

# Modern Syntactic Theory and the History of the Slavic Languages\*

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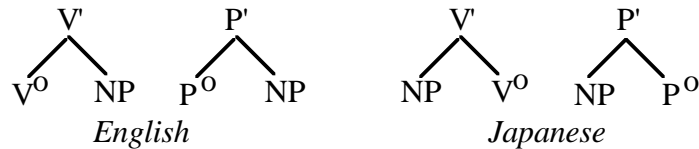
## 1. Introduction: New and Old Explanations for Syntactic Change

The purpose of this article is to illustrate that the long illusive phenomenon of syntactic change can be analyzed in much the same manner as phonological change has been since the neo-grammarians: as the *reanalysis of features* of lexical items, morphemes, or syntactic categories. In particular, I show that the syntactic notion of the **functional category** (see below) is the locus of syntactic change, that is that the feature changes ultimately responsible for syntactic innovations are always associated with one of the set of purely grammatical categories identified by modern linguistic theory. The article not only proposes that all kinds of syntactic change can be analyzed as beginning with changes in syntactic features, it also explores the consequences of this proposal in three case-studies from the data-rich Slavic family, representing **reanalysis**, **grammaