG in Ru is Borovikoff (2001).

<sup>17</sup>For compelling arguments, such as passivization, that at least some Russian gen and inst object NPs are true complements, see Fowler (1996). Presumably, this can be handled by endowing V with quirky case features which it imparts to the functional head (be it AgrO, Asp, v, or whatever) that checks direct object case. The same is presumably true for other Slavic languages; for example, for SC, Stjepanović (1997) argues that inherent (quirky) case is licensed under the same Spec-head relation as structural case is.

insights in Pesetsky (1982), is that gen so-called “subjects” are really *objects* of unaccusative verbs, thus allowing a single gen-NEG rule to apply exclusively to direct objects.<sup>19</sup> Pesetsky argued that these are Quantifier Phrases (QPs), further unifying them with gen-NUM, which contains a null quantifier.

Interestingly, as I discuss in Franks (1995), Pol and Slvn do not exhibit the phenomenon in (10), with the exception of negated ‘to be’. Since gen-NEG is obligatory in Pol,<sup>20</sup> unlike Ru, I argue that the gen-NEG rule literally changes the ability of a verb to assign acc to gen in that language, essentially transforming it into a quirky-case assigning verb. This has the combined effect of rendering gen-NEG in Pol obligatory and of preventing it from applying to unaccusative objects. In Ru, on the other hand, it applies blindly to direct objects in the scope of negation; conceivably, the difference is one of whether it is the case-licensing features of AgrO/ AspP or those of V itself that are manipulated in the scope of negation; see Brown (1999) and references therein for relevant structures in terms of AspP.

One final issue of some cross-linguistic import concerns the ability of the gen-NEG rule to apply to non-argument time and distance phrases, as in Ru (11) or Pol (12), from Franks and Dziwirek (1993):

- (11) General ne pravil stranoj ni odnogo goda.  
 general neg ruled country.inst not-even one.gen year.gen  
 ‘The general didn’t even rule the country for one year.’
- (12) Nie spałam godziny.  
 negslept hour.gen  
 ‘I didn’t even sleep for an hour.’

Since such adjuncts appear in the acc in affirmative sentences, it is commonly claimed that this too is an instance of gen-NEG, accidentally applying to non-complement object NPs. However, Franks and Dziwirek argue that the gen on adjunct phrases is really an instance of the partitive use of the genitive. Thus, even in Pol it can apply when the verb lacks the capacity to check acc, as in (12), and it is in fact not obligatory, so that (13) is also acceptable.

- (13) Nie spałam godzinę.  
 negslept hour.acc  
 ‘I didn’t sleep for an hour.’

They point out that, although (12) and (13) both presuppose that the speaker slept, they are not synonymous: (13) means either that the speaker did sleep, but for more than an hour, or that she slept for some shorter time, where (12) can only mean that the speaker slept for less than an hour. Franks and Dziwirek go on to argue that, across Slavic, the potential to assign gen to adjuncts correlates perfectly with the availability of the partitive function of gen, rather than with the gen on complements of negated verbs.

### 3.3. Numerals

Just as with gen-NEG, there is a veritable industry of work on Slavic numerals. These exhibit highly complex government patterns in various Slavic languages, but the essential fact is that numerals above ‘five’ typically assign gen to the nominal material which they quantify. Pesetsky (1982) first drew the attention of generative grammarians to this fascinating phenomenon, followed by a series of publications by Babby, most notably Babby (1987), and Franks, most notably Franks (1994, 1995: ch. 4, 5). For those who are able to read Ru, two essential monographs are Mel’čuk (1985) and Suprun (1959).

The following are some representative examples, from Ru, SC, Cz and Pol, respectively:<sup>21</sup>

- (14) a. Pjat’ mašin pod’exalo k vokzalu.  
 five cars.gen drove-up.n tostation  
 ‘Five cars drove up to the train station.’

<sup>18</sup>A variant of (10b) with nom subject and full agreement, *Dokumenty ne obnaružilis’/obnaruženy*, would mean “The documents were not found.”

<sup>19</sup>See however Babby (1980) for a treatment in terms of theme-rheme structure, and also Borschev and Partee (1998) for a more recent adaptation of Babby’s approach.

<sup>20</sup>See however Przepiórkowski (2000b) for further discussion.

<sup>21</sup>All examples to be discussed in this section are based on Franks (in press-a). See also Yadroff (1999) for an analysis of numerals in Ru, as well as general discussion of the internal structure of Ru NPs and PPs.

- b. Deset žena je kupilo ovu haljinu.  
 ten women.gen aux.3sg bought.nsg this dress  
 'Ten women bought this dress.'
- c. Těch pět hezkých dívek upeklo dort.  
 these.gen five beautiful.gen girls.gen baked.nsg cake  
 'These five beautiful girls baked a cake.'
- d. Tych pięć kobiet poszło do domu.  
 these.gen five women.gen went.n to home  
 'These five women went home.'

Pesetsky argued that these are QPs, i.e. nominal expressions headed by the numeral, and he further claimed that, like gen-NEG, they can only be VP-internal, hence the nsg agreement on the examples in (14).<sup>22</sup> However, while gen-NUM indeed arises on direct object NPs, as in Ru (15a), they can also appear on subjects of transitive verbs, as in SC (14b) and Cz (14c), and, in Ru at least, agreement is also a possibility, as in Ru (15b), obligatorily when there is a nom demonstrative, as in (15c).

- (15) a. Maša kupila pjat' čajnikov.  
 Masha bought five teapots.gen
- b. Pjat' mašin pod'exali k vokzalu.<sup>23</sup>  
 five cars.gen drove-up.pl to station
- c. Ėti pjat' mašin pod'exali/\*pod'exalo k vokzalu.  
 these.nom five cars.gen drove-up.pl/drove-up.n to station

On the basis of these and similar facts, I argued in Franks (1994, 1995) that numeral phrases in Ru can be either QPs, which remain in SpecVP hence the subject is an expletive, leading to nsg agreement, or DPs, which raise to SpecIP, leading to pl agreement.<sup>24</sup> The structure adopted was roughly as follows:

- (16) [DP D [QP Q [AP A [NP N]]]]

I further argued that the DP part of the projection was optional in ESL, but obligatory elsewhere, since the pl agreement is generally unavailable outside ESL, modulo SC.<sup>25</sup> A fundamental paradox in the syntax of Slavic numeral phrases is that, when embedded in oblique case contexts, all parts of these phrases usually appear in the appropriate oblique case. Gen-NUM thus appears to be overridden by the particular quirky case, as in the following Ru, Cz and Pol examples:

- (17) a. s pjat'ju knjigami  
 with five.inst books.inst
- b. s pěti pány  
 with five.inst men.inst
- c. o tych pięciu kobietach  
 about these.loc five.loc women.loc

As with gen-NEG, this can be treated in terms of theta-theory. However, in SC there is no such effect, as seen in (18).<sup>26</sup>

- (18) sa pet djevojaka  
 with five girls.gen  
 'with five girls'

It appears as though, in SC, the gen assigned by the numeral blocks the inst governed by the preposition from reaching its NP complement. Franks (1994, 1995) thus proposes, working within a case feature system loosely based on that of Jakobson (1938, 1956), that gen-NUM is its own case, which is a

<sup>22</sup>Pesetsky couched his account of QP in Ru ostensibly only appearing inside VP in terms of the Empty Category Principle (ECP), which at that time was the primary way of dealing with subject-object asymmetries. The details need not concern us here.

<sup>23</sup>One interpretive difference between (14a) and (15b), addressed at some length by Pesetsky (1982), is that the former may have a group reading whereas the latter has an individuated reading.

<sup>24</sup>In (15c) agreement is forced since *ėti pjat' mašin* can only be a (nom) DP.

<sup>25</sup>For apparent agreement in SC, see Franks (1994, 1995).

<sup>26</sup>The details about SC are however considerably more complicated; see Franks (in press-a) for a summary of relevant data and a preliminary analysis.

structural [-oblique] in Ru and Pol but an inherent [+oblique] in SC. In this way, assuming the traditional GB view that structural cases are assigned at S-structure but inherent ones at D-structure, we are able to account for these and other differences among the languages.<sup>27</sup>

While at first glance Pol and Cz would seem comparable to Ru in the featural status of gen-*NUM*, Franks (1998, in press-a) argues that in fact in WSl gen-*NUM* is restricted exclusively to acc contexts. Strikingly, alongside (14d), Pol also allows (19), in which the demonstrative *te* is morphologically ambiguous between nom and acc.

- (19) Te                      pięć kobiet                      poszło do domu.  
 these.nom/acc five women.gen went.n to home  
 'These five women went home.'

The fact that, unlike Ru (15c), the verb does not show pl agreement, leads to the conclusion that *te* in Pol (19) is in fact acc, not nom, and to the proposal that gen-*NUM* can only appear in acc contexts in WSl. If so, an interesting pattern emerges, which Franks (in press-a) characterizes in terms of the relative markedness of the case features of the DP in which a QP can occur across Slavic.<sup>28</sup>

### 3.4. Argument structure and voice

In this section I briefly consider some of the most salient issues relating to the general problem of how arguments are realized in the Slavic clause. Voice and diathesis have been a traditional topic of analysis, and their study has continued also in the generative arena. The two primary voice-altering morphemes encountered in Slavic are the so-called "reflexive" morpheme, which in all languages except (most of) ESl is a clitic, e.g. Ru *-sja*, but SC, Slvn, Bg, Mac, Cz, LSor *se*, Pol *się*, Slk *sa* and USor *so*,<sup>29</sup> and the "passive" participial morpheme, which is a verbal suffix with variants in *-n-* and *-t-*. For an overview of voice in Slavic, see Siewierska (1988) as well as Franks (1995: ch. 8) and references therein. For informed discussion of the morphological status of *-sja* in Ru, see Schoorlemmer (1996) and Junghanns (1996), the latter containing a very useful comparison with other Slavic languages. An excellent overview of Slavic voice possibilities can also be found in Růžička (1986, 1988), and Billings and Maling (1995) offers a comprehensive annotated bibliography of the *-no/-to* construction (see below).<sup>30</sup> For early generative treatments of voice in Ru, see Babby (1975a), Chvany (1975), or Babby and Brecht (1975), and for a more recent proposal about how argument structure is mapped onto syntactic structure in Ru and Ukr, see Babby (1989, 1993).

Standard reflexive passive examples are comparable to English, with promotion of the acc argument to subject position, as in Ru (20).<sup>31</sup>

<sup>27</sup>Note that this also explains why the demonstrative can only be nom in Ru, assuming it actually originates as an adjective, in a structure as in (16), and raises to D in the course of the derivation. As pointed out to me by Guglielmo Cinque (p.c.), a similar account is argued by Brugè for demonstratives in a variety of languages, including SC.

<sup>28</sup>Specifically, I propose a "licensing parameter" with the effect that in WSl QPs cannot occur in a DP with any **M** (marked case feature), in ESl QPs cannot occur in a DP with more than one **M**, and in SC QPs cannot occur in a DP with more than one/??two **M** (case features). The reason for the "???" has to do with the particular analysis of case features and syncretism in SC, which as described by Franks (in press-a), is a system in flux. With the loss of nominal case, in Mac and Bg numerals may impose a special "count form" on m nouns, but there is nothing comparable to gen-*NUM* found in the other languages.

<sup>29</sup>This is essentially the clitic (short) form of the acc reflexive pronoun, which some languages also use in gen contexts. A number of the languages also have dat *si*.

<sup>30</sup>This bibliography is downloadable at [http://www.slavica.com/jsl/jsl\\_3\\_1.html](http://www.slavica.com/jsl/jsl_3_1.html).

<sup>31</sup>Babby (1975a) argues convincingly that *-sja* arises whenever the direct object position becomes empty through some syntactic process, thereby extending its coverage to various non-passive constructions with *-sja*, such as middles, reciprocals, and implicit direct object intransitives. The same is true of SC, as in the following examples from Progovac (2001):

- |     |  |      |  |
|-----|--|------|--|
| (i) | Milan se brije.<br>nom refl shaves<br>'Milan is shaving' | (ii) | Deca se tuku.<br>children refl hit<br>'The children are hitting each other.' |
|-----|--|------|--|

- (20) a. Ivan prodaet knigi.  
 nom sells.3sg books.acc  
 'Ivan sells books.'  
 b. \*e Prodaet-sja knigi.  
 sell.3sg refl books.acc  
 c. Knigi prodajut -sja.  
 books.nom sell.3pl -refl  
 'Books are being sold/are selling.'

Note that Ru (20c) has either passive or middle interpretation. In Pol (21), however, we see the two voices diverge, so that promotion only obtains in middle (21c); in true passive (21b) the direct object remains acc.<sup>32, 33</sup>

- (21) a. Jan sprzedaje książki.                      b. e Sprzedaje się książki.  
 nom sells.3sg books.acc                      sells.3sg refl books.acc  
 'Jan sells books.'                                      'Books are being sold.'  
 c. Książki się sprzedają.  
 books.nom refl sell.3pl  
 'Books are selling.'

This "passive + accusative" construction appears in a variety of Slavic languages, with both the reflexive and participial morpheme. In Ukr, for example, as Sobin (1985) points out, the *-no/-to* construction allows both retention of the acc object (22a) and promotion to nom (22b), with no apparent difference in meaning:<sup>34</sup>

- (22) a. Z Vinnyci pryslano vistku sestryceju .  
 from Vinnycja brought.n news.acc sister.inst  
 'News was brought from Vinnycja by the sister.'  
 b. Cerkva bula zbudovana robitnykamy.  
 church.f.nom aux.f.built.f workers.inst  
 'The church was built by the workers.'

In Franks (1995) I analyze this in terms of variation in what case(s) the "passive" morphology can absorb, i.e., as a lexical fact. See also Lavine (2000) for an in-depth treatment of the Pol and Ukr *-no/-to* constructions, which he demonstrates have sufficiently different properties to reject the simple "case absorption" type of account.

One curious and very robust construction in Slavic that involves the *-sja* morpheme is the so-called "dispositional" reflexive. Some examples from Franks (1995: sec. 8.4) follow; see also especially Růžicka (1988), who notes that it is found in all the Slavic languages:

- (23) a. Mne ne rabotaet -sja.  
 me.dat neg work -refl  
 'I don't feel like working.'  
 b. Sestře se tam pracuje výborně.  
 sister.dat refl there work.3sg excellently  
 '(My) sister is working excellently there.'

- 
- (iii) Milan se udara.                                      (iv) Deca se grle.  
 nom refl hits    children refl hug  
 'Milan is hitting (someone/me)'                      'One hugs children.'

<sup>32</sup>Note that under negation the direct object becomes gen only in (21b), never (21c). Frank Gladney (p.c.) offers the following as a minimal pair:

- (i) Tych drzwi się nie otwiera.  
 these.gen doors.gen refl neg open.3sg  
 'This door must not be opened.'  
 (ii) Te drzwi się nie otwierają.  
 these.nom doors.nom refl neg open.3pl  
 'This door does not open.'

<sup>33</sup>Unlike in Ru, Pol *się* constructions never allow explicit agents (expressed with bare instrumentals in Ru and Ukr and *przez* + acc in Pol).

<sup>34</sup>Lavine (2000) develops a promising minimalist analysis of this and related constructions. See also Shevelov (1963, 139-146; 1969) for discussion of Ukr.

- c. Plače mi se.  
cry.3sg me.dat refl  
'I feel like crying.'
- d. Ne radi mi se danas.  
neg work.3sg me.dat refl today  
'I don't feel like working today.'

Ru (23a), Cz (23b), Bg (23c) and Sc (23d) all seem to behave identically: the experiencer "subject" is expressed in the dat, the verb is 3sg/neuter, and the "reflexive" morpheme is introduced.

Observe, however, that the base verbs in all these examples are intransitive, so that it makes little sense to say acc is "absorbed". Interestingly, most languages, but not Ru, extend the dispositional construction to transitives as well, so that there is an overt derived subject. Compare ungrammatical Ru (24) with its perfectly acceptable SC counterpart in (25):

- (24) \*Ěta kniga mne ne čitaet -sja.  
this.nom book.nom me.dat neg read.3sg -refl
- (25) Ova knjiga mi se ne čita.  
this.nom book.nom me.dat refl neg read.3sg  
'I don't feel like reading this book.'

Expressing a dat experiencer with reflexive middles is similarly possible, as in Cz (26a) or Pol (26b):

- (26) a. Matematika se mi studuje lehce.  
math.nom refl me.dat study.3sg easily  
'Math studies easily for me.'
- b. Ten artykuł nie pisze mi się dobrze.<sup>35</sup>  
this.nom article.nom neg write.3sg me.dat refl well  
'I just can't write this article well.'

The generalization in Franks (1995) is that Ru allows no internal arguments in this kind of construction, regardless of case. Thus, neither variation in (27) is felicitous:

- (27) a. \*Mne ne čitaet -sja ni odnoj knigi.  
me.dat negread.3sg -refl not one.gen book.gen
- b. \*Mne ne rabotaet -sja nad ètoj zadačej.  
me.dat negwork -refl on this problem

I turn now to the question of null subjects. The Slavic languages exhibit various types of null subject effects. They all allow expletive null subjects,<sup>36</sup> which is one reason why the dispositional reflexive construction is so pervasive. However, they vary considerably in the degree to which they tolerate argument (theta-marked) null subjects. In brief, while they all allow unexpressed pronominal subjects, the ESl languages are not true null subject languages, whereas the others are, although under varying conditions; see Franks (1995: ch. 7) for examples and discussion. The capacity to identify null subjects in Slavic seems to correlate with two other properties: (i) the language must have full agreement, in the sense that there is an overt copula in the present tense and that past tense verbs mark person-number, and (ii) there must be a system of pronominal and verbal auxiliary clitics (see section 3.5 below). Compare for example Ru (28) with Pol (29):

- (28) a. Ja/\*e poexal v gorod.  
I.nom went.m to town
- b. Ja student.  
'I am a student.'
- (29) a. Ja/e pojechał-em do miasta.  
I.nom went.m-1sg to town

<sup>35</sup>The acceptability of this construction in Pol with the object NP *in situ*, as in (i) with the acc or even (ii) with gen-NEG, seems to vary among speakers:

- (i) %Dobrze mi się pisze tę pracę.  
well me.datrefl write.3sg this.acc work.acc  
'I can write this work easily.'
- (ii) %Nie pisze mi się dobrze tej pracy.  
neg write.3sg me.datrefl well this.gen work.gen  
'I can't write this work easily.'

<sup>36</sup>But see Lavine (2000) for arguments against null expletives in Slavic.

- b. Ja/e jest-em studentem.  
be-1sg student.inst

Admittedly, the subject can be elided even in Ru, but so can other arguments, so long as they are recoverable from the discourse.<sup>37</sup> However, whereas including an unemphatic pronominal subject is generally stylistically marked in the other languages, this is not true of Ru. Moreover, when one applies null subject diagnostics such as the ability of overt pronominals to function as bound variables, the classification is confirmed. Whereas Ru (30a) can admit the bound variable reading despite the presence of overt *on* 'he', otherwise identical SC (30b) or Cz (30c) cannot:<sup>38</sup>

- (30) a. Každýj student думаet, что **он** полučt pjaterku.  
'Every student thinks that he will get an A.'  
b. Svaki student misli da će **он** dobiti desetku.  
c. Každý student myslí, že **он** dostane jedničku.

In the SC and Cz examples, overt *on* can only have a deictic interpretation. The bound variable reading thus only obtains in these languages when the subject is phonologically null.<sup>39</sup>

### 3.5. Clitics

There is a vast literature on Slavic clitics. The most comprehensive survey with extensive references can be found in Franks and King (2000); another very important work is Bošković (2001).<sup>40, 41</sup> While all the Slavic languages have clitics, ESl (with the exception of south western Ukr dialects) only has simple clitics, to mark things like emphasis, modality or interrogativity, but has lost the rich paradigmatic systems for pronouns and verbal auxiliaries found in the SSl and WSl languages. The following are some representative sentences, with the clitics in boldface, from SSl SC, Slvn, Bg and Mac in (31) and WSl Cz and Pol in (32), respectively:

- (31) a. Da **li** **ste** **mi** **ih** danas kupili?  
C Q aux.2pl me.dat them.acc today bought  
'Did you buy me them today?'  
b. Janez **mu** **ga** **je** še dal.  
Janez him.dat it.acc aux.3sg still gave  
'Janez still gave it to him.'  
c. Ti **si** **mu** **gi** pokazvala.  
You aux.2sg him.dat them.acc shown.fem  
'You have shown them to him.'  
d. **Mi** **go** dade Vera včera.  
me.dat it.acc gave Vera yesterday  
'Vera gave me it yesterday.'
- (32) a. Představila **jsem** **mu** **tě** včera.  
introduced aux.1sg him.dat you.acc yesterday  
'I introduced you to him yesterday.'  
b. Piotrek **mi** **je** dał.  
Peter me.dat them .acc gave  
'Peter gave me them.'

As these examples illustrate, there are essentially two patterns for where the cluster goes: second position, as in SC, Slvn, Cz (and Slvk) or verb-adjacent, as in Bg and Mac. (Pol, as discussed below, is neither.) The clitics must appear in a fixed order, according to a template that varies little across the

<sup>37</sup>For ellipsis of direct objects in various Slavic languages, see McShane (1999a, 1999b).

<sup>38</sup>USor however behaves like Ru in this regard.

<sup>39</sup>One diagnostic with possibly mixed results is the status of 3pl arb *pro*, which is found in all the Slavic languages, including ESl Ru; see Franks (1995: sec. 7.5). (The issue for Ru is whether overt *oni* 'they' disallows the *pro* arb reading.)

