

Clitics in Slavic

Steven Franks
Indiana University

Table of Contents

0. Introduction	2
1. Some general thoughts on Slavic clitics	3
2. Second position clitics	4
2.1. The Serbo-Croatian puzzle	4
2.2. Two basic approaches	6
2.2.1. Prosodic inversion	7
2.2.2. Head movement to C°	11
2.3. Some syntactic effects	13
2.3.1. Movement	13
2.3.2. Splitting	16
2.3.3. Names	21
2.4. Clitics as functional heads	22
2.4.1. Basic phrase structure and overview of the analysis	22
2.4.2. Where do 2P clitics go?	23
2.5. Some phonological effects	27
2.6. A minimalist division of labor: syntax composes, phonology disposes	28
2.6.1. Syntax: making clitics move	29
2.6.2. PF: pronouncing the right copy	30
2.7. Variations on a theme: other second position languages	33
2.7.1. Slovenian	33
2.7.2. Czech	37
3. Some potential problems	40
3.1. Ordering templates: accident or design?	40
3.1.1. Idiosyncratic heads	40
3.1.2. Clitic climbing and cluster splitting	43
3.2. Ellipsis in Serbo-Croatian	46
3.3. Particles in Czech	47
4. Verb adjacent clitics	48
4.1. Some basic facts: Macedonian vs. Bulgarian	49
4.2. More variations on a theme: the verb comes to the clitics	50
4.3. Ways of getting "clitic + verb"	53
4.3.1. Movement possibilities	53
4.3.2. Linearization in PF	54
4.4. Phonology can't be all there is: Macedonian vs. Bulgarian redux	55
4.4.1. Imperatives and gerunds	55
4.4.2. Clitics in DPs	60
4.5. Syntax can't be all there is either	71
5. Excursus on Polish clitics	76

5.1. The dual nature of person agreement	77
5.2. Pronominal clitics move as phrases	83
6. Summary and conclusions	90
References	92

Clitics in Slavic

0. Introduction

The topic of Slavic clitics is a traditional one which has inspired considerable interest and excitement over the past few years. As has been evident since the earliest work on clitics in the transformational-generative paradigm, such as Perlmutter (1971) or Kayne (1975), these little words can pose an especially large problem for strictly modular theories of grammar. The reason is that they seem to have special properties at multiple levels of representation—the by no means exhaustive list in Sadock (1991: 52) includes phonology, morphology, syntax, semantics, and the lexicon (although this last is technically speaking simply the repository of all idiosyncratic information from the first four categories). This suggests that any definition of “clitic” may have to encompass more than one subsystem of the grammar, a situation which has never been countenanced in Chomskyan models, including the most recent “Minimalist” program of Chomsky (1995).¹ For this reason, linguists of all ilks have been attracted to the study of Slavic clitics, seeing in them grist for their own mills. Phonologists and syntacticians alike have each been arguing for the primacy of phonological and syntactic processes at work in putting clitics in the right place. Morphologists as well have gotten into the act, claiming that morphological mechanisms provide the best way for us to understand why clitics behave as they do. The debate typically centers around the issue of whether special clitic positioning in Slavic can be handled exclusively through the exploitation of familiar syntactic categories and movement mechanisms or whether some special postsyntactic reordering alternative is called for. Under the syntactic approach, clitics are heads or phrases and consequently undergo head or phrase movement, with all the appropriate trappings. Examples of “postsyntactic reorderings” are Halpern’s (1992/1995) “Prosodic Inversion” or Halle and Marantz’s (1993) “merger”; I will refer to this general class of analyses as invoking “PF processes”.

My intentions in this position paper are three-fold: first, to present the core data that any adequate analysis of Slavic clitics should explain; second, to survey the various approaches that exist to these data; and third, to offer my own views about the direction any successful solution must take. Meeting the first goal will be straightforward, if long winded, as relevant data are readily available. Meeting the second goal will be greatly facilitated by the existence of work like Schütze (1996) and especially Bošković’s recent paper “Second Position Cliticization: Syntax and/or Phonology?”, which essentially does this for me. As for the third goal, of characterizing the right kind of solution, let the reader be the judge of its success. While I, as a syntactician, naturally favor a syntactic solution to the problem of placing clitics, the arguments are far from conclusive. Here I will take the stance that the lion’s share of the work is done by garden variety syntactic movement rules, but that there remains an intractable residue of prosodically-driven phenomena. The key question then becomes how the existence of both syntactic and phonological effects can be reconciled without unduly increasing the power of the syntax or of the phonology. More specifically, my two central

¹ If anything, in this newest approach modularity is brought to its logical extreme, the “syntax” being nothing more than a computational system for interfacing between the phonology and the semantics (and the lexicon, although this point is rarely emphasized).

concerns will be whether we can avoid letting the syntax “look ahead” to PF and whether we can avoid letting PF move syntactic material. Either of these enrichments would involve an encroachment of one of the components onto the traditional bailiwick of the other, one that in my opinion would open up a Pandora’s Box of unwanted possibilities.

As a point of departure, we should also recognize that a primary argument for making use of syntactic rather than phonological movement is conceptual: if it is possible to handle Slavic clitics without proliferating linguistic machinery, then this is to be preferred on grounds of parsimony. Clitics are after all syntactic elements, introduced into the phrase structure tree as all other items are. They may be heads or phrases or ambiguous between the two, but whichever they are, one would expect them to move as other heads or phrases do. They should be subject to similar constraints, economy principles, and the like. Thus, to the extent that clitics exhibit the hallmarks of more familiar instances of syntactic movement, we can conclude that clitics move in the syntax. On the other hand, to the extent that clitics exhibit idiosyncratic properties that appear to reflect PF considerations, we can conclude that postsyntactic processes are also at work.

I will eventually argue for a specific instantiation of the syntactic approach, one which makes use of minimalist technology and treats clitics as functional heads which move for feature-checking reasons. The program of placing Slavic clitics syntactically, however, faces a clear challenge in that there are some obvious phonological effects which need to be built into the system. These effects suggest that the story of clitics cannot end in the syntax. I will espouse a “filtering” approach, following Bošković (1997b), in which the results of strictly syntactic movements are modulated by the phonology. One can think of the syntax as generating various orders, some that “crash” at PF because the clitics are not supported prosodically and others that “converge” at PF. I will look at this in terms of how the PF decides which of the candidates the syntax provides it with to actually be the one pronounced. Given this, there will be two specific ways that the phonology can impact on the output of the syntax. One is that, assuming Chomsky’s “copy and delete” theory of movement, prosodic considerations will play a role in determining which copy is the one retained in PF. The other is that, if linear order is a strictly PF matter, prosodic considerations are expected to play a role in determining which side of its host a clitic is pronounced on. This division of labor, while it encounters various empirical problems, at least sets the direction an explanatorily adequate solution might take.

The paper is organized as follows: the first section briefly presents some general observations about clitics. The second section, in which the basic analysis is developed, deals with second position clitics, mostly in Serbo-Croatian (SC). The next section discusses several possible problems with implementing a purely syntactic account of clitic movement. The fourth section treats verb-adjacent clitics in Bulgarian (Bg) and Macedonian (Mac), attempting to assimilate them to the analysis proposed for SC. In the last substantive section the clitic system of Polish (Pol) is examined. It is argued that Pol clitics are special in not being “special”.

1. Some general thoughts on Slavic clitics

A clitic is a word (a lexical entry) that lacks word-level prosodic structure, hence must attach to another prosodic word in order to be pronounced. A lexical element with this general phonological property is called a “simple” clitic. Following Zwicky (1977), it has no other idiosyncrasies. My focus here however is on the so-called “special” clitics in Slavic. These are clitic pronouns and clitic auxiliaries in South and West Slavic, which—in addition to the prerequisite prosodic deficiency—have a syntactic peculiarity: special clitics must appear in a special syntactic position. As discussed in detail below, in Slavic this position comes in two

basic variants: one is second in the clause, the other is adjacent to the verb. Now, given that there is a difference between simple and special clitics, it is clear that special clitics move to address some kind of syntactic deficiency. Such a conclusion is I think inescapable, since their syntactic properties are what defines them as special clitics and what distinguishes them from simple clitics. Therefore, we must look for something syntactic in our effort to understand what is “special” about special clitics.

If we think about the kinds of things that can be clitics in the world’s languages, we realize that they always supply grammatical rather than lexical information. This is a traditional observation, one that is echoed in Sadock’s (1991: 112) observation that “clitics always seem to represent closed lexical classes. They are frequently encountered among determiners, auxiliary verbs, prepositions, complementizers, conjunctions, and pronouns, but I have no good examples of clitic main verbs, clitic nouns, or clitic adjectives.” Sadock simply states this idea as a “Law of Clitics”. The fact, however, takes on special significance in the light of the division between lexical (or substantive) and functional (or grammatical) categories: only the latter can be clitics. I contend that any functional category (and no lexical category) can in principle be a clitic.

There is, moreover, another fundamental division within the class of grammatical markers that clitics constitute, one that falls along simple vs. special clitic lines. To see this, consider the fact that special clitics were lost in East Slavic, with the exception of South-Western Ukrainian dialects, although simple clitics remain. Now recall Jakobson’s (1935/1971) generalization that *inflecting* clitics were lost in Russian, which means that simple clitics such as discourse particles, such as *že*, and the interrogative particle *li* remained intact, but pronominal and verbal auxiliary clitics disappeared.² This observation suggests another way to characterize Zwicky’s (1977) distinction between special and simple clitics: special ones are ones that have paradigms and inflect. In minimalist terms, this implies that special clitics have some feature that must be checked off in the overt syntax, whereas simple ones do not. This conclusion, it seems to me, must provide the key to why special clitics behave as they do. The puzzle, of course, is what that feature might be, since it is clearly not the sort of feature that usually participates in the checking process in other minimalist analyses of feature-driven movement.

2. Second position clitics

This section examines second position clitics in detail, with particular emphasis on phonological vs. syntactic accounts of clitics in SC.³

2.1. The Serbo-Croatian puzzle

Although word order is generally relatively “free” in Slavic, the clitics are required (i) to appear in a particular position (or positions) in the sentence and (ii) to be ordered in specific ways among themselves. Thus, as shown in (1), in SC clitics go in second (or “Wackernagel”) position, regardless of what kind of phrase goes first; clitics throughout this paper are represented in boldface.

²This had all sorts of repercussions. The loss of pronominal clitics forced the reflexive/voice morpheme *-sja* to become frozen and inflectional; the loss of auxiliary clitics had ramifications such as forcing the modal/conditional verbal auxiliaries to become the single frozen noninflecting form *by* for all persons, presumably now a simple clitic, and causing the past tense person/number auxiliary to disappear. This in turn, as Jakobson observed back in 1933, turned Russian into a non pro-drop language.

³In this paper I use the abbreviation “SC” indiscriminately to refer to Serbian/Croatian/Bosnian and other conceivable variants; in the examples I vacillate with similar indiscretion among literary standards.

- (1) a. Zoran **mi** stalno kupuje knjige.
 Zoran me.dat constantly buys books
 'Zoran is constantly buying me books.'
- b. Stalno **mi** kupuje knjige Zoran.
 c. Knjige **mi** Zoran stalno kupuje.
 d. Kupuje **mi** stalno knjige Zoran.

All alternatives, including lower placement, as in (2), or higher placement, as in (3), result in ungrammaticality.

- (2) a. *Zoran stalno **mi** kupuje knjige.
 b. *Zoran stalno kupuje **mi** knjige.
- (3) ***Mi** Zoran stalno kupuje knjige.

Moreover, if the (accusative case) direct object *knjige* 'books' is also replaced by the third plural accusative clitic *ih*, this clitic must immediately follow dative *mi*, as in (4):

- (4) Zoran **mi ih** stalno kupuje.
 Zoran me.dat them.acc constantly buys
 'Zoran is constantly buying me them.'

The "dative precedes accusative" requirement is part of a larger ordering pattern, with the template roughly as in (5):

- (5) **li > AUX > DAT > ACC > GEN > se > je**

An important question is whether the origin of (5) is purely syntactic, or whether a morphological template specifically expressing the information in (5) is required. There are, after all, well known idiosyncrasies. For example, although verbal auxiliary clitics such as *ste* in (6a) generally precede the pronominal clitics, the third singular auxiliary clitic *je* follows them, as in (6b):

- (6) 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. Da **li mi ih je** danas kupio?
 C Q me.dat them.acc aux.3sg today bought
 'Did he buy me them today?'

Although, as discussed in section 3.1.1, I believe the recurrence of persistent patterns in clitic ordering, and the correspondence between these patterns and orders expected on the basis of standard syntactic analyses, supports a syntactic account of clitic cluster formation, it may well be that such ordering restrictions among the various clitics ultimately defy efforts to motivate them syntactically.

Let us however put these issues temporarily aside and discuss another idiosyncrasy of SC clitic placement that has received considerably more attention in the literature. If one

considers just the data in (1), a reasonable characterization of the distribution of SC clitics might be that they can follow either the first phrase, as in (1a-c), or the verb, as in (1d). This state of affairs can however be described not only in these syntactic terms, but also in phonological terms. Adopting the terminology of Nespor and Vogel (1986), the clitics could be said to appear after the first prosodic word in their intonational phrase (-phrase). A standard syntactic treatment, as discussed below, typically involves moving the clitics, as functional heads, to C° , and letting either the verb or a single XP precede the clitics, the former being left-adjoined to C° and the latter occupying [Spec, CP]. The phonological treatment relies on two independent facts about SC clitics: (i) clitics in general lack word-level prosodic structure, hence must attach to another prosodic word in order to be pronounced, and (ii) clitics in SC are *enclitic*, hence look to their left for prosodic support. The interesting thing about SC clitics, and a major reason why their analysis is particularly problematic, is that *both* syntactic and phonological characterizations seem to be correct. Thus, when larger phrases are considered, we see that clitics can either follow the first phrase or the first prosodic word. This is shown in (7) and (8) for “adjective + noun” units, which can apparently be split regardless of the function of the NP—subject in (8a), object in (8b), and adjunct in (8c).⁴

- (7) a. Taj čovjek **joj ga je** poklonio.
 that poet her.dat it.acc aux.3sg gave
 ‘That person gave it to her.’
 b. Zanimljive knjige **mi** stalno kupuje Zoran.
 interesting books me.dat constantly buys Zoran
 ‘Zoran is constantly buying me interesting books.’
 c. Prošle godine **su** otvorili gostiteljsku školu.
 last year aux.3pl opened hotel school
 ‘Last year they opened a hotel school.’
- (8) a. Taj **joj ga je** čovjek poklonio.
 b. Zanimljive **mi** knjige stalno kupuje Zoran.
 c. Prošle **su** godine otvorili gostiteljsku školu.

Although other phrase types also seem to be splittable, I postpone discussion of them until section 2.3.2. The examples in (7) and (8) suffice to demonstrate what I take to be the fundamental and most troublesome puzzle posed by SC clitics: Why are both these options available?

2.2. Two basic approaches

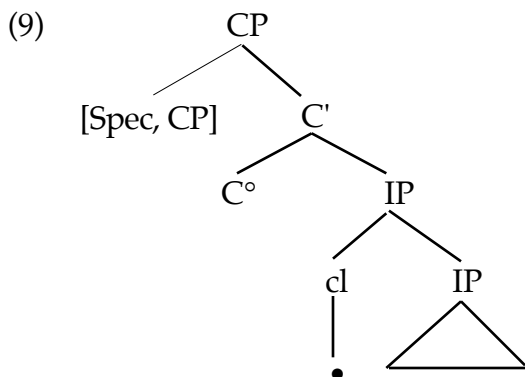
A standard way of dealing with this dichotomy, pretty much since the seminal description of SC clitics in Browne (1974), is to claim that SC clitics can be either prosodically or syntactically dependent, with these two factors in competition, so that either may prevail. A typical explanation of the above variation is thus that the clitic cluster is free to fall either after the first syntactic phrase, as in (7), or after the first prosodic word, as in (8). This

⁴These and subsequent examples are either constructed by and checked with native speakers or drawn from various sources in the large SC clitic literature, including Browne (1974, 1975), Zec and Inkelas (1990), Percus (1993), Franks and Progovac (1994), Halpern (1992/1995), Radanović-Kocić (1988, 1996), Schütze (1996), Čavar (1996), Progovac (1996), Rubadeau (1996), Bošković (1997b), etc.

explanation is very widely accepted, so much so that it is given as a paradigm example of the interplay between phonological and syntactic criteria in such standard textbooks as Comrie (1981). Halpern (1992/1995) characterizes the syntactically determined placement in (7) as “second daughter” or 2D, and the phonologically determined placement in (8) as “second word” or 2W, and I shall adopt this notation here for ease of reference. I shall also refer to second (“Wackernagel”) position in general as 2P, however achieved or defined. This kind of variation is recognized as problematic for any uniform account of clitic placement, since a purely syntactic analysis will have difficulty accommodating (8) and a purely phonological analysis will have difficulty accommodating (7). Let us therefore consider in some depth a popular mixed account of SC clitic placement, namely “Prosodic Inversion”.

2.2.1. Prosodic inversion

An important line of research, stemming from Zwicky (1977) and best exemplified by the detailed studies of Klavans (1982) and Halpern (1992/1995), has therefore been to pursue a mixed system, whereby reference may be made to both types of criteria in anchoring the clitics. To illustrate, consider Halpern’s version of Prosodic Inversion (PI), which is a mechanism which resolves “mismatches between syntactic and surface structure” by inverting the clitic and adjacent material. Assuming the sentential phrase structure in (9), clitics in SC are positioned to the left of IP (= S):⁵



Taking the output of the syntax to be a structure essentially as in (9), with the clitic cluster adjoined to IP, Halpern proposes that PI places the clitic cluster after the first prosodic word to its right. In this way, 2W as in (8) is obtained. 2D as in (7) could be handled similarly, with PI targeting a syntactic phrase instead of a prosodic unit, but Halpern reasonably argues against this variant, which a number of previous PI analyses had previously espoused. Instead, he proposes that here a phrase moves syntactically to [Spec, CP], with the clitic cluster remaining *in situ*. We thus have a mixed system: (7) is obtained by syntactic movement of a phrase to [Spec, CP], but if this fails to occur, the output of the syntax leaves the clitics in initial position. Since initial enclitics are not prosodically viable, PI applies to move the clitics to after the first prosodic word to their right, whatever that happens to be. In this way, both variants are attained, although 2W is merely an artifact of the failure of 2D at some postsyntactic level, presumably PF, although a comparable effect could be obtained through morphological merger, as suggested by e.g. Bošković (1995).

What about (1d), in which the verb appears initially, with the clitics dependent on it? Is PI or V°-to-I°-to-C° involved? Halpern (1992/1995) is silent about its analysis, although in

⁵Halpern (1992: chapter 3) slightly revises this so that clitics are adjoined to CleftP, a phrase he posits between CP and IP.

personal communication confirms that both PI and verb movement are logically possible in his system. Notice that the same ambiguity exists in fact for the other examples in (1), since a phrase consisting of one prosodic word could either move to [Spec, CP] or be initial in IP and hopped over by the clitics. Which actually occurs is not a trivial point, since using verb raising to handle (1d) means taking advantage of the independently necessary syntactic mechanism of head movement, and the same is true of movement to [Spec, CP] for (1a-c). There is however a potentially serious problem for head movement when the initial verb is a participle, if Bošković (1995, 1997a, 1997b) is correct that these never move as high as C° . He argues that a participle such as *kupovao* (10) cannot be in C° , since participles never move that high.

- (10) Kupovao **mi** **je** stalno zanimljive knjige.
 bought me.dat aux.3sg constantly interesting books
 'He was constantly buying me interesting books.'

One place this can be seen is in the contrast between (11a) and (11b):⁶

- (11) a. Prodaješ **li** svoju kuću?
 sells.2sg Q self's house
 'Are you selling your house?'
 b. *Prodao **li** **si** svoju kuću?
 sold Q aux.2sg self's house
 'Did you sell your house?'
 c. Prodao **sam** svoju kuću.
 sold aux.1sg self's house
 'I sold my house.'

Apparently, participles in SC can never cross the one clitic which we independently surmise to be in C° , that is, interrogative *li*. Now if this means, as Bošković concludes, that the problem with (11b) is that participles in SC can never move to C° , then the grammaticality of (10) or (11c) implies that the auxiliary clitic must be in a head position lower than C° , which in turn implies that these clitics cannot be adjoined to IP. Consequently, PI would be the only way Halpern could produce these examples when participles are involved. However, V° -to- I° -to- C° would be a credible alternative for present tense verbs and X⁰s which are exhaustively XPs. Interestingly, for Halpern PI would be a necessary analysis in V + *li* constructions, since *li* would have to hop over an initial verb, although an XP could move to [Spec, CP]. Clearly, this range of disparate methods for obtaining the same sentences is undesirable. While this kind of conceptual problem is endemic to any analysis which postulates both syntactic and phonological mechanisms for achieving the same result, I know of no *purely* phonological approach to SC clitics, although Radanović-Kocić (1988, 1996) perhaps comes closest.⁷

⁶Bošković's strongest argument that participles do not move very high is based on the observation that they can never precede sentential adverbs, as discussed in section 2.4.2 below. Since they can precede clitics, as in (10) or (11c), this implies that the clitics in these examples must be in a head position lower than the participle. However, since clitics can precede sentential adverbs, we are according to Bošković faced with a paradox which can only be resolved if clitics are able to appear in various positions. This issue is examined in the next section.

⁷Schütze (1996) refers to this as a "pure phonology account" and Bošković (1997b), to whom the reader is referred for discussion, calls it the "strong phonology approach". PI for him is a "weak syntax account".

PI raises many other problems, both in general and with Halpern's particular instantiation of it. One class of problems for PI involves the fact that much splitting of phrases actually occurs in the wrong place, that is, not after the first phonological word in the clitic's *-phrase*. Here is one example from Čavar (1996: 58), who reviews many arguments against PI and introduces several new ones. Alongside (12a) we also find (12b):

- (12) a. U stara raspala prljava kola **smo** sjeli.
 in old decrepit dirty car aux.1pl sat
 'We got into an dirty decrepit old car.'
 b. U stara raspala prljava **smo** kola sjeli.

There is no PI in (12a). Instead, the PP simply moves to [Spec, CP]. An example such as (12b), however is virtually impossible for PI to handle, since the clitic seems to interrupt the PP but does *not* fall after the first prosodic word by any stretch of the imagination. I will return to (12) in section 2.3, extending the paradigm, providing additional examples, and proposing an analysis in terms of "remnant topicalization".

Let me reproduce here another set of arguments against Halpern's version of PI which is presented in Čavar (1996). Consider for example the issue of how clitic placement interacts with multiple *wh*-movement. A point frequently made, first to my knowledge by Rudin (1988), is that in SC the clitics follow the first *wh*-phrase rather than all of them. The examples in (13) are from Čavar (1996).

- (13) a. Šta je Ivan komu dao?
 what aux.3sg Ivan whom.dat gave
 'What did Ivan give to whom?'
 b. Šta je komu Ivan dao?
 c. *Šta komu je Ivan dao?

Under the standard analysis of multiple *wh*-movement in Slavic, due to Rudin (1988), only the first of multiple *wh*-phrases in SC is in [Spec, CP]; the others are adjoined to IP (or whatever functional projection is next highest in one's phrase structure). This assumption explains why (13b) is grammatical, rather than (13c): (13c) would require the clitic *je* to be in a lower head position than C° which, given the interrogative *šta* 'what', must be the highest one in the structure.⁸ Similarly, Čavar (1996: 57) offers the paradigm in (14):

- (14) a. Ivan kaže da mu je Marija dala knjigu.
 Ivan says C him.dat aux.3sg Marija gave book
 'Ivan says that Marija gave him a book.'

⁸I should note however that Stjepanović (1995) and Bošković (1998) have argued that in contexts where SC does not display superiority effects the multiple *wh*-phrases are all adjoined to AgrP; see also Bošković's contribution to this workshop and the references therein. If so, in (13a), for example, *komu* would be adjoined to AgrOP and in (13b) it would be adjoined to AgrSP. To be compatible with my eventual analysis, the first *wh*-phrase, *šta* in this instance, would need to be in the specifier of a distinct functional category, otherwise there would be no head position in which to locate the clitic. Even worse, as Saša Vukić (pc) has remarked, the multiple adjunction account predicts (13c) in the absence of phonological clitic placement mechanisms. So to get all the facts Stjepanović and Bošković discuss I would probably need to posit multiple FPs (Focus Phrases) and move the *wh*-phrases to their specifiers. Just as each VP in the VP shell can project an AgrP (to check the case of its argument, if it introduces one), so each VP would be able to project an FP if needed, right above the appropriate AgrP (and probably assuming Koizumi's (1993) "split VP" analysis).

- b. *Ivan kaže da knjigu **mu je** Marija dala.

If, Ćavar reasons, *knjigu* ‘book’ can be scrambled to adjoined to IP and if, as in the PI account, the clitics were also adjoined to IP, then both putative structures in (15) should be possible:

- (15) a. Ivan kaže [CP da [IP **mu je** [IP knjigu [IP Marija dala]]]]
 b. *Ivan kaže [CP da [IP knjigu [IP **mu je** [IP Marija dala]]]]

If, instead, when *da* is present the clitics must be in C°, as I will argue below, then of course they will necessarily precede scrambled elements, as in (16).

- (16) Ivan kaže [CP da **mu je** [IP knjigu [IP Marija dala]]]

This makes the adjunction to IP analysis of SC clitic placement unlikely. Although these facts are problematic for the version of PI in (9), they are compatible with the CleftP approach mentioned in fn. 5 as well as with the analysis in Schütze (1994).

I now briefly consider some economy aspects of the PI account. PI clearly takes place only as a “Last Resort” phonological movement operation to save the structure if [Spec, CP] and C° both happen to be null. The fact that it must apply if failure to apply would result in a clause initial clitic, as in (3), is not especially surprising, under the assumption that (3) does not respect the clitic cluster’s phonological requirement that there be something with prosodic structure to its left to support it. The fact that it cannot apply unless it has to is somewhat more problematic. That is, if in (17a) *zanimljivu knjigu* ‘interesting book’ (instead of *taj pesnik* ‘that poet’) were to front past IP, which, assuming the structure in (9), would be represented as in (17b), then PI could not apply to move the clitics rightwards to produce (17c).

- (17) a. Taj pesnik **mi** piše zanimljivu knjigu.
 that poet me.dat writes interesting book
 ‘That poet is writing an interesting book for me.’
 b. [CP [zanimljivu knjigu] [C° C° [IP **mi** [IP taj pesnik piše]]]]
 c. *Zanimljivu knjigu taj **mi** pesnik piše.

Similarly, if this were an embedded clause and C° were occupied by the complementizer *da* ‘that’, then neither V-to-C movement, as in (18a), nor PI, as in (18b), would be possible:

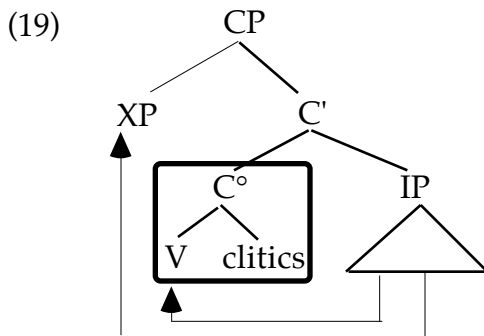
- (18) a. *... da piše **mi** taj pesnik zanimljivu knjigu.
 C writes me.dat that poet interesting book
 b. *... da taj **mi** pesnik piše zanimljivu knjigu.
 C that me.dat poet writes interesting book

I thus conclude that if postsyntactic movement exists, it is subject to the same sort of Last Resort requirement as syntactic movement, although in a different component of the grammar.⁹

⁹Here I echo a thought recently expressed by Collins (1997: 25) in arguing against including economy principles in the definition of Attract. He suggests that Last Resort and Minimality are not principles of the syntax *per se* since they also appear to be operative in domains such as morphology and phonology. Applied to clitics, this

2.2.2. Head movement to C°

Given that even mixed accounts of SC clitic placement make extensive use of syntactic movement, it is natural to try to pursue an exclusively syntactic approach and see how far it can be pushed. Here I summarize one standard way of achieving 2P effects without invoking PI. The leading idea, which seems to have been arrived at independently by a number of people at around the same time, is that if clitics all cluster together in C°, and if either an XP moves to [Spec, CP] or the V moves to C°, then the basic properties of the 2P effect result automatically. This kind of approach, espoused in work such as Čavar and Wilder (1994), Franks and Progovac (1994), Mišeska-Tomić (1996a, 1996b), and Progovac (1996), is very roughly indicated in (19), with the boxed portion left at this point intentionally vague.



The chief virtue of (19) is conceptual, in that it exploits syntactic movement mechanisms we need anyway; the chief liability is empirical, in that its rigidity makes it difficult to account for some of the 2P clitic data. I discuss some of these problems below, in sections 2.3 and 2.4.

Before doing so, however, let us consider the crude structure in (19) a bit more carefully. There are various ways in particular that the portion in the box might be fleshed out. If the clitics cluster in C, either they move there independently or the lowest clitic adjoins to the next higher one, and so on, until C is reached. Answering this depends on technical assumptions about direction of adjunction, Shortest Move, and excorporation, but it also depends on the fundamental issue of what drives movement of clitics to C. No one to my knowledge really has a good answer for this. The other problem with (19) has to do with why V moves to C° only when nothing else has moved to [Spec, CP]; something must prevent both movements from occurring. Virtually every proponent of this approach assumes that V moves last, that is, the clitics are in C° and an XP may or may not be in [Spec, CP]. This raises the obvious problem, analogous to superfluous PI, of why one does not get both movements, as in the ungrammatical structure in (20); compare (17):

(20) *_{CP} [t_j pesnik]_i [_{C'} [_{C°} piše_j mi] [_{IP} t_i t_j zanimljivu knjigu]]]]

Rivero (1991, 1993) and others who champion syntactic analyses of clitic placement assume that movement of both would flout economy considerations, since this is unnecessary. But why? In what sense would (20) be “overkill”? Clearly not in any syntactic sense. The only credible candidate is the “doubly filled COMP filter”, whatever that is in the CP system, but surely if the clitics are in C° this filter does not hold here, and if the clitics are lower and the verb moves up to those same clitics, then it is irrelevant. Alternatively, one might imagine, as

would mean that postsyntactic movement to support clitics involves moving for a reason (albeit a prosodic rather than syntactic one) and also moving the closest element that can do the necessary work.

in fact Rivero does, that the motivation for the movement of something to preclitic position is phonological. Interesting, this is usually taken to imply that V-to-C in SC is not only a “last resort” movement, but one that occurs to avoid a crash at PF. This view is however extremely suspicious because it requires serious look-ahead. It would be far preferable to avoid global considerations and work exclusively within a local economy system instead. Another conceptual problem with this account is that it disassociates verb movement here from more familiar syntactically-driven types of verb movement. A final issue is that, if Bošković is correct about participles never moving to C, then examples like (10) also constitute a problem for any purely syntactic analysis which claims 2P clitics are always in C° and V° moves there to support them.¹⁰ In section 2.6, however, I will suggest a syntactic alternative that is in keeping with Bošković’s conclusion.

There are however various ways one might imagine of rectifying the situation to avoid globality. Clearly, there is no local way to instantiate such purely phonologically motivated syntactic movement in terms of checking morphosyntactic features that forces the prosodically correct option in each instance. One could imagine, however, that each option is equally costly to the syntax.¹¹ What this would mean is that either (1d), with verb fronted, or (3), with clitics initial, could be the output of the syntax. Each would involve only shortest moves that satisfy last resort. At PF, however, (3) would be ruled out because of prosodic considerations. This could be taken as the “filtering effect” of PF. Three ways one might implement this optionality are: (i) adjoin freely to the left or right; (ii) let the feature that is checked by V-raising be optionally strong or weak (and the position of the clitics is fixed), or (iii) let the clitics have the option of occupying one of various head positions (and the position of the verb is fixed). In section 2.6, I will explore a variant of the third alternative, and in section 4 aspects of the first, although the locus of the variation will be in PF.

There is a global economy alternative which is also worth considering, involving failure to procrastinate. Assume that the movement of V° past the clitics is syntactically motivated by feature checking, but that the features being checked are weak, hence ordinarily procrastinated until LF. When the verb fronts overtly, this is forced as the only convergent derivation, since procrastination would result in PF crash. Under this scenario the “filtering effect” of PF is one that forces overt syntactic movement. The problem with it of course is that it is global: movement of V to the left of the clitics can only be sanctioned by considering whether the prosodic requirements of the clitics would have been met if the movement had failed to occur in the overt syntax. This reasoning is unacceptable in a local economy model.

A more direct solution might therefore be to bite the bullet and accept the need for postsyntactic reordering processes such as PI, although imposing on them economy criteria such as Last Resort and Minimality. It would mean ascribing clitics special status, since they require a unique solution to the syntax-phonology mismatch problem. This conclusion has been reached by a number of researchers, and is I think most clearly articulated in the Autolexical Syntax approach of Sadock (1991). In section 4.5 I discuss some residual places where it looks like ordering effects require postsyntactic input.

In section 2.6 of this paper, however, I want to pursue an approach that exclusively exploits syntactic movement but relies on phonological generalizations about the distribution of clitics. This has been advocated by Bošković, most persuasively in his (1997b) paper, which claims that the 2P effect arises because clitics need to be both suffixes and right adjacent to an -phrase boundary. For him, this is what constitutes the “filtering effect” of phonology. My alternative will be somewhat simpler: Wackernagel clitics appear in the highest head position

¹⁰Recall that for PI this merely eliminated one of the conceivable ways of obtaining “participle + clitics” order.

¹¹This state of affairs is considered for certain optional agreement problems in Chomsky’s “Economy of Derivation” paper (chapter two of *The Minimalist Program* book) and plays a key role in Collins (1997).

in which they can. The ungrammaticality of (2) or (20) then follows from the assumption that there is an available head position above the verb, i.e. that the verb is not in AgrS. Crucially, there is never any need to posit overt V-to-C in SC (except possibly in examples such as (11a), taking *li* to be in C°). Since the verb never moves *in order to support* the clitics, there is no reason to expect (20).

2.3. Some syntactic effects

Before developing the analysis, however, I consider in this section some further reasons why SC clitics must be treated as syntactic entities and their placement must be regarded as fundamentally syntactic, not prosodic. While discussions that point out reasons why SC 2P clitic placement cannot be purely phonological are myriad, arguments that it must be syntactic are far rarer. Here I examine three types of phenomena. The first provides clear evidence that clitic placement is syntactic, since it satisfies the typical diagnostics for syntactic movement. The second and third deal with splitting, as mentioned above, and are far more controversial, since the existence of splitting has traditionally been taken as an argument for sensitivity to phonological requirements. I will nonetheless demonstrate that syntactic movement must be at the heart of 2P splitting as well.

2.3.1. Movement

Progovac (1996) makes a strong case for syntactic placement. First of all, although different phrases can support clitics, as in (21), V is the only head which can do this, as can be seen in (22):

- (21) a. [AP Vrlo zanimljivu] **sam** knjigu čitao.
 very interesting aux.1sg book read
 ‘I read a very interesting book.’
- b. [NP Studentkinju fizike] **je** poljubio Jovan.
 student.acc physics.gen aux.3sg kissed Jovan
 ‘Jovan kissed a (female) physics student.’
- c. [PP Prema Milanu] **ga je** Marija bacila.
 towards Milian it.acc aux.3sg Mary threw
 ‘Mary threw it toward Milan.’
- d. [AdvP Rano ujutro] **je** stigao Jovan.
 early morning aux.3sg arrived Jovan
 ‘Jovan arrived early in the morning.’
- (22) a. [V Čitali] **smo** zanimljivu knjigu.
 read aux.1pl interesting book
 ‘We read an interesting book’
- b. *[P PREMA] **je** Milanu Marija koračala, a ne od njega.
 towards aux.3sg Milan.dat Mary walked and not from him
 ‘Mary walked TOWARD Milan, not away from him.’
- c. *[N Roditelji] **su se** uspešnih studenata razišli.
 parents aux.3pl refl successful.gen students.gen dispersed
 ‘The parents of the successful students dispersed.’

Prosodic inversion fails in examples such as (22b) and (22c). The existence of such impenetrable contexts, dubbed “fortresses” by Halpern, I take to be a serious problem for his phonological movement account, since PI should not be able to discriminate *syntactic* criteria. Here the relevant criterion is the head complement relation, which clitics cannot interrupt, unless the head itself moves past the clitics, as in (22a). A further example, from Franks and Progovac (1994), is given in (23).

- (23) a. ??Studenti **su** iz prelepog grada na moru upravo zaspali.
 students aux.3pl from beautiful city on sea just fell-asleep
 ‘The students from this beautiful town on the sea just fell asleep.’
- b. *Studenti **su** lingvističkog opisa engleskog jezika upravo zaspali.
 students aux.3pl linguistic structure English language just fell-asleep
 ‘The students of the linguistic structure of English just fell asleep.’

The two NPs, “students from this beautiful town on the sea” and “students of the linguistic structure of English” are distinguished in terms of whether the material following the clitic *su* is an adjunct or a complement. Why should PI care about this distinction?

Several other aspects of clitic placement in Serbo-Croatian are strongly reminiscent of restrictions on syntactic movement. Two of the most convincing have to do with clitic climbing. Progovac (1993) makes a distinction between “subjunctive-like” and “indicative-like” complement clauses on the basis of a broad range of syntactic criteria. For example, as in other languages, negative polarity items in SC extend their domain only in subjunctive-like complements. This can be seen in (24b). Topics can only prepose out of subjunctive-like complements, as in (25b). Similarly, *wh*-movement across negation is blocked out of indicative-like complements, but applies freely out of subjunctive-like complements, as in (26b). The contrasts in (24)-(26) thus represent syntactic diagnostics that two different verb classes are involved.

- (24) a. *Ne kažem da vidim nikoga.
 ‘I do not say that I see anyone.’
 b. Ne želim da vidim nikoga.
 ‘I do not wish to see anyone.’
- (25) a. *Pismo ne kažem da sam potpisao.
 ??‘The letter, I don’t say that I have signed.’
 b. Pismo ne želim da potpišem
 ‘The letter, I don’t want to sign.’
- (26) a. ?*Koga ne kažeš da voliš?
 ‘Who don’t you say that you love?’
 b. Koga ne želiš da voliš?
 ‘Who don’t you want to love?’

The fact that clitic placement also respects this dichotomy shows that it too is a syntactic phenomenon. Crucially, Progovac (1993) observes that clitic climbing only takes place out of subjunctive-like complements in SC, as a comparison of (27d) with (27b) shows:

- (27) a. Milan kaže da **ga** vidi.
 Milan says C him.acc sees
 'Milan says that he can see him.'
- b. *Milan **ga** kaže da vidi.
 Milan him.acc says C sees
- c. Milan želi da **ga** vidi.
 Milan wishes C him.acc sees
 'Milan wishes to see him.'
- d. Milan **ga** želi da vidi.
 Milan him.acc wishes C sees

It is clear that there can be no phonological explanation of domain extension in subjunctive clauses for various syntactic dependencies, including movement, which crucially embraces clitic placement.

Another argument can be constructed on the basis of (27d). If the embedded verb has multiple clitics, in addition to climbing both or neither, for some speakers it is also possible to climb only one out of the *da*-clause, as in (28a), reported in Stjepanović (1998), or (28b) and (28c), from Franks (1997).

- (28) a. Marija **mu** želi da **ga** predstavi.
 Maria him.dat wants C him.acc introduces
 'Maria wants to introduce him to him.'
- b. Želio **sam mu** da **ga** kupim.
 wanted aux.1sg him.dat C it.acc buy.1sg
 'I wanted to buy him it.'
- c. Marko **mu je** želio da **ga** kupi.
 Marko him.dat aux.3sg wanted C it.acc buy.3sg
 'Marko wanted to buy him it.'

In (28), the dative clitic has climbed and the accusative one remains in the lower clause. It is however never possible to climb the accusative to the exclusion of the dative, as shown in (29); of course, it can climb if there is no intervening dative, as in Progovac's original (27d).

- (29) a. *Marija **ga** želi da **mu** predstavi.
 b. *Želio **sam ga** da **mu** kupim.
 c. *Marko **ga je** želio da **mu** kupi.

The ungrammaticality of (29) vs. the grammaticality of (28) can be interpreted in purely syntactic terms. I will assume, essentially following Chomsky (1995) and as discussed in section 2.4, that pronominal clitics are introduced as D° (or, in Slavic, K° for "Kase") heads as arguments in theta-positions. They then move to the appropriate Agr° for case purposes, $AgrIO$ checking dative and $AgrO$ checking accusative. The contrast between (28) and (29) follows if $AgrIO$ is higher than $AgrO$, an assumption which is reflected in the almost

invariant “dative precedes accusative” clitic order in Slavic.^{12, 13} We can then take the fact that the lower Agr head cannot skip over the higher one to be a familiar HMC effect, however formalized.

2.3.2. Splitting

In the preceding section I pointed out some reasons why 2P clitic placement has to involve syntactic operations. Of course, very few linguists would disagree with this conclusion, and for just the same sort of reasons.¹⁴ Proponents of versions of PI, such as Halpern (1992/1995) and Schütze (1996), concede that almost all SC clitic placements are syntactic.¹⁵ There is only a miniscule residue of facts which suggest that something like PI might be inescapable, so the question to ask is whether the theory needs to be enriched to allow nonsyntactic movement. One of the strongest arguments for PI in the literature, perhaps the only real one possible, has to do with the claim that clitics split syntactic phrases on the basis of phonological criteria. In this and the following section I consider some of the relevant discussion of this highly complex issue.

The split DP structures of the type in (8) are often regarded as a fundamental problem for syntactic accounts of SC clitic placement. Even more problematic might be the notorious PP splits, a standard example of which is provided in (30).

- (30) a. U veliku **je** sobu Jovan ušao.
 in big aux.3sg room Jovan walked
 ‘Jovan walked into a large room.’
 b. U veliku **je** Jovan ušao sobu.

Without going into details, I assume that most apparent splitting can be handled by the kind of “remnant topicalization” analysis I and others such as Progovac, Čavar and Wilder have argued for before. In this approach, movement of NP from inside the phrase moved to initial position precedes the actual fronting of that phrase. Thus, (30a) does not actually involve splitting *u veliku* off from *sobu*; rather *sobu* is moved out of the PP first. That this movement is possible is confirmed by the acceptability of (30b), where material other than the clitic separates pieces of the presumed PP. This is in fact the crux of the issue: arguments against invoking PI in order to position clitics which “split” constituents claim that non-clitics can also split them, hence what is being split is not really a constituent in the first place, while arguments for PI on the basis of splitting claim that non-clitics cannot participate in this sort of splitting.

¹²Also relevant is the fact that, as shown in Stjepanović (1998) and discussed in section 3.2, ellipsis that deletes a dative clitic (i.e. targets AgrIOP) necessarily includes AgrOP, whereas ellipsis that deletes an accusative clitic (i.e. targets AgrOP) may leave the dative clitic intact.

¹³The qualification “almost” is necessary because in some languages, for example Czech, but not SC, when the accusative clitic is reflexive it precedes the dative clitic instead. This is discussed in section 3.1.

¹⁴Space considerations preclude discussion of the OT oriented work on Slavic clitics, such as Legendre (1996), but it should be noted that Anderson’s (1993, 1995a) postsyntactic approach, according to which clitics are introduced in the morphological component as a kind of “phrasal morphology”, derives the 2P effect without recourse to syntactic operations *per se*.

¹⁵The most important difference between their analyses are that for Halpern 2P clitics are adjoined to IP (or whatever phrase is dominated by CP), whereas for Schütze they are in C. Under both accounts clitics which are not preceded by material which can support them prosodically undergo PI, moving to the right edge of the first prosodic word to their right. See Čavar (1996) for problems with the adjunction to IP approach when applied to SC, and see Halpern and Fontana (1994) for some of its possible advantages.

Crucially, I take “NP” to mean a head noun plus its complement, if any, assuming the kind of structure for DP proposed by Abney (1987), where AP is not included in NP, but rather heads its own projection dominating NP. NP scrambles out of PP before PP fronts. This explains the following contrast, assuming the NP in (31a) but not the AP in (31b) can extrapose out of PP:

- (31) a. [PP U izuzetno veliku e_i] je Jovan ušao [NP sobu]_i.
 in exceptionally big aux.3sg Jovan walked room
 ‘Jovan walked into an exceptionally large room.’
- b. ?*[PP U izuzetno veliku e_i] je Jovan ušao [AP praznu sobu]_i.
 in exceptionally big aux.3sg Jovan walked empty room
 ‘Jovan walked into an exceptionally large empty room.’

Clearly, there is no way PI could distinguish these two contexts, since the relevant information is syntactic. Moreover, PI cannot even position *je* in (31a), since it would put *je* after *izuzetno* rather than *veliku* anyway. I conclude that remnant topicalization must account for at least some splitting phenomena; the question is whether it can account for all splitting or whether something like PI is needed. It is this issue which I focus on in the remainder of this section.

Note that it is not always easy to see that remnant topicalization is at work in ostensible PI constructions since, in many of the examples, the remnant and the scrambled constituent are separated only by clitics. This is because scrambling typically adjoins the extracted constituent above VP, hence to the left of V; I am abstracting away from this fact. Thus, Čavar (1996: 60) provides the following judgments:

- (32) a. *[PP Na kakav e_i] je Ivan bacio loptu [NP krov]_i
 on which aux.3sg Ivan threw ball roof
 ‘Onto what kind of roof did Ivan throw a ball?’
- b. *[PP Na kakav e_i] je Ivan bacio [NP krov]_i loptu?
- c. [PP Na kakav e_i] je Ivan [NP krov]_i bacio loptu?
- d. [PP Na kakav e_i] je [NP krov]_i Ivan bacio loptu?

Although for him the contrast is unusually strong, the point is that examples with leftward scrambling are always preferred. In (32c) *krov* is adjoined to VP (or some higher functional projection below AgrSP) and in (32d) it is adjoined to IP (or AgrSP). The result is that only the subject intervenes, and often not even that. Consequently, it becomes difficult to discriminate remnant topicalization from what looks like PI. The acceptability of (32c) thus provides crucial evidence for remnant topicalization.

Schütze (1994, 1996) on the other hand provides probably the most cogent arguments for the existence of a mechanism such as PI. Consider his paradigm in (33).

- (33) a. ?U ovu je veliku Jovan ušao sobu.
 into this aux.3sg big Jovan walked room
 ‘Jovan walked into this large room.’
- b. ???U ovu Jovan veliku ulazi sobu.
 into this Jovan big walks room
 ‘Jovan walks into this large room.’
- c. *U ovu Jovan ulazi veliku sobu.

While (33c) is bad for the reason just stated, that NP rather than AP would have to scramble, remnant topicalization produces (34), which is perfect, and not the slightly degraded (33a).

(34) U ovu veliku je Jovan ušao sobu.

Perhaps, then, remnant topicalization and PI are both required, the former to accommodate examples like (34) and the latter to accommodate examples like (33a).

This perspective might explain the (rather subtle) contrast between (33a) and (33b), which is precisely what to look for in trying to argue for PI—a place where clitics can break up would-be constituents that other material cannot break up. However, while (33b) is indeed worse than (33a), there are other differences between the sentences that may well be relevant, such as word order factors. For example, as observed by Bošković (1997b), placing *sobu* before *ulazi* in (33b) improves the sentence slightly. Another reason provided by Bošković for not conceding that these data pose a problem here for strictly syntactic accounts of clitic movement is that the felicity of examples like (33a) decreases as more clitics are added, as in his (35a), and that the felicity of examples like (33b) increases if *Jovanis* replaced by the non-clitic pronoun *on*, as in his (35b).

- (35) a. ??U ovoj si mi ga se velikoj sobi zastitio.
 in this aux.2sg me.dat it.acc refl big room fed-up
 ‘You got fed up with it in this large room.’
 b. ?U ovu on veliku ulazi sobu.
 into this he big walks room
 ‘He walks into this large room.’

I thus concur with Bošković (1997b) that Schütze’s data do not provide clear evidence for PI, although exactly how examples like (33a) or (35b) should be derived still remains far from obvious.¹⁶

Progovac (1996) makes similar observations about other examples of constituents that do not seem independently splittable but which can nonetheless be broken up by clitics. She cites the following examples drawn from Browne’s (1975) highly detailed study of SC clitic placement:

- (36) a. ??Sestra će i njen muž doći u utorak.
 sister fut.3sg and her husband come on Tuesday.
 ‘My sister and her husband will come on Tuesday.’
 b. ??Lav je Tolstoj veliki ruski pisac.
 Leo aux.3sg Tolstoi great Russian writer
 ‘Leo Tolstoi is a great Russian writer.’
 c. ??Prijatelji su moje sestre upravo stigli.
 friends aux.3pl my sister just arrived
 ‘Friends of my sister’s have just arrived.’

The indicated judgements are hers; speakers actually differ considerably on the status of such splitting. I suspect that for Progovac these all have the status of (33a), i.e., whatever is going

¹⁶In section 4.5 I will suggest that these and comparable data should perhaps be construed in favor of PI, although interpreted as merger and restricted to single adjacent items.

on, they are not splittable in the syntax. My reason for this claim is not only that she describes (36) as “marginal to bad”, but also that addition of more clitics makes them completely unacceptable:

- (37) a. *Sestra **će** **mi** **ga** i njen muž pokloniti.
 sister fut.3sg me.dat it.acc and her husband give
 ‘My sister and her husband will give it to me.’
- b. *Lav **mi** **ga** **je** Tolstoj poklonio.
 Leo me.dat it.acc aux.3sg Tolstoi gave
 ‘Leo Tolstoi gave it to me.’
- c. *Prijatelji **su** **mi** **ga** moje sestre poklonio.
 friends aux.3pl me.dat it.acc my sister gave
 ‘Friends of my sister’s gave it to me.’

Neither PI nor remnant topicalization should be able to discriminate the phonological weight of what interrupts the syntactic phrase. This indicates that something different from both PI and remnant topicalization is going on; perhaps, as Bošković (1997b) suggests, some kind of parsing strategy is involved. That is, to invoke an idea sometimes employed by earlier generations of syntacticians, examples like (33a) and (36) are “ungrammatical but acceptable”.

The reason, however, that the irrelevance of (33a) and (36) to PI has not been generally perceived in the literature is because *for some speakers* some of this kind of splitting is in fact grammatical. In the next section I present some arguments that splitting names, as in (36b), should actually be regarded as a syntactic process. A similar point about the status of specific examples where clitics appear to disrupt syntactic phrases is that, for individual speakers polled, this variation always correlates with the independent possibility of scrambling. The correlation between splitting by clitics and separability in general holds also in 2P clitic languages that do not allow splitting (e.g. Slovenian or Czech), providing strong confirmation for the syntactic movement hypothesis.

Let us return now to example (12) above, drawn from Ćavar (1996: 58), and repeated in (38):

- (38) a. U stara raspala prljava kola **smo** sjeli.
 in old decrepit dirty car aux.1pl sat
 ‘We got into an dirty decrepit old car.’
- b. U stara raspala prljava **smo** kola sjeli.

Recall that (38b) cannot be handled with PI. To obtain this, *kola* must instead be scrambled out of the PP first, which subsequently undergoes “remnant topicalization”. Now consider the fact noted by Ćavar that the word order in (39) is also acceptable.

- (39) U stara **smo** raspala prljava kola sjeli.

How can (39) be obtained?

One might argue, like most proponents of PI, that both phonological PI *and* syntactic remnant topicalization exist in UG, and that, just as (38b) calls for a syntactic account, (39) calls for a prosodic account. Or one might argue, as we have just seen that Bošković (1997b) does, that phonological lightness of a single clitic allows the parser to ignore it. But the

question remains of how the clitics gets to this position in the first place. There is, I believe, some indication that something like (39) could involve the preposition plus the adjective as a *syntactic* unit: it moves as a single *wh*-phrase in instances of unequivocal syntactic movement, such as (40).

- (40) U koju misliš da je Jovan ušao sobu?
 into which think C aux.3sg Jovan walked room
 ‘Into which room do you think that Jovan walked?’

According to all speakers I have consulted, however, (41) is also acceptable:

- (41) U koju misliš da je Jovan ušao praznu sobu?
 into which think C aux.3sg Jovan walked empty room
 ‘Into which of the empty rooms do you think that Jovan walked?’

I take this to mean not only that “*U + koju*” undergoes syntactic movement as a unit, but that really it is just *koju* ‘which’ that is moving out of DP (SC, like other Slavic languages except for Bg and Mac, allows left-branch constraint violations) and the preposition is pied-piped along, again presumably for phonological reasons, since it is a proclitic. This leads to the expectation that (42a) should be extremely degraded, since this cannot be analyzed as a left-branch constraint violation extraction, but rather only as a phrase undergoing long *wh*-movement subsequent to NP extraposition, and (42b) is even worse, since on top of this we would need to assume AP extraposition.

- (42) a. ?*U koju praznu misliš da je Jovan ušao sobu?
 into which empty think C aux.3sg Jovan walked room
 ‘Into which of the empty rooms do you think that Jovan walked?’
 b. *U koju veliku misliš da je Jovan ušao praznu sobu?
 into which large think C aux.3sg Jovan walked empty room
 ‘Into which of the large empty rooms do you think that Jovan walked?’

We thus have left-branch *wh*-extraction in (40) and (41), hence there is no AP effect, but PP *wh*-movement in (42), which is structurally just like (31). This necessarily involves fronting the PP after extraposition, hence there is an AP effect.

I conclude that there must be a mechanism which attaches the preposition to the following head, and that this mechanism—although I call it “procliticization”—must take place in the syntax. As might be expected, preposition procliticization is somewhat capricious. For one thing, there is variation in what speakers allow. For example, although Bošković (1997b) cites (43) as ungrammatical, Sandra Stjepanović (pc) finds it only slightly marginal:

- (43) */?U ovu si vjerovao da je veliku sobu ušao.
 into this aux.2sg believed C aux.3sg big room walked
 ‘You believed that he walked into this large room.’

She thus allows procliticization to *ovu* like *koju*, whereas he does not.¹⁷ Stjepanović nonetheless finds (44) much worse, indicating that *velikuis* not a viable procliticization site.¹⁸

- (44) *U veliku si vjerovao da je praznu sobu ušao.
 into big aux.2sg believed C aux.3sg empty room walked
 'You believed that he walked into the large empty room.'

Acceptability thus depends both on the adjective and the preposition, with some variation across speakers. Crucially, as I noted above, this variation correlates with the independent possibility of scrambling.¹⁹ The correlation across speakers provides strong confirmation for the syntactic movement hypothesis. In general, then, the claim is that clitics can “split” phrases in SC to the extent that those phrases can be broken up anyway, so that in point of fact the clitics are never actually doing any “splitting”.

2.3.3. Names

Another phenomenon traditionally taken as problematic for syntactic movement accounts is the “splitting” of names by clitics, as in (36b), repeated with Browne’s (1975) original judgment as (45):

- (45) ?Lav je Tolstoj veliki ruski pisac.
 Leo aux.3sg Tolstoi great Russian writer
 'Leo Tolstoi is a great Russian writer.'

There is however independent evidence that the splitting of proper names is in fact syntactically driven, and can only occur when both first and last names are treated as separate heads. Thus, although one ordinarily declines both parts, as in (46a), it is marginally possible just to decline the first name, as in (46b).

- (46) a. Lava Tolstoja čitam.
 Leo.acc Tolstoi read.1sg
 'I am reading Leo Tolstoi.'
 b. ?Lava Tolstoj čitam.
 Leo.acc Tolstoi read.1sg

Splitting is however only possible when both parts are declined, as in (47a).

- (47) a. Lava **sam** Tolstoja čitala.
 Leo.acc aux.1sg Tolstoi.acc read
 'I read Leo Tolstoi.'
 b. *Lava **sam** Tolstoj čitala.
 Leo.acc aux.1sg Tolstoi read

¹⁷Recall that the AP *veliku sobu* 'big room' forces the procliticization structure; thus Bošković (pc) notes that (43) improves if *velikuis* removed.

¹⁸Once again the issue is that the AP *praznu sobu* 'empty room' forces the left-branch extraction analysis, but this fails because *u* cannot adjoin to *veliku* Bošković (pc) thus similarly notes that (44) improves without *praznu* since *u velikui* can then be a remnant PP.

¹⁹Thus, Željko Bošković (1997b) for example finds (22c) marginally acceptable, but he also marginally accepts similar sentences without clitics, such as *?Roditelji dolaze uspješnih studenata*

Moreover, as also noted in Bošković (1997b), movement can only separate the names when both parts are declined, as in (48a).

- (48) a. Lava čitam Tolstoja
 Leo.acc read.1sg Tolstoi.acc
 'I am reading Leo Tolstoi.'
 b. *Lava čitam Tolstoj.
 Leo.acc read.1sg Tolstoi

Conceivably, when both parts are inflected, they are analyzed as separate phrases, rather like a coordination structure, so that the first can move independently and end up supporting the clitics. The array of data reflected in the contrast in acceptability between (46b) and (47b), the fact that judgments run in tandem for splitting in (47) and scrambling in (48), and the sensitivity of clitic placement to whether or not both parts decline, is a serious problem for any PI-based account.

2.4. Clitics as functional heads

In this section I formally adopt the idea, alluded to in the previous discussion, that special clitics in Slavic are generated in various functional head positions in the clause, and I sketch out the basic properties of the system I have in mind.

2.4.1. Basic phrase structure and overview of the analysis

I assume a general clausal structure as in (49):

- (49) [CP C [AgrSP AgrS [TP T [AgrIOP AgrIO [AgrOP AgrO [vP SUB v [VP IO [V' V OBJ]]]]]]]]]

Clitics are heads of functional categories. The primary motivation for this particular arrangement is the relative order of clitics. In (49) I represent the clause as a CP, although, following recent proposals made by a number of scholars working in a variety of frameworks, and as discussed in section 2.4.2, I believe that only structure as high as called for is actually projected in any given clause.

The outline in (50) summarizes my views of what goes on in the various Slavic languages, details of which will be provided in the remainder of this paper.

(50) Overview of the analysis

- I. Verbal auxiliary clitics in all the languages are generated in verbal functional head positions, such as AgrS° and T°.
- II. Pronominal clitics in all the languages except Bg and Mac are generated in argument positions as K° heads.
 - a. They move from there to the appropriate Agr for case checking purposes,
 - i. in SC, Sn, Cz and Sk they move as heads, adjoining to Agr.
 - ii. in Pol they move as phrases.
 - b. Clitic that move as heads move as high in the tree as they can.
- III. Pronominal clitics in Bg and Mac are generated directly adjoined to their appropriate Agr heads.
 - a. The verb moves to them.
 - b. Arguments are DPs which undergo case checking in the standard way.

The basic claim embodied in (50) is that, although all Slavic clitics are introduced as functional heads, 2P clitics move (as heads) as high as possible in the tree, whereas verb-adjacent clitics wait for the verb to come to them. Although this movement is syntactic, two major issues need to be addressed. The first, what drives the syntactic movement, is examined in the next subsection, while the second, how can a syntactic approach to movement capture sensitivity to prosodic requirements, is explored in sections 2.5 and 2.6.

2.4.2. Where do 2P clitics go?

The issue of why clitics move cannot be properly addressed until the question of where they move to is resolved. Although clitics have a phonological requirement, hence one which must be met at PF, this cannot be what motivates their movement, since the clitics and the material around them move by syntactic means. Although it is not immediately obvious what this phonological requirement is, the simplest proposal, which I will attempt to make work, is that SC clitics are prosodically enclitic, this within a universal system that allows three options, represented as lexical features on clitics: enclitic, proclitic, or either.²⁰ Merely stipulating “enclitic” for SC, however, raises questions about why examples such as those in (2) are bad. Therefore, as stated in (50), SC clitics must be forced to appear *as high as possible* not just with something to their left. In other words, clitics in SC seem to move to the highest head position made available by the phrase structure;²¹ deviations from this generalization will be discussed in section 2.5.

Is this position a consistent one? If it were always C° , as is often assumed in pure and mixed syntactic accounts of 2P clitic placement, the question of why clitics move would reduce to the question of what the relevant feature(s) of C might be.²² There are however both conceptual and empirical arguments that this approach, appealing as it might be, is not in fact correct.

First, in keeping with the general theory in Bošković (1997a) and following the “Minimal Structure Principle” of Law (1991), only phrase structure which is independently required is projected.²³ For the sake of concreteness, and I think theoretical elegance, I adopt the particular derivation of the Minimal Structure Principle put forward in Bošković (1997a: 37–39) and encapsulated in (51).

- (51) Only phrase structure motivated by the Numeration is projected.
- a. The Numeration contains lexical elements only.
 - b. Functional categories are selected from the Lexicon as needed.
 - c. Access to the Lexicon is a Last Resort operation.

²⁰Note that “either” means “prosodically neutral”, as I believe is true of pronominal and most verbal auxiliary clitics in Macedonian as well as Czech and Slovenian.

²¹According to Progovac (1998b), this proposal has also recently been advanced by Caink (1997). Unfortunately, Andrew Caink (pc) informs me that no written version of his presentation is yet available.

²²These features would presumably be strong, to necessitate overt movement, and Greed/Move would have to be the driving force rather than Attract, since it does not suffice just to move one (the highest) clitic to C. All must move, hence all must have to check off some feature in C. Furthermore, this feature will have to be interpretable, since even after the first clitic reaches C it remains visible for subsequent clitics, and possibly also for the verb.

²³In addition to Law (1991), Bošković (1997a) cites similar ideas in work by Speas, Radford, Grimshaw, Doherty, Safir and Chomsky. The “Minimal Structure Principle” also finds its conceptual origins in Pesetsky’s (1982) theory of selection.

In a non-interrogative main clause, for example, there is no reason to project a CP since selection of C is not required in the absence of [+wh] features to be checked, so the sentence, if finite, will simply be an AgrP (or a TP or IP, depending on one's view of functional categories). An immediate consequence of the conclusion that not all sentences are CPs is that not all 2P clitics can be in C°.

Empirically the claim that clitics are in second position because they must be in C° also seems to be false. In section 2.2.1 I mentioned Bošković's (1995, 1997b) argument based of the ungrammaticality of (11b), repeated as (52).

- (52) *Prodao **li si** svoju kuću?
 sold Q aux.2sg self's house
 'Did you sell your house?'

Bošković's main argument, however, centers on the observation that, although participles do not move very high since they can never precede sentential adverbs, they can nonetheless precede clitics. This implies that the clitics must be lower than the participle. However, since clitics can precede sentential adverbs, we are faced with a paradox that can only be resolved if clitics are able to appear in various positions.

Its complexity notwithstanding, this argument has had considerable impact on the clitic literature, and I therefore present it here in some detail.²⁴ Bošković offers the following examples to show that when the participle is fronted past an adverb, the adverb can only have a manner (or VP-adverb) reading:

- (53) a. Jovan **je** pravilno odgovorio Mariji.
 Jovan aux.3sg correctly answered Marija
 EITHER 'Jovan answered Marija correctly.'
 OR 'Jovan did the right thing in answering Marija.'
- b. Jovan **je** odgovorio pravilno Mariji.
 ONLY 'Jovan answered Marija correctly.'
- c. Odgovorio **je** pravilno Mariji.
 ONLY 'He answered Marija correctly.'
- (54) a. Jovan **je** mudro prodao svoju kuću.
 Jovan aux.3sg wisely sold self's house
 EITHER 'Jovan sold his house in a wise manner.'
 OR 'It was wise of Jovan to sell his house.'
- b. Jovan **je** prodao mudro svoju kuću.
 ONLY 'Jovan sold his house in a wise manner.'
- c. Prodao **je** mudro svoju kuću.
 ONLY 'He sold his house in a wise manner.'

Bošković's conclusion is that participles can never move past sentential (or "subject-oriented") adverbs and, in particular, they never move to C°. Specifically, his claim is that the participle is not even moving to AgrS, hence it cannot move over TP, to which the sentential

²⁴Anderson (1995b) for example relies on it in developing his nonsyntactic account, and Ćavar (1997) points out some problems with it.

adverb would be adjoined. However, participles clearly *can* cross pronominal and auxiliary clitics, as in (53c) and (54c). Since participles *can* support clitics but they *cannot* move as high as C° , the conclusion is that clitics themselves are not necessarily in C° .

Although I find these arguments convincing, there is a possible interfering factor with the adverb one and a credible alternative analysis of the *li* fact. Bošković's account leads us to expect that when the verb is not a participle the TP-adjoined (sentential) interpretation should reemerge. As far as I can tell, this prediction is false; only the VP adverb reading is possible, as shown in (55):

- (55) a. Jovan odgovara pravilno Mariji.
 Jovan answers.3sg correctly Marija
 ONLY 'Jovan answers Marija correctly.'
- b. Jovan prodaje mudro svoju kuću.
 Jovan sells.3sg wisely self's house
 ONLY 'Jovan sells his house in a wise manner.'

This fact implies two alternatives. The first is that perhaps there is something independently wrong with moving the verb past a sentential adverb. If so, the argument about participles, hence about the impossibility of a uniform position for SC clitics, does not go through. However, more in keeping with Bošković's assumptions, would be the claim that even the finite verb in SC simply does not ordinarily move past TP in the overt syntax. Presumably, then, it is in T and the participle could be in an even lower head, which for Bošković (1995) is Aux. This scenario seems to me to accord with the morphological features of these various verbal elements, as well as the facts of quantifier float in SC, about which I offer a slight digression.

Quantifier float can be taken as a diagnostic for base position. Sandra Stjepanović (pc) informs me that in SC the floated Q can even mark the base-generated position of the object, as in (56).

- (56) On je studente oborio sve.
 he aux.3sg students.acc failed all
 'He failed all the students.'

Here I assume overt object shift moves *studente* to [Spec, AgrOP], leaving *sve* 'all' behind. Consequently the participle *oborio* 'failed' also must be moving, possibly, as in Bošković (1995), it adjoins to an Aux functional head to check its features. This Aux position has to be very low but outside VP. We can see that the participle moves out of VP since it crosses the quantifier *sve* left behind by the subject in [Spec, VP]. This is shown by the grammaticality of (57a).

- (57) a. Žene su došle sve na sastanak
 women aux.3pl came all to meeting
 'All the women came to the meeting.'
- b. Žene su sve došle na sastanak.
- c. *Žene sve su došle na sastanak.

In (57b), which is also grammatical, the floated quantifier is to the left of the participle, hence must be higher than VP; presumably it has been left behind in [Spec, AuxP] or, possibly,

[Spec, TP]. Note that the ungrammaticality of (57c) follows from the *syntactic* approach to clitic placement—whenever the noun is to the left of the quantifier this means it is no longer in the same phrase as the quantifier, since there is no DP-internal Q-float in SC. Thus the first phrase has to be as in (57b), not (57c). This is corroborated by the fact that when there is no Q-float the clitic can go either after *sve* or after *sve žene* as in (58):

- (58) a. Sve žene **su** došle na sastanak.
 b. Sve **su** žene došle na sastanak.

These facts suggest that the clitic is either in AgrS or moves there from Aux (if that is where it is generated, as in Bošković (1995)) and then can move overtly to C. With finite (that is, present tense conjugated) verbs we get the expected judgments in (59):

- (59) a. Sve žene dolaze na sastanak.
 all women come.3pl to meeting
 ‘All the women are coming to the meeting.’
 b. Žene sve dolaze na sastanak.
 c. Žene dolaze sve na sastanak.

Returning to Bošković’s account, a similar problem is that, even when the finite verb can be shown to have moved past the adverb to C°, the sentential reading is impossible. Thus, movement past TP is required in (60), since *li* is in C°.

- (60) Odgovara **li** Jovan pravilno Mariji?
 answers.3sg Q Jovan correctly Marija.dat
 ONLY ‘Does Jovan answers Marija correctly?’
 NOT ‘Does Jovan do the right thing in answering Marija?’

Ljiljana Progovac (pc) points out to me, however, that this lapse seems to be a more general problem with questions, which are for some reason incompatible with sentential adverbs. Consequently, the phenomenon persists in questions even when the verb (or participle) fails to front past the adverb, as shown in (61).

- (61) a. Da **li** Jovan pravilno odgovara Mariji?
 COMP Q Jovan correctly answers.3sg Marija.dat
 b. Da **li je** Jovan pravilno odgovorio Mariji?
 COMP Q aux.3sg Jovan correctly answered Marija.dat
 c. Ko pravilno odgovara Mariji?
 COMP correctly answers.3sg Marija.dat

Turning now to the issue of why participles cannot move to C° to host *li*, it may be that the Head Movement Constraint, interpreted in economy terms as “Shortest Move”, is at work here. Thus, instead of saying (52), repeated as (62a), one must say either (62b), with a complementizer *da* supporting the clitics, or (62c), with the tonic form of the 2nd person singular auxiliary *jesi*:

- (62) a. *Prodao **li si** svoju kuću?
 sold Q aux.2sg self's house
 'Did you sell your house?'
- b. Da **li si** prodao svoju kuću?
 COMP Q aux.2sg sold self's house
- c. Jesi **li** prodao svoju kuću?
 aux.2sg Q sold self's house

Possibly the explanation for the ungrammaticality of (62a) is that it would involve moving a lower head to C° when a higher one, namely the auxiliary, is also available in a full form.

These considerations notwithstanding, I conclude that Wackernagel position clitics move to the highest functional head position made available by the phrase structure. We thus cannot explain the 2P effect by adopting the simple requirement that all clitics to move to C° , as has often been suggested.²⁵ An alternative approach is therefore developed in section 2.6.

2.5. Some phonological effects

Before doing so, however, let us examine some phonological effects, recently highlighted in Bošković (1997b), which—unlike the phenomena discussed in section 2.3—cannot be dismissed as essentially syntactic. It will turn out that these incontrovertibly phonological effects are all of the same type: clitics are pronounced lower than expected, where pronunciation in second position might violate prosodic requirements. This insight will lead me in section 2.6 to an approach that treats phonological factors separately from syntactic ones, relegating them to independently established properties of PF.

One obvious example of how PF must be able to “filter out” pronunciations that are prosodically ill-formed concerns appositives. The facts about SC appositives are due to Radanović-Kocić (1988, 1996) and discussed also by Bošković (1997b), whose crucial datum is presented in (63); “#” indicates an intonational phrase boundary (-boundary).

- (63) a. *#Ja#, #tvoja mama#, #**sam ti** obećala sladoled#.
 I your mother aux.1sg you.dat promised ice cream
 'I, your mother, promised you ice cream.'
- b. #Ja#, #tvoja mama#, #obećala **sam ti** sladoled#.

The clitics *sam ti* cannot immediately follow the subject NP *Ja, tvoja mama* presumably in [Spec, AgrSP].²⁶ The reason is because the appositive *tvoja mama* is obligatorily set off by -boundaries, reflected in the orthography by commas,²⁷ hence encliticizing *sam ti* in (63a) is impossible. Apparently, the next best option, (63b), is selected. This is an example of “delayed” clitic placement, involving a syntactically heterogeneous set of constructions in which some initial constituent constitutes a separate -phrase and the clitics appear lower

²⁵Ćavar and Wilder (1994), Franks and Progovac (1994), Mišeska-Tomić (1996a, 1996b), Ćavar (1996) and Progovac (1996) all assume this for SC, and similar claims have been made by Veselovská (1995) for Czech, also a second position clitic language.

²⁶Moreover, as Bošković (1997b) points out, appositive *tvoja mama* ‘your mother’ can never be separated from *Ja* ‘I’, so that the problem of why splitting cannot occur here does not arise.

²⁷Nespor and Vogel (1986: 188) note that some syntactic units, including nonrestrictive relative clauses, parentheticals and certain moved elements, necessarily constitute independent intonational phrases. Appositives would belong to this list as well.

than expected; for further discussion of this phenomenon see Bošković (1997b) and the various references he provides.

Contrastive focus (when set off prosodically) and parentheticals have a similar delaying effect on clitic placement. Sandra Stjepanović (pc) provides the focus example in (64) and parenthetical (65a) is from Bošković (1997b).²⁸

- (64) #Javili su nam da# #prije nekoliko dana# #na toj liniji#
 announced aux.3pl us.dat C ago several days on that line
 #voz je kasnio tri sata#.
 train aux.3sg was-late three hours

'They announced that, several days ago, on that line, the train was 3 hours late.'

- (65) a. #Znači da#, #kao što rekoh# #oni će sutra doći#.
 means C as what said.1sg they fut.3pl tomorrow arrive.inf

'It means, as I said, that they will arrive tomorrow.'

- b. *#Znači da#, #kao što rekoh# #će oni sutra doći#.
 c. %#Znači da će#, #kao što rekoh# #oni sutra doći#.

Once again, the clitics appear lower than expected. In the next section, I explore ways of obtaining this result within the minimalist system of movement.

2.6. A minimalist division of labor: syntax composes, phonology disposes

Bošković (1995, 1997b) suggests an approach that stipulates that 2P clitics have a PF requirement that they appear at the right edge of their *-phrase*. 2P clitics thus simultaneously respect two conflicting PF requirements: they must be suffixes and they must be right adjacent to an *-boundary*. The attempt to meet both at once is what gives rise to the Wackernagel position effect. Also, for Bošković the clitics do not cluster together, they just happen to be string adjacent. What forces adjacency is not especially clear to me, and I see nothing in Bošković's type of account that necessarily prevents the clitics from clustering together and moving to the highest head position in the syntax. However, as I understand his claims, when clitics are in the same *-phrase* non-adjacency would lead to a PF crash, but when they are in separate *-phrases*, as I will discuss in section 3.2, non-adjacency is in fact tolerated, and it is this latter sort of fact that argues most strongly against syntactic clitic cluster formation. In short, for Bošković the output of the syntax must meet the prosodic requirement of clitics being at the right edge of their *-phrase*, otherwise it is filtered out by the phonology. Complicated as this prosodic requirement may seem, the point is that it does not mean clitics are not placed syntactically, just that the prosodic filter is complex. Although my basic approach will be in the same spirit as Bošković's, my specific proposal will require fewer stipulations about the prosodic requirements of clitics.

I take movement, following ideas in Chomsky (1995), to consist of two elementary operations: copy and delete. In the syntax, as the phrase structure tree is built up, elements merged at the root can either be drawn from the Numeration (and, for functional categories, also from the Lexicon, if (51) is correct) or they can be merged as copies of previously merged elements lower in the tree.²⁹ The result is that the output of the syntax has copies of

²⁸Whereas some speakers find (65a) marginal, all reject (65b) outright. Also, some speakers accept (65c) and others find it degraded, as discussed below. Judgments for (64) are comparable.

²⁹Chomsky also argues that all movement is feature movement and phonological features are pied-piped in order to meet PF requirements, but this technicality is not relevant to my arguments here.

movement in all positions which have been traversed—traces, in other words, are full copies. Subsequently, in the PF component, all but the highest copy is deleted, so that only this one is pronounced. Similarly, in LF, all but one copy is deleted. In what follows, I will take advantage of this approach to movement to explain the curious behavior of 2P clitics.

2.6.1 Syntax: making clitics move

Let me first return to the issue of why clitics move. We already considered and rejected one straightforward possibility, namely that they move to C° in order to check some feature of that node. In any event, under Attract that feature would only force one clitic (the highest) to raise; for the verbal auxiliary clitics it could be tense, as suggested by Progovac (1996), but this would hardly extend to the pronominal ones. Under Greed, we would need to say there is something all clitics are looking for in C° . Although (if they all move) the idea that clitics move to satisfy some deficiency of their own (i.e. Greed) is inevitable, adopting Bošković's conclusion from section 2.4.2 requires a more complex view of where that deficiency can be checked. Here I suggest that we exploit a traditional insight about 2P, one recently highlighted by Anderson's (1993, 1995a) work, that clitic second and verb second are part and parcel of the same Wackernagel phenomenon. Unlike Anderson, however, I want to argue that this is a strictly *syntactic* phenomenon. Clitic placement thus seems to piggyback on verb movement, even when the clitics are not adjacent to the verb, and this holds whenever clitics move in the clause, even if they do not end up in a uniform position. Another obvious reason why clitic placement should be connected to the syntax of verbs is that the other option for clitic placement, instantiated by Bulgarian and Macedonian and as discussed in section 4, is in a position *adjacent to the verb*. Moreover, in the history of Slavic there is clear migration from one option to the other, suggesting that these two strategies for clitic placement have to be closely related, with the difference between verb-adjacent clitics and 2P clitics relatively superficial. So my claim is that both 2P and verb-adjacent strategies involve the verb, with the contrast in clitic types having something to do with the relationship between the clitics and the verb. This defines the general structure of the analysis.

Now notice that this set of assumptions—that the verb plays a crucial role in defining where clitics go and that 2P for clitics is a variant of V2 comes up against one obvious snag: Wackernagel position clitics are often *not* next to the verb. So how can we exploit the verb even when the clitics are not actually adjacent to it? One way of getting the clitics into second position in SC that would connect this process to verb movement might be to exploit the “copy and delete” analysis of movement, the basic idea being that the verb would move overtly, dragging up the clitics to the highest functional head it can, but then it would delete precisely when retention would lead to PF crash. Typically all but the highest copy deletes in PF, but I see no reason why it could not be otherwise, with all but the next to highest copy deleting as the next most economical option, in order to meet the clitic's PF requirement. The verb thus “does its work and goes away”, leaving the clitics behind in the right place.

There are, however, a number of reasons why I do not think this version of the “copy and delete” approach would work, although I will return to a somewhat different copy and delete approach in a moment. The main problem with piggybacking on verb movement is that in 2P clitic languages the surface positions of the clitics and the verb seem to be completely independent. Assuming, then, that the clitics move independently of the verb, let me sketch out another possibility. Since V2 exists, the minimal assumption is that all languages are V2 at LF. All verbs undergo head movement, raising as high as they must overtly and completing the raising covertly. The proposal would then be that clitics move because they are looking for their verbs. They “know” that verbs must eventually raise to the

highest functional head in the phrase structure, they just do not know when. So 2P clitics move overtly as far as they can go—unfortunately, in vain, since the verb (or its features) may not actually reach where the clitics are until LF. This way of conceiving of the situation has several important advantages. For one thing, it is compatible with the idea that the highest head position is not uniform.³⁰ For another, it makes no claims about where the verb is situated in the overt syntax, just about where it could be *if it wore its LF on its sleeve*. Most importantly, it gives us a potential handle on the problem of variation between Wackernagel position and verb-adjacent clitics. My basic approach to this is going to be, as was laid out in (50), that Wackernagel position clitics are generated in argument position, as K° heads, move to their respective Agrs, and then keep on moving, whereas verb-adjacent clitics (in Slavic) are generated directly in Agr and never need to look for the verb, since the verb comes to them. Also, the syntactic deficiency that makes second position clitics seek the verb must presumably be stated in terms of *strong* features, otherwise the clitics would not bother trying to find the verb until LF.

Note now a conceptual glitch here: moving the clitics in the syntax to where the verb *is going to be at LF* has to be enough to satisfy these strong features. Taking strong features to be features which have to be checked as soon as possible, in the spirit of Chomsky (1995), with the relevant feature something that must be checked against the licensing lexical head (V, for clausal clitics), and taking it to be a fact of phrase structure that lexical heads raise in the course of the derivation (i.e. either covertly or overtly) to the top of their extended projections, each time a new functional head is merged into the tree we expect the clitics to raise to it as the immediate next step in the derivation. While the feature won't actually get erased until the verb reaches it (in LF), the clitic still moves each time it has the opportunity to. Another way of getting around this dilemma might be that, instead of having the clitics move to find the verb, the verb and the clitics *both move for the same reason*. While I do not know what this reason is, it seems clear that the right kind of solution to the 2P problem depends on what the right kind of solution to the V2 phenomenon turns out to be. Be that as it may, since in languages like SC, Sln, and Cz these clitics must move overtly, the motivating features have to be strong; Pol, as we shall see in section 5, is different.

2.6.2 PF: pronouncing the right copy

I conclude that it is possible to motivate Wackernagel clitics raising overtly to the highest functional head position any given phrase structure offers. The question of where the “second position” effect comes from nonetheless remains. My answer to this is that it is purely phonological in nature. Here I am following traditional insights as well of those of people like Radanović-Kocić (1988, 1996) and Bošković (1995, 1997b). My implementation of the effect of phonology will however be somewhat different. First, I assume the kind of “prosodic phonology” framework articulated by Nespor and Vogel (1986). Clitics are not phonological words on their own, thus they must attach to an adjacent one in order to receive prosodic licensing. The SC clitics look to their left for a prosodic word to adjoin to. If there is one, everything is fine. But what if there is not? Here I will again exploit the copy and delete theory of overt movement, although this time applied to the clitics rather than the verb. Adopting the minimalist idea that overt movement is a copy operation, and that all but one copy is deleted in PF, the puzzle of clitic placement reduces to the issue of which copy is the one pronounced. If there is an intonational phrase boundary to the immediate left of the clitic cluster, then prosodic adjunction fails and the clitics are left stranded. Hence, the next highest copy of the clitic cluster is the one that actually surfaces. To see how this might work,

³⁰Note that the V2 phenomenon as well will not reflect a consistent position under this scenario; this is the stance taken by Zwart (1993).

consider what would happen if the syntax were to produce an initial clitic in SC, as in (66a) with the schematic representation in (66b); node labels are not provided, since only their relative height is of significance.

- (66) a. *pro* Stalno **mi** **je** kupovao knjige.
 constantly me.dat aux.3sg bought books
 '(He) was constantly buying me books.'
- b. [*pro* **mi je** [stalno **mi je** [kupovao [**mi je** [kupovao knjige]]]]]

Ordinarily only the highest copy is retained in PF, but doing so in (66) is impossible. Yet instead of the result being ungrammatical, the next highest copy is pronounced. Presumably, the fact that all but the highest copy usually deletes is an economy property of PF, trying to preserve as much as possible of what the overt syntax provides it with at Spell Out. But retention of the highest copy in (66a) would result in a PF crash, since there is a prosodic boundary to the left of this copy. Hence, the most economical thing to do is to pronounce the clitic cluster in its *next* highest position (assuming this not to encounter the same problem). This is my view of the filtering effect of PF, summarized in (67). It has I think greater simplicity and elegance than Bošković's account, although I should emphasize that it is conceptually in the same spirit and similarly avoids the kind of global considerations associated with pure syntax approaches.

- (67) I. Wackernagel position clitics move overtly to the highest functional head position available, leaving copies at all intermediate sites.
- II. In PF, all but the highest copy deletes.
- a. This is an economy property of PF, applied to the deletion operation.
 - b. Deletion of all but the highest copy does not occur if retention of the highest copy would result in a PF crash.
 - c. Economy considerations then dictate that the next highest copy is pronounced, unless again the result fails to converge.
 - d. This is the "filtering effect" of phonology: the syntax moves clitics, creating copies, which are deleted in PF, although deletion is modulated by PF requirements.
- III. SC clitics are enclitic.
- a. They must adjoin in PF to a prosodic word to their left in order to receive prosodic support.
 - b. An intonational phrase boundary blocks PF prosodic word adjunction.
 - c. Hence, SC clitics cannot be initial or follow prosodic phrase boundaries.

This view can be used to explain the delayed clitic placement phenomena mentioned in section 2.5. In (63), we saw that clitics cannot follow appositives because these are flanked by -boundaries. I claim that *sam ti* in (63) nonetheless moves in the syntax to the highest head position, AgrS, leaving full copies along the way. The syntax thus provides something like (68).

- (68) [Ja tvoja mama [**sam ti** [obećala [**sam ti** [obećala sladoled]]]]]

In PF the appositive *tvoja mama* must be flanked by -boundaries. Therefore, faced with (68) the next highest copy is the one that is not deleted in PF. This will be the one following the participle *obećala* with the result in (69).

(69) Ja #tvoja mama# **sam-ti** obećala **sam ti** obećala sladoled.

The contrastive focus and parenthetical examples are similar in that clitics are pronounced lower than expected given their syntax. Here are partial PF representations for focus phrase (64) and parenthetical (65):

- (70) a. ... da **je** #prije nekoliko dana# **je** na toj linij# **je** voz **je** kasnio tri sata.
 b. ... da **će** #kao što reko# **će** oni **će** sutra doći.

In (70) we see that the copy that is pronounced may be two or even three heads down from the root. This, in a nutshell, illustrates how the analysis works.

These examples, however, raise an interesting problem: for many speakers the clitic that surfaces is not necessarily the highest pronounceable one, since realizing the clitic right after *da* is also possible, as shown in (71):

- (71) a. ... da **je** #prije nekoliko dana# **je** na toj linij# **je** voz **je** kasnio tri sata.
 b. ... da **će** #kao što reko# **će** oni **će** sutra doći.

I interpret this variation as a sign that Optimality Theoretic principles may be at work here, although I follow the suggestion in Pesetsky (1998) that OT considerations should be limited to regulating PF, with the syntax itself still generative. Assume, then, that a general PF desideratum is that the highest copy is the optimal one to pronounce, presumably because this preserves the most information and is thus the one most faithful to Spell Out; call this constraint “Faithfulness”.³¹ Faithfulness is however violated in (66) and (69), the reason clearly being that pronunciation of the higher copy would violate the prosodic support requirements of these enclitics, a constraint that can be called “Prosodic Support” and which must therefore be ranked higher than “Faithfulness”.³² If so, the possibility of the candidates in (71) implies competition between two equally ranked constraints, otherwise (71) should block (70). Now notice that the examples in (71) involve clitics at the right edge of an -phrase. In Slavic, it is generally true that this leads to diminished acceptability, at least, whenever there is the option of pronouncing the clitics elsewhere. I take this to mean that, everything else being equal, there exists a constraint against clitics—even enclitics—immediately preceding an -boundary, which can be called “Non-Final”,³³ and that this constraint must be ranked the same as “Faithfulness”. These very tentative proposals are summarized in (72).³⁴

(72) Prosodic Support » Faithfulness = Non-Final

Consider in this light the fact that (73a) as a variant of (65), is much better than (73b) or (73c):

³¹I am also assuming that when pronouncing the highest copy would violate some highly ranked constraint, so that Faithfulness is violated instead, the next highest one is the next most faithful one to retain. I take this to be an instance of “Sympathy”, in the sense that the optimal candidate is still more faithful than the other ones.

³²In general, clitics violate McCarthy and Prince’s constraint that “lexical word = prosodic word”, since they are lexical words that are not also prosodic words.

³³The idea put forward in Mišeska-Tomić (1997) that even in Mac, which otherwise allows initial proclitics, there is a strong tendency for clitics to be pronounced in non-initial position in certain constructions may be an instantiation of the flip side of this constraint.

³⁴A potential problem for the OT oriented approach is that many speakers seem to find *both* (70) and (71) slightly off, with variation in which sounds worse.

- (73) a. Znači da **će** oni #kao što reko#h# sutra doći.
 b. ?*Znači da oni #kao što reko#h# sutra **će** doći.
 c. *Znači da oni **će** #kao što reko#h# sutra doći.

In keeping with my OT reasoning, the effect of putting the parenthetical after *oni* is that Non-Final is respected. Candidate (73a) therefore necessarily wins, since the alternatives involve pronouncing a less than optimal copy, and while (73b) is more sympathetic to Faithfulness than (73c) is, it additionally violates Non-Final.

To summarize, the proposed system obtains the 2P effect by having clitics move as far as possible in the syntax, which for SC means to the highest head position in the tree. They can thus only be preceded by one phrase, in the lone specifier to their left (assuming, as in Kayne (1994), that there is no adjunction to phrases, or at least not to the one in which the clitic appears). In these respects the analysis is similar to other syntactic accounts that do not adopt Chomsky's (1993) copy and delete theory of movement, such as those of Ćavar and Wilder (1994) or Progovac (1996). Once this theory is adopted, however, it becomes possible to reconcile the head movement approach with the idea that clitics are not always pronounced in the same position and to express the dependence of clitics on prosodic factors without any look-ahead. Clitics move in the syntax, clustering together in the highest head position in the tree, but where they are phonologically realized depends on PF considerations, which I take to be formalizable in OT terms.

2.7 Variations on a theme: other second position languages

In the remainder of this section I examine 2P effects in two other Slavic languages, Slovenian and, much more briefly, Czech. My general claim will be that the syntax of clitic placement is identical in Sln to that of SC, with all discernable differences resulting from independent factors. While I believe the same to be true of Cz, the facts are too complex to allow proper investigation in this paper.

2.7.1. Slovenian

Clitics in Sln superficially resemble those in SC, as shown by the examples in (74).

- (74) a. Prinesel **sem** **ji** **jo** .
 brought aux.1sg her.dat it/her.acc
 'I brought it/her to her.'
 b. Janez **mu** **ga** **je** še dal.
 Janez him.dat it.acc aux.3sg still gave
 'Janez still gave it to him.'
 c. ... in moje srce **je** bilo veselo.
 and my heart aux.3sg was happy
 '... and my heart was happy.'

Sln like SC is thus a Wackernagel position language, although in the modern language the Sln clitics cluster together after the first major constituent of the clause and do not split apparent phrases as they can in SC—*moje je srce* would be impossible in (75c). I believe this discrepancy to follow straightforwardly from the independent lack of word order permutations requisite for the kinds of superficially split clitic phenomena displayed by SC, as discussed in section 2.3.2, but will not argue for this here. Instead, I concentrate on the

curious fact that Sln countenances a surprising degree of clitic first, a possibility completely unavailable in SC. A variety of standard sources, such as Bennett (1986), Derbyshire (1993), Priestly (1993), and Toporišič (1976), plus some unpublished presentations by Wayles Browne as well work by Marija Golden and Milena Milojević-Sheppard (e.g. Golden and Milojević-Sheppard 1997 or Milojević-Sheppard 1997), point out that clitic-initial sentences can be created by deleting the understood first word or phrase. In (75a) and (75b) the question particle *Ali* is deleted, and in (75c) the expletive *To* is missing:

- (75) a. **Si** **ga** videl?
 aux.2sg him.acc saw
 ‘Have you seen him?’
- b. **Se je** Rajko res poročil?
 refl aux.3g Rajko really married
 ‘Did Rajko really get married?’
- c. **Se mi** **je** smejal.
 refl me.dat aux.3sg laughed
 ‘He was laughing at me.’

Note that these clitics form a single prosodic unit with the verb. This entails that the clitics in Sln are prosodically neutral, able to function either as proclitic or enclitic. In SC, as we have seen, they are only enclitic, so that SC examples comparable to (75) would not be possible. Presumably, ellipsis of the initial element might be syntactically sanctioned in SC, but the result would crash at PF.

Some further examples of initial clitics where nothing obvious has been deleted are given in (76).

- (76) a. **Sem** **ga** videl.
 aux.1sg him.acc saw
 ‘I saw him.’
- b. **Bomo** videli.
 fut.1pl see
 ‘We’ll see.’
- c. **Ga** pelje kot otroka, in **je** ubogal.
 him.acc leads like child and aux.3sg obeyed
 ‘She leads him like a child, and he obeys.’

It seems to me that the correct way to distinguish Sln from SC is to keep the clitics in the same syntactic position (or positions), but to relax their phonological requirements. Consequently, the copy and delete analysis developed for SC should carry over unmodified to Sln; the differences between the two languages are all on the PF side.³⁵ The simplest assumption is thus that the only difference between the two languages lies in the fact that Sln clitics may look in either direction for a phonological word to adjoin to, so that both Prosodic

³⁵Here of course I am putting aside certain irrelevant but confounding syntactic differences, such as in the relative position of reflexive clitics, to be discussed in section 3.1 below, and the failure of clitics to split phrases in Sln, which largely correlates with the independent absence of splitting. Finally, even if it turns out, as suggested in section 4.5 below, that SC requires some PF analog of PL, this would not be expected of Sln, since clitics can be initial in that language.

Support and Faithfulness can always be satisfied. Example (76a) will then have the (very rough) structure in Sln (77a), but instead of deleting the highest copy of the clitics in PF, as must occur in its SC counterpart (77b), it is retained:

- (77) a. [*pro* **sem** *ga* [videl **sem-ga** [videl]]]
 b. [*pro* **sam-ga** [vidio **sam ga** [vidio]]]

We consequently do not expect to encounter the kinds of delayed clitic placements that emerge in SC. This expectation is corroborated by the following Sln examples, drawn from Bennett (1986: 7), which illustrate the possibility of starting with a clitic after various types of heavy constituent:

- (78) a. 'Počival **bom!**' **je** rekel!
 rest fut.1st aux.3sg said
 'I am going to have a rest!' he said.'
 b. Ko **sem** **se** vzdranila, **sem** ležala na postelji.
 when aux.1sg refl awoke aux.1sg lay on bed
 'When I awoke, I was lying in bed.'
 c. Moj prijatelj Peter Košenina **je** velik junak.
 my friend Peter Koshenina aux.3sg big hero
 'My friend Peter Koshenina is a big hero.'

In the SC versions of the sentences in (78), the clitic would appear one word to the right of where it does in Sln. The flexible nature of the Sln clitic can be seen particularly in (78a), where *bom* is enclitic and *je* is proclitic. I thus conclude that Sln clitics are still in syntactic second position, which I have defined as the highest head position available, but the fact that they can be phonologically proclitic means that they can tolerate a pause to their left.

Perhaps the most interesting aspect of Sln clitics is that not only can they tolerate silence to their left and, as expected, to their right, but they can even tolerate silence *on both sides at the same time*. It is therefore also possible to strand the clitics, in which case the clitics *do* assume the stress. In Sln and as we shall see in section 3.2 also SC, there is an independent process of "VP ellipsis" which can remove the material following the clitics. Following e.g. Chomsky and Lasnik (1993), I take ellipsis to be a PF process that targets an intonationally flat phrase; alternatively, in the OT terms I have been developing here, one could imagine a constraint that says "Do Not Pronounce Flat Material" and this constraint would be ranked at least above "Non-Final" in Sln. Given the existence of such ellipsis, which can incidentally be taken as further evidence that the clitics are outside VP, the odd fact about Sln is that it can cooccur with ellipsis of the material preceding the clitics as well. This is demonstrated by the examples in (79), cited in Priestly (1993: 429), who characterizes them as involving "verb phrase reduction":

- (79) a. **Si** že končal delo? Predvčerajšnjim še nè,
 aux.2sg already finished work day-before-yesterday still not
 včeraj **pa sem ga**.
 yesterday but aux.1sg it.acc
 'Have you finished the work?
 'The day before yesterday I didn't, but yesterday I did (finish it).'

- (79) b. (Ali) **se** dobro počuti? Jā, **sè**.
 Q refl good feel yes refl
 ‘Do you feel well? Yes, I do (feel well).’

In (79a) the clitic *ga* is stressed, as is otherwise proclitic *ne*, and in (79b) *se* is. Crucially, however, these do *not* become the corresponding full forms *njega* and *sebe* although tonic.

An additional and particularly instructive paradigm is given in (80).

- (80) a. Ali **si** **si** to izmislil?
 Q aux.2sg refl.dat this thought-up
 ‘Did you think this up for yourself?’
 b. **Si si** izmislil?
 c. **Si si**?

Example (80b) is simply derived through deletion of *Ali*, so that the clitics become proclitic, but (80c) involves VP reduction, hence the second (dative) *si* must bear the stress, although once again it is not the full form *sebi*. One might suspect, since stress is the only thing that distinguishes full from clitic auxiliary forms on Sln, that *Si* in (80c) is really the tonic form, which could then provide a host for the dative clitic. This conjecture is however easily shown to be false. Aside from the fact that auxiliary *Si* lacks stress in (80c), one can construct comparable examples based solely on pronominal clitics, whose full forms *are* segmentally distinct. This is shown in (81).

- (81) a. Ali **mu** **ga** daješ?
 Q him.dat it.acc give
 ‘Are you giving him it?’
 b. **Mu gà**.
 ‘(Yes, I am giving) him it.’

Similarly, a pronominal clitic can even stand on its own, so that in (79b) the affirmation could be simply the (accusative) reflexive clitic *Sè*. Further illustrations of this sort of contextually dependent VP-ellipsis, also from Priestly (1993: 437-438), are given in (82).

- (82) a. Zdi **se mi** da **gà**.
 seems refl me.da COMP him.acc
 ‘[Do you understand your neighbor now?] I think that I (understand) him.’
 b. Da, zakáj **jo je**?
 yes why her.acc aux.3sg
 ‘[And why did he stab Clementina more than once?] Yes, why did he (stab) her?’
 c. Sàj **sem gà**.
 but aux.1sg it.acc
 ‘[You’re beaming as if you had won the jackpot.] But I have (won) it.’

These examples thus clearly demonstrate not only that phonological and syntactic cliticization must be divorced from one another, but also that, in Sln at least, a “lexical” clitic (i.e. an element that lacks word-level prosodic structure as a lexical property) can acquire prosodic structure if forced. I imagine the following scenario at work in Sln: (i) the clitics

Petr is focused and typically followed by an intonational break. This seems to be a different phenomenon than the “delayed” clitic placement of SC; Short (1993) calls it “slippage” and notes that it is especially common with *se* and seems to be on the rise in colloquial registers. There seems to be considerable variation in the acceptability of such slippage, so that some speakers allow slippage even further down whereas others do not:³⁹

- (85) a. %Jistě namítnete, že to VÁM **se** zítra nestane.
 surely object.2pl that it you.dat refl tomorrow neg-happen
 ‘You will surely object that to you it will not happen tomorrow.’
 b. %Jistě namítnete, že to VÁM ZÍTRA **se** nestane.
 surely object.2pl that it you.dat tomorrow refl neg-happen
 ‘You will surely object that to you, tomorrow, it will not happen.’

Here it looks like the clitic prefers to be pronounced after a contrastively focused element rather than in the highest available position. Thus, I assume it moves to after the complementizer *že*, as in (84a), either adjoining to its right or occupying the next head position down, but a lower copy is pronounced in order to satisfy a highly ranked constraint that prevents clitics from preceding contrastive focus.⁴⁰

I now want to turn to some Cz facts first discussed in Toman (1980) that support the idea that candidacy for clitic status minimally depends on being a functional rather than substantive head. In Cz, auxiliary ‘be’ is a clitic and copular ‘be’ is not.⁴¹ That is, present tense forms of Cz *být* ‘to be’ can either be a copula, as in (86), which I take to be an instantiation of V, or a pure person-number agreement marker, as in (87), which I take to be an instantiation of AgrS. The examples in (86) and (87) come from Fried (1994).

- (86) a. Jsem doma/smutný/právník.
 be.1sg home/sad/lawyer
 ‘I am at home/sad/a lawyer.’
 b. Jsem ti velmi zavázán.
 be.1sg you.dat very indebted.prt
 ‘I am very indebted to you.’
- (87) a. *Jsem pozval Petra na pondělí.
 aux.1sg invited Peter.acc on Monday
 ‘I invited Peter for Monday.’
 (cf. Pozval **jsem** Petra na pondělí;
 Petra **jsem** pozval na pondělí;
 Na pondělí **jsem** pozval Petra.)

³⁹Thanks are due to Hana Filip, Mirjam Fried, Jindra Toman and Lida Veselovská for helpful discussion of these and other Cz data.

⁴⁰The variation presumably has to do with how “unfaithful” one can be to the output of the syntax in order not to violate the focus constraint. Another complexity in an OT type of analysis concerns the variation in slippage potential for different lexical items, such as *se*. This is however a more general problem: if constraint rankings are properties of grammars, then how can variation be localized in lexical items? The fact that most variation is a lexical phenomenon, it seems to me, is one of the most important insights of the minimalist program.

⁴¹The same is also I believe true of Mac, as revealed by data reported in Mišeska-Tomić (1997), although she does not describe this fact in these terms.

- (87) b. ***Jsem ti** přinesl dárek.
 aux.1sg you.dat brought present.acc
 'I brought you a present.'
 (cf. Přinesl **jsem ti** dárek;
 Dárek **jsem ti** přinesl.)

Toman (1980) describes no less than *five* formal differences between the two functions of *být*, summarized in (88) and illustrated in (89) and (90), with auxiliary (clitic) *být* in the first set and copular (nonclitic) *být* in the second.

- (88) a. Copula can be fronted to initial position in Yes/No questions, auxiliary cannot;
 b. Negation prefixes to copula, but not to auxiliary;
 c. Colloquial contraction of 2sg *jsi* to *s* is possible with auxiliary, but not with copula;
 d. Colloquial dropping of first person auxiliaries, but not of copula;
 e. Special 2sg form *seš* for *jsi* as copula, but not as auxiliary.
- (89) a. Viděli **jste**?
 saw aux.2pl
 'Did you see?'
 (cf. *Jste viděli?)
- b. Nepřišel **jsi**.
 not-came aux.2sg
 'You did not come.'
 (cf. *Nejsi přišel.)
- c. Ty **jsi** přišel. Tys přišel.
 you aux.2sg came
 'You came.'
- d. Já **jsem** už spal. Já už spal.
 I aux.1sg already slept
 'I was already asleep.'
- e. *Ty seš přišel.
 you are came
- (90) a. Jste dnes na řadě?
 are today on row
 'It is your turn today.'
- b. Nejsi hlupák/zdráv/na řadě.
 not-are dummy/healthy/on row
 'You are not a dummy/healthy/... not your turn.'
 (cf. *Jsi nehlupák/nezdráv/nena řadě.)
- c. Ty jsi učitel. / *Tys učitel.
 you are teacher
 'You are a teacher.'

- (90) d. Já jsem už pět let učitel. / *Já už pět let učitel.
 I am already five years teacher
 'I have been a teacher for five years already.'
- e. Ty seš hlupák.
 you are dummy
 'You are a dummy.'

These data indicate that items in the *jsem* series are clitics only in their auxiliary function, and that as a copula there is strong pressure to distinguish them as ordinary present tense verb forms. The form *jsem* is thus ambiguous, being the 1sg of the verb *být* 'to be' or the realization of subject agreement features, and its status as a clitic depends on this factor. This is because only a functional head is eligible to be a clitic, and only as a clitic does *jsem* lack prosodic representation, failing to project a phonological word on its own. Toman's Cz data in (89) and (90) thus provide striking support for my contention that special clitics are invariably functional heads.

3. Some potential problems

In this section I discuss three sets of possible problems with a pure syntax approach.⁴² These problems have to do with impediments to the idea that clitic cluster formation is itself a syntactic process.

3.1. Ordering templates: accident or design?

The first issue concerns the source of relative clitic ordering within the cluster, and whether this should be handled exclusively through syntactic means.

3.1.1. Idiosyncratic heads

If the clitic cluster is formed through successive adjunctions, one would expect the rigid internal order among the clitics to reflect the phrase structure schema in (49). For the most part, it does, which seems to me to support a syntactically-oriented account.⁴³ If on the other hand the internal order is viewed as the consequence of some kind of morphological template, these patterns must be viewed either as accidental or as following from as yet unknown principles of morphology which just happen most of the time to mirror the syntax in suspicious ways.⁴⁴ The advantage of positing a morphological template is thus that one expects to encounter idiosyncrasies, and these can be stated, if not explained, by deferring to the template. In this section I briefly discuss two such idiosyncrasies.

The most famous ordering idiosyncrasy in Slavic is that, although verbal auxiliary clitics generally precede the pronominal clitics, certain exceptional verbal clitics come last instead. These are basically the third singular auxiliary in SC and Bg, this plus the third plural (but only as a copula) in Mac, and this plus the future tense auxiliary in Sln. Consider the SC minimal pair in (91) or the Sln examples in (92).

⁴²See also Bošković (1997b), Stjepanović (1998, in press) and Progovac (1998a, 1998b) for relevant discussion of the data in sections 3.1.2 and 3.2.

⁴³Recall that the general pattern for SC and the other Slavic languages is for interrogative *li* to be highest, followed by most verbal clitics, followed in turn by the pronominal clitics in the order first dative, then accusative; under a head-movement account this implies right adjunction down the line.

⁴⁴Although the loss of mirror principle effects strikes me as one of the most glaring defects of the standard minimalist feature checking system, these effects are retained in clitic cluster formation since the cluster is not regarded as a single lexical entry.

- (91) a. Da **li si mu ga** dala?
 C Q aux.2sg him.dat it.acc gave
 'Did you give him it?'
- b. Da **li mu ga je** dala?
 C Q him.dat it.acc aux.3sg gave
 'Did she give him it?'
- (92) a. Prinesla **mu jo je**.
 brought him.dat it.acc aux.3sg
 'She brought it to him.'
- b. Ali **mi ga boš** dal?
 Q me.dat it.acc fut.2sg give
 'Will you give it to me?'

While this state of affairs could simply be handled as a stipulation, it seems to me that the ordering facts are more than coincidental, and that a syntactic account could be developed for this problem such that the verbal clitics which come last are treated as syntactically different from the other verbal auxiliaries.

An approach along these lines has already been suggested in various places in the literature, including Franks and Progovac (1994), Progovac (1996), and Mišeska-Tomić (1996a). Progovac and Mišeska-Tomić point out other well known idiosyncrasies of SC *je*, which lend credence to the idea that it is more stem-like than ending-like. While Mišeska-Tomić (1996a) regards *je* as a V head, this would not be viable in my system, since only functional categories are eligible to be clitics, and this very distinction between V and AgrS was used to explain the Cz facts in (86)-(90). Given that Sln *boš* in (92b) is clearly a future tense marker, I suspect that a treatment might be more successful in which the verbal auxiliaries that appear on the right rather than the left flank of the pronominal cluster originate as T° heads (instead of in AgrS°, where the other auxiliaries are inserted). Note that dividing the verbal auxiliary clitics in this way might be used to explain the loss of 3rd person auxiliary clitics in West Slavic, under the assumption that T° but not AgrS° (or K°) clitics disappeared (although, as noted in (88d), this loss has extended to first person in colloquial Cz). Beyond this proposal, however, I can only offer speculations at this point. One possibility would be to exploit direction of adjunction, with the pronominal clitics adjoined to the left of T but to the right of AgrS. While this might handle the facts, it hardly constitutes an explanation of the puzzle of why the pronominal clitics ordinarily follow the auxiliary but sometimes precede. Alternatively, one could imagine that the pronominal clitics excorporate from T° to AgrS°, or skip T altogether. All clitic adjunction would then be to the right, which might follow from them being enclitic, and the tense clitic would be rightmost because it would adjoin to AgrS later, perhaps only in the PF component.^{45, 46}

⁴⁵T as *je* does however seem to support AgrS in deriving the full forms of the auxiliaries, such as SC *jesam, jesj* etc., and can also move to C in Yes/No questions, and in Sln of course the future auxiliary has clear AgrS endings.

⁴⁶As an aside, notice that the AgrS clitics are fundamentally different from the other ones, being essentially verbal rather than pronominal in nature. It is interesting to consider why. I have taken AgrS to be the source of person-number verbal agreement features, which can be supported by a V, an auxiliary, or a tense morpheme. The other Agrs, however, correspond to K° case endings, which can be generated *in situ* (for verb-adjacent clitics, as discussed in section 4) or can be heads in argument position that raise (for 2P clitics). Either way, I regard the pronominal clitics as nominal heads adjoined to Agr. One or the other will be overt, but not both, hence subject agreement is tantamount to being a subject clitic. Here we see another interesting correlation,

Another less well studied ordering idiosyncrasy, one which credibly calls for a templatic solution, concerns the position of reflexive pronominal clitics in the various Slavic languages. Reflexive clitics in Slavic can be of various cases, typically accusative but often also dative and sometimes even genitive. When they are situated appropriately to their case, as in SC (93a), nothing special needs to be said.

- (93) a. Predstavila **sam** **mu** **se** juče.
 introduced aux.1sg him.dat self.acc yesterday
 'I introduced myself to him yesterday.'
- b. Predstavila **sam** **mu** **te** juče.
 introduced aux.1sg him.dat you.acc yesterday
 'I introduced you to him yesterday.'

Reflexive clitics in SC thus behave like corresponding pronominal clitics with respect to word order in the clitic cluster, so that direct object accusative reflexive clitics follow indirect object dative ones, just like nonreflexive direct object clitics do; Bg is similar.⁴⁷

As noted by Toman (1995), however, Cz offers a different pattern. As shown in (94), whereas nonreflexive direct object clitics follow object clitics, reflexive direct object clitics precede indirect object clitics; Sln is in this regard similar.

- (94) a. Představila **jsem** **se** **mu** včera.
 introduced aux.1sg self.acc him.dat yesterday
- b. Představila **jsem** **mu** **tě** včera.
 introduced aux.1sg him.dat you.acc yesterday

Although these could be simply stipulated in a morphological template, they could also be taken to suggest that there are two competing syntactic analyses of reflexive clitics, one which treats them similarly to non reflexive pronouns and another which affords them

namely that the null subject Slavic languages are precisely those that have rich AgrS (as evidenced by the presence of a copula marking person-number and an inflected past auxiliary), and these are also the languages which have pronominal clitics. I speculate that the loss of rich subject agreement (and concomitant licensing of null subjects) goes hand-in-hand with the loss of pronominal clitics.

⁴⁷Actually, this is not quite correct for SC. Recall the ordering template in (5), which specifies "ACC > GEN > se". Thus we find the order in (i), although *se* is presumably accusative:

- (i) Ja sam **ga** **se** bojao.
 I aux.1sg him/it.gen refl feared
 'I was afraid of him/it.'

Conceivably this is because *se* here heads the lowest phrase above VP, possibly some kind of "Voice Phrase". If so, dative reflexives in SC would have to be different, either introduced in AgrIO or requiring movement from Voice to AgrIO. Note also that (ii) is unambiguous, according to Ljiljana Progovac and Sandra Stjepanović (pc):

- (ii) Jovan **ih** **se** lišio.
 Jovan them.gen refl.acc deprived
 'Jovan deprived himself of them.'
 (NOT *Jovan deprived them of himself.)

If clitic ordering were simply a matter of conforming to a morphological template, it is unclear what would prevent *ih* from being taken as accusative and *se* as genitive; if anything, that should be the preferred interpretation given that the "ACC > GEN" order would be respected. Interestingly, Stjepanović comments that the *se ih* order in (ii) is also marginally acceptable, although with the same interpretation. While this all might be taken as evidence against a templatic approach to clitic ordering, the problem requires much further investigation before a syntactic solution is forthcoming.

special status. Toman (1995) indeed proposes that Cz reflexive clitics actually head a “RefP” that is higher than (to the left of) where the other pronominal clitics are introduced. In the next subsection, I discuss some clitic climbing facts that bear on this issue.

3.1.2. Clitic climbing and cluster splitting

Recall the facts reported in section 2.3.1 that, according to Stjepanović (1998), it is possible for some speakers for only one clitic to climb to a higher clause, but only the clitic that starts out higher can do this. Movement of the lower clitic to the exclusion of the higher one is ungrammatical; “crossing” is never allowed. This was shown in (28) vs. (29), repeated in (95):

- (95) a. Marija **mu** želi da **ga** predstavi.
 Maria him.dat wants C him.acc introduces
 ‘Maria wants to introduce him to him.’
 (cf. *Marija **ga** želi da **mu** predstavi.)
- b. Želio **sam mu** da **ga** kupim.
 wanted aux.1sg him.dat C it.acc buy.1sg
 ‘I wanted to buy him it.’
 (cf. *Želio **sam ga** da **mu** kupim.)
- c. Marko **mu je** želio da **ga** kupi.
 Marko him.dat aux.3sg wanted C it.acc buy.3sg
 ‘Marko wanted to buy him it.’
 (cf. *Marko **ga je** želio da **mu** kupi.)

I took the observation that the lower Agr head cannot skip over the higher one to be an HMC effect.

These facts can be replicated for more subtle clitic orderings; for example, accusative precedes genitive, so that (96b) is just as unambiguous as (96a); data provided by Sandra Stjepanović (pc).⁴⁸

- (96) a. Ti **si** želio da **me ih** liši.
 you aux.2sg wanted C me.acc them.gen deprive.3sg
 ‘You wanted to deprive me of them.’
 (NOT *You wanted to deprive them.acc of me.gen.)
- b. ?Ti **si me** želio da **ih** liši.
 you aux.2sg me.acc wanted C them.gen deprive.3sg
 ‘You wanted to deprive me of them.’
 (NOT *You wanted to deprive them.acc of me.gen.)

If the account in terms of hierarchical arrangement of functional heads turns out to be correct, what (96b) implies is that the Agr head which houses the accusative argument of *lišiti* ‘to deprive’ must be higher than the Agr head which houses its genitive argument, which in turn implies that the accusative argument is introduced higher than the genitive one. These conclusions require further investigation, but at least the implications are clear. Under a

⁴⁸Not all speakers share these judgments. The (unrealized) potential for ambiguity here depends on the fact that both *me* and *ih* can be taken morphologically as either genitive or accusative.

morphological template approach to order within the clitic cluster, on the other hand, no conclusions about phrase structure of any kind can be drawn.

With this in mind, let us return to the Cz reflexive facts in (94). As corroboration for the syntactic rather than templatic view, note that Cz clitic climbing evidence supports the idea that the unusual order of Cz reflexives is determined in the syntax rather than by the morphology. According to Lida Veselovská (pc), example (97a) is equivalent only to (97b), not to (97c):

- (97) a. On se jí slíbil představit.
 he refl.acc her.dat promised to-introduce
 'He promised to introduce himself to her.'
 (NOT *He promised her to introduce himself (to some unspecified person).)
- b. On slíbil představit se jí.
 he promised to-introduce refl.acc her.dat
 'He promised to introduce himself to her.'
- c. On jí slíbil představit se.
 he her.dat promised to-introduce refl.acc
 'He promised her to introduce himself (to some unspecified person).'

To get the interpretation of (97c) in (97a), the lower reflexive clitic would have to climb over the matrix dative clitic. Interestingly, (98) with pronominal accusative *ho* is ambiguous.

- (98) On jí ho slíbil představit.
 he her.dat him.acc promised to-introduce
 'He promised her to introduce him (to some unspecified person).'
- 'He promised to introduce him to her.'

This ambiguity is predicted because *ho*, unlike *se*, can climb from the downstairs clause without crossing dative *jí* and violating the HMC.⁴⁹ The conclusion that crossing is never sanctioned crucially depends on principles of syntactic movement, not morphological idiosyncrasy. Thus, the fact that the Cz clitic template puts reflexive pronouns before pronominal ones is not a matter of accidental morphology, but reflects instead the hierarchical arrangement of syntactic heads.

For SC, on the other hand, Stjepanović reports the following judgments for split clitic climbing; cf. (96) and also fn. 47:

- (99) a. ?*Ja sam se željela da ih lišim.
 I aux.1sg refl.acc wanted C them.gen deprive.1sg
 'I wanted to deprive myself of them.'
- b. ?Marko ih je želio da se liši.
 Marko them.gen aux.3sg wanted C refl.acc deprive.3sg
 'Marko wanted to deprive himself of them.'

⁴⁹SIn may be problematic in this regard, in that preliminary investigation reveals that although accusative *ga* works as expected and cannot be crossed by dative *mu*, reflexive *se* can cross a higher dative. Once again, a proper analysis requires more detailed study of the full range of possibilities.

Example (99a) is highly degraded, presumably because *se* would have to cross over *ih*.⁵⁰ In (99b), however, *ih* moves from a higher position than *se*, hence does not cross it, as reflected in the base order ... *ih se liši* in example (ii) of fn. 47. It thus has the status of (96b) where the accusative pronoun climbs without crossing the genitive one. The state of affairs with respect to cluster splitting in Cz and SC thus seems to me to provide strong confirmation that clitic climbing is a syntactic process.

The mere existence, however, of cluster splitting could be taken as problematic for my view that the clitic cluster is formed in the syntax. If clitic climbing is dependent in some way on restructuring, which would redefine (the highest functional head in) the extended projection of the embedded V, it would indeed be odd to find restructuring relevant for one clitic argument of this V, but not the other. This may well be why many speakers I have consulted find Stjepanović's mixed climbing data highly degraded. Still, there must be some choice about whether to restructure or not, otherwise, it is unclear how optional clitic climbing could exist at all, as in Progovac's examples (27c, d), repeated in (100):

- (100) a. Milan želi da **ga** vidi.
 Milan wishes C him.acc sees
 'Milan wishes to see him.'
- b. Milan **ga** želi da vidi.
 Milan him.acc wishes C sees

Given this choice, it seems at least conceivable to me that the option of acting on or ignoring that restructuring might also exist.

Another example of cluster splitting that warrants discussion is mentioned in Bošković (1997b), who adds the following variant to the possibilities with parentheticals discussed in section 2.5 and 2.6:⁵¹

- (101) Oni **su** #kao što **sam vam** rekla# predstavili **se** Petru.
 they aux.3pl as what aux.1sg what said introduced refl Peter
 'They, as I told you, introduced themselves to Peter.'

Here one clitic is pronounced past the parenthetical, while the other is not. Also acceptable is the variant in (102a); (102b) is degraded but not impossible.

- (102) a. Oni **su se** #kao što **sam vam** rekla# predstavili Petru.
 b. ??Oni #kao što **sam vam** rekla# predstavili **su se** Petru.

Under the copy and delete approach I argued for in section 2.6, it would be extremely odd to claim that both *su* and *se* move to after *oni*, but that for some reason in (101) only *su* is pronounced there at PF. There is moreover evidence which shows that this cannot be a PF phenomenon. According to Željko Bošković (pc), the opposite pattern is absolutely ungrammatical:

- (103) *Oni **se** #kao što **sam vam** rekla# predstavili **su** Petru.

⁵⁰The fact that it is not completely bad for Stjepanović seems to correlate with the fact, as noted in fn. 47, that she marginally accepts the *se je* base order as well. This is as expected under a syntactic account of clitic climbing.

⁵¹Ljiljana Progovac (pc) finds (101) extremely difficult to get, so perhaps my original account in section 2.6 is correct and something else is going on here.

This looks just like the HMC effect described for split climbing constructions. Possibly, then, the variation lies in where in the structure the parenthetical phrase is attached. If the clitics can never move past the parenthetical (contra my assumptions in section 2.6), then (101) is simply a consequence of adjoining the parenthetical to the XP immediately below AgrS. Of course, this view would call for an explanation for the variants in (73) and (101)-(102) couched in terms of where the parenthetical can be.

3.2. Ellipsis in Serbo-Croatian

A second problem that seems to militate against a syntactic account of clitic cluster formation is based on the ellipsis paradigm in (104), discovered by Stjepanović (1998, in press) and also discussed in Bošković (1997b), Franks (1997), Richards (1997) and Progovac (1998a, 1998b). In this example, the elided material is between square brackets and in outline:

- (104) a. Ona **mu** **ga** **je** dala, a i ja **sam** **mu** **ga** [dala]
 she him.dat it.acc aux.3sg gave and also I aux.1g him.dat it.acc gave
 ‘She have it to him, and I did, too.’
- b. Ona **mu ga je** dala, a i ja **sam mu** [ga dala]
- c. Ona **mu ga je** dala, a i ja **sam** [mu ga dala]
- d. ?*Ona **mu ga je** dala, a i ja **sam** [mu] **ga** [dala]

I assume that ellipsis, which following Chomsky and Lasnik (1993) is a PF deletion of intonationally flat material, always targets a phrase, in these examples either AgrIOP, AgrOP, or AuxP. Now, given a structure with AgrIO *mu* higher than AgrO *ga*, we can see that Stjepanović’s paradigm implies AuxP-ellipsis in (104a), AgrOP-ellipsis in (104b), and AgrIOP-ellipsis in (104c). The ungrammatical (104d), on the other hand, could only be obtained by eliding the AgrIO dative head *mu* independently of AuxP-ellipsis.

On the one hand, these facts provide additional support for my contention that, wherever they end up, clitics are introduced as separate functional heads. Unfortunately, on the other hand they also raise a serious problem for the strictly syntactic approach to clitic placement: ellipsis must target the phrase in which clitic features are checked *before* the clitic continues its upwards move. This is impossible if ellipsis is a PF phenomenon and clitic raising is syntactic.

Notice however that the grammaticality of (105) shows that ellipsis cannot be simply a matter of surface string adjacency:⁵²

- (105) Ja **sam** **mu** **ga** dala, a i ona ~~mu~~
 I aux.1sg him.dat it.acc gave and also she him.dat
ga je dala.
 it.acc aux.3sg gave
 ‘I gave it to him, and she did too.’

At the relevant level of abstraction, *je* heads a phrase above both AgrIO head *mu* and AgrO head *ga*, presumably, as I have said, TP. In other words, the cluster *mu ga je* cannot yet have been formed when ellipsis takes place. Hence, whatever is going on in (104), it does not really seem to me to be a definitive argument against syntactic clitic placement. Instead, the

⁵²Progovac (1998a, 1998b) also notes this fact.

paradigm suggests to me that clitics, although indeed separate functional heads, might under certain conditions remain separate in the syntax.

In light of this, there are several ways one might go about resolving this paradox without abandoning the syntactic raising analysis and letting clitics combine in the phonology or morphology. One might conclude that ellipsis too can be syntactic, although this raises the obvious problem of how the elided material is then accessible to LF for semantic interpretation; one would need a system whereby semantic interpretation can take place anywhere along the way to Spell Out. Progovac (1998a, 1998b) proposes a solution to this puzzle in terms of have a null VP and generating those clitics which are retained as functional heads outside VP; I do not pursue this idea here because there are serious and on-going data debates between her and Stjepanović, and also because under my analysis 2P clitics are necessarily generated as argument heads.⁵³

Let me therefore consider another idea, one that treats as special not those clitics which are retained, but rather the clitics that are deleted. I propose that these clitics fail to raise out of economy considerations. That is, they can raise and be elided, or they can stay put and be deleted *in situ*. Normally, failure to move would cause problems since their strong features would not be checked off, but if they are deleted anyway, the offending strong features will disappear as well, assuming that to be a PF rather than LF offense. So maybe ordinarily the clitic cluster is formed syntactically, but when the clitics are going to be deleted it need not (or cannot) be. This is reminiscent of a problem recently discussed by Lasnik (1997) with respect to Sluicing (*wh*-movement followed by deletion of IP). The question is why one gets (106b) and not (106c):

- (106) a. Mary will see someone.
 b. Who C° [_{IP} ~~Mary will see e~~]?
 c. *Who will [_{IP} ~~Mary e see e~~]?

Lasnik's solution is that it is more economical for *will* not to move. C° has a strong formal feature which attracts the matching strong feature of *will* from I°. Either the phonological material can be copied as well (or "pied-piped", under the view that two distinct chains are formed), or the phonological material can be ignored. Ordinarily, pied-piping is obligatory with overt movement and impossible with LF movement; the reason for the former is because failure to pied-pipe would result in a defective constituent at PF and the reason for the latter is that it is either otiose or nonsensical to move phonological material in LF. Lasnik then claims that PF deletion of IP in (106c) obviates the need to pied-pipe, hence failure to do so is the more economical option. It seems to me we can tell a similar story about clitics which are deleted instead of raising to their respective Agrs: only their formal features move, not their phonological content, but this is sanctioned because that phonological content is elided anyway, avoiding the PF crash that would otherwise ensue.

3.3. Particles in Czech

Further evidence for rejecting syntactic clitic cluster formation might be found in the fact that Cz adverbials can be part of the cluster *if they happen to fall in it and they themselves are clitic*

⁵³For Progovac (1998a, 1998b), examples with VP-ellipsis and the auxiliary clitic are good but those with pronominal clitic(s) in the second conjunct are bad, contra Stjepanović. This would follow from the assumption, which both she and I make, that 2P pronominal clitics are introduced inside VP. She argues that Stjepanović's felicitous examples with pronominal clitics retained have in fact been misanalyzed. The reader is referred to Progovac's papers for relevant discussion.

This is mentioned by Avgustinova and Oliva (1995/1997) in a footnote. Their examples with *už* and *prý* are given in (107) and (108).

- (107) a. Jan **už** **se** **jim** **ho** rozhodl nedávat.
 Jan already refl.acc them.dat it.acc decided neg-give.inf
 'Jan already decided not to give it to them.'
- b. Jan **se už jim ho** rozhodl nedávat.
 c. Jan **se jim už ho** rozhodl nedávat.
- (108) a. Jan **prý** **se** **jim** **ho** rozhodl nedávat.
 Jan supposedly refl.acc them.dat it.acc decided neg-give.inf
 'They say that Jan decided not to give it to them.'
- b. Jan **se prý jim ho** rozhodl nedávat.
 c. Jan **se jim prý ho** rozhodl nedávat.

The existence of this phenomenon touches upon two important questions.⁵⁴ First, if clitics are invariably functional heads, then what categories do particles head? While they do lack substantive content, it is far from clear that they pertain to familiar functional heads either. Second, the fact demonstrated in (107) and (108) that they can appear in various places suggests that they are indeed what they seem, namely adverbials which can be adjoined to any of several maximal projections, depending on considerations of scope. This analysis would however have some nontrivial consequences for the syntax. For one thing, it would require that the particles simultaneously be heads and phrases, in order to be clitics yet adjoined themselves to phrases; this possibility is however in keeping with Chomsky's "Bare Phrase Structure" theory. More importantly, it would preclude most *syntactic* accounts of clitic cluster formation, since adverbials are not expected to be able to intervene as they apparently can in (107) and (108). If, on the other hand, the clitics head separate phrases but need to be prosodically adjacent, as Bošković and Stjepanović propose for SC, then the possible intervention of *adverbials* is anticipated. The only alternatives I can think of are (i) to generate these adverbials as X°s which are exhaustively XPs adjoined to various phrases or (ii) to generate these adverbials as heads of Adverbial Phrases which can appear above various AgrPs, and then—under either scenario—require that when the clitics undergo head movement they must adjoin to the adverbial heads as well. I therefore leave a proper resolution of this puzzle to future research and turn to the analysis of verb-adjacent clitic systems.

4. Verb-adjacent clitics

This section attempts to extend the account of 2P clitics to verb-adjacent clitics in Bulgarian and Macedonian. There is a large generative and traditional literature on clitics in Bg and Mac. Here I will focus on specific problems, but for more general discussion the reader is referred to works such as Alexander (1994), Avgustinova (1994), Berent (1980), Čašule (1997), Ewen (1979), Mišeska-Tomić (1996a, 1996b, 1997), Rå Hauge (1976), and especially Rudin (1997), whose analysis I essentially adopt. While I will hold to the basic approach stated in (50III) and recapitulated as follows, a number of difficult analytical problems will arise:

⁵⁴Some Cz speakers have questioned the status of examples in which the particles interrupt the sequence of clitics; if so, the problem discussed in this section disappears. A further question is why I have not found data comparable to Cz (107) and (108) in other discussions of Cz clitics, let alone in other languages.

- (112) a. **Mi go** dade Vera včera. [**Bulgarian, √Macedonian*]
 me.dat it.acc gave Vera yesterday
- b. Dade **mi go** Vera včera. [*√Bulgarian, *Macedonian*]
 gave me.dat it.acc Vera yesterday

The pair in (112) shows that, in Bg but not Mac, if there is nothing to the left of the clitic cluster, then the verb precedes rather than follows it. This contrast reveals that in Mac most clitics are prosodically neutral, and able to seek support in either direction, whereas in Bg most are enclitic only. This point about Mac clitics will be crucial, since there are a number of places where clitics should be perfectly happy prosodically but still need to move.⁵⁵ The Bg example in (113) reveals that the “verb + clitic” order illustrated by (112b) is purely a prosodic requirement:

- (113) [Srešt^{nax} Ivan.] Sprjax **go**, i **mu** kazax...
 met.1sg Ivan stopped.1sg him.acc and him.dat told.1sg
 ‘(I) met Ivan. (I) stopped him, and (I) told him...’

The phenomenon of clitics being preverbal except when that would cause them to be at the left edge of their intonational phrase provides clear evidence that the phonological and syntactic requirements of clitics can in principle be independent. These data indicate that Bg clitics are attached to something to their right in the syntax (presumably the verb), but to something to their left in the phonology. In Bg, but not in Mac, this mismatch in direction of support gives rise to the pattern seen in (111a-c) vs. (112b), a pattern known in Romance linguistics as the “Tobler-Mussafia effect”.

4.2. More variations on a theme: the verb comes to the clitics

The idea sketched out in (109) was that in verb adjacent clitic languages like Bg and Mac clitics *start* in Agr and the verb moves to them. This can be opposed to 2P languages like SC, in which clitics start in argument position, move to Agr and keep on moving, eventually clustering together in the highest functional head position (which is presumably also where the verb is going to be at LF). The result is that the clitics in Bg and Mac are all adjoined to the verb overtly.

This difference in where they are generated—as arguments or under Agr—finds support in the facts of clitic doubling in Balkan languages, as in the examples in Mac (114) and Bg (115):⁵⁶

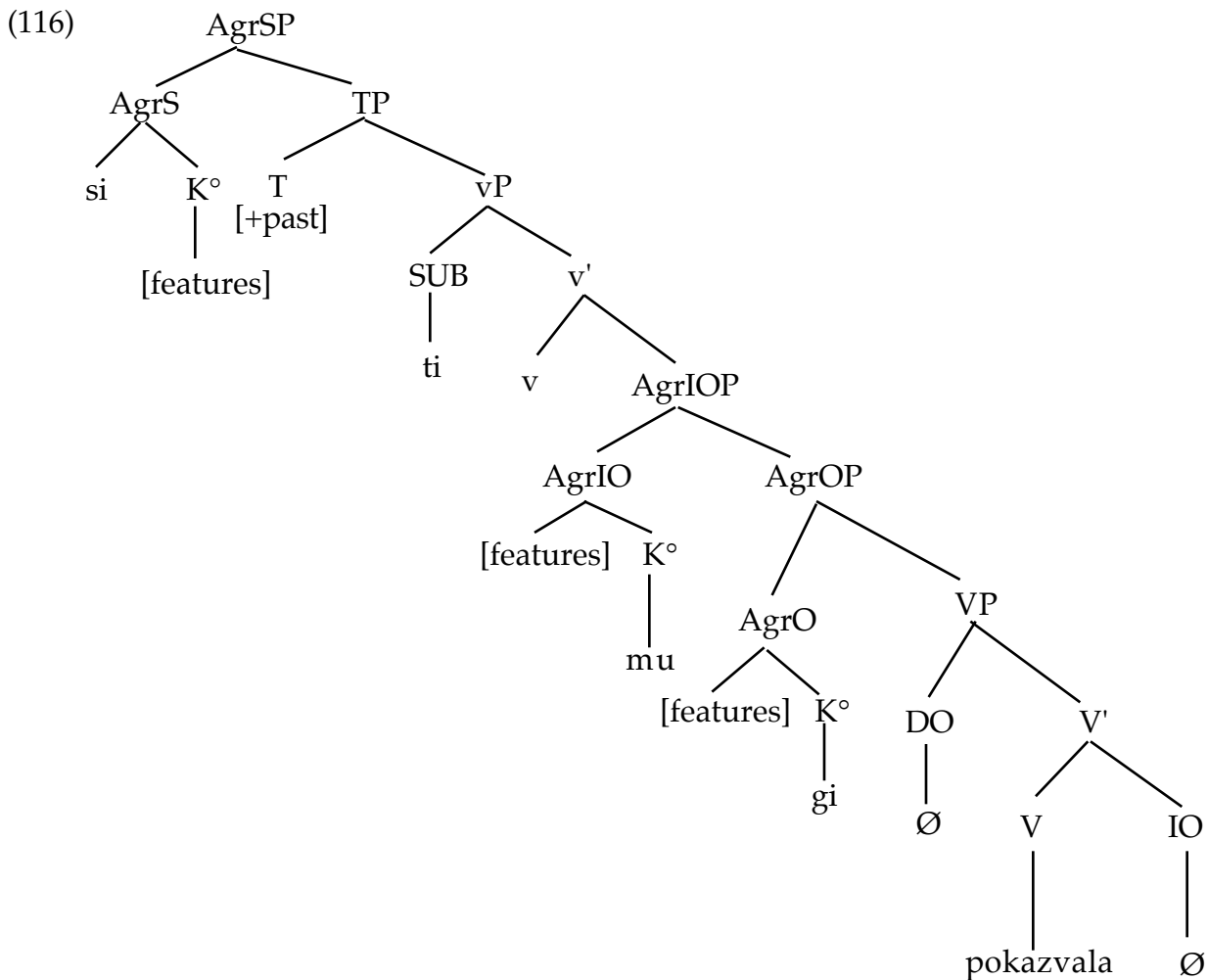
- (114) Marija ***(go)** poznav^a uč^{enikot}.
 Mary him.acc knows pupil.def
 ‘Mary knows the pupil.’
- (115) Ivan **(go)** târsj^{at}.
 Ivan him.acc seek.3pl
 ‘They are looking for Ivan.’

⁵⁵The reason I said “most” is that variation is a lexical phenomenon. Thus, for example, the Mac interrogative *li* is enclitic rather than proclitic and the Bg future marker *šte* is proclitic rather than enclitic.

⁵⁶This is incidentally one of the consequences of the distinction made by Halpern and Fontana (1994) between X^o and X^{max} clitics, except that for Halpern and Fontana *only* the verb-adjacent type is analyzed as a head.

As discussed by Rudin (1997), among others, there are notable differences in the factors that call for clitic doubling in the two languages. According to her, doubling in Mac is more sensitive to specificity (typically marked by a postpositive demonstrative) and doubling in Bg is more sensitive to topicality. Putting these details aside, the point is that doubling is possible precisely because the clitic is generated in Agr, allowing the associated argument to have *its* case features checked in [Spec, AgrP] (or in Agr, assuming Chomsky's (1995) theory of formal feature movement). Pronominal clitics that seek Wackernagel position, on the other hand, *are* that argument, so when they move to Agr, there is nothing left behind for them to "double".

The existence of clitic doubling in Mac and Bg thus offers striking corroboration for the idea that clitics in these languages instantiate agreement in some way. This analysis of pronominal clitics in Mac and Bg is further confirmed by their sensitivity to features of their associate DPs, since the same kinds of features are relevant as in more obvious agreement systems.⁵⁷ However, their morphology indicates that the pronominal clitics are still K° heads, rather than Agr heads (as the verbal auxiliary clitics are). I would thus give an "underlying" structure to Bg (110a) roughly as in (116).



⁵⁷I would extend this type of approach to Spanish, where clitic doubling reflects animacy, another feature on which agreement is often dependent.

Here, in order to accommodate all three arguments of *pokazvala* I have adopted a version of Koizumi's (1993) "Split VP" hypothesis, and in order to differentiate the two VP shells I have used the light "vP" of Chomsky (1995) to introduce the subject argument.⁵⁸ These assumptions are made solely for the sake of explicitness in the representation; none of them are in any way crucial to the analysis of verb-adjacent clitics. The labels "SUB", "IO" and "DO" are provided only to help read the tree. Given (116), in the course of the derivation *pokazvala* must raise successively to AgrO, AgrIO, v, T and AgrS, and the subject *ti* raises to [Spec, AgrSP] to check its nominative case. While one might imagine the verb literally "pushing" the clitics up, I think perhaps the derivation proceeds slightly differently, with AgrIO and AgrO raising (attracted) to v, T raising (attracted) to AgrS, and the verb moving to v and then AgrS (to check its own features); once again, however, a proper understanding of these details is not vital to the basic premise of the analysis as successive head adjunction, with everything adjoined to the left of the verb at the end.

Turning now to the issue of how I have represented the Agr nodes in (116), the intuitive idea is that either the Agr or K element can be overt, but not both.⁵⁹ Although they are no longer arguments, the pronominal clitics are also not quite Agr heads yet. Older Bg was a 2P clitic language, with the clitics K° heads just as in modern SC. However, Bg and Mac switched from KP to DP arguments, as evidenced by the rise of postpositive articles (see section 4.4.2) and as part of the gradual loss of morphological case in general. This displaced the K° morpheme, so that instead of *moving* to Agr (as an argument, and for case-checking reasons), it was reanalyzed as being base-generated in Agr. As such, it now licenses a null DP argument (conceivably *pro*, represented in the tree as "Ø"), which moves (either overtly or in LF) to the appropriate AgrP. However, whether DP moves to get its case checked or simply to have its theta-role licensed by the case already in Agr is not clear to me; presumably when the DP is overt it moves for case-checking reasons. Given this perspective on the evolution of verb-adjacent pronominal clitics in Slavic, the next step is hardly surprising: the original K° heads, stripped of their derivational *raison d'être*, are in the process of being reanalyzed again, this time as true Agr morphemes. As a result, not only in literary Mac is the sensitivity to specificity almost fully grammaticized, so that Agr is overt when DP is [+specific], but we find in Mac dialects that the clitic is frozen as the masculine singular form even when it doubles non-masculine objects. It thus more closely resembles AgrS in marking person features, but not gender.

⁵⁸Various equivalent systems exist in the literature, and I take no stand among them. In (116), I have placed the direct object DO higher than the indirect object IO, as argued by Bailyn (1995) for Ru, who uses Bowers' "Predication Phrase" (PrP) where I have "vP" (although he has no AgrPs so the question of splitting VP further does not arise). While Bailyn's arguments for doing this are empirical, an additional conceptual reason might be that in order for each argument to make the shortest move (assuming Attract/"Suicidal Greed" rather than Move/Greed), we expect nesting of paths rather than crossing; cf. Richards (1997) for discussion. Richards however assumes that there is crossing and therefore proposes a single universal Agr P and concomitantly argues for IO higher than DO, just as in my (49) above. An additional modification of (116) might be to replicate the structure above vP for the functional categories dominating VP. This would entail treating AgrIOP as parallel to AgrS—the labels are, following Chomsky (1995), purely mnemonic—and treating what I have labeled as AgrOP as some kind of "inner" TP. I take this tense, which only has scope over the internal arguments, to be an Aspect Phrase (AspP), following e.g. Yadroff (1994), Brown and Franks (1995), Slabakova (1997), and much other recent work. Although the symmetry of this kind of approach has much I believe to recommend it, in the text I adhere to the AgrP system to facilitate discussion.

⁵⁹That is, there must be a unique head, although both elements are in competition. Something similar is I believe going on with Agr and T in Russian, since the two elements (person agreement morphology vs. preterit *-l* suffix) are in complementary distribution; for that matter, the same could be said of English *-s* and *-ed*.

4.3. Ways of getting “clitic + verb”

An interesting question is how to derive (112b) for Bg (but not for Mac), with the clitics following rather than preceding the verb. Example (112) is repeated as (117) for ease of reference.

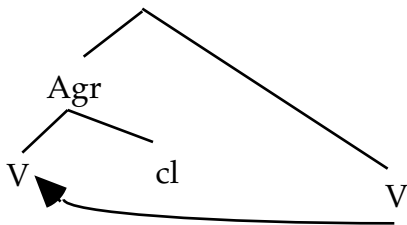
- (117) a. **Mi** **go** dade Vera včera. [*Bulgarian, √Macedonian]
 me.dat it.acc gave Vera yesterday
- b. Dade **mi** **go** Vera včera. [√Bulgarian, *Macedonian]
 gave me.dat it.acc Vera yesterday

Given my assumptions, the challenge (117b) poses is how to obtain this word order using exclusively syntactic motivation for movement. Below I present some options, which the reader should keep in mind as I discuss imperatives and gerunds in section 4.4.1.

4.3.1. Movement possibilities

One approach to Bulgarian (117b) is schematized in (118).

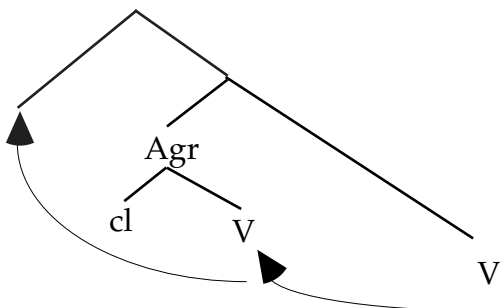
(118) APPROACH #I: Adjoin verb to left or right (+ PF filtering).



Approach #I would involve freely adjoining the verb to the left or to the right. In this instance adjunction to the right would not meet the prosodic requirements of the clitic, hence adjunction to the left is required. There are several problems with Approach #I. First of all, we will need somehow to ensure that adjunction to the left is the more costly option, to prevent it from occurring except where necessary to avoid PF crash. Second, it requires look-ahead in the syntax, otherwise—if more costly—why would adjunction to the left ever take place?

We could alternatively assume that the verb only adjoins to the right of the clitics. There would then be two options. The first option, as indicated in (119), is that the verb could then raise past the clitics to some higher functional head.

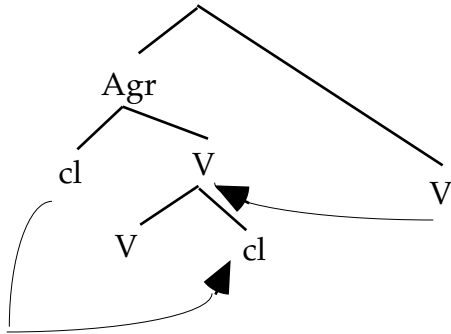
(119) APPROACH #II: Adjoin verb to right, then excorporate (+ PF filtering).



This analysis suffers too from the need for look-ahead. Also, here again it would have to be the more costly option to raise the verb past the clitics. Moreover, Approach #II would require that there be a *weak* feature on V that needs to be checked in some higher functional head, which ordinarily takes place at LF, but procrastination here would fail to converge at PF.

The second option is indicated in (120). Here the clitics would lower onto the verb.

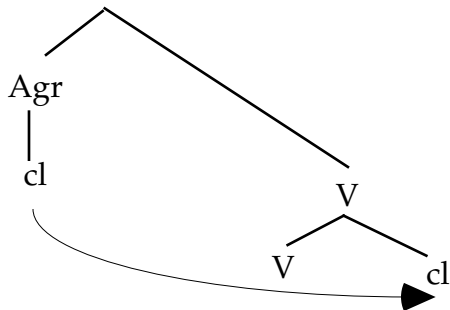
(120) APPROACH #III: Adjoin verb to right, then lower clitics (+ PF filtering).



Approach #III strikes me as so unlikely that it is not worth considering further. It too suffers from the look-ahead and more costly option problems. More seriously, there is no credible syntactic reason why the clitics would need to move once V has already raised to them, since a checking relation will already have been established.

A final syntactic movement possibility is given in (121). Here the clitics lower onto the verb instead of the verb moving up to them.

(121) APPROACH #IV: Lower the clitics onto the verb (+ PF filtering).



Once again, lowering would have to be the more costly option. If, however, the verb for some reason fails to come to the clitics, overt lowering may be the only alternative. While one could debate whether this is necessary to handle “verb + clitic” orders in Mac and Bg, in section 4.4.2 I will argue that it is the most reasonable approach to possessive clitic placement within DPs in these languages.

4.3.2. Linearization in PF

Since none of the alternatives considered in the preceding subsection are especially compelling, let us now explore an account more in keeping with the OT approach suggested for 2P clitics

in SC. Recall the look-ahead problem the PF-filtering approach encountered with respect to the free direction of adjunction analysis in (118): the only reason to do left-adjunction would be to meet the prosodic requirements of the clitics in PF, hence a local economy account would never sanction left-adjunction. A way of getting around this dilemma might be, rather than have direction of adjunction stipulated in the syntax, to let the precedence relations not even be determined until PF. If so, there are only two options, (117a) or (117b), and we can make use of OT principles to discriminate between them. That is, so long as there is some constraint whose effect is to obtain the “clitics + verb” order, everything else being equal, the linearization in PF approach works straightforwardly: this constraint is satisfied unless the more highly ranked “Prosodic Support” would be violated, in which case the “clitics + verb” order is sacrificed in order to respect the clitics’ prosodic requirements. Clearly, this situation only arises in Bg, not Mac, hence the pattern in (117) emerges. While it is immaterial to the idea at hand precisely what the relevant constraint might be, it seems to me that here too some kind of “Faithfulness” to the syntax might be involved, in that the “clitics + verb” order respects the hierarchical arrangement of heads given by the phrase structure, as seen in (116).

4.4. Phonology can’t be all there is: Macedonian vs. Bulgarian *redux*

While the possibility of handling these facts in terms of linearization in PF is appealing, particularly because it reduces difference between the two languages to purely PF properties of their lexical items, certain problems remain which indicate that direction of adjunction has to involve something beyond prosodic requirements. In order to see this, it is necessary to examine more closely some effects of clitic placement in Bg and especially Mac in clauses headed by imperative and gerundive verbs.

4.4.1. Imperatives and gerunds

A classic puzzle about clitic placement has to do with the fact that certain nonfinite verb forms tend to precede verb-adjacent clitics although finite verbs follow them. In Romance languages we can see this, depending on the language, for various nonfinite forms. However, since Mac and Bg lack infinitives, in this section I only report on the facts for imperatives and gerunds.⁶⁰ The crucial point will concern the behavior of imperatives and gerunds in Mac, since in this language there is no phonological reason any verb form should ever have to precede the clitics. The reason for “verb + clitics” order must therefore have to do with the fact that the verbs in question are imperatives or gerunds, rather than finite—a purely syntactic fact. In the same vein, it can hardly be a coincidence that in diverse languages we find the same pattern repeated. I conclude that something about the syntactic differences between nonfinite verb forms vs. finite verb forms causes the corresponding “clitics + verb” vs. “verb + clitics” orders.

Before turning to Mac, note that Bg imperatives behave just like finite verbs. This is shown in Bg (122), where other orders are not acceptable.⁶¹

- (122) a. Donesi **mi** **go!**
 bring.impv me.dat it.acc
 ‘Bring it to me!’

⁶⁰For an alternative approach to these issues, as well as considerable new data, see Mišeska-Tomić (1997).

⁶¹The examples in (122) are due to Roumyana Izvorski (pc). The Bg imperative and gerund are sometimes mistakenly described in the literature as preceding the clitics, presumably because of the rarity of examples such as (122b-e); see for example Anderson (1995b).

- (122) b. Ja **mi** **go** donesi!
 hey me.dat it.acc bring.impv
 ‘Hey, bring me it!’
- c. Ne **mi** **go** donasjaj!
 neg me.dat it.acc bring.impv
 ‘Don’t bring it to me!’
- (122) d. KONJAKA **mi** donesi!
 cognac.def me.dat bring.impv
 ‘Bring me the COGNAC!’
- e. Na IVAN **go** davaj!
 to Ivan it.acc give.imp
 ‘Give it to IVAN!’

There generalization is that in Bg the clitics precede the imperative if and only if there is something—anything—for them to be enclitic on. Imperatives are in this respect exactly like finite verbs.

In Mac, on the other hand, clitics always *follow* imperatives. The “verb + clitic” orders in Mac (123) are the only acceptable ones in this language:

- (123) a. Donesi **mi** **go!**
 bring.impv me.dat it.acc
 ‘Bring it to me!’
 (***Mi go** donesi!)
- b. Penkaloto kupuvaj **mi** **go!**
 pen.def buy.impv me.dat it.acc
 ‘Buy me the pen!’
 (*Penkaloto **mi go** kupuvaj!)
- c. Utre kupuvaj **mi** **go** penkaloto!
 tomorrow buy me.dat it.acc pen.def
 ‘Buy me the pen tomorrow!’
 (*Utre **mi go** kupuvaj penkaloto!)

The clitics in (123) cannot be preverbal when nothing is to their left, as in (123a), when an argument is, as in (123b), or when an adjunct is, as in (123c). Clearly, prosodic requirements cannot be relevant, since we know independently that the clitics in Mac can be phonologically supported in either direction. There thus has to be something *syntactically* deficient about clitics preceding imperatives in Mac. Also, it is obvious that the free direction of adjunction approach to “verb + clitic” order—Approach #I in (118)—will not work here, since adjoining the verb to the right should *not* cause any problem in Mac. This leaves only two realistic options: either (i) there is some kind strong imperative feature to be checked that would force raising of the V past the clitics or (ii) the clitics for some reason lower onto the imperative. I will argue that the second option is the correct one.

My basic objection to option (i) is conceptual. If anything, we would expect nonfinite verb forms to move *less* far than finite ones, since they require fewer functional projections above them (and whenever evidence other than clitic placement is considered, it is clear that

- (126) a. Nemarno pišuvajk'i **go** pismoto, ...
 carelessly writing it.acc letter.def
 'Carelessly writing the letter, ...'
 (*Nemarno **go** pišuvajk'i pismoto, ...)
- b. Zaneseno gledajk'i **go** filmot, **mi** izgore pitata
 enthusiastically watching it.acc film.def me.dat burnt loaf.def
 'Enthusiastically watching the film, the loaf burnt on me.'
 (*Zaneseno **go** gledajk'i filmot, **mi** izgore pitata.)
- c. Ne donesuvajk'i **mi** **go** toa na vreme, ...
 neg bringing me.dat it.acc that on time
 'Not bringing me it on time, ...'
 (*Ne **mi** **go** donesuvajk'i toa na vreme, ...)

Thus, while *ne* indeed has an effect as a head, it is acting on the verb directly and the clitics are innocent bystanders caught in the middle. This is clearly the required scenario with finite verbs in both languages, where *ne* necessarily precedes the "clitics + verb" unit:

- (127) Vera ne **mi** **go** dade.
 Vera neg me.dat it.acc gave
 'Vera did not give it to me.'

The word order of (126c) implies that *ne* does not cause gerundive verbs to raise in the same way it does imperatives, so that clitic lowering is the only option. Hence the difference cannot in fact have to do with a feature of *ne*, but rather of what moves to it. Loosely put, finite verbs have some property which they optionally share with imperatives and which gerunds lack. I speculate that the appropriate feature will have to do with AgrS, since finite verbs clearly have agreement, gerunds clearly lack it, and imperatives are somewhere in the middle.

There is in this regard another idiosyncratic aspect of "gerund + clitic" units in Mac that is worth mentioning here: ordinarily "verb + clitic" units receive regular antepenultimate stress, with the clitics involved in the calculation of which syllable is the antepenult, but gerunds have fixed lexical stress, and *this remains fixed even when clitics are added*. This is not true of "imperative + clitic" units. We thus have the accentual contrast in (128), with the stressed syllable capitalized.

- (128) a. KupuVAJ **mi go!**
 b. KupuVAJk'i **mi go**, ...

As shown in Franks (1987), stress fixed on the penult or ultima in Mac shifts to the right when enlarging the prosodic word through addition of suffixes and clitics would cause that stress to be pre-antepenultimate. Gerunds are a consistent exception. However, I am not sure what to make of this fact, if anything, since I have posited syntactic clitic lowering in the derivation of both (128a) and (128b).⁶³

⁶³I know of two other prosodic domains with this property. The first, drawn to my attention by Loren Billings (pc), is when "dative" possessive clitics attach to adjectives (but not nouns), as noted in section 4.4.2. The second is one formed with the interrogative enclitic *li*, as noted in section 4.5 and treated in depth in Rudin, Kramer, Billings and Baerman (in press).

Testing comparable examples in Bg reveals somewhat more complexity, with speakers reporting the judgments in (129) for gerunds preceded by negation, an adverb, or an argument, respectively:

- (129) a. Ne **mu** donasjajki konjaka, ...
 neg him.dat bringing cognac.def
 'Not bringing him the cognac, ...'
 (Ne donasjajki **mu** konjaka, ...)
- b. ?Bârzo **mu** donasjajki konjaka, ...
 quickly him.dat bringing cognac.def
 'Quickly bringing him the cognac, ...'
 (Bârzo donasjajki **mu** konjaka, ...)
- c. ??KONJAKA **mu** donasjajki, ...
 cognac.def him.dat bringing
 'Bringing him the COGNAC, ...'
 (KONJAKA donasjajki **mu**, ...)

In each instance, the order *donasjajkimu* is preferred. All speakers reported the relative judgments in (129), finding (129a) perfect (although still preferring the clitic to follow the verb), the adverb case (129b) slightly to much worse, and the topicalization case (129c) even worse, although still acceptable. Bg gerunds could thus be regarded either as similar to Mac imperatives, with the acceptability of (129b, c) seen as problematic, or as similar to Bg imperatives, with the optionality of "clitic + verb" order and also the cline in judgments seen as problematic. As a way of avoiding both sets of problems, I speculate that there may actually be two competing strategies for obtaining the "clitic + verb" order in gerundive clauses in Bg. Taking all the orders in (129) to be grammatical implies that the gerund can raise to the clitics overtly, but the effect of *ne* as a head implies to me that the option of raising to *ne* also exists. Since (129a) is so much better than the others, I conclude that the gerund does not ordinarily come to the clitics overtly, but can if forced. What about the consistently preferable "verb + clitic" order? This could be handled through overt lowering of the clitics. The problem is thus that *all three* mechanisms seem to be in competition here: (i) the "gerund + clitic" order calls for lowering of the clitic onto the gerund, following Approach #IV in (121); (ii) the "clitic + gerund" order calls for raising of the gerund to the clitic, so that the gerund would be acting just like a finite verb or imperative; (iii) the ameliorating effect of *ne* as a head calls for raising to Neg. The judgments in (129) imply that moving the clitic in either direction is equally costly, which it will be recalled was precisely the conclusion (124) led us to for Mac imperatives. The difference is the second option, that of raising the verb overtly (rather than covertly) and adjoining it to the right of the clitic, which apparently exists as a less desirable option. Exactly how and why these options compete, how the desirability of overt raising of the gerund can be made to depend on what precedes the clitics, and the relative judgments all this competition gives rise to is, I confess, a hard nut to crack, and poses empirical problems for the enterprise of deriving all these ordering options using the relatively meager minimalist mechanisms for handling such variation in purely syntactic terms. Hopefully, a better solution will emerge in the responses this position paper is designed to elicit.

4.4.2. Clitics in DPs

I turn now to another obvious context in which clitics in Mac and Bg are not initial, and where it seems to me that the lowering option may be the only realistic one. This is when they occur inside DPs. There are two types of clitic-like elements which are encountered in the nominal domain in Bg and Mac.⁶⁴ These are the postpositive demonstrative forms as in (130), of which Bg only has (130b), and the “dative” possessive clitics (131), of which Mac only has (131b).

- (130) a. kniga **-va**
book -this (here)
- b. kniga **-ta**
book -the (that)
- c. kniga **-na**
book -that (there)
- (131) a. knigi **-te** *ì*
books -the her.dat
- b. žena **mi**
wife me.dat

The form and distribution of postpositive demonstratives have received considerable attention in the literature, and available evidence overwhelming supports the conclusion that these are suffixes rather than clitics. The reason one might be tempted to analyze them as clitics, as in e.g. Fowler and Franks (1994) or Mišeska-Tomić (1996b), is because they appear to be mobile. This can be seen in the following Bg examples, where the definite article attaches to the first adjective (132a, b), ignoring both material before the adjective (132c) and material after it (132d, e):

- (132) a. interesnata kniga
interesting-the book
- b. mnogoto interesni knigi
many-the interesting books
- c. dosta glupavata zabeležka
quite stupid-the remark
- d. kupenite včera knigi
bought-the yesterday books
- e. zabranenata ot zakona kniga
forbidden-the by law book

A major problem however is that the form of the article depends in its host in complex ways that are unexpected of a true clitic. This is revealed by the range of variation in the Bg examples in (133), where complete glosses are replaced with annotated translations and the gender and number of the head noun is indicated in square brackets.

⁶⁴Verbal auxiliary clitics do not occur, presumably because there is no AgrS in DPs. Other clitics which may occur inside the nominal domain in various Slavic languages are the emotive clitics, such as Russian emphatic *že*, or interrogative *li*, but these are simple clausal clitics which appear within NPs for purely prosodic reasons. See section 4.5 for some discussion of *li*.

(133) a. seloto ‘the village’	[neut]
b. deteto ‘the child’	[neut]
c. baštata ‘the father’	[masc]
d. čičoto ‘the uncle’	[masc]
e. ženite ‘the women’	[fem pl]
f. gradovete ‘the cities’	[masc pl]
g. selata ‘the villages’	[neut pl]
h. xorata ‘the people’	[pluralia tantum]
i. interesnite ženi/gradove ‘the interesting women/cities’	[fem/masc pl]
j. dobrite deca/xora ‘the good children/people’	[pluralia tantum]
k. dve knigi/sela ‘the two books/villages’	[fem/neut pl]
l. dvata/trite stola/konja ‘the two chairs/horses’	[masc count form]
m. dvamata mâže ‘the two men’ ⁶⁵	[masc pl]

On the basis of these examples it seems as though the vowel of the article depends on the final vowel of the stem to which it attaches.

There are however several glitches which I merely mention here. First, the mapping is not blind copying, since for example stem-final *-i* is mapped into **e**, just as stem-final *-e* is. Second, when *-e* is a neuter singular ending, as in (133b), it is mapped into **o** rather than the expected **e**. Notice that a similar problem arises in (133k), where the fact that the *-e* of *dve* marks plural, rather than neuter, must be taken into consideration in selecting **e** as the vowel of the article. That this is not simply phonological is further demonstrated by *stote* ‘the hundred’ in (134).

(134) *stote* sela/knigi/mâže ‘the hundred villages/books/men’ [neut/fem/masc pl]

Clearly, then, reference must be made both to phonological and morphological information, the relevant factor here being that *sto* is plural rather than that it ends in an *o*. Compare this however with *mnog^o* ‘the many’ in (132b), where it indeed seems as though phonological factors prevail; *malkoto* ‘the few’ behaves similarly. The relevance of the final vowel of the host element, rather than its pluralness, is also made clear by the examples in (133l, m). However, the fact that *mnog^o* takes the neuter singular article **to** is probably not simply a phonological reflex, since in addition to these items *poveče* ‘more’ also requires **to** (in the meaning ‘most’):⁶⁶

⁶⁵*Dvamais* is a special numeral used for modifying masculine humans. This kind of numeral exists only for ‘two’ through ‘six’, and can take regular plural or special *brojna forma* ‘count form’ complements:

- | | |
|--|---------------------------------|
| (i) petima- ta /šestima- ta | studenti/vojnici |
| five-the/six-the | students.plural/soldiers.plural |
| (ii) petima- ta /šestima- ta | studenta/vojnika |
| five-the/six-the | student.count/soldier.count |

Crucially, the article is always **ta**, in keeping with the generalization provided below that when the host ends in *-a* the article is always phonologically determined (as **ta**).

⁶⁶One could conceivably analyze the final *-e* (here and elsewhere) as an underlying /o/. Adopting on the other hand a morphological solution might lead to the conclusion that quantifiers taking **to** are actually neuter nouns, perhaps analogous to the *butilka vino* ‘(a) bottle (of) wine’ type. There is indeed a morphosyntactic distinction between quantifiers that take **te** and those that take **to**: the former admit complement NPs in the *brojna forma* ‘count form’, as (i), whereas the latter do not (ii), only accepting the regular plural (iii).

- | | |
|---|--------------|
| (i) sto vestnika/studenta ‘a hundred newspapers/students’ | [count form] |
| (ii) *mnogo vestnika/studenta ‘many newspapers/students’ | [count form] |
| (iii) mnogo vestnici/studenti ‘many newspapers/students’ | [masc pl] |

(135) povečeto sela/knigi/mâže ‘most villages/books/men’ [neut/fem/masc pl]

In the case of articulated nouns and modifiers of nouns ending in consonants the need to refer to morphological information is even more transparent. Masculine singular nouns generally end in consonants and correspondingly take **ât** or **a** as the article, as in (136).⁶⁷

(136) grada/**ât** ‘the city’ [masc]

The fact, as we have seen in (133c, d), that masculines ending in vowels take the appropriate vowel suggests that (136) should have a phonological rather than morphological account. However, it turns out that *feminines* and *plurals* ending in consonants take the ending appropriate to their gender (**tá**) or number (**te**), although curiously with consonant-final feminines the ending is always stressed:⁶⁸

(137) a. radost**tá** ‘the joy’ [fem]
 b. nošt**tá** ‘the night’ [fem]
 c. pette ženi/deca ‘the five women/children’ [fem/neut pl]

In (137a, b) the fact that the nouns are feminine overrides the fact that they end in a consonant, and in (137c) the plural status of *pet* ‘five’ determines the article to be **te**, even though the stem is consonantal.

I thus conclude that reference to morphological properties is inescapable. However, on the basis of all the examples examined, the need for such reference appears to depend on the host: if the stem ends in an *-a* then the article is always **ta**, otherwise it depends on the morphological properties of the stem. This interplay between phonological and morphological requirements is nicely demonstrated by the following doublets, where ‘knees’ and ‘shoulders’ have developed with two competing synchronic plurals (one the reflex of the old dual):

(138) a. kolenete OR kolenata ‘knees’
 b. ramenete OR ramenata ‘shoulders’

Similarly, when the articulated form is a numeric quantifier the article is always **te**, except when the numeral itself ends in *-a*.

Another unpredictable fact is, as can be seen from example (139), the masculine singular articulated adjective requires a special longer stem:

(139) interesn**ija(t)** grad ‘the interesting city’
 (cf. interesen grad ‘(an) interesting city’)

Further quirks exist, such as the “softening” article **ja(t)** used instead of **a/ât** with many stems that once ended in front *yers*:

(140) a. kon ~ kon**ja(t)** ‘the horse’
 b. pát ~ pát**ja(t)** ‘the path’
 c. učitel ~ učitel**ja(t)** ‘the teacher’

⁶⁷Literary Bulgarian employs two distinct forms of the definite article for masculine singular consonant stem nouns: **ât** in oblique positions and **a** in nominative positions. Similarly, masculine singular adjectives will end in either **jat** or **ja**. This is actually a completely artificial situation, the result of drawing from two dialects in creating the literary norm, and is not reflected in ordinary speech.

⁶⁸In Macedonian this combination is spelled with a single “t”: *radosta*

Once again, although this could be handled by retaining a final *jer* in these stems synchronically, the fact that any vocalic ending induces the same jotizing effect, as shown by the count form *konja* 'horses' in (133l), shows that this is a lexical property.

All this is more or less expected if the article is essentially inflectional: there is one overriding subregularity, that *-a* implies **ta**, otherwise the form is selected in accordance with gender and number features, although occasional idiosyncrasies exist which, as always in morphology, block the regular rule from applying. The combination of morphological and phonological factors is such that ultimately we are forced to allow specification of the articulated form in individual lexical entries. I thus concur with Halpern (1992/1995) that postpositive articles in Bg and Mac must be analyzed as a special type of inflection, rather than as true clitics.⁶⁹

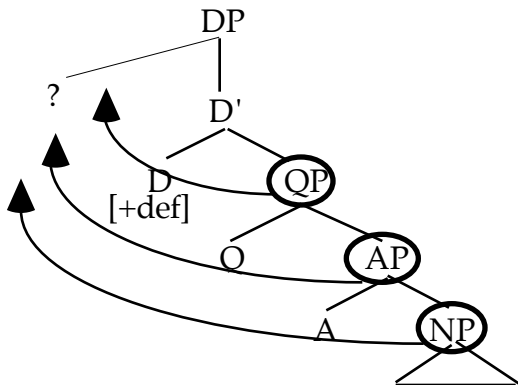
The inflection approach, because it implies feature checking rather than movement, takes some burden off the problem of getting the article to appear where it does. Movement approaches, which assume the article to be a clitic, are virtually unworkable. Fowler and Franks (1994) and Mišeska-Tomić (1996b) both propose generating the article in D° and moving material to its left, either left-adjoined to D as a head or in [Spec, DP] as a phrase. However, this sort of analysis encounters significant difficulties, primarily posed by the fact that there is no straightforward way to locate the appropriate material to the left of D. Here I briefly review some of the argumentation in Fowler and Franks (1994), which is more explicit about the movements involved than Mišeska-Tomić (1996b).⁷⁰

While one might think a head was moving up to support the article, as in (141a), (141b) shows that the relevant constituent must be a phrase.

- (141) a. [DP [D [N kniga] **-ta**][NP t_N]] (= 130b)
 b. [DP [AP dosta glupava][D' [D **-ta**] [NP t_{AP} zabeležka]]] (= 132c)

If we continue to adopt Abney's (1987) structure for DP, as was required for SC, then *knigain* (141a) could be analyzed as an NP, which would move to [Spec, DP], just as the AP *dosta glupava* would. Thus, given an arrangement roughly as in (142), the complement of D, i.e. whichever phrase is highest, would move to the left of D.

(142)



⁶⁹Friedman (1993: 264) describes the following situation for Mac: "In the singular, masculines in a consonant take /-ot/, feminines in a consonant and all nouns in /-a/ take /-ta/... all remaining singulars (and collectives, including *lug'e* 'people') take /-to/. In the plural, nouns in /-a/ take /-ta/, and all others take /-te/." See Koneski (1976: 228-229) for details and examples. The situation thus seems comparable to Bg, other than the problem posed by collectives described below.

Unfortunately, this predicts that the article should follow the entire phrase in which it appears, but in point of fact it appears on the head of that phrase, whether an AP (143a-c) or an NP (143d-f):

- (143) a. *polučenata* sâs mâka stipendija ‘the received with pain scholarship’
 b. *vernijat* na žena *si* muž ‘the faithful to his wife husband’
 c. *kupenite* včera knigi ‘the bought yesterday books’
 d. *učebnikât* po matematika ‘the math textbook’
 e. *knigata* za istorijata na Sofia ‘the book about the history of Sofia’
 f. *idejata* če zemjata e krâgla ‘the idea that the Earth is flat’

Short of moving D to the *head* of whatever phrase goes to [Spec, DP], which would not even be a c-commanding position, there is no obvious way to handle this in terms of movement. However, since I have argued that the article is inflectional anyway, the problem is moot. Even so, the question remains of how to determine which word within the DP bears the article. Notice now that, again assuming (142), a simple generalization emerges: the articulated word is the head of whatever XP is the complement of D. This is a checking rather than movement relation, which can be formalized in any of several ways. It could be as just described, i.e. a head-complement relation, or XP could move overtly to [Spec, DP] and the checking could be a specifier-head relation, or the definiteness features of XP could move covertly to D, in LF. I will not choose among these alternatives here, since they all express the same simple intuition, an intuition that accords with treating the articles as morphological suffixes rather than phonological clitics on the word on which they appear. Below I shall offer further phonological evidence for this, based on the observation that word-internal phonological rules count the articles but exclude the possessive clitics, introduced in (131), and to which I now turn.

Historically dative clitics function as possessive pronouns in both Mac and Bg.⁷¹ In Bg these pronouns can even express what appear to be argument relations in deverbal nouns, while in Mac the use of DP-internal dative clitics is highly restricted, essentially limited to the expression of possession of “family or family-like” relations. The reader is referred to Mišeska-Tomić (1996b) for more detailed discussion. A range of Bg examples, either based on the literature or provided by native speakers Lily Grozeva, Roumyana Izvorski and Roumyana Slabvakova, is given in (144).

⁷⁰Giusti and Dimitrova-Vulchanova (1994/1995) also examine the internal structure of DPs in Bg, but there are so many inconsistencies and complexities in what they say that I have admittedly not been able to figure out exactly what their proposals about how the article works are.

⁷¹These also exist to some extent in SC; see Radanović-Kocić (1994) for discussion.

- (144) a. *roditelite mu* ‘his parents’
 b. *semejnija/ât im praznik* ‘their family holiday’
 c. *mnogoto ti novi knigi* ‘your many new books’
 d. *večno mladata ni stolica* ‘our perpetually young capital’
 e. *tvârde bârzo premlinalata ì mladost* ‘her too quickly passed youth’
 f. *polučenata si sâs maka stipendija* ‘self’s received with pain scholarship’
 g. *vernijat ti na žena si brat* ‘your faithful to his wife brother’
 h. *kupenite ì včera knigi* ‘her bought yesterday books’⁷²
 i. *zabranenata mi ot zakona kniga* ‘my forbidden by law book’
 j. *poznavaneto mi na neštata* ‘my knowledge of things’
 k. *prepluvaneto mu (na kanala)* ‘his swimming (of the channel)’⁷³
 l. *prebrojavaneto im (na zvezdite) ot učenite*⁷⁴
 ‘the counting of them (= stars) by scientists’

A quick inspection of these examples reveals that the possessive clitic can follow the head noun (144a), the adjective (144b), the first in a series of modifiers (144c), or the first adjective phrase (144d, e), but precedes complements and post-head modifiers of both adjectives (144f-i) and nouns (144j-l). This pattern should by now be familiar, and leads to the following descriptive generalization:

- (145) The possessive clitic appears immediately after the articulated element in the DP,
whatever that element happens to be

This is a striking and potentially extremely problematic generalization. The reason is that, if I am correct in distinguishing the articles from true clitics by treating them as suffixes and accommodating their distribution by inflecting the head of the XP complement to a [+definite] D, then we should paradoxically be led to treat pronominal clitics in the same manner. Such a solution is of course untenable for a number of reasons. First, we would lose our account of the differences between articles and possessive pronouns. Second, since the possessive clitics inside DP are formally identical to the dative clitics in the clause, they should probably be analyzed in the same way, as heads of an AgrIOP.⁷⁵

⁷²In examples (144h, i) the dative clitics ì and mi can also be taken as arguments of the participle, with the meaning ‘the books bought for her yesterday’ and ‘the book forbidden to me by law’.

⁷³This example can also be interpreted as ‘the channel’s swimming’, with mu doubling associate *na kanala* or ‘its swimming’, without *na kanala*.

⁷⁴According to Roumyana Izvorski (pc), the order *prebrojavaneto im na ot učenite zvezditas* is only possible as clitic-right dislocation, rather than clitic doubling; Lily Grozeva (pc) does not accept this order at all. Without the agent, doubling in examples where the associate is the theme of the nominal is “somewhat strange”, although for possessive datives doubling is very natural. The following is a perfect variant of *majka mu* in both Bg and Mac:

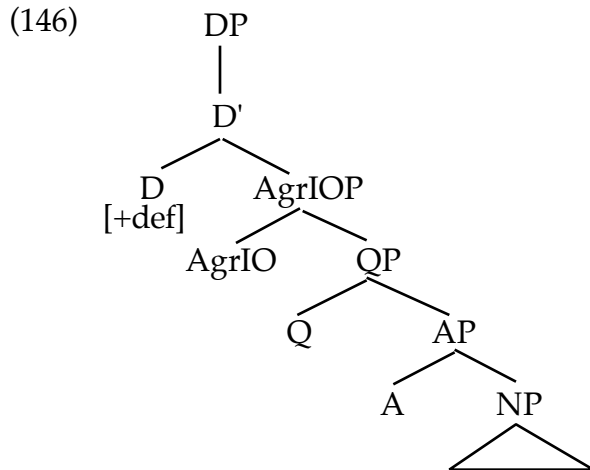
- (i) *majka mu na Ivan* ‘Ivan’s mother’

⁷⁵Lily Grozeva (pc) points out to me that possessive clitics can move out of object DPs, as in the following examples of what Roumyana Izvorski (pc) calls “possessor raising”:

- | | | | | | |
|------|---------|----------|-------------|----------|----------------------------|
| (i) | Vidjax | knigata | mu. | | Vidjax mu knjigata. |
| | saw.1sg | book-the | him.dat | | ‘I saw his book.’ |
| (ii) | Ivan | pročete | statijata | si | Ivan si pročete statijata. |
| | Ivan | read.3sg | article-the | self.dat | ‘Ivan read his article.’ |

While I have not investigated this phenomenon in any depth, (i) and (ii) indicate that the position of the raised dative clitic is the same as it would be in the clause. This, together with the presumed fact that it does not apply out of subject DPs, implies that possessor raising is a syntactic rule, akin to clitic climbing. For these reasons, such possessor raising probably requires identification of clausal and DP-internal dative clitics as AgrIO heads.

In Bg (although not so obviously in Mac) this makes considerable sense, since they behave in a completely parallel fashion to clausal clitics, with the potential to function as an argument and to double a full DP. I thus adopt the default hypothesis that dative clitics receive the same analysis in the nominal domain as they do in the clausal domain; the alternative, of analyzing NP-internal atonic pronouns in a completely different way from clausal ones is not a defensible position (for Bg, at least). I therefore posit an AgrIOP immediately below DP, revising the tree in (142) as follows:



The structure in (146) unfortunately suggests no way of stating (145) directly. Instead, the analysis I would like to pursue will only indirectly relate the position of the article and the clitic, by claiming that they both target the same phrase, although in different ways. The solution is simply to take the article as an inflection of a head, as I have done, and to take the clitic as adjoined to this head. Although neither of these moves is especially controversial on its own, one major difficulty remains: Why do definiteness feature checking and clitic placement target the same head? Here I see two immediate possibilities: either (i) there exists some kind of selectional relation, which in the absence of further inquiry amounts to a stipulation,⁷⁶ or (ii) the dative clitic should really be introduced directly under D.

Putting these issues aside, it seems to me that what is going on with this AgrIO clitic may be this: unlike in the clausal domain, where the verb raises to AgrIO, no head moves up to adjoin to the clitic. The clitic is thus stranded and has to move itself to be supported; I take movement to be the less economical option, meaning that it only occurs when it has to. But it

⁷⁶Apparently, however a correct one, given the fact, as noted in (148) below, that possessive clitics can occur on inherently specific nouns in the absence of a definiteness suffix. Additionally, possessive clitics can marginally and colloquially follow full demonstratives, as in (i), corroborated by Roumyana Izvorski (pc).

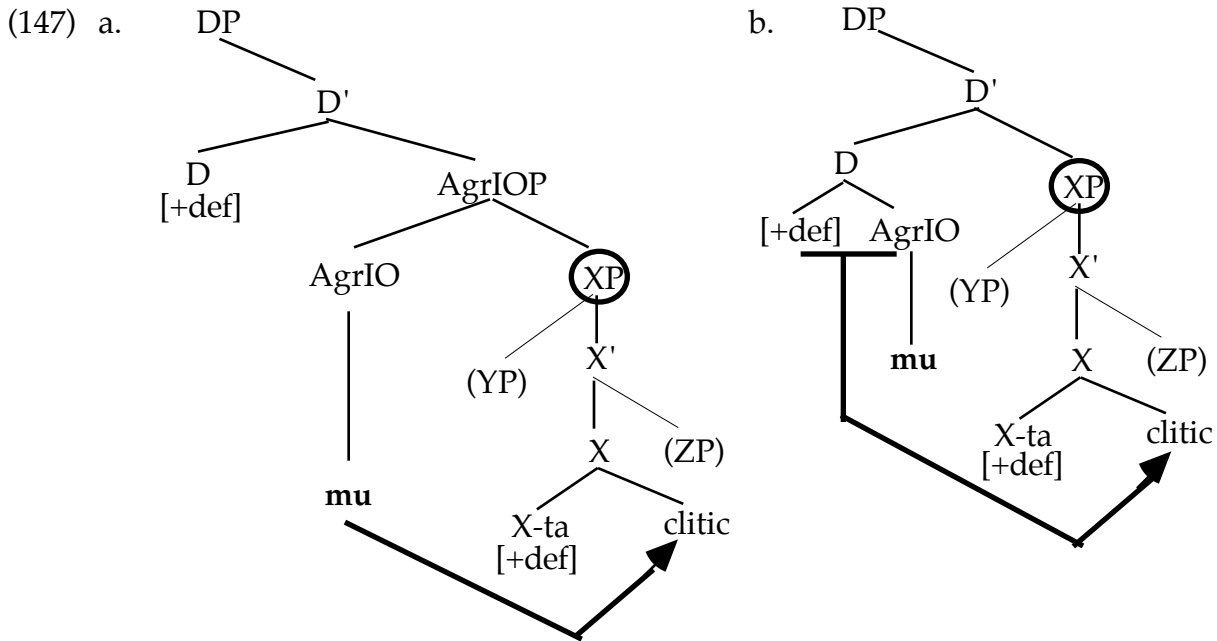
- (i) ??tezi **ti** knigi
 these you.dat books
 'these books of yours'

Taking *tezi* 'these' to be in D^o, (i) might suggest the superiority of (147a) in that here the clitic can raise to D and apparently does when D is occupied. Interestingly, according to Izvorski (ii) with an adjective added is unacceptable:

- (ii) *tezi **ti** xubavi knigi
 these you.dat nice books
 'these nice books of yours'

Roumyana Slabakova (pc), on the other hand, finds (ii) perfect with *ti* interpreted contrastively. For all speakers, both (i) and (ii) are however perfect without *ti*.

moves in a rather surprising way, lowering onto the next head down, as in (147a) or, if the clitic is really somehow under D, (147b).



I suggest that lowering to the first available head, namely to the X° to its right, is the only thing it can do, since there is no higher head to raise to. In this sense what goes on is similar to what was proposed for nonfinite verb forms in the last subsection. Note that we must discount D in (147a) as a possible target for raising; but cf. fn. 74. The variant of the lowering analysis in (147b) avoids this possible problem, and has the advantage of explicitly expressing the connection between definiteness and the clitic. The main disadvantage of (147b) is that it does not posit an AgrP, so that the parallelism with dative clitics as clausal AgrIO is lost.⁷⁷ Also, [Spec, DP] will then need to be used to check any phrase that the possessive clitic may double.

It is also not obvious whether (147b) can properly express the idea that definiteness is inflectional but the possessive is a clitic. This conclusion is however supported by a range of data. Earlier I discussed idiosyncrasies of the definite article that bore witness to its suffixal nature. Halpern (1995: 172-183) offers several other reasons for taking the article in Bg and Mac to be an inflectional suffix rather than a clitic. One is the fact that a few words have special unarticulated definite forms. Although the possessive clitic requires a definite context, there are some rare instances of (inalienably) possessed nouns which lack an overt article. Many kinship terms, such as those in (148), behave this way:

⁷⁷This may not actually be a disadvantage, since clitics as arguments can only correspond to nominative or accusative clausal arguments, never true dative ones. Thus, the deverbal noun in (i) is unambiguous:

- (i) pomaganeto **mu** 'his helping' (NOT *the helping of him)

Similarly (ii) is only two-ways ambiguous:

- (ii) predstavjaneto **mu** 'his introducing' OR 'the introducing of him' (NOT *the introducing to him')

The DP internal "dative" clitic thus only realizes what would be genitive in a language like Ru, and in this respect differs enough from its clausal counterpart to shed some doubt on calling it a true AgrIO^o. Possibly, however, this difference derives from the idea that the specific content of various Agrs is not intrinsic, but is rather relationally determined. Thus, having only one Agr in DP means that it will be structural in nature (although for some reason dative in form). These are exciting questions, but unfortunately too involved to explore properly here.

- (148) a. majka **mu** 'his mother'
 b. brat **ì** 'her brother'
 c. žena **mi** 'my wife'
 d. čičo **ni** 'our uncle'⁷⁸
 e. lelja **ti** 'your aunt'⁷⁹

As demonstrated by Mišeska-Tomić (1996b: 526-531), despite the lack of overt article these are always definite in interpretation, hence they cannot occur in indefinite contexts, such as after the indefinite article *eden* 'one'. This, Halpern points out, is comparable to the (inflectional!) plural of *fish* and *sheep* being unmarked morphologically, and can be seen in the effect of attempting to add overt morphology:

- (149) a. *fishes
 b. *sheeps
- (150) a. *majkata **mu** 'the his mother'
 b. *brata/ât **ì** 'the her brother'
 c. *ženata **mi** 'the my wife'

That this failure to mark definiteness is a lexical idiosyncrasy of these words can be seen in the fact that the article reappears once the noun is modified:

- (151) a. xubavata **mu** majka 'his pretty mother'
 b. pomladijat **ì** brat 'her younger brother'
 c. inteligentnata **mi** žena 'my intelligent wife'

It can also be seen in the fact that the definite form of certain kinship terms expresses the article:

- (152) a. djadoto **mu** 'his grandfather'
 b. sina/ât **ì** 'her son'

That this is a lexical fact is further supported by Mišeska-Tomić's (1996b: 531) comment that there is variation between Mac and Bg. She provides the following contrast, explaining that "unique reference" is for some reason "more readily established" for Mac *drugarkathan* for Bg *prijatelka*

- (152) a. prijatelkata **ti** 'your (best) girlfriend' [Bg]
 b. drugarka **ti** 'your (best) girlfriend' [Mac]

⁷⁸Technically, *čičo* is the 'brother of one's father', although it is also used when the precise relationship is unknown as well as to address male adults in general; cf. Scatton (1993: 244).

⁷⁹Although *lelja* means the 'sister of one's father or mother', it is also used when the precise relationship is unknown as well as to address female adults in general; cf. Scatton (1993: 244).

Note finally that omission of the article is dependent on the interpretation.⁸⁰ Whereas Bg (150c) *ženata mäs* unacceptable in the meaning ‘my wife’, Halpern (1995: 173) points out that it is the correct way to say ‘my maid/nanny’.⁸¹

Another argument provided by Halpern (1995: 174) that articulation is affixal is that there are lexical gaps. In particular, there are morphologically frozen modifiers such as *serbez* ‘quarrelsome’, and these do not admit the article, as shown in (153a):

- (153) a. **serbezta žena*
 b. *tazi serbez žena* ‘that quarrelsome woman’

The adjective *serbez* never inflects; it can no more take an article than it can show gender/number agreement. Hence only (153b) is acceptable. Halpern notes that this would be an unexpected situation if the article were a clitic, since, according to Halpern, clitics do not depend on morphological or syntactic properties of their hosts.⁸²

We can also contrast articles and possessive clitics in phonological terms. As observed by Halpern (1992: 194-195) and discussed also by Mišeska-Tomić (1996b: 532-533), there are some phonological factors that have the potential of discriminating articles from true clitics. In addition to the well-known dependency of the form of the article on the final vowel of the stem to which it attaches, two other phenomena noted by Halpern as favoring the suffixal over clitic analysis are (i) blocking of final devoicing and (ii) triggering liquid/vowel metathesis. Both final devoicing and metathesis are word-level processes, and consequently are expected to take the article into account. Final devoicing thus takes place in Bg (154a) and Mac (155a), but is blocked by the vowel-initial article in the (b) examples.

- (154) a. *bratovčed* [bratofčɛt] ‘cousin’ [Bg]
 b. *bratovčedât* [bratofčɛdət] ‘the cousin’
- (155) a. *maž* [maš] ‘husband’ [Mac]
 b. *mažot* [mažot] ‘the husband’

On the other hand, with true clitics, final devoicing still occurs, as in Mac (156), cited by Mišeska-Tomić (1996b).

- (156) *maž ì* [maši] ‘her husband’ [Mac]

Unfortunately, because the possessive clitic usually occurs only in definite DPs, I have been unable to construct any comparable Bg examples.

This same problem afflicts the liquid metathesis diagnostic, with further complications, although I have been able to devise one relevant example to confirm the expectation that the article should not behave like a true clitic. Following Zec (1988), so-called “liquid metathesis”, as in Bg (157), actually results from schwa epenthesis (there are alternative accounts, but these too will need to treat clitics and articles differently).

- (157) *mlâk* ‘silence!’ ~ *mâlkom* ‘silently’ [Bg]

⁸⁰It seems to me that the parallel with the English plural extends here too, in that *fishes* can be used to describe different kinds of fish.

⁸¹Interestingly, Mišeska-Tomić notes that Mac (152b) with the article, i.e. *drugarkâ ti*, is acceptable in the meaning ‘your wife’. This is curious, since ‘best friend’ and ‘wife’ should be equally unique in reference.

⁸²Unfortunately, to make this argument more compelling one would optimally like to see a true clitic appearing after *serbez* but unfortunately this is impossible because the dative clitic only appears in [+def] DPs.

In Franks (1990) I argued that this root is morphophonemically /mlk/ and—assuming the syllabification in (157) before epenthesis—a schwa, represented by the letter “â”, is inserted in the appropriate place to create a closed CVC syllable, where “•” demarcates syllable boundaries.

(158) •mlk• ~ •ml•kom•

With this in mind, note that addition of the article generally results in the same alternation. The examples in (159) thus have the non-syllabic representations in (170) before schwa epenthesis.

(159) a. grâk ‘Greek’ ~ gârkat ‘the Greek’
b. grâb ‘back’ ~ gârbât ‘the back’

(160) a. •grk• ~ •gr•kât•
b. •grb• ~ •gr•bât•

The alternations in (159), with the analysis in (160), show unequivocally that resyllabification can take place after the addition of the article. With this in mind, recall that many kinship terms can be definite with an overt article. Given this phenomenon, one at least credible Bg example with liquid metathesis, due to Lily Grozeva (pc), is offered in (161):

(161) Grâb ì se viždaše otdalex.
back her.dat refl.acc saw from-afar
‘Her back was visible from afar’

This example has archaic and poetical status; synchronically ‘her back’ would be expressed as *gârbât ì*. But the interesting fact is that, to the extent that there are valid judgments about such forms, *grâb ì* in (161) demonstrates both phonological points I have made: the possessive clitic is different from the article in failing either to trigger metathesis (resyllabification) or to block devoicing, so that the expected pronunciation of *grâb ì* is [grəpi], not *[gərbi].

Let us very briefly consider the ramifications of extending the discussion in this section from Bg to Mac. So far as articles are concerned, I think the arguments that they are inflectional carry over straightforwardly, and we can put them aside. For the possessive clitics, on the other hand, the case is not so clear, since these are much more restrictive in use. If, however, we decide that in principle their distribution in the nominal environment is identical in the two languages, and if a similar head lowering analysis is adopted, we once again must conclude that prosodic requirements are irrelevant. In both languages possessive clitics follow the highest overt head in the DP, despite the fact that in the clause these same clitics can be prosodically proclitic in Mac but cannot be in Bg. The fact that they lower must therefore be motivated by a syntactic need to adjoin to a head in the DP; prosodically, the possessive clitics in Mac should be perfectly fine in initial position. The same conclusion should I believe hold even if we decide that the nature of the dative clitics is different in the two languages. Let me offer one speculation about how this difference might be formalized: perhaps, (147a) is more appropriate for Bg and (147b) is more appropriate for Mac. Imagine further that, even in Bg, (147b) is a step in the derivation from (147a) to the surface form, with AgrIO raising to D before D lowers. This proposal exploits a certain parallelism with 2P clitics, in that both types of clitic raise to the highest functional head in their extended projections; presumably, in the clausal domain this is motivated by V-raising to I and C, and

in the nominal domain it is motivated by N raising to D. The differences are that Bg and Mac D lowers, unlike C or I in SC, and that no phrase ever moves to [Spec, DP], again unlike [Spec, CP] or [Spec, IP] in a 2P system. This proposal would also reflect an evolution from a system where the dative clitics were true AgrIO heads to one in which they were introduced as agreement markers under D, which is comparable to what I have noted is happening in the clause as well. Thus, the dative clitics in Mac have evolved from AgrIO heads of AgrIOPs into Poss elements under D, making them in fact comparable to English 's.⁸³ Note though that one reasonable implication of this idea is not borne out: *majka mu na Ivaŕivan's mother'*, with clitic doubling, is equally standard in Bg and Mac.

There is one final oddity worth mentioning: in Mac demonstrative suffixes and possessive clitics count for stress purposes when attached to nouns, but only demonstratives do when attached to adjectives.⁸⁴ While this contrast does seem to be a systematic difference, it is difficult to know how to interpret it since, in the first place, speakers vary in their acceptance of possessive clitics after adjectives and, in the second place, using stress as a diagnostic is compromised by the fact that the antepenultimate stress system, which is the literary norm, is under considerable colloquial pressure. For these reasons, I cannot tell whether the stress facts will turn out to be a key part of the puzzle or whether they are purely coincidental.

4.5. Syntax can't be all there is either

I now come to the most difficult part of this paper: the confession that maybe not all clitic placement is syntactically driven either. And while, in section 2, I took pains to show how apparently phonological effects of 2P clitic placement had syntactic properties, there was nonetheless a small residue of phonologically sensitive phenomena. Eliminating that residue is desirable if possible; in this section I discuss some evidence that suggests, however, that this may not in principle be possible. If so, and UG in fact countenances prosodic ordering mechanisms with the general effect of PI, then a difference among languages may simply be in how much recourse a grammar might need to such mechanisms in dealing with its clitics.

The most recalcitrant problem for purely syntactic approaches to clitic placement is the interrogative clitic *li*, which appears in a variety of Slavic languages. Partly for this reason, there is a large recent literature on *li*, much of which has been a reaction to the proposal in Rivero (1993) that *li* lowers to I° in the syntax (in Bg, but not SC). The problem is that *li* placement seems determined by the simple fact that it is introduced higher than any other element in the tree, in C°, but it is phonologically enclitic. This conspires to have the occasional result that *li* ends up sandwiched between other clitics. Consider the following array of data, where *li* seems to appear sometimes in the cluster and sometimes not:⁸⁵

- (162) a. Ne **ti** **GO** dade li? [√Mac/(*)Bg]⁸⁶
 neg you.dat it.acc gave Q
 'Didn't she/he give it to you?'
 b. Ne **TI li go** dade? [*Mac/√Bg]

⁸³Given the overall similarity between the syntax and especially case systems of Bg and Mac, on the one hand, and English, on the other, this further similarity does not seem that surprising.

⁸⁴I thank Ilija Čašule for helpful last minute electronic discussion of these matters.

⁸⁵The stressed syllable is capitalized (for the language in which the sentence is acceptable); *li* is underlined merely for ease of reference.

⁸⁶Example (162a) is acceptable in Bg as a kind of an echo question, with the entire clause presumably focused and moving to [Spec, CP].

that the order *ti go dadān* (163') is not fixed by the syntax, in that, even in the absence of *li*, this sentence would be pronounced *Dade to goin* Bg (but not in Mac). Thus, whatever solution from section 4.3 we take to getting the "clitic + verb" order in Bg, this should feed into our account of why the eventual PF output must be (163b), with that same order.

Here I would like to push the kind of approach that abstracts linearization out of syntactic representations. Linearization is part of the mapping from syntax into PF, rather than part of PF proper, thus it is an operation. In order to get the right results, however, I claim linearization must apply in a cyclic fashion, with linearizing a lower syntactic concatenation required when the next element up is merged. Thus, in Bg (73'), when *ti go* is combined with "[dade] ", there are two options—"candidates", if you will—to be compared: "*li* [[*ti go* [dade]]] " and "*li* [[dade] *ti go*] ".⁸⁸ The latter wins, since *li* does not provide valid support for *ti go*, as it can only combine with something to its right. Interestingly, according to Roumyana Izvorski (pc), an initial *I* 'and' makes no difference here. Compare interrogative (164a) with (164b); cf. also (113):

- (164) a. I dade **li** **ti** **go**?
 and gave Q you.dat it.acc
 'And did she/he give it to you?'
 b. I **ti** **go** dade.
 and you.dat it.acc gave
 'And she/he gave it to you.'

Thus, when "*i* [[*ti go* [dade]]] " and "*i* [[dade] *ti go*] " are compared, the former wins.⁸⁹ Returning, then, to "*li* [[dade] *ti go*] ", we see that this must be linearized according to the following principle:

- (165) Pronounce *li* at the right edge of the first prosodic word to its right.

I take (165) to be the consequence of the fact that *li* is prosodically enclitic. Note that (165) is where the standard generalization that "*li* always goes after stress" comes from, since a prosodic word will entail the presence of stress. However, simply placing *li* after the first stressed syllable is obviously unsatisfactory, as *li* cannot for example appear inside a verb. Thus, in order to extend (165) to (162), it must be that *ne ti* in Bg is a prosodic word, as follows: *li* [[*ne ti*] [go dade]] . This is the only way I can think of to get *li* placed properly, although clearly this can only be an intermediate stage, since once "[*ne ti*] " is made available *go* can (and must) attach to it. This is also essentially the analysis in King (1997), who provides the prosodic structures in (167) for the examples in (166); (166b) is quite 'bookish', since the negated future ordinarily uses *njama da*

- (166) a. **Šte** **go** viždaš **li**?
 aux.fut him.acc see Q
 'Will you see him?'

⁸⁸This approach in all likelihood requires that the pronominal clitics cluster together before the verb is adjoined to them. Thus, when *go* moves up to *ti*, the order *ti go* will be determined, and *dade* combines with them as an already fixed unit. Alternatively, they are attracted by the same head (Aux°, T° or AgrS°, depending on one's treatment of verbal auxiliaries), which induces Superiority/HMC effects, in the spirit of Richards (1997), although he uses adjunction to a XP rather than X° to obtain obligatory crossing.

⁸⁹The inner prosodic word boundaries are presumably then erased, leaving only the larger unit relevant to the PF.

- (166) b. Ne **šte** **li** **ste** **mu** **go** dali?
 neg aux.fut Q aux.2pl him.dat it.acc give
 ‘Won’t you give it to him?’

- (167) a. li [šte go VIŽdaš]
 b. li [ne ŠTE] ste mu go dali

Although proclitic *šte* ‘will’, unlike *ne*, has no accentual properties, it can be assigned the stress by *ne*, as I have indicated in (167b), in which case *li* follows it. Turning finally back to what happens in the Mac versions of (162) and (163), and assuming *li* to behave the same way as in Bg, we require the first prosodic word after *li* to be “[ne] ti go dade] ”.

To summarize, (165), combined with the cyclic linearization account, requires at least the following partial prosodic structures for (162) and (163), respectively:

- (168) a. li [ne ti go dade] [Mac] [ne ti go dade] li
 b. li [[ne ti] [go dade]] [Bg] [[ne ti] li [go dade]]⁹⁰
 c. li [ti go dade] [Mac] [ti go dade] li
 d. li [[dade] ti go] [Bg] [[dade] li ti go]

Provided this input, *li* is realized after the first “[] ”, with the effect of PI (although as I said I do not take this as literal movement in PF). The position of *li* is therefore determined by completely independent mechanisms than those that place clitics of other types, with the basic difference being that *li* is a kind of 2P rather than verb-adjacent clitic. It seems to me that the correct conclusion is in fact that *li* is actually a simple rather than special clitic: it is introduced in C° and that is all that need be said—it has no special syntactic properties. If something moves to the left of *li*, then it meets its prosodic needs at PF, and if not, it adjoins to the phonological word to its right, which is obviously the less optimal choice, since *li* will then need to pronounced at the right periphery of this phonological word. As before, I take this to be something resolvable in OT terms. And as before, I take all differences between Bg and Mac to be exclusively in the realm of prosodic requirements of individual lexical items, in this case, *ti go* being proclitic in Mac and *ne* being postaccenting in Bg.

Bg (162a), with the entire phrase *ti go dademoving* to [Spec, CP], is an example where the prosodic requirements of *li* are met without PI. Similarly, as noted by e.g. Izvorski, King and Rudin (1997), other XPs can move to [Spec, CP], where they are followed by *li*. King (1994) cites the following example from Ewen (1979):

- (169) [[Novata] [zelena] [riza]]_{DP} **li** **ti** podari Krasi?
 new-the green shirt Q you.dat gave Krasi
 ‘Did Krasi give you the new green shirt?’

The DP *novata zelena riza* ‘the new green shirt’ fronts to [Spec, CP], and *li* is happily enclitic on it; syntax, rather than phonology, is relevant to the position of *li*.⁹¹ Oddly enough, as King

⁹⁰According to Roumyana Izvorski (pc), this is ultimately pronounced as follows: [ne TI li go] [DAde] . While this is what I would expect given the prosodic requirements of enclitics *li* and *ti*, Lily Grozeva (pc) reports that for her this can be pronounced with the pause before or after *li* as well. The relation between syntactic and phonological phrasing here clearly requires much further study.

⁹¹In this example dative *ti*, although adjoined in the syntax to the verb *podari* ‘gave’ to its right, ends up prosodically also dependent on the phonological word to its left, [riza li] .

(1994) discusses, this is not what happens in Ru. Instead, *li* obligatory splits up the focused constituent. Here are some of her examples, slightly modified; see also Brown and Franks (1995):

- (170) a. [Na ètom] **li** zavode on rabotaet?
 in this Q factory he works
 'Is it in THIS FACTORY that he works?'
 'Is it in THIS factory that he works?'
 'Is it in this FACTORY that he works?'
 (*Na ètom zavode **li** on rabotaet?)
- b. [Doroguju] **li** knigu on čitaet?
 expensive Q book he reads
 'Is it an EXPENSIVE BOOK that he is reading?'
 'Is it an EXPENSIVE book that he is reading?'
 'Is it an expensive BOOK that he is reading?'
 (*Doroguju knigu **li** on čitaet?)

In Ru, *li* necessarily comes after the first prosodic word, although it could be this word, the entire phrase, or the head noun (i.e. some other part of the phrase) that is actually focused, with interpretational differences rendered through intonation. Why might this be so?

First, recall that Ru no longer has any special clitics, so that any idiosyncratic placement properties of *li* have to be prosodic. If the focused constituent were in [Spec, CP], then Ru should be like Bg.⁹² Since it is not, I conclude that the syntax really leaves the focused constituents *na ètom zavodé* 'in this factory' and *doroguju knigu* '(an) expensive book' in the specifier of whatever phrase is immediately to the right of C°. If so, (165) applies to produce the forms in (170). Interestingly, Stepanov (1997) adduces a number of to my mind compelling arguments that *wh*-phrases in Ru actually front to a position to the right of C°. Stepanov shows that Ru fails the superiority tests applied to SC in Bošković (1998). I assume then that there is in fact no movement to [Spec, CP] in Ru and that focused phrases are just like *wh*-phrases in (for the sake of explicitness) being adjoined to IP. By PF, however, this syntactic information is no longer available, and *li* ends up to the left of the only prosodic word which can support it.

- (171) a. [li [na ètom]] zavode on rabotaet
 b. [li [doroguju]] knigu on čitaet

Linearization subsequently applies to produce the orders in (170). Given representations as in (171), it comes as no surprise that *li* interrupts a focused phrase precisely after the first prosodic word within that phrase.

In my opinion, then, something like PI indeed exists in UG. It is however much more visible for simple clitics than special clitics, since these have no other recourse than to satisfy their prosodic requirements by PF means. Having conceded this, it would be remiss of me not to return to SC. I think, given that UG can countenance pronunciation of (171) as (170), we should expect to find some effects of PI when other prosodically viable resolutions fail. Even splitting a preposition off is sometimes marginal, as in SC (172), from Franks and Progovac (1994).

⁹²And if this were 2P clitic placement, as in SC, we would only expect the grammatical forms in (170) as a variant of the ungrammatical ones.

- (172) ?Okolo je kuće Milan trčao.
 around aux.3sg house.gen Milan ran
 ‘Milan ran around the house.’

While they note that (172) is facilitated by the existence of *Milan je trčao okolo* ‘Milan ran around’, with *okolo* an adverbial, the problem nonetheless remains that in (172) genitive *kuće* is still a complement of *okolo* as a preposition.

And even if not in SC, such splitting can be found in other languages, such as Classical Greek. Betsy McCall (pc) provides me with the following examples:

- (173) a. # en Milé:to de ...
 in Miletus.dat but ...
 b. # [en] de tê: uperbolê: ...
 in but the.dat passage.dat ...

The enclitic conjunction *de* ‘but’ can either follow an initial PP, as in (173a), or it can follow the first prosodic word which—since that word is a preposition—breaks up the PP. The variant in (173b) strikes me as an archetypical instance of PI, with *de* syntactically preceding the PP. Presumably (173a) does not require PI because the PP has fronted to the specifier of the phrase headed by *de*.⁹³ This possibility is further supported by McCall’s observation that the particle *de* never appears between a preposition and its complement DP if the PP contains a *wh*-word and has moved to [Spec, CP]. Taking this to be movement past *de*, we thus have clear evidence for PI only when an enclitic is prosodically stranded, with nothing to its left, which is just as predicted.

Looking back more generally at the discussion in section 2, it seems to me that we uncovered one clear PF phenomenon of this type in SC. This was the consistent fact that a single clitic was marginally able to split “fortresses”, although the same expressions could not be penetrated by larger amalgamations of clitics. This effect has been noted by people who take various stances, such as Progovac (1996) and Bošković (1997), with (36) vs. (37) above being a case in point.⁹⁴ Perhaps, then, only simple clitics undergo PI, which is why we hardly see any evidence for this in SC, a language with a robust special clitic system. Sometimes, however, lone special clitics slip by and can be treated as simple clitics in PF.

5. Excursus on Polish clitics⁹⁵

I now consider the status of special clitics in Pol. I will argue that these should be treated very differently from their counterparts in the other Slavic languages. They are, in a word, “special” only in no longer being special clitics. While the fact that past tense person agreement markers in Pol are unique has long been recognized and has inspired considerable

⁹³Alternatively, *en Milé:to* could be a prosodic word rather than just *en*.

⁹⁴Ljiljana Progovac (pc), who suggests that (172) slips by only on analogy to *Okolo je trčao* ‘He ran around’, points out that (172) is the same in this regard:

- (i) *Okolo sam ti ga kuće vijao.
 around aux.1sg you.dat him.acc house.gen chased
 ‘Around the house I chased him for you.’

This is precisely as expected if SC only makes use of PI to save otherwise unacceptable outputs of the syntax, by merging an single enclitic on the left of a prosodic word to that word’s right.

⁹⁵Thanks are due to a number of Pol linguists for assistance with the examples in this section, including Piotr Bański, Katarzyna Dziwirek, Bożena Pruska and Adam Szczegielniak.

debate, surprisingly little attention has been paid to the idiosyncrasies of pronominal clitics in Pol, although their behavior is just as atypical. I treat each of these in turn.

5.1. The dual nature of person agreement

The Pol person agreement markers pose a special puzzle for morphosyntactic analysis. The problem is that they only inconsistently display clitic properties, and in some respects are more like suffixes. This “schizophrenic” behavior has three possible explanations: either (i) they are really always inflectional and their apparent clitic-like behavior is a variant of this; or (ii) they are really always clitics and their apparent suffix-like behavior is a variant of this; or (iii) they are sometimes clitics, sometimes inflections, and sometimes ambiguous between the two. In this subsection, after examining these various hypotheses in somewhat more detail, I will argue that the schizophrenic third solution to the puzzle is in fact the best one.

The Pol personal agreement markers can appear either on the verb, as in (174), or after any phrase to the left of the verb, as in (175).⁹⁶

- (174) a. Widział**e** **-m** Jurka często w parku.
 saw **-aux.1sg** Jurek often in park
 ‘I often saw Jurek in the park.’
- b. Zawsze szybko kończyli **-ście** pracę.
 always quickly finished **-aux.2pl** work
 ‘You would always finish your work quickly.’
- c. My znowu wczoraj poszli **-śmy** do parku.
 we again yesterday went **-aux.1pl** to park
 ‘We went to the park again yesterday.’
- (175) a. My**-śmy** znowu wczoraj poszli do parku.
 b. My znowu**-śmy** wczoraj poszli do parku.
 c. My znowu wczoraj**-śmy** poszli do parku.

The examples in (175), provided by Piotr Bański (pc), show clearly that in Pol the auxiliary is neither 2P nor verb-adjacent. The only restriction is that, because it is enclitic, it cannot appear in initial position, as in (176a), nor can it appear any lower down than immediately following the verb, as in (176b) or Kipka’s (1989) example (176c):⁹⁷

- (176) a. ***-Śmy** my znowu wczoraj poszli do parku.
 b. *My znowu wczoraj poszli do parku**-śmy**.

⁹⁶Although in Pol orthography the person markers are written together with their hosts, here I present them separately for ease of reference. For the sake of consistency in this paper, I highlight them and gloss them as “aux” throughout, although I will argue that they need not be clitics when after the verb. Also, it should be noted that the *-e* in *widziałent*(I) saw’, although represented as part of the verb stem because it can be taken as parallel to the other markers for gender and number, has the status of a ‘fill vowel’ in that it only appears when followed by a person marker.

⁹⁷Clitics tend to be slightly degraded in clause final position for stylistic reasons, a factor which I will abstract away from throughout in the discussion of Pol.

- (176) c. *Kupili lustro -śmy.
 bought mirror -aux.1pl
 'We bought a mirror.'
 (cf. Kupili-śmy lustro;
 OR Lustro-śmy kupili.)

Furthermore, as indicated by the following pair from Mikoś and Moravcsik (1986), splitting is possible:

- (177) a. Czarnego psa -ś widział?
 black dog -aux.2sg saw
 'Did you see a black dog?'
 b. Czarnego-ś psa widział?

I concur with Borsley and Rivero (1994) that what is going on in examples like (177b) involves scrambling, just as proposed in section 2 for SC. Thus, *psa* 'dog' can be separated from *czarnego* 'black' independently, as in (178).

- (178) Czarnego-ś widział psa?

My basic analysis of person markers in Pol, also in keeping with Borsley and Rivero (1994), is that they are AgrS heads. In this respect they resemble verbal auxiliary clitics in the other Slavic languages. However, unlike in the other languages, they do not need to adjoin to anything in the syntax; their only requirement is the PF one of being part of some prosodic word to their left. The reason that they cannot appear further to the right of the verb, as in (176b, c), is simply because they are introduced higher than the verb, thus for the verb to precede the person markers the verb would have to undergo overt head movement to or through AgrS, adjoining to the person marker. Once this happens, however, the "V + person agreement" structure is fixed.⁹⁸

The discussion so far leads only to the conclusion that Pol personal agreement markers are simple clitics, generated in AgrS, and attaching to whatever happens to precede them. However, they also have certain inflectional properties that one would not expect of a clitic; cf. e.g. Sussex, (1980), Rappaport (1988), Embick (1994) or Bański (1996) for some relevant discussion. One such property is that they count as part of verb for the purposes of determining whether /o/ to [u] raising applies; see e.g. Booij and Rubach (1987). Raising is ordinarily a word-internal process which usually occurs in word-final syllables closed by a voiced obstruent. As shown in (179), when added to past tense participles the person markers block raising.

- (179) a. mógł '(he) was-able'
 b. mogła '(she) was-able'
 c. mogłem '(I) was-able'

The absence of raising in (179c) *mogłem* so that it patterns like (179b) rather than (179a), is one indication of the inflectional status of the person markers. On the other hand, there is

⁹⁸Although subsequent excorporation of the verb will have to be prevented, this problem extends to all the clitic systems I have discussed in this paper.

also some contradictory phonological evidence. As Rappaport (1988) among others notes, 1sg *-m* fails to trigger the expected nasal vowel alternation:⁹⁹

- (180) a. *wziął* ' (he) took'
 b. *wzięła* ' (she) took'
 c. *wzięłe-m* ' (I) took'

In nonstandard speech, however, (180c) is in fact regularly pronounced *wzięłem* revealing that it too can behave as a single phonological word.

Stress, which is regularly penultimate in Pol, presents a similarly complex state of affairs. In the standard language, the singular person markers count as part of the stress domain, implying that they are inflectional, whereas the plural person markers do not, implying that these are true clitics. Compare (181) and (182), where the stressed syllable has been capitalized.

- (181) a. *Kiedy zobacZYłe -ś dokumenty?*
 when saw -aux.2sg documents
 'When did you see the documents?'
 b. *Kiedy-ś zobACzył dokumenty?*
- (182) a. *Kiedy zobacZYły -śmy dokumenty?*
 when saw -aux.1pl documents
 'When did we (women) see the documents?'
 b. *Kiedy-śmy zobacZYły dokumenty?*

Addition of the 2sg *-ś* in (181a) causes the stress to shift forward one syllable, like an inflectional ending, whereas addition of 1pl *-śmy* in (182a) does not. This reflects a general division in the behavior of the (nonsyllabic) singular person markers vs. the (syllabic) plural person markers. Consider also the fact that the fill vowel, which Booij and Rubach (1987) in their treatment of these as two classes analyze as an underlying abstract 'jer', vocalizes in masculine singular participial forms such as (181a). Since jer vocalization is a lexical rule, it should only apply within words, hence forms such as *zobaczyłeś* 'you saw' are unambiguously inflectional. Moreover, in colloquial speech the plural person agreement markers also count for stress purposes, so that the verb in (182a) is pronounced *zobaczyŁYśmy*, suggesting that the reanalysis of the verbal auxiliary as inflection is spreading. Many discussions of Pol clitics mention the stress problem. Some, such as Mikoś and Moravcsik (1986) and especially Rappaport (1988), note that fixed penultimate stress across speakers (and dialects) correlates with immobility of the person markers, revealing that this reflects a change in progress from clitic to inflectional status, one that has affected the singular person markers first, probably because they are nonsyllabic.

Corroboration for this hypothesis can be found in the fact that the penultimate pattern is only possible when the host is a verb. This too is a frequently noted fact. Bański (1996) gives the examples in (183a-d) and (184) and (183e) is from Pruska (1991); the indicated stress is the only one possible.¹⁰⁰

⁹⁹The same facts of course hold for 2sg *-ś*.

¹⁰⁰The difference between (183) and (184) is that in the latter the verbal auxiliary has attached to a host ending in a consonant, triggering insertion of an [e]. This possibility is restricted to a small set of lexical items, including (depending on the speaker) also *chociaż* 'although', *nazajutrz(em)* 'the morning after', *jak* 'how', *sam* 'alone',

- (183) a. ZmęCZEni -śmy.
tired -aux.1pl
'We are tired.'
- b. CZEgo -ście (nie zrobili)?
what.gen -aux.2pl (neg did)
'What didn't you do?'
- c. JANka -ście (widzieli).
Janek.acc -aux.2pl saw
'You saw Janek.'
- d. DŁUgo -ście (tam byli).
long -aux.2pl there were
'You were there a long time.'
- e. DlaCZEgo -ście to zrobili?
why -aux.2pl it done
'Why did you do that?'
- (184) a. TAme -śmy.
there -aux.1pl
'We are there.'
- b. JUże -ście.
already -aux.2pl
'You already are.'

I therefore conclude that the most credible approach should involve two synchronically competing analyses for the person markers: as a clitic, which does not count for stress, or as a suffix, which does count. When attached to a phrase, the person marker must be a clitic, but when attached to a verb, it could either be inflectional on that verb or a clitic. On the former analysis it is generated as a form of the verb, hence receives penultimate stress as a single word, but on the latter analysis it is generated in AgrS and the verbal participle moves up to it in the course of the derivation.

There are, however, alternative approaches in the literature that attempt a uniform solution. Embick (1994) develops the ingenious proposal that the person agreement markers are always inflectional, and when they appear encliticized to nonverbal elements, they are really preceded by a silent verbal stem. His analysis thus reduces all person markers in Pol to suffixes. For Embick (1994) the variation in stress just mentioned is simply regarded as a matter of 'register', following essentially Booij and Rubach (1987). While technically viable, this idea fails to account for certain facts which indicate that the "V + person marker" combination really requires two distinct analyses.

One very compelling reason to regard Pol person markers as clitics is that in certain circumstances they can be omitted. This possibility is sometimes given as an argument that they must be clitics rather than inflectional, as in (185a) from Mikoś and Moravcsik (1986) or (185b) offered by Pruska (1991).

gdzie 'where', *nim* 'before' and *cóż* 'what'. On the other hand, direct attachment to vocalic stems, as in (183), is generally possible, although some speakers avoid stems ending in nasal vowels.

- (185) a. Czytali **-śmy**, pisali i studiowali.
 read -aux.1pl wrote and studied
 'We read, wrote, and studied.'
- b. W kawiarni jedli **-śmy** lody, pili kawę i czytali
 in cafe ate -aux.1pl ice cream drank coffee and read
 gazety.
 newspapers
 'In the cafe we were eating ice cream, drinking coffee, and reading newspapers.'

The clitic can also appear higher than the initial verb, as in the following example from Schenker (1973); compare Pruska's variant in (185b):

- (186) W kawiarni **-śmy** jedli lody, albo pili kawę.
 in cafe -aux.1pl ate ice cream or drank coffee
 'In the cafe we ate ice cream or drank coffee.'

As Bański (1996) points out, the very existence of this construction shows clearly that the person marker is a clitic, not a suffix, since parts of words cannot be deleted in this way.

These facts moreover suggest to me that the phenomenon is really one of coordination, not ellipsis (although I shall continue to call it that), and that what is coordinated is below the level of the clitic, conceivably VP. The clitic is a functional head, presumably AgrS, below the surface position of the subject and above that of the participle. The clitic thus attaches in PF to the prosodic word to its left, either the verb, as in (185), or some XP, as in (186).¹⁰¹ Notice now that if "V + person marker" has two distinct analyses, one where the person marker is an inflectional suffix and the other where it is a clitic, only the latter will be compatible with clitic ellipsis. Furthermore, if regular penultimate stress is indicative of the suffix analysis, this construction should require that the verb have antepultimate stress. This is indeed correct; in the examples in (185) the verbs must have the stresses indicated in (187):

- (187) a. CzyTAli**-śmy**/ ĆzytaLI**-śmy**, pisali i studiowali.
 b. W kawiarni JE**DLI**-śmy/*je**DLI**-śmy lody, pili kawę i czytali gazety.

This is true despite the fact that *czytaLI-śmy* and *jeDLI-śmy* are otherwise perfectly natural colloquial pronunciations. Antepenultimate stress thus correlates with the clitic analysis, and penultimate stress with the suffix analysis. In general, a "V + person marker" collocation is structurally ambiguous, but this is not so in the ellipsis construction. It is difficult for me to see exactly how Embick's approach could express this correlation.

An alternative to Embick (1994) is offered in Bański (1996). He claims that the person markers are always clitics, but that they are analyzable as two distinct kinds of clitic. In particular, Bański proposes that the Pol personal agreement clitics behave differently depending on whether they are attached to an X⁰ element or to an XP. While these are indeed the two possibilities posited by Borsley and Rivero (1994) and instantiated in the above examples, the problem for Bański is that "V + person marker" is always going to involve attachment to a syntactic head, so he is forced to say simply that when the clitic is attached to a head two different stress possibilities are allowed. The correlation between stress and ellipsis thus remains unexplained. I would contend further that trying to account for any

¹⁰¹One possible problem for the coordination analysis is that only the highest V would move up to AgrS, in violation of the Coordinate Structure Constraint.

aspect of Pol clitics in terms of *syntactic* adjunction is misguided, since the clitics do not seem to have any syntactic requirements, only prosodic ones. Thus, either the verb moves up to AgrS or it does not, and—whatever happens—at PF the person marker (as a simple phonological clitic) is pronounced as part of the prosodic word to its left. The schizophrenic behavior of the personal agreement markers results from the alternative analysis of these very same morphemes as inflections on the verb, which behave exactly like present tense endings (i.e., checked either overtly or covertly against the subject NP in [Spec, AgrSP]).

Let us return in this light to the singular person markers, which exhibit far more suffixal behavior than their plural counterparts.¹⁰² The reason for this, I maintain, is simply because these are non-syllabic, thus could never induce antepenultimate stress, so that attachment to a verbal participle will always be open to the inflectional analysis. This is why “V + person marker” is generalized as inflection in the singular but remains in flux in the plural. Thus, Bański (1996) notes that ellipsis is not acceptable with singular person markers:

- (188) PoSZEdłę -ś i *zoBACzył.
 went.masc -aux.2sg and saw.masc
 ‘You went and saw (it).’
 (cf. PoSZEdłę-ś i zobaCZYłę-ś.)

The reason for this is presumably because *poSZEdłęśis* unequivocally stressed as a single word, hence it is unambiguously inflectional; this is also seen in the vocalization of the jer. Note that this is not the case with feminine (189), where the stress is technically ambiguous and, according to Piotr Bański (pc), there is some slight improvement with feminine participles:

- (189) POszła -ś i ?? zobaCZYła.
 went.fem -aux.2sg and saw.fem
 ‘You went and saw (it).’
 (cf. POszła-ś i zobaCZYła-ś.)

Such an approach moreover predicts that speakers who accept mobility should also accept clitic ellipsis even in the singular, since mobility forces them to the conclusion that the person marker must be functioning as a clitic. This prediction is borne out, as revealed by the clear grammaticality of (190).

- (190) Ale -ś poszła i zobaczyła.
 but -aux.2sg went and saw
 ‘But you went and saw (it).’

Bański’s claim that the ellipsis possibility only exists for the plural markers is thus not quite accurate.

I conclude that Pol personal agreement markers are historical AgrS heads which are in the process of being reinterpreted as verbal endings. They are analyzed as inflectional

¹⁰²The tradition is in fact to distinguish singular and plural as two separate classes; cf. e.g. Booij and Rubach (1987) or Bański (1996). Note also that in West Slavic the 3rd person auxiliary (but not copula) is null; see the discussion of Cz in section 2.7.2. If, as I have proposed SC *je* is a T° head, then one conceivable interpretation of this is that the auxiliary clitics in W Sl have become limited to AgrS heads. (As a copula, again following the discussion in section 2.7.2, these forms have nonclitic verbal rather than functional head status.)

whenever possible, i.e., when they are on the verb and other phonological evidence does not contradict this interpretation. The two analyses are thus in synchronic competition. The oddity of this situation, which seems to have persisted for hundreds of years, is its apparent stability.

5.2. Pronominal clitics move as phrases

I turn finally to the status of pronominal clitics in Pol. Here, too, these behave very differently from their clitic counterparts in the other languages, having undergone changes comparable to those that have afflicted the verbal auxiliary system. Thus, the Pol pronominal clitics have ceased in my opinion to be special clitics. As simple clitics, they are dependent in PF on whatever precedes them for prosodic support, but that is the full extent of their idiosyncrasy. In this respect, they resemble the personal agreement clitics. They also show what looks like a similar range of distribution as the personal agreement clitics, suggesting that, like the AgrS verbal clitics, the pronominal clitics are simply pronounced after whatever happens to precede them. Also, the option of being inflectional which the person markers display is of course absent for the pronominal clitics, so these are always clitics. As we shall see, however, there are some important differences which lead me to the conclusion that the pronominal clitics in Pol actually move as phrases, not heads, so that they are actually not in Agr positions. The result of this change is a somewhat greater freedom of distribution for the pronominal clitics than for the verbal ones and a typologically striking independence of clitic placement.

The following selection of examples illustrates this variation:

- (191) a. Piotrek dał **mi je**.
 Peter gave me.dat them .acc
 'Peter gave me them.'
- b. Dlaczego **ją** kupiła **-ś?**
 why it.acc bought -aux.2sg
 'Why did you buy it?'
- c. Kiedy **-śmy** zobaczyli **go?**¹⁰³
 when -aux.1pl saw him.acc
 'When did we see him?'

Examples (191b, c) show that the pronominal clitics need not be together with the verbal person markers. While this might follow from the person marker being inflectional on *kupiłaś* '(you) bought' in (191b), example (191c) shows that the correct observation is really that there is no clitic adjacency requirement in Pol. In fact, as demonstrated by (192), the clitics in Pol are all technically independent.¹⁰⁴

¹⁰³Piotr Bański (pc) notes that this example, from Rappaport (1988), is slightly degraded, which I take to be due to the constraint against ending an intonational phrase with a clitic. To be fair, Rappaport does cite Doroszewski's *Słownik poprawnej polszczyzny* for this sentence, which in any event can be made more natural by introducing some adjunct phrase at the end.

¹⁰⁴This example, supplied by Piotr Bański (pc), proves that Rappaport's (1988: 320) contention that "while clitics within each of the two types must group together, the two types need not group with each other" is incorrect. This example also shows that the order "DAT > ACC" is by no means inviolable. The fact that templatic effects in Pol are lacking can be seen in (194) below, as well as in the following example of clitic climbing:

- (i) a. Nauczyłem **go mi** pomagać.

- (192) Kiedy **-śmy** go wreszcze **mu** odebrali, ...
 when -aux.1pl it.acc at-last him.dat took-away
 When we at last took it away from him, ...'

I take these facts to mean not only that the two types of clitics are simply independent of each other, but also that the pronominal clitics do not form a cluster either. The fact that there is no clitic cluster in Pol is a very important observation in light of the debate about SC clitic cluster formation examined in section 2. The reason is that it seems to me that any credible explanation for the differences between Pol and the other languages in this regard must hinge on the claim that there *is* syntactic clitic cluster formation in the other languages.¹⁰⁵ More generally, special clitics have special syntactic properties which require them to cluster, whereas simple clitics only have a phonological deficiency. The clitics in Pol are simple clitics, hence do not cluster together in the syntax. As discussed in section 4.3.2, the same is true for interrogative *li* in the other languages, which is a simple clitic and consequently not part of the cluster, except prosodically (when it happens to be phonologically adjacent to other clitics).

Example (192) further demonstrates that, despite the fact that the base order for the pronominal clitics is “DAT > ACC”, just as in the other languages, this order is not absolutely fixed. In deriving (192) I would argue that accusative *go* ‘it’ indeed starts out below dative *mu* ‘him’, but that it scrambles to a higher position. Pronominal clitics scramble as phrases in Pol, with the result that there is no clitic cluster at all. The clitics therefore appear pretty much wherever the corresponding KPs would appear, except that—like the AgrS clitics—they can never follow the verb (unless encliticized to it). The clitic thus moves as an XP rather than an X°, which is something Chomsky’s “Bare Phrase Structure” theory certainly allows for. I take *go* to be a K° head that exhausts KP, as in the other languages, but instead of moving as a head it seems to be able to move as a phrase. Exactly where this switch from X° to XP movement takes place, however, is not obvious. It could be that, instead of moving to the appropriate Agr° for case-checking purposes, K° moves to [Spec, AgrP] just like a full KP would. I am not however sure that this is correct, since such movement would not seem to allow for the possibility of encliticizing the pronominal clitics to the verb, which necessarily moves as a head, adjoining to Agr.¹⁰⁶ It thus seems as though these clitics retain some head properties, and are possibly able to begin moving as heads but complete this process as phrases; Chomsky (1995) suggests something similar for Romance D° clitics. Tentatively, I will assume that they have a dual status in that they can either move to their appropriate Agr, in which case the verb picks them up, or they can move to [Spec, AgrP], in which case any further movement is as an XP. Either way, they must move from their base argument positions to AgrP overtly. In Pol, then, the pronominal clitics are “weak” pronouns, in the sense of Cardinaletti and Starke (1996). Hence, as also claimed by Cardinaletti and Starke, the case features of the clitics themselves are always strong and force overt movement.

taught him.acc me.dat to-help
 ‘I taught him to help me.’

b. *Nauczyłem **mi go** pomagać.

The clitic associated with the embedded verb cannot cross the clitic generated in the higher clause. Whatever the reason for this restriction, it is curious that the resulting order is *go mi* “ACC > DAT” rather than *mi go* “DAT > ACC”, an order which respects the apparently inviolable crossing constraint.

¹⁰⁵I suppose proponents of purely phonological clustering could argue that the clitics in SC and Pol are subject to different prosodic requirements.

¹⁰⁶A related question is posed by the variable status of Witkoš’s (1993) examples with pronominal clitics acting as hosts, as we will see shortly.

I now consider some further evidence that corroborates these claims. First, Rudin (1997: 230) notes that in Bg 1st or 2nd person clitic pronouns cannot follow 3rd person ones. This is a familiar restriction in diverse languages, including not only Rudin's Bg example (193a), but even its English translation, which strikes me as quite degraded.¹⁰⁷ Eng circumvents this by expressing the indirect object with a PP or the direct object with a tonic pronoun, and Bg can employ roughly the same strategies, as in (193b, c).

- (193) a. *Pokazvat **mu** **me**.
 show him.dat me.acc
 '??They are showing him me.'
- b. Pokazvat **mu** MENE.
 'They are showing him ME.'
- c. Pokazvat **me** na nego.
 'They are showing me to him.'

Bg has no more direct way of dealing with this restriction, since the "DAT > ACC" order of clitics is fixed. We have seen that this is not so for Pol, since the clitics can move independently of each other. Interestingly, according to Piotr Bański (pc), instead of saying expected (194a), which is highly degraded but preserves the base order, (194b) is used, with the opposite order of clitics.¹⁰⁸

- (194) a. ??Pokazali **mu** **cię** wczoraj.
 showed him.dat you.acc yesterday.
 ??'I showed him you yesterday.'
- b. Pokazali **cię** **mu** wczoraj.

Presumably, accusative *cię* in (194b) scrambles to some position above dative *mu*, possibly adjoining to AgrIOP. In this way, the awkwardness of (194a) is avoided. I contend that this an option made available in Pol but not in the other languages precisely because only in Pol can the pronominal clitics move as XPs.

There are several additional reasons for distinguishing the pronominal clitics from the person markers in terms of their X-bar status. For one thing, although we have seen that the only head the person markers can encliticize to is V, and otherwise it attaches to XPs, for many speakers the person markers can also encliticize to pronominal clitics.¹⁰⁹ Thus, if a pronominal clitic happens to be to the left of a person marker, as in example in (195a) from Pruska (1991) or (195b-d) from Witkoś (1993), the result is well-formed.

- (195) a. I tu **go** **-m** dopadł.
 and here him.acc -aux.1sg caught
 'And here I caught him.'
- (195) b. ?%Ty **go** **-ś** widział często w parku.
 you him.acc -aux.2sg saw often in park

¹⁰⁷While the "*" is Rudin's, according to Roumyana Slabakova (pc) the Bg version is indeed worse than its Eng translation. The precise source of this restriction, which I take to be discourse-based and having to do with speaker's point of view, rather than part of the grammatical system per se, is immaterial to the main discussion.

¹⁰⁸I use 2nd person *cię* instead of 1st person *mię* because most speakers have replaced the historical clitic form with an atonic version of the full pronoun *mnie*.

¹⁰⁹Of course, the pronominal clitic itself is prosodically dependent on the phonological word to its left.

- 'You often saw him in the park.'
- c. ?%Wy często **go** -**ście** zapraszali.
 you often him.acc -aux.2pl invited
 'You often invited him.'
- d. Bardzo **mu** -**ś** pomógł.
 very him.dat -aux.2sg helped
 'You helped him very much.'

While Witkoś describes this as a “marginal pattern” and precedes most such examples with “%”, which I take to indicate variation, it still seems to me that the possibility of (195) reveals that the pronominal clitics indeed move as XPs. In the analysis of Borsley and Rivero (1994) a phrase can scramble and adjoin to IP, so that if the person marker is in I° and [Spec, IP] is empty, it will attach to this phrase. Presumably, then, a clitic can in principle also scramble in this way (although it not stylistically preferred).

Exactly what is going on, however, requires further investigation, since there is also evidence that *go* may be functioning as a head when it supports the person clitics. Interestingly, interpolation of *go* creates the one place where the person marker can be separated from the verb and still follow it; cf. (176b, c). Piotr Bański (pc) provides the following judgments:

- (196) a. ?Widzieli **go** **śmy**.
 saw him.acc aux.1pl
 'We saw him.'
- b. ??Kupili **mu** **go** **śmy**.
 saw him.dat it.acc aux.1pl
 'We gave him it.'

These can be derived in the following way: the verb moves up through the various Agr heads, picking them up before it reaches AgrS, where *-śmy* is. If the pronominal clitics have the option of moving to Agr° rather than just to [Spec, AgrP], and if (unlike in the other languages) they can stop there, we might expect something like (196) to slip by. Notice that this account predicts the order *mu go* in (196b), although, as we have seen, DAT > ACC is not otherwise required in Pol.¹¹⁰

On the other hand, there is considerable further evidence that the pronominal clitics in Pol can behave as phrases. Thus, whereas the person markers never can be separated from the verb by incontrovertible phrases, it turns out that the pronominal clitics sometimes can. This is seen in the following minimal pair, also corroborated by Piotr Bański (pc):

- (197) a. ?Dali -**śmy** *mojej* *siostrze* **go** na urodziny.
 gave -aux.1pl my sister it.acc for birthday
 'We gave it to my sister for her birthday.'

¹¹⁰While Bański confirms that **Kupiligo mu śmy* is indeed ungrammatical, he also does not like the combination *mu śmy* in general.

- (197) b. *Dali *mojej siostrze śmy* prezent na urodziny.
 you my sister aux.1pl present for birthday
 'We gave a present to my sister for her birthday.'

The fact that these two types of clitics can be distinguished in this way reveals that the pronominal clitics in principle have the distributional properties of XPs rather than X°s.

Another phenomenon which shows that, in their surface positions, the pronominal clitics should probably be analyzed as phrases rather than heads, is that they differ from the person marker clitics in disallowing “*že*-support”. This phenomenon concerns the fact that the personal agreement clitics can be supported not only by complementizer *že* ‘that’, as in (198a), but also by a pleonastic *že*, which I gloss as “X”. Consider the following examples, based on Bański (1996):

- (198) a. Powiedział, *že -ście* znowu podpalili szkołę.
 said that -aux.2pl again ignited school
 'He said that you had set fire to the school again.'
- b. Powiedział, *že* znowu *-ście* podpalili szkołę.
 said X again -aux.2pl ignited school

While *že* can be taken as a complementizer in (198a), this would be inappropriate for (198b), where it appears lower down. The fact that these are distinct items is further demonstrated by (199), in which two instances of *že* appear independently.

- (199) Powiedział, *že* znowu *že -ście* podpalili szkołę.
 said X again X -aux.2pl ignited school

It thus seems that it is equally costly for the AgrS clitic *-ście* either to be pronounced on the preceding XP *znowu* ‘again’, as in (198b), or to be supported by *že*, as in (199). In fact, literally all examples where pleonastic *že* appears could just as well be pronounced without *že*, with the clitic attaching to whatever is to its left.

Note further that pleonastic *že* can even appear immediately after another *že*:

- (200) Powiedział, *že že -ście* tam poszli.
 said that X -aux.2pl there went
 'He said that you had gone there.'

Example (200) reveals that *že*-support is viable regardless of whether the potential host is a phrase (*znowu* ‘again’) or a head (*že* ‘that’). This suggests to me that *že* is inserted as a PF-process. Indeed, I see nothing untoward about PF lexical insertion of items that have no semantic features; this is simply the flip side of inserting elements at LF with no phonetic features, such as a [+wh] C°, a possibility defended in Bošković (1998). It may then be that *že* can be inserted both in C° and AgrS°, which would unify its two functions, although insertion in C° is obligatory (if [Spec, CP] is null), and impossible otherwise), whereas insertion in AgrS° is always optional (if there is a stranded clitic there). Once again, I would ultimately want to appeal to principles of Optimality Theory in obtaining these results, since they are on the PF side of the grammar. Bański (1996) adds that this phenomenon has a “last resort” character, in that *že*-support cannot apply spuriously:

- (201) *Powiedział, że że tam poszli -ście.
 said that X there went -aux.2pl

There is, however, no call to invoke the idea of last resort here. The reason for the ungrammaticality of (201) is simply that there is no position into which *że* could be inserted in the first place. Either the verb is introduced directly as *poSZLIście* if that is the stress, or *POszli* moves up to *-ście* in AgrS in the syntax, in which case *-ście* no longer needs *że*-support.

Essentially, following Dylą (1983), *że* can in principle be inserted to support an auxiliary clitic in any position where that clitic could independently occur (other than when it is adjoined in the syntax to a head, as just noted). Conversely, *że* can never be inserted in any position where the clitic could not otherwise appear. This is shown by the paradigm in (202) from Dylą (1983); I have added (202a') for the sake of completeness.

- (202) a. Co kiedy komu dał -ś?
 what when whom gave -aux.2sg
 'What did you give to whom when?'
 a'. *Co kiedy komu dał że-ś?
 b. Co kiedy komu-ś dał?
 b'. Co kiedy komu że-ś dał?
 c. *Co kiedy-ś komu dał?
 c'. *Co kiedy że-ś komu dał?
 d. Co-ś kiedy komu dał?
 d'. Co że-ś kiedy komu że-ś dał?

There is thus no sense in which *że*-insertion can be regarded as a 'last resort' operation, since it is always equally costly to cliticize to a preceding XP or to insert a *że* as a pleonastic head.

With these facts in mind, let us return to the status of pronominal clitics in Pol as XPs. Since these occupy phrasal positions, it follows that pleonastic *że* should not arise with the pronominal clitics. This is indeed correct: it is never possible to insert a *że* before a pronominal clitic.

- (203) Wczoraj (*że) ja widzieli -śmy.
 yesterday X it.acc saw -aux.1pl
 'We saw it yesterday.'

The analysis of *że*-support as an option with heads but not phrases thus properly discriminates pronominal from auxiliary clitics in Pol.¹¹¹

A further difference between these two types of clitics has to do with the fact that *i* 'and' can support pronominal clitics but not the person markers.¹¹² Compare the examples in (204).

- (204) a. I ja wczoraj widzieli -śmy.

¹¹¹One potentially problematic issue concerns that fact that, if *że*-support is a PF option, why does it recognize syntactic factors such as the X-bar status of the clitic and even whether or not the clitic is syntactically supported already. Here again it seems to me that this must be regarded as a process involved in the mapping from syntactic to PF representations, akin to linearization as discussed in section 4.3.2.

¹¹²The Pol situation with *i* 'and' as a prosodic host is similar to the Bg one, except that in Bg the clitics are also syntactically supported (on the right, by the verb).

- and it.acc yesterday saw -aux.1pl
 ‘And we saw it yesterday.’
- b. *I -śmy wczoraj widzieli doskonałą sztukę.
 and -aux.1pl yesterday saw wonderful play
 ‘And we saw a wonderful play yesterday.’
 (cf. I wczoraj-śmy widzieli doskonałą sztukę.)

The significance of this fact is however not completely clear since, although it certainly shows that the two types of clitics are formally different, this seems to be the opposite effect of *że*-support, in that in (204) it looks like the head *I* ‘and’ can only support an XP clitic, not an X° one. One possible way of expressing this restriction in syntactic terms is that the personal agreement markers, but not the pronominal clitics, can only be supported by something in their own projection: for heads, either a verb that moves up to AgrS or an inserted *że*, for phrases, either an XP in [Spec, AgrSP] or one adjoined to AgrS. This would however imply that they retain some syntactic properties, i.e. that they are not purely simple clitics. Further evidence for this conclusion is that they also exhibit another option: they can undergo head movement from AgrS $^\circ$ to C $^\circ$, as in (197a). While one might claim in that example that everything is in PF and *znowu* just happens to be lower down than *-ście*, so that *że* ‘that’ winds up immediately to the left of *-ście*, this would not make the necessary distinction between the complementizer—a head position which we independently surmise verbal material to raise to—and the conjunction. Furthermore, the existence of Dyła’s (1983) (202d) implies that the person marker can be in C; see also Rudin (1988) and Richards (1997).¹¹³ So it seems we are left with some kind of locality requirement on what the Pol person markers can attach to, one that does not constrain the pronominal clitics.

There is one final, and I think compelling, set of facts which proves that the Pol pronominal clitics are unlike their counterparts in the other languages: they are virtually unique in their ability to appear inside NPs. While the facts of Mac and especially Bg in section 4.4.2 also showed that clitics can appear within NPs, the possibility was highly constrained even in Bg by limitations imposed by the fact that AgrIO is (i) a head and (ii) a structural case assigner. Neither of these limitations are evident in Pol, hence pronominal clitics in this language appear with the same freedom as they do in clauses. Here are some examples, mostly supplied by Katarzyna Dziwirek (pc), to illustrate the perfect productivity of pronominal clitics as complements of deverbal nouns.

- (205) a. zrozumienie **cię**
 understanding you.gen
- b. przebaczenie **mi**
 forgiving me.dat
- (205) c. moje pomaganie **mu**

¹¹³The one reservation I have about concluding that (202d) necessarily shows that *-ś* is in C is that phrasal material can also intervene between the first *wh*-word and the rest of them. Piotr Bański (pc) accepts (i) with a pronominal clitic, and even (ii), with a full NP intervening.

- (i) Co **ci** kiedy dał?
 what you.dat when gave
 ‘What did he give you when?’
- (ii) ?Wylicz **mi** teraz, co Jan^{kowi} kiedy dał.
 enumerate me.dat now what Janek.dat when gave
 ‘Enumerate for me now, what he gave to Janek when.’

- my helping him.dat
 d. nasze oskarżenie **go** o zdradę
 our accusing him.gen of treason
 e. ich zaproszenie **go** na obiad
 their inviting him.gen to lunch

There is some freedom of word order that resembles the distribution of pronominal clitics in clauses. Dziwirek adds that expressions such as *moje mu pomagania* (205c) are acceptable if poetic, although preposing clitic forms *jej* 'her.gen' or *ich* 'them.gen' is not possible because these are homophonous with the 3rd person possessive pronouns, which leads apparently to parsing difficulties. Adam Szczegielniak (pc) provides the judgments in (206), indicating that although locating the clitic lower than immediately following the noun is not possible, higher positions are acceptable with various degrees of felicity.

- (206) a. moje (**mu**) pomaganie (**mu**) we wtorki (***mu**)
 my him.dat helping him.dat on Tuesdays him.dat
 'my helping him on Tuesdays'
 b. nasze (**go**) szybkie (**go**) ratowanie (**go**)
 our him.gen quickly him.gen saving him.gen
 'our saving him quickly'
 c. twoje (?**go**) stale (**go**) oglądanie (**go**) w nocy (***go**)
 your him.gen constantly him.gen looking-at him.gen in night him.gen
 d. twoje (??**go**) w nocy (?**go**) stale (**go**) oglądanie (**go**)
 your him.gen in night him.gen constantly him.gen looking-at him.gen

While certain factors interfere, such as fronting the adverb in (204d), which apparently makes scrambling of *go* more difficult, argument clitics inside NPs clearly behave in a strikingly similar fashion both to pronominal clitics in clauses and to full phrases in NPs. I thus make the minimal assumption that they *are* full phrases—KPs, in the system put forward in this position paper.

In sum, the array of data examined in this section demonstrates that, unlike pronominal clitics in other Sl languages or the verbal auxiliary clitics in Pol, the pronominal clitics in Pol move as phrases rather than heads. They have thus lost any special syntactic properties that might be associated with their clitic status, having in effect become simple clitics.

6. Summary and conclusions

I have attempted in this position paper to provide a comprehensive survey of the range of descriptive and analytic problems that arise in the study of Slavic clitics. This process has unfortunately been exacerbated by two things: (i) the fact that there already exist a considerable number of analyses of Slavic clitic data, analyses which are diverse in orientation and detailed in coverage, and (ii) the fact that the data themselves are quite diverse. This latter fact leads to the I believe inevitable conclusion that Slavic clitics (not to mention clitics in general) do not constitute a uniform class, that their unusual properties do not arise from a single motivating force, and that they do not even all resolve the same deficiencies in the same way.

In particular, I examined 2P clitics in sections 2 and 3 and verb-adjacent clitics in section 4, and attempted to unify the analyses by treating both types of clitic as a functional head which needs syntactic support, with the differences lying in how they found that support. I argued that, far from being the innocuous little elements they might seem, lazy little words hanging around on some host that happens to be adjacent to them, special clitics take an extremely active part in their syntactic fate. While much of the time a host does indeed come to them, when this fails to occur clitics search for a host themselves and, I tried to show, they do this ruthlessly, taking advantage of any operation available to find a suitable host, possibly including syntactic lowering, as in section 4.3.¹¹⁴ In contrast to such “special” clitics, I suggested, particularly in section 4.4, that simple clitics only have prosodic requirements. The best example of this was the interrogative clitic *li*, which is placed in Bg, Mac and Ru strictly according to prosodic criteria. Finally, I also argued that clitics in Pol are simple clitics, and for this reason behave differently than their counterparts in the other languages.

Given this diversity of data, it should come as no surprise that I do not feel that appeal to a single explanation for clitic placement is necessary. I thus drew upon various kinds of approaches to clitic placement in attempting to account for the diverse phenomena. While the core case of SC is one of head movement, in which the clitics raise to the highest functional head in the extended projection of the verb, this movement is not always necessary. In Bg and Mac, on the other hand, the verb comes to the clitics which, I claimed, originate directly under Agr rather than moving there as heads of argument phrases. There were, however, additional effects which seemed clearly prosodic in nature. Here I adopted a PF-filtering kind of approach, supplemented by the idea that PF operates in conformity with OT principles. Thus, for 2P clitics, I exploited the copy and delete theory of movement and claimed that sometimes a copy lower than the highest one must, for prosodic reasons, be the one pronounced and, for verb-adjacent clitics, I developed the idea that linearization is part of the process mapping syntactic into PF representations, but that it applies cyclically, comparing possible word orders and selecting the optimal one.

Throughout the discussion, I have tried to point out problems and alternative analyses, so that possibly the only firm conclusion which has emerged is that Slavic clitics are functional heads, although even here there were problems, such as particle clitics in Cz and the fact that pronominal clitics in Pol move as phrases (although indeed introduced as heads, reflecting their morphology). It is my hope that the numerous speculations and digressions offered in this paper will stimulate rather than cloud the investigation of Slavic clitics, and that further research will benefit from the breadth of empirical and conceptual coverage I have striven for in this position paper.

¹¹⁴Although the evidence that special clitic placement must be syntactic is I think overwhelming, I was admittedly vague in defining exactly what the syntactic support requirement was or how it could be satisfied. I take this to a fundamental problem for future syntactically-oriented research into clitics.

References

- Abney, S. (1987) *The English Noun Phrase in its Sentential Aspect* Unpublished MIT Ph.D. diss.
- Alexander, R. (1994) "The Balkanization of Wackernagel's Law" in *Indiana Slavic Studies* 7, *Proceedings of the 9th Biennial Conference on Balkan and South Slavic Linguistics, Literature and Folklore* pp. 1-8.
- Anderson, S. (1993) "Wackernagel's Revenge: Clitics, Morphology, and the Syntax of Second Position." *Language* 69: 68-98.
- Anderson, S. (1995a) "Rules and Constraints in Describing the Morphology of Phrases" In A. Dainora, R. Hemphill, B. Luka, B. Need and S. Pargman (eds.), *Papers from Chicago Linguistic Society 31: Parasession on Clitics* pp. 15-31.
- Anderson, S. (1995b) "Why to Put Clitics in their Place of Why the Best Account of Second-Position Phenomena may be Something like the Optimal One" *The Linguistic Review* 12: 1-24.
- Avgustinova, T. (1994) "On Bulgarian Verbal Clitics" *Journal of Slavic Linguistics* 2:1: 29-47.
- Avgustinova, T. and K. Oliva (1995/1997) "The Position of Sentential Clitics in the Czech Clause". CLAUS Report #68, Universität des Saarlandes, Saarbrücken. Reprinted in U. Junghanns and G. Zybatow (eds.) *Formale Slavistik* proceedings of FDSL 1, pp. 25-57.
- Bailyn, J. "Underlying Phrase Structure and 'Short' Verb Movement in Russian" *Journal of Slavic Linguistics* 3, 13-58.
- Bański, P. (1997) Polish auxiliary clitics: morphology or syntax? In *ZAS Papers in Linguistics* Vol. 6, 17-27. Berlin: Zentrum für Allgemeine Sprachwissenschaft.
- Bennett, D. (1986) "Toward an Explanation of Word-Order Differences between Slovene and Serbo-Croat" *Slavonic and East European Review* 64: 1-24.
- Berent, G. (1980) "On the Realization of Trace: Macedonian Clitic Pronouns" in C. Chvany and R. Brecht eds., *Morphosyntax in Slavic* pp. 150-186.
- Booij, G. and J. Rubach (1987) "Postcyclic versus Postlexical Rules in Lexical Phonology" *Linguistic Inquiry* 18: 1-44.
- Borsley, R. and M.-L. Rivero (1994) "Clitic auxiliaries and incorporation in Polish." *Natural Language and Linguistic Theory* 12: 373-422.
- Bošković, Ž. (1995) "Participle movement and second position cliticization in Serbo-Croatian" *Lingua* 96: 245-266.
- Bošković, Ž. (1997a) *The Syntax of Nonfinite Complementation: An Economy Approach* MIT Press: Cambridge.
- Bošković, Ž. (1997b) "Second Position Cliticization: Syntax and/or Phonology?" unpublished paper, presented at clitics conference in Hungary.
- Bošković, Ž. (1998) "Wh-Phrases and Wh-Movement in Slavic". Position paper for this workshop.
- Brown, S. and S. Franks (1995) "Asymmetries in the Scope of Russian Negation" *Journal of Slavic Linguistics* 3: 239-287.
- Browne, W. (1974) "On the Problem of Enclitic Placement in Serbo-Croatian," in R. D. Brecht & C. V. Chvany, eds., *Slavic Transformational Syntax* 36-52, Michigan Slavic Materials 10, Ann Arbor, 36-52.
- Browne, W. (1975) "Serbo-Croatian Enclitics for English-Speaking Learners" *Kontrastivna analiza engleskog i hrvatskog ili srpskog jezika*, Institut za lingvistiku Filozofskog fakulteta, Zagreb, pp. 105-134.
- Caink, A. (1997) "Extended Projections in South Slavic". Paper presented at the *Second Conference on Formal Approaches to South Slavic Linguistics*, Sofia.

- Cardinaletti, A. and Starke, M. (1996) "The Typology of Structural Deficiency: On the Three Grammatical Classes" in H. van Riemsdijk, ed., *Clitics in the Languages of Europe*, Mouton de Gruyter: Berlin.
- Chomsky, N. (1995) *The Minimalist Program* MIT Press, Cambridge.
- Chomsky, N. and H. Lasnik (1993) "The Theory of Principles and Parameters," in Chomsky (1995).
- Collins, C. (1997) *Local Economy* MIT Press, Cambridge.
- Comrie, B. (1981) *Language Universals and Linguistic Typology* The University of Chicago Press: Chicago.
- Ćavar, D. (1996) "On Cliticization in Croatian: Syntax or Prosody?" in *ZAS Papers in Linguistics* Vol. 6, pp. 51-65.
- Ćavar, D. (1997) "On the syntax and phonology of enclitics in Croatian", unpublished paper presented at *Formal Description of Slavic Languages*, Potsdam, Germany.
- Ćavar, D. and C. Wilder (1994) "Long Head Movement? Verb Movement and Cliticization in Croatian" *Lingua*93: 1-58.
- Čašule, I. (1997) "The Functional Load of the Short Pronominal Forms and the Doubling of the Object in Macedonian". *Journal of Slavic Linguistics* 5.1: 3-19.
- Derbyshire, W. (1993) *A Basic Reference Grammar of Slovene* Columbus, Ohio: Slavica Publishers.
- Dyła, S. (1983) "A Non-argument Against Multiple COMP Filling: Clitic Movement in Polish". *Wiener Linguistische Gazette* 30: 19-26.
- Embick, D. (1994) Unifying morphosyntax and phonology: The 'mobile inflections' in Polish. In *NELS* 25.
- Ewen, R. (1979) *A Grammar of Bulgarian Clitics* unpub. Ph.D. diss, Univ. of Washington.
- Fowler, G. and S. Franks (1994) "DP in Bulgarian," in *Indiana Slavic Studies 7, Proceedings of the 9th Biennial Conference on Balkan and South Slavic Linguistics, Literature and Folklore* pp. 58-68.
- Franks, S. (1987). "Regular and Irregular Stress in Macedonian." *International Journal of Slavic Linguistics and Poetics* 35-36, 93-142.
- Franks, S. (1990) "Vowel-Zero Alternations and Syllable-Counting Morphology" in *Indiana Slavic Studies* 5, ed. by H. Cooper et al.
- Franks, S. (1997) "South Slavic Clitic Placement is Still Syntactic" *Penn Working Papers in Linguistics* 4.2: Proceedings of the 21st Annual Penn Linguistics Colloquium, pp. 111-126
- Franks, S. and Lj. Progovac (1994) "On the Placement of Serbo-Croatian Clitics" in *Indiana Slavic Studies 7, Proceedings of the 9th Biennial Conference on Balkan and South Slavic Linguistics, Literature and Folklore* pp. 69-78.
- Fried, M. (1994) "Second-Position Clitics in Czech: Syntactic or Phonological?" *Lingua* 94:155-175.
- Friedman, V. (1993) "Macedonian" in B. Comrie and G. Corbett, eds. *The Slavonic Languages*. London, Routledge.
- Giusti G. and M. Dimitrova-Vulchanova (1994/1995) "Quantified Noun Phrase Structure in Bulgarian," in J. Toman, ed., *Proceedings of FASL III: The College Park Meeting* Univ. of Michigan Slavic Materials:Ann Arbor, pp. 123-144 and in University of Venice Working Papers in Linguistics 5.1: 43-65.
- Golden, M. and M. Milojević-Sheppard (1997) "Slovene Pronominal Clitics", unpublished paper presented at *Formal Description of Slavic Languages*, Potsdam, Germany.
- Halpern, A. (1995) *On the Morphology and Placement of Clitics* CSLI Publications:Stanford. [slightly revised version of 1992 Stanford diss.]

- Halpern, A., and J. Fontana. (1994) "X⁰ and X^{max} Clitics" in E. Duncan, D. Farkas, and P. Spaelti, eds., *The Proceedings of the Twelfth West Coast Conference on Formal Linguistics*. CSLI Publications, Stanford, CA.
- Halle, M. and A. Marantz (1993) "Distributed Morphology and the Pieces of Inflection". In K. Hale and J. Keyser, *The View From Building 20* MIT Press:Cambridge.
- Izvorski, R., T. King, and C. Rudin (1997) "Against *li* Lowering in Bulgarian", *Lingua* 102.2/3: 187-194.
- Jakobson, R. (1935/1971) "Les enclitiques slaves" in *Selected Writings* Vol. II., pp. 16-22.
- Kayne, R. (1975) *French Syntax: the Transformational Cycle* MIT Press:Cambridge.
- Kayne, R. (1994) *The Antisymmetry of Syntax* MIT Press:Cambridge.
- King, T. (1994) "Focus in Russian Yes-No Questions" *Journal of Slavic Linguistics* 2.1: 92-120.
- King, T. (1997) "Some Consequences of a Prosodic Inversion Account of Slavic Clitic Clusters" in U. Junghanns and G. Zybatow (eds.) *Formale Slavistik* Veruert Verlag: Frankfurt am Main, pp. 75-86.
- Kipka, P. (1989) "Impersonals and Inflection in Polish", in *MIT Working Papers in Linguistics*, pp. 135-150.
- Klavans, J. (1982). *Some Problems in A Theory of Clitics* Univ. of London. Ph.D. diss.
- Koizumi, M. "Object Agreement Phrases and the Split VP Hypothesis" in *MIT Working Papers in Linguistics* 18, 1993 (pp. 99-148)
- Koneski, B. (1976) *Gramatika na makedonskiot literaturn jazik* Kultura: Skopje.
- Lasnik, H. (1997) "On Feature Strength: Three Minimalist Approaches to Overt Movement". Unpublished ms., University of Connecticut.
- Law, P. (1991) *Effects of Head Movement on Theories of Subjacency and Proper Government* unpublished Ph.D. dissertation, MIT.
- Legendre, G. (1996) "Clitics, Verb (Non)-movement, and Optimality in Bulgarian", unpublished paper, Johns Hopkins. [available through Rutgers Optimality Archive]
- Mikoś and Moravcsik (1986) "Moving Clitics in Polish and Some Cross Linguistic Generalizations" *Studia Slavica* pp. 327-336.
- Milojević-Sheppard, M. (1997) "Non-finite Verb—Finite Verb Word-Orders in Slovenian", in U. Junghanns and G. Zybatow (eds.) *Formale Slavistik* Veruert Verlag: Frankfurt am Main, pp. 387-398.
- Mišeska-Tomić, O. (1996a) "The Balkan Slavic Clausal Clitic Clusters," *Natural Language and Linguistic Theory*
- Mišeska-Tomić, O. (1996b) "The Balkan Slavic Nominal Clitics" in A. Halpern and A. Zwicky eds. *Approaching Second: Second Position Clitics and Related Phenomena* CSLI Publications: Stanford, pp. 511-536.
- Mišeska-Tomić, O. (1997) "Non-Initial as a Default Clitic Position," to appear in *Journal of Slavic Linguistics* 5.2.
- Nespor, M. and I. Vogel (1986) *Prosodic Phonology* Foris: Dordrecht.
- Percus, O. (1993) "The Captious Clitic," unpublished ms., MIT.
- Perlmutter, D. (1971) *Deep and Surface Structure Constraints in Syntax* Holt, Rinehart and Winston: New York.
- Pesetsky, D. (1982) *Paths and Categories* unpublished Ph.D. dissertation, MIT.
- Pesetsky, D. (1998) "Some Optimality Principles of Sentence Pronunciation" In *Is the Best Good Enough?* in P. Barbosa, D. Fox, P. Hagstrom, M. McGinnis and D. Pesetsky, eds., Cambridge, Mass.: MIT Press.
- Priestly, T. (1996) "Slovene" in B. Comrie and G. Corbett, eds. *The Slavonic Languages*. London, Routledge.
- Progovac, Lj. (1993) "Locality and Subjunctive-like Complements in Serbo-Croatian," *Journal of Slavic Linguistics* 1:116-144.

- Progovac, Lj (1996) "Clitics in Serbian/Croatian: Comp as the Second Position", in A. Halpern and A. Zwicky, eds. *Approaching Second: Second Position Clitics and Related Phenomena* CSLI Publications: Stanford, pp. 411-428.
- Progovac, Lj (1998a) "Clitic Clusters and Coordination: The Case of Serbo-Croatian", in *Proceedings of ESCO* 1997.
- Progovac, Lj (1998b) "Where Do Clitics Cluster?", in *Clitics in Europe* F. Beukema and M. den Dikken, Foris: Dordrecht.
- Pruska, B. (1991) "Polish Mobile Inflection", unpublished ms., UCSD.
- Rå Hauge, K. R. (1976) *The Word Order of Predicate Clitics in Bulgarian* Meddelelser 10, Slavisk-Baltisk Institutt, Universitetet i Oslo.
- Radanović-Kocić, V. (1988) *The Grammar of Serbo-Croatian Clitics: A Synchronic and Diachronic Perspective* Unpublished Ph. D. dissertation, University of Illinois, Urbana-Champaign.
- Radanović-Kocić, V. (1994) "On the Possessive Dative in Serbo-Croatian", in *Indiana Slavic Studies 7, Proceedings of the 9th Biennial Conference on Balkan and South Slavic Linguistics, Literature and Folklore* pp. 161-167.
- Radanović-Kocić, V. (1996) "Placement of Serbo-Croatian Clitics: a Prosodic Approach" in A. Halpern and A. Zwicky, eds. *Approaching Second: Second Position Clitics and Related Phenomena* CSLI Publications: Stanford, pp. 429-445.
- Rappaport, G. (1988) On the relationship between prosodic and syntactic properties of the pronouns in the Slavonic languages. In A. Schenker (ed.) *American Contributions to the 10th International Congress of Slavists* 301-327. Columbus: Slavica.
- Richards, N. (1997) *What Moves When Where in Which Language* unpublished MIT Ph.D. diss.
- Rivero, M.-L. (1991) "Long Head Movement and Negation: Serbo-Croatian vs. Slovak and Czech" *The Linguistic Review* 8, 319-351.
- Rivero, M. L. (1993) "Bulgarian and Serbo-Croatian Yes-no Questions: V⁰ raising to -li vs. li-hopping" *Linguistic Inquiry* 24:567-575.
- Rubadeau, P. M. (1996) A Descriptive Study of Clitics in Four Slavic Languages: Serbo-Croatian, Bulgarian, Polish, and Czech. Unpublished Ph.D. diss, University of Michigan.
- Rudin, C. (1988) "On Multiple Questions and Multiple WH Fronting," *Natural Language and Linguistic Theory* 6:445-501.
- Rudin, C. (1997) "AgrO and Bulgarian Pronominal Clitics" in S. Franks and M. Lindseth, eds. *Proceedings of FASL V: The Indiana Meeting* Univ. of Michigan Slavic Materials, Ann Arbor.
- Rudin, C., C. Kramer, L. Billings and M. Baerman (in press) "Macedonian and Bulgarian li Questions: Beyond Syntax" *Natural Language and Linguistic Theory*
- Sadock, J. (1991) *Autolexical Syntax* University of Chicago Press.
- Scatton, E. (1993) "Bulgarian " in B. Comrie and G. Corbett, eds. *The Slavonic Languages*. London, Routledge.
- Schenker, A. (1973) *Beginning Polish* rev. ed., New Haven: Yale University Press.
- Schütze, C. (1994) "Serbo-Croatian Second Position Clitic Placement and the Phonology Syntax Interface," *MIT Working Papers in Linguistics* Vol. 21, pp. 373-473.
- Schütze, C. (1996) "Serbo-Croatian Clitic Placement: an Argument for Prosodic Movement" in J. Toman, ed., *Proceedings of FASL III: The College Park Meeting* Univ. of Michigan Slavic Materials:Ann Arbor, pp. 225-248.
- Short, D. (1993) "Czech" in B. Comrie and G. Corbett, eds. *The Slavonic Languages* London, Routledge.
- Slabakova, R. (1997) *Zero Acquisition: Second Language Acquisition of the Parameter of Aspect* McGill University Ph.D. diss.
- Stepanov, A. (1997) "On Wh-Fronting in Russian" *Proceedings of North Eastern Linguistic Society* 28, University of Massachusetts, Amherst.

- Stjepanović, S. (1995) "Short Distance Movement of *wh*-Phrases in Serbo-Croatian Matrix Clauses, unpublished ms., The University of Connecticut.
- Stjepanović, S. (1998) On the placement of Serbo-Croatian clitics: Evidence from clitic climbing and VP ellipsis. In *Proceedings of FASL 6: The Connecticut meeting*, ed. Željko Bošković et al. Ann Arbor, Mich.: Michigan Slavic Materials.
- Stjepanović, S. (in press) "A note on placement of Serbo-Croatian clitics". To appear in *Linguistic Inquiry*.
- Sussex, R. (1980) "On Agreement, Affixation and Enclisis in Polish" in *Morphosyntax in Polish* ed. by C. Chvany and R. Brecht, Slavica: Columbus, OH, pp 187-203.
- Thorpe, A. (1991) *Clitic Placement in Complex Sentences in Czech* Unpublished Ph.D dissertation, Brown University, Providence.
- Toman, J. (1980) "Weak and strong: notes on *be* in Czech". In *Wege zur Universalienforschung* ed. G. Brettschneider and C. Lehmann, pp. 305-310. Tübingen:Narr.
- Toman, J. (1995) "Can Wackernagel Effects be Derived?" Unpublished paper, presented at FASL5, Cornell University, Ithaca, NY.
- Toporišič, J. (1976) *Slovenska slovnica* Založba obzorja: Maribor.
- Veselovská, L. (1995) *Phrasal Movement and X⁰-Morphology* Unpublished Ph.D dissertation, Palacký University, Olomouc.
- Witkoś, J. (1993) *Some Aspects of Phrasal Movement in Polish* Unpublished Ph.D. dissertation, Adam Mickiewicz University, Poznań.
- Yadroff, M. (1994). "AspP and Licensing of *pro*-arb Objects". *Proceedings of Western Conference on Linguistics* 7, 290-303.
- Zec, D. (1988) "Bg ə Epenthesis: A Case for Moraic Structure", in J. Blevins and J. Carter, eds. *Proceedings of NELS 18*, Vol. II, 553-566.
- Zec, D. and S. Inkelas (1990) "Prosodically Constrained Syntax", in S. Inkelas and D. Zec, eds., *The Phonology Syntax Connection* The University of Chicago Press: Chicago.
- Zwart, J. W. (1993) *Dutch Syntax: a Minimalist Approach* Ph.D. dissertation, University of Groningen.
- Zwicky, A. (1977) "On Clitics" IULC pub., Bloomington, IN.