<sup>40</sup>Two important recent dissertations, dealing with the Serbian and Croatian variants of SC, respectively, are Stjepanović (1999a) and Čavar (1999).

<sup>41</sup>Franks (in press-b), which offers a detailed summary of the essential Slavic facts, can be downloaded at <http://www.indiana.edu/~slavconf/linguistics/download.html>. A good overview is also offered in Franks (2000). All examples cited in this section are drawn from these papers.

languages: interrogative *li* precedes auxiliary clitics (usually with the exception of 3sg (*j)e* in SSL, and the future auxiliary *biti* 'to be' in Slvn), which precedes dat clitics, which in turn precede acc clitics, with 3sg (*j)e* (and the Slvn future clitics) coming last.

There are, however, some divergences from these patterns worth noting. First, with regard to the clitic cluster, whereas most languages disallow initial clitics, a comparison of Bg (31c) and Mac (31d) reveals an interesting difference: clitics invariably precede the verb in Mac, whereas in Bg they do *unless* this would put them in absolute initial position.<sup>42</sup> Verb-adjacent clitics are thus fundamentally pre-verbal, although there must be some mechanism to retreat from this to avoid being absolutely initial. Contrary to the common assumption, as e.g. in Franks and Bošković (2001), the prohibition against absolute initial status in Bg does not seem to be phonological, since they can immediately follow an intonational phrase boundary.

Second position clitics similarly cannot be initial in SC. While this might strike one as following from the fact that they are required to appear in "second" position, the fact that they can appear in initial position in Slvn (and Colloquial Cz) reveals that in this case it is a matter of phonology. Apparently, they can be either enclitic or proclitic in Slvn, but only enclitic in SC; otherwise, the syntax of clitics is essentially the same in the two languages. Thus, if the syntax leaves them after a intonational break (indicated by "#") in Slvn they cause no problem at the interface with phonology, whereas in SC they cannot be pronounced in this position. Compare SC (33) with otherwise identical Slvn (34):

(33) #Ja#, #tvoja mama#, #obećala sam ti igračku#.
   
I your mother promised aux.1sg you.dat toy
   
'I, your mother, promised you a toy.'

(34) Jaz#, #tvoja mama#, **sem ti** obljubila igračko.

Various approaches to this sort of problem exist in the literature; for a survey, see Franks and King (2000). One popular view, extending work due to Halpern (1992/1995), involves the PF restructuring mechanism of "Prosodic Inversion", whereby a syntactically initial clitic hops to its right in order to meet prosodic exigencies. Alternatively, as suggested in Franks and King and extended in Franks (2000), second position clitics are functional heads which move to the highest functional head position in the clause and, if there is a host available to their left, then they are pronounced there, but if not (in SC, but not Slvn), then the next copy down is pronounced. In this way, prosodic requirements are imposed at the interface with the phonology to police the actual phonological realization of clitics, although they move as *syntactic* entities; see Franks (2000) for details.<sup>43</sup>

Bošković (2000) and Franks and Bošković (2001) adapt this approach to certain puzzles presented by verb-adjacent clitics in Bg, also treated in Franks (2000) and Franks and King (2000). Curiously (and unlike in SC), even *i* 'and' can support the clitics in Bg;<sup>44</sup> compare (35) with the ungrammatical (36a), which must surface as (36b) instead:<sup>45</sup>

(35) I **mi go** dade Vera včera.
   
andme.datit.acc gave Vera yesterday
   
'And Vera gave it to me yesterday.'

(36) a. \***Mi go** dade Vera včera.
   
b. Dade **mi go** Vera včera.

The relevant structures are as follows, with unpronounced copies stricken through:

(35)' I [IP **mi go** dade ~~mi go~~ dade Vera včera]

(36)' [IP ~~mi go~~ dade **mi go** ~~dade~~ Vera včera]

When the Yes/No interrogative clitic *li* is included (in C°), Franks and Bošković propose the following derivation:

(37) [CP [C [**mi go** dade] + li] **mi go** ~~dade~~ Vera včera]

<sup>42</sup>They also follow non-finite verbs, i.e. gerunds and imperatives, displaying a pattern well-known from studies of Romance clitics.

<sup>43</sup>The "copy and delete" approach is extended in Bošković (2001) to *wh*-phrases; see also Bošković and Franks (2002) for its application in both clitic and *wh* domains.

<sup>44</sup>The reason the SC counterpart to (35) would not be acceptable is because second position clitics ordinarily require a tonic element to precede them as their host.

<sup>45</sup>Recall however that this word order is perfect in Mac; cf. (31d). Thus, in this language the higher copy of the clitics would be pronounced in (36)'.

Interestingly, addition of *i* ‘and’ here has no effect; the correct order in Bg is (38):

- (38) I      dade **li ti**              go?  
           andgaveQyou.dat it.acc  
           ‘And did she/he give it to you?’

This fact implies that linearization only makes use of very local information, and in particular that *linearization applies cyclically*, in conformity with the recent “Multiple Spell-Out” proposal that the mapping to PF (and, in a parallel fashion, to LF) only takes place at specific junctures in the derivation.

I turn, finally, to two additional divergences from the patterns noted above. The reflexive clitic *se*, which is historically acc, exhibits somewhat idiosyncratic behavior. Whereas in SC it goes last in the sequence, so that it appears to resemble other acc clitics, in Cz it *precedes* the dat clitic. Compare (39) with (32a) above.

- (39) Představiła              **jsem**        **se**        **mu**        včera.  
           introduced              aux.1sg    self.acc    him.dat    yesterday  
           ‘I introduced myself to him yesterday.’

It thus seems that the reflexive clitic needs to be treated as a different kind of functional head than the other pronominal clitics.

Lastly, the clitic system of Pol is strikingly distinct from that of the other languages. First of all, clitics in this language do not need to cluster together, as illustrated by the following examples:

- (40)a. Dlaczego              **ja**              kupiła      -ś?  
           why              it.acc        bought      -aux.2sg  
           ‘Why did you buy it?’  
       b. Kiedy              -śmy              go              wreszcie **mu**      odebrali, ...  
           when              -aux.1pl      it.acc        at-last        him.dat      took-away  
           When we at last took it away from him, ...’

In addition, word order requirements are not absolutely respected: in (40b) we see the acc clitic *go* preceding the dat *mu*. Another example of this can be constructed on the basis of the fact that, as in many languages including even English, 1st or 2nd person clitic or atonic pronouns cannot follow 3rd person ones. Thus, instead of saying extremely awkward (41a), (41b) is produced instead.

- (41)a. ??Pokazali              **mu**              cię              wczoraj.  
           showed              him.dat        you.acc        yesterday.  
           ??‘I showed him you yesterday.’  
       b. Pokazali **cię mu** wczoraj.

This problem cannot be circumvented in the same way in the other Slavic languages, where the “dat precedes acc” restriction is inviolate. Franks and King (2000) and Franks (in press-b) thus contend that the pronominal clitics in Pol are actually XPs, not heads.<sup>46</sup>

### 3.6. Wh movement

*Wh*-movement in the Slavic languages is another classic problem in the generative literature. Since most studies have focused on the phenomenon of multiple *wh*-movement, that is what I treat in this section.

Although a variety of earlier papers and dissertations considered the problem to some extent, it was the publication of Rudin (1988) which launched Slavic multiple *wh*-movement as a research area. Rudin pointed out that, unlike English, the Slavic languages require all *wh*-words in a sentence to be fronted. Some simple examples from Bg, SC and Pol follow, respectively:

- (42) a. **Koj**              **kogo**              vižda?  
           who              whom              sees  
       b. **Ko**              **koga**              vidi  
           who              whom              sees  
       c. **Kto**              **co**              robił?  
           who              what              did

Rudin argued, however, that beneath this superficial uniformity lay two distinct language types: in Bg (and Romanian) all *wh*-phrases behave as a unit, whereas in the other Slavic languages the first *wh*-phrase is in a privileged position, SpecCP, and the remaining ones are slightly lower in the phrase

<sup>46</sup>The verbal person-number affixes in Pol present a host of problems for analysis, since they exhibit mixed affixal and clitic behavior. See Franks and King (2000) as well as Franks and Bański (1999) for discussion of their mixed status, and Borsley and Rivero (1994) for one standard analysis.

structure. She argued for this on the basis of a variety of diagnostics, including the fact that in Bg the *wh*-phrases undergo long distance movement as a unit, cannot be separated by parentheticals or clitics (although this fact has an alternative explanation, namely that clitics are verb-adjacent in Bg), do not induce island effects and have a fixed relative order, while none of these properties hold for the other languages. Some of her examples are as follows, where Bg (43) contrasts with SC (44) and Pol (45):

- (43) a. **Koj** **kâde** misliš [če e otišâl]?  
 who where think.2sg that aux.3sg gone  
 'Who do you think has gone where?'  
 (\***Koj** misliš če e otišâl **kâde**?)
- b. Zavisi ot tova, **koj** **kogo** prâv e udaril.  
 depends on this who whom first aux.3sg hit  
 'It depends on who hit whom first.'  
 (\*Zavisi ot tova, **koj** prâv **kogo** e udaril.)
- c. \***Kogo** **koj** vižda?  
 who whom sees
- (44) a. **Ko** **šta** želite [da vam kupi]?  
 who what want.2pl that you buys  
 'Who do you want to buy you what?'  
 (**Ko** želite da **šta** vam kupi?)
- b. **Ko** je prvi **koga** udario?  
 who aux.3sg first whom hit  
 'Who hit whom first?'
- c. **Što** je **ko** **kome** dao?  
 what aux.3sg who whom gave
- (45) a. \***Co** **komu** Maria chce [žeby Janek kupi]?  
 who whom Maria wants that Janek bought  
 'What does Maria want Janek to buy for whom?'
- b. **Kto** według ciebie **komu** **co** dał?  
 who according you whom what gave  
 'Who according to you gave what to whom?'
- c. **Co** **ko** robił?  
 what who did

Indeed, in an example such as SC (44c), all relative orders of *wh*-words are possible. Rudin's account of subject-object asymmetries in Bg was based on the ECP (which at the time similarly served to rule out English \**What did who say?*) and required considerable machinery to allow the other languages to avoid its effects. Currently, with this phenomenon more generally understood instead in terms of Superiority, the variation identified by Rudin becomes considerably more intractable.

In a series of papers, most notably Bošković (1997b, 1997c, 1998, 2000, in press-a), Bošković refined Rudin's data to show that this last point, the claim that SC *wh*-movement does not show Superiority effects while Bg does, is technically incorrect, and that in fact two different forces drive *wh*-fronting, in both types of language.<sup>47</sup> According to the analysis in Bošković (1998, in press-a) and Stjepanović (1999a), the relevant factors are not only the familiar need to check WH features, but also the need to check FOCUS features. It is FOCUS which forces overt fronting of all *wh*-phrases in Slavic (although not in English).

As Bošković (1999) demonstrates, the complex patterns described in the literature can be made to follow from the interplay between these two types of feature. His most striking observation is that the Superiority effect exhibited in Bg (42a) versus (43c) disappears when the highest *wh*-phrase is not involved. Consider the paradigm in (46) and (47):

<sup>47</sup>Other recent work on *wh*-movement in Slavic includes Citko (1998), Dornisch (1998), Lambova (1999), Pesetsky (2000), Richards (1997/2001), Stepanov (1998, 2001), Stjepanović (1999a) and Strahov (2001). For an optimality theoretic account which treats *inter alia* Cz and Bg, see Ackema and Neeleman (1998). This paper employs an approach in which *wh*-phrases cluster together *before* moving to SpecCP; this sort of analysis is developed in minimalist terms in Grewendorf (2001) and further defended in Sabel (2001).

- (46) a. **Kogo kak e celunal Ivan?**  
 whom how aux.3sg kissed Ivan  
 'How did Ivan kiss whom?'  
 b. **?\*Kak kogo e celunal Ivan?**
- (47) a. **Koj kogo kak e celunal?**  
 who whom how aux.3sg kissed  
 'Who kissed whom how?'  
 b. **Koj kak kogo e celunal?**

The contrast in (46) shows that the direct object *kogo* 'whom' is higher than the adverb *kak* 'how', so that Attract will apply to force the highest *wh*-phrase to move first.<sup>48</sup> In (47), on the other hand, we see that this concern is irrelevant. Bošković argues that this is because only the first *wh*-phrase moves to check WH features, whereas the second and third move to check FOCUS features. Clearly, WH feature checking and FOCUS feature checking must be subject to different requirements. In Bošković (1998) this is handled by assuming both Attract and Move, and making the WH feature on C° strong hence subject to Attract but the FOCUS features on the *wh*-phrases themselves strong, hence subject to Move. Bošković (1999) eschews Move and argues that WH involves standard Attract whereas FOCUS in these languages invokes an "Attract All" option. Under either scenario, FOCUS movement, but not WH movement, equally satisfies Shortest Move regardless of the order in which the various *wh*-phrases are fronted.

In SC, on the other hand, Superiority effects, although absent in main clause short-distance questions, reemerge in long distance questions, embedded questions, and root questions with lexical complementizers. Here is an example of the latter, drawn from Bošković (in press-a), which should be compared to (49):<sup>49</sup>

- (48) a. **Ko li šta kupuje?**  
 who Q whatbuys  
 'Who on earth buys what?'  
 b. **\*Šta li ko kupuje?**
- (49) a. **Ko šta kupuje?**  
 who what buys  
 'Who buys what?'  
 b. **Šta ko kupuje?**

Pursuing the framework in Bošković (1997a), he argues that clauses need not project up to CP. Any absence of Superiority effects, as in (49b), is thus due to the failure to project a CP in the syntax, hence overt movement is driven by FOCUS rather than WH features. Since Bošković makes the standard assumption that the clitic *li* (which in *wh*-questions is a marker of emphasis, rather than Yes/No interrogation, as in e.g. (31a) above), is necessarily a C°, the presence of WH features, which are on C, forces Attract WH to target the highest/closest *wh*-phrase in (48).<sup>50</sup>

#### 4. Future directions

In this final section I note several classic topics which, I feel, have either been neglected or remain poorly understood within the formalist literature. While I draw particular attention here only to

<sup>48</sup>The direct object is higher, according to Bošković, because it moves first to SpecAgrOP, an A-position above the adverb.

<sup>49</sup>See this and other works for further examples and details. There is an essential comparative component to Bošković's analysis of multiple *wh* which space limitations preclude discussion of here, but one point worth noting is that these same environments are where obligatory *wh*-movement is found in French, with the same general explanation.

<sup>50</sup>Since FOCUS features always force overt *wh*-movement in Slavic (with one apparent exception which involves overt *wh*-movement but pronunciation of a lower copy to avoid contiguous sequences of identical elements, as discussed in Bošković (2001) and Bošković and Franks (2002)), these are introduced on a functional head below CP. Bošković's explanation for the absence of Superiority effects in SC and the optionality of *wh*-movement in colloquial French is that, in matrix short-distance questions, in both SC and French, a WH C° can be merged in LF, thereby obviating overt movement to check WH features.

the areas of binding, aspect, and word order, there are clearly many more empirical domains in need of closer investigation.<sup>51</sup>

#### 4.1 Binding

Slavic anaphora add significantly to our understanding of the cross-linguistic diversity of binding possibilities. Timberlake (1979) first drew attention to a range of the problems posed by Ru for the classic cyclic transformation account of reflexivization. Rappaport (1986) subsequently treated the Ru binding facts from the perspective of the account in Chomsky (1981), essentially pointing out differences between Russian and English. Among the facts he observed are that, in certain cases, Ru allows for “long-distance” binding. The reflexive personal pronoun *sebjja* and possessive *svoj* can be bound out of infinitival complement clauses (i.e. over a PRO subject) and out of a “specified” NP (i.e. over the SUBJECT of an NP), although they cannot be free within a finite (i.e. tensed) clause, as illustrated in (50).<sup>52</sup>

- (50) a. **On** ne razrešaet mne [**PRO** proizvodit' opyty nad **soboj**].  
 he not allow me to-perform experiments on self.inst  
 'He does not allow me to perform experiments on himself/myself.'
- b. **Ja** čital [ego stat'ju o **svoej** rabote].  
 I read his article about self's work  
 'I read his article about my/his work.'
- c. Maša znaet, [čto **Boris** ljubit **svoju** sestru].  
 Masha knows that Boris loves self's sister  
 'Masha knows that Boris loves his/\*her sister.'

They thus must find their antecedents within the domain of tense rather than, as in English, the domain of a SUBJECT.

While many languages display comparable anaphora, the Slavic facts serve to corroborate a set of more general correspondences, which I briefly enumerate. For one thing, long-distance anaphora are subject-oriented whereas local ones are not. Thus, while (50a, b) are ambiguous, (51) below is not.

- (51) **Milicioner** rassprašival prostitutku o **sebe**.  
 policeman.nom questioned prostitute.acc about self.loc  
 'The policeman questioned the prostitute about himself/\*herself.'

The Ru reflexives thus differ from the English *himself* series in both respects.

This correspondence has been examined for Slavic, and more broadly, in Progovac (1992, 1993), Progovac and Franks (1992), and related papers. Inspired in part by the Ru data, Progovac puts forward a theory in which domain and orientation of binding depend on the morphological status of the particular anaphor, so that Ru *sebjja/svoj* are heads and sensitive to Agr<sup>o</sup> whereas English *himself* is a phrase and sensitive to a SUBJECT XP. This approach is important because it localizes variation in the lexicon rather than in parameters which pervade the grammar. Consequently, different anaphors in the same language are expected to display different properties, and this is indeed borne out. For example, the reciprocal pronoun *drug druga* in Ru is local and not subject-oriented just like its English counterpart. This reciprocal is clearly phrasal, and indeed reciprocals are arguably universally so, explaining why they are never long distance anaphors.

Interestingly, even reciprocals that are superficially simple heads behave as if they were phrasal (in Progovac's system). In Pol the “reflexive” pronoun *siebie* can also function as a reciprocal. As a reflexive, it is long distance and subject-oriented, roughly as in the Ru examples just cited, but as a reciprocal it behaves as a strictly local anaphor only. Consider the following Pol sentence, from Reinders-Machowska (1991):

- (52) **Chłopcy** czytali [**dziewcząt** wspomnienia o **sobie**]  
 boys.nom read girls.gen memories about self/each other  
 'The boys read the girls' memories about themselves'. [*girls or boys*]

<sup>51</sup>For an informative survey of current and future Slavic research topics from the perspectives of GB and minimalism, see Bailyn (2000); for an invaluable presentation of HPSG-oriented approaches to Slavic data, see Przepiórkowski (2000a).

<sup>52</sup>Slavic reflexives do not show person-number features, and can be bound by any person. For discussion within a more general typological approach to anaphora and markedness, see Franks and Schwartz (1994).

'The boys read the girls' memories about each other'. [girls only]

The reason for this is presumably that reciprocals are invariably phrasal at LF, since they necessarily consist of two parts, a "reciprocator" and a "distributor", following Heim, Lasnik and May (1991). The fact that reciprocals are semantically complex may not, however, be reflected in the morphology, but since interpretative principles such as binding apply at LF rather than PF, they behave as if phrasal nonetheless. This account makes a variety of predictions that are yet to be fully investigated for Slavic, and there are some potentially problematic data. One set of issues concerns the extent to which binding domains are nested. According to Toman (1991), Cz reflexives, although otherwise similar to Pol, cannot be bound out of an infinitival clause although they can be out of a possessed NP. (SC may be similar, although it is difficult to tell in dialects that eschew infinitives.)

Bg presents another set of problems. The question of binding out of infinitives cannot be resolved, since Bg lacks them entirely. More curious is the fact that reflexives in this language are morphologically complex, as in (53), where the second, *si*, part is a (historically) dative possessive clitic.

- (53) a. **Ivan** popita Penčo za **sebe si**.  
 Ivan asked Pencho about self self  
 'Ivan asked Pencho about himself' [Ivan only]
- b. **Ivan** popita Penčo za **nego si**.  
 Ivan asked Pencho about him self  
 'Ivan asked Pencho about himself' [Ivan or Pencho]

The morphological structure, however, turns out not to be relevant for binding, supporting the claim that this is an LF matter. That is, (53) is just as simple at LF as its Ru counterpart with *sebjja* would be, it is just that in the morphological component fission of its features into two distinct lexical pieces takes place, so that it becomes morphologically phrasal. Strikingly, the colloquial form *nego si* in (53b), which differs from *sebe si* in (53a) in that it bears pronominal features, seems to look and work just like English *himself*, consistent with the assumption that it must be phrasal at LF as well. Clearly, binding in Slavic is a complex and underexplored area. Although comparable data are surely to be found elsewhere, Slavic presents an especially rich and typologically compact array of problems in anaphora, problems with which any theory of variation will need to contend.

#### 4.2 Aspect

Aspect is a classic and pervasive problem in Slavic morphosyntax. Research on Slavic aspect is vast; the data are extremely complex and the systems in the various languages diverse.<sup>53</sup> The category of aspect is overarching, permeating other subsystems, most importantly tense, but in addition case, voice and mood; aspect also interacts in important ways with phenomena such as transitivity and, broadly construed, quantificational categories of negation and partitivity.

Many scholars have produced valuable research on Slavic aspect.<sup>54</sup> A selection of useful resources includes Forsyth (1970) for a survey of Ru data, the articles in Flier and Timberlake (1985) for varying viewpoints, and Durst-Andersen (1992) for a particular account of Ru aspect.<sup>55</sup> Recent work on aspect in other Slavic languages includes Filip (1996) for Cz, Piñón (1997) for Pol, and Fielder (1993) for Bg. If one reads French, a classic work for Ru is Guiraud-Weber (1988), and an important volume on Bg

<sup>53</sup>The basic contrast is between a process oriented "imperfective" and a goal oriented "perfective", but there are numerous semantic subtleties beyond the scope of this chapter. There also exist other possibly aspectual classes, for example, in Ru and Pol many motion verbs have a three-way distinction, with the imperfective split into "determinate" and "indeterminate", and the verbal systems of the Balkan Slavic languages display categories such as "resultative", "indefinite", and "reported/renarrated", alongside additional tense distinctions such as "imperfect" or "aorist".

<sup>54</sup>For an excellent general introduction to aspect, with much Slavic material, see Comrie (1976).

<sup>55</sup>Roman Jakobson's work on the Ru verb, especially Jakobson (1957), is of course an invaluable point of departure for any serious research on the topic. For a study of the history of aspect in Ru, see Bermel (1997), for a recent overview of comparative aspect in Slavic, see Dickey (2000), and for an excellent specialized study of aspect and participial passives, see Schoorlemmer (1995). For an impressive on-line bibliography of work on tense, aspect, and related areas in Slavic, see the web pages designed by Robert Binnick, at <http://www.scar.utoronto.ca/~binnick/TENSE/MONSLVLG.html>. Finally, volume 9.1 (2001) is a special issue of *Journal of Slavic Linguistics* devoted to problems of Slavic aspect.

is Guentchéva (1990); there is also a large literature on Slavic aspect written in German (in addition, of course, to Ru, Polish and other Slavic languages).

Given the complexity and vastness of the data, in this chapter I shall not even attempt to survey them. I merely present several well-known sets of facts from Ru.

First, whereas the conjugated imperfective in (54a) has present tense meaning, the conjugated perfective in (54b) has a future meaning (and the imperfective future is periphrastic, as in (54c)).<sup>56</sup>

- (54) a. Ivan pišet pis'mo. b. Ivan napišet pis'mo.  
 Ivan writes.impf letter Ivan writes.perf letter  
 'Ivan is writing a letter.' 'Ivan will write [and finish] a letter.'
- c. Ivan budet pisat' pis'mo.  
 Ivan will write.inf letter  
 'Ivan will write [be writing] a letter.'

Whereas (54c) focuses on the action itself, (54b) additionally implies its completion.<sup>57</sup>

A second often noted fact concerns the use of the imperfective to negate the consequences of an action, as in the textbook example (55b).

- (55) a. Kto otkryl okno?  
 who opened.perf window.  
 'Who opened the window?'
- b. Kto otkryval okno?  
 who opened.impf window.  
 'Who had opened the window [which is now closed]?'

A third contrast that emphasizes the distinction between process and completion is the use of the imperfective, with appropriate verbs, to indicate an attempt to achieve the successful conclusion implied by the verb's perfective counterpart.<sup>58</sup> Some aspectual pairs that display this, drawn from Townsend (1970: 54-55), are cited in (56):

- (56) a. rešat' 'try to solve, work on' rešit' 'solve'  
 b. ugovarivat' 'try to convince, persuade' ugovorit' 'convince'  
 c. dokazyvat' 'try to prove, point out' dokazat' 'prove'  
 d. otyskivat' 'try to find, look for' otyskat' 'find'  
 e. učit'sja 'try to learn, study' naučit'sja 'learn'

An illustration of the interaction between aspect and case can be found in its effect on licensing of the partitive.<sup>59</sup> Compare (57a), which involves a perfective verb and allows either accusative or partitive object, with imperfective (57b), which only allows the accusative:<sup>60</sup>

- (57) a. Ivan vypil čaj/čaju. b. Ivan pil čaj/\*čaju.  
 Ivan drank.perf tea.acc/tea.part Ivan drank.impf tea.acc/tea.part  
 'Ivan drank [up] the tea/some tea.' 'Ivan was drinking tea.'

<sup>56</sup>Pol is similar in this regard to Ru, except that the periphrastic future can employ either the imperfective infinitive, as does Ru, or an imperfective *l*-participle, with no apparent (nonstylistic) difference in meaning.

<sup>57</sup>In section 6.1.3 of Franks (1995) I argue that the future meaning is induced by *budet* in examples such as (54c), since this is technically a conjugated form of the verb *byt'* 'to be', which is morphologically (if not semantically) *perfective*.

<sup>58</sup>As Wayles Browne (p.c.) points out, "semantic ... and even idiosyncratic properties of individual lexical items interact heavily with the category of perfective/imperfective".

<sup>59</sup>In some but not all Slavic languages, the genitive can have a partitive function. In Ru, for certain nouns, there is a special form of the partitive distinct from the ordinary genitive (which is nonetheless almost always a licit alternative in partitive contexts).

<sup>60</sup>Interestingly, when (57b) is negated the partitive reemerges as a viable option:

- (i) Ivan ne pil čaj/čaju.  
 Ivan neg.drank.impf tea.acc/tea.part  
 'Ivan was not drinking the tea/any tea.'

See Klenin (1978) and Franks (1995: sec. 5.3.1) for discussion.

More generally, perfective aspect is intimately associated with transitivity, as a comparison of (58a) with (58b) reveals.<sup>61</sup>

- (58) a. \*Včera Saša napisal. b. Včera Saša pisal.  
 yesterday Sasha wrote.perf yesterday Sasha wrote.impf  
 \*‘Yesterday, Sasha wrote [and finished].’ ‘Yesterday, Sasha was writing/wrote.’

This fact has led some scholars to propose a formal relationship between aspect checking (on the verb) and case licensing (on its complement), in that the same functional category, AspP, is implicated in both operations; see for example Yadroff (1996).

### 4.3 Word order

The final topic I wish to mention in this overview is even broader than aspect, and has at least as rich a tradition of description and analysis. This is the problem of so-called “free” word order in the Slavic languages, which Bailyn (2000) rightly characterizes as “the primary overlapping issue of interest for both syntactic theory and Slavic syntax for the foreseeable future.” While as we saw in sections 3.5 and 3.6 elements such as clitics and *wh*-phrases are quite restricted in distribution, most words in most Slavic languages can appear in a variety of relative orders, depending on complex stylistic, register, and information structure considerations.<sup>62</sup> These varied orders, often characterized as “scrambling” in the generative literature, are traditionally taken to reflect considerations of “functional sentence perspective” such as theme vs. rheme, old vs. new information, focus vs. presupposition, figure vs. ground, and so on.

There are many classics on word order in Ru which are written in Ru; the two best known are probably Adamec (1966) and Kovtunova (1974). A good textbook source of data which is written in English (although the Ru examples are all in Cyrillic, untranslated) is Krylova and Khavronina (1976).<sup>63</sup> A long history of research on word order and related topics in Slavic has emanated from the Prague school; some useful references are Firbas (1964), Hajičová (1993), Mathesius (1964), Sgall (1972), and Sgall, Hajičová and Panevová (1986). Yokoyama (1986) is also a very important work which any linguist studying Ru word order should consult. Recently, several dissertations have been written that deal at least in part with scrambling in Ru. These include Bailyn (1995b), Borovikoff (2001), Hoffman (1996), King (1995), and Sekerina (1997), the latter presenting experimental research on the processing of scrambled sentences; for SC, two new dissertations that treat scrambling are Stjepanović (1999a) and Godjevac (2000). There have in addition been numerous articles about word order in Slavic. Here I only note a few: Bailyn (1995c, 2001, 2003), Borsley and Rivero (1994), Junghanns and Zybatow (1995), Robblee (1994), Sekerina (1999) and Stjepanović (1999b).

Word order interacts also with intonation in complex ways. Consider the following examples, from Borovikoff (2001):

- (59) a. Učeniki prinesli cvety. b. Cvety prinesli učeniki.  
 pupils.nom brought flowers.acc flowers.accbrought pupils.nom  
 ‘The students have brought flowers.’ ‘Students brought the flowers.’  
 c. CVETY učeniki prinesli.  
 flowers.acc pupils.nom brought  
 ‘It was flowers that the students have brought.’  
 d. UŠENIKI prinesli cvety.  
 pupils.nom brought flowers.acc  
 ‘It was students who brought the flowers.’  
 e. Učeniki PRINESLI cvety.  
 pupils.nom brought flowers.acc  
 ‘The students have (already) brought flowers.’

She characterizes the final NP as a focus in examples (59a, b) and, in (59b), regards the fronting of the direct object as topicalization. Note also that, in these two examples, definiteness is expressed through

<sup>61</sup>Ru (57a) is of course acceptable with a discourse elided direct object; cf. Franks (1995: sec. 7.2.2) for discussion of discourse ellipsis, as well as Coats and Dong (1994) and McShane (1999a, 1999b).

<sup>62</sup>One unsurprising exception is that prepositions (and postpositions, to the extent these can be found in Slavic), must be immediately adjacent to their complements.

<sup>63</sup>A useful site, with references on information structure and many examples of Ru word order, is <http://tcl.sfs.nphil.uni-tuebingen.de/~eia/RWO/>.

word order, with the old information topic initial and indefinite, the new information focus final and definite.<sup>64</sup> In (59c-e), in which the focused element is not final, it must however receive a special intonation.

Here are a few typical examples of scrambled word orders in Pol. Within simple sentences, Swan (2001) provides examples such as the following, again with the last NP being the focus.<sup>65</sup>

- (60) a. Pan rzucił psu piłkę.  
man.nom threw dog.dat ball.acc  
'The man threw the dog a BALL.'
- b. Piłkę rzucił pan psu.  
ball.acc threw man.nom dog.dat  
'The ball was thrown by the man TO THE DOG.'
- c. Psu rzucił piłkę pan.  
dog.dat threw ball.acc man.nom  
'To the dog a ball was thrown BY THE MAN.'

He notes that these answer the questions in (61), respectively:

- (61) a. WHAT did the man throw to the dog?  
b. TO WHOM did the man throw the ball?  
c. WHO threw the ball to the dog?

Other types of scrambling are possible. For example, adjectives can be separated from the nouns they modify, as in the variants of (62a) offered by Borovikoff (2001):<sup>66</sup>

- (62) a. Ja čital včera [NP [AP *interesnuju*] stat'ju].  
I.nom read yesterday interesting.acc article.acc  
'I read an interesting article yesterday.'
- b. *Interesnuju*<sub>i</sub> ja čital včera [NP [*t<sub>i</sub>*] stat'ju].
- c. Ja *interesnuju*<sub>i</sub> čital včera [NP [*t<sub>i</sub>*] stat'ju].
- d. Ja čital *interesnuju*<sub>i</sub> včera [NP [*t<sub>i</sub>*] stat'ju].
- e. ??Ja čital včera [NP [*t<sub>i</sub>*] stat'ju] [FOC *interesnuju*<sub>i</sub>].

She comments that "the AP *interesnuju* 'interesnuju' can be scrambled out of the NP anywhere in the sentence", which she proposes to be left-adjunction, although it is severely degraded if it moves rightwards, even when marked by a contrastive focus intonation, as in (62e).

In general, left-branch condition violations are acceptable in Slavic, as shown by Pol (63) and (64); note that pied-piping is also possible in these examples.<sup>67</sup>

- (63) a. Jaką czytasz książkę?  
what-kind.acc read.2sg book.acc  
'What kind of book are you reading?'
- b. Kogo czytasz książkę?  
who.gen read.2sg book.acc  
'Whose book are you reading?'
- c. Czyją czytasz książkę?  
whose read.2sg book.acc  
'Whose book are you reading?'
- (64) a. Bardzo ciekawą czytam książkę.  
very interesting.acc read.1sg book.acc  
'I am reading a very interesting book.'
- b. Ewy czytam książkę.  
Eve.gen read.1sg book.acc  
'I am reading Eve's book.'

<sup>64</sup>(59a) could of course also be neutral, since Ru is basically SVO—although King (1995) argues for a VSO order—in which case *učeniki* would be neither a topic nor necessarily definite.

<sup>65</sup>Swan does not use this term, just indicating focus graphically, with small caps; the translations are his.

<sup>66</sup>I have retained her analysis and notations.

<sup>67</sup>This is an oft-noted fact, in a variety of contexts and for a variety of languages. For an insightful new analysis, see Bošković (in press-b). The earliest mention of left-branch condition violations in the generative literature is Ross (1967/1986); for Pol, see especially Borsley (1983).

- c. Swoją            czytam   książkę.  
 self's.acc read.1sg   book.acc  
 'I am reading my (own) book.'

The availability of left-branch extraction seems to correlate with the absence of a determiner, so that questions such as (63a, c) are possible in all Slavic languages except Bg and Mac, these being the only two with explicit determiners.<sup>68</sup> Interestingly, (63b)—as well as its response (64b)—are impossible in for example Ru, where the adnominal genitive is clearly a right-branch rather than left-branch element (cf. Ru *kniga moego brata* '(the) book (of) my brother' but \**moego brata kniga* vs. Pol *książka mojego brata* or *mojego brata książka*'), although the counterparts of (63c/64c) are perfectly fine, these involving extraction of adjectives rather than complement NPs.

Finally, any work on word order in Slavic will need to explore the complexities associated with long-distance scrambling. As is the case in other scrambling languages, the data are sometimes murky. There have been conflicting claims about such matters as which adjunction sites are possible, about what phrases are islands for extraction, and about the extent to which scrambling exhibits the hallmarks of A'-vs. A'-movement. Of the major languages, Ru probably exhibits the freest range of scrambling possibilities, Pol comes next, then SC, with Cz more restricted, and Bg the most.<sup>69</sup> As with many of the other problems encountered in this survey of Slavic syntax, scrambling is a vast topic, ripe for methodical investigation.

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<sup>68</sup>For discussion of postpositive articles in Mac and Bg, see Franks and King (2000: sec. 9.2). See Franks (2001) for further details and comparison with the "dative possessive" clitics found in these languages. In these works, as well as Franks (2000, in press-b), I argue that (putting ESl aside, which seems to admit multiple possibilities, given the analysis in section 3.5 above) the maximal projection of N is K(ase)P *except* in Mac and Bg, which have evolved to a DP system. For an alternative perspective see Progovac (1998), who argues for the DP status of SC nominal phrases. The arguments she adduces are, however, also compatible with my KP approach, since they essentially indicate an additional functional projection above NP, which may but need not necessarily be taken to be DP.

<sup>69</sup>Interestingly, Slvn seems more comparable to Cz than it is to the genetically closer SC, suggesting the relevance of German *Sprachbund* features. One place this difference is highlighted is in the possibility of clitics splitting up apparent constituents, where this simply correlates with the general viability of scrambling (generally, out of NP); see Franks (2000, in press-b) and especially Bošković (2001) for relevant comparison of SC and Slvn.

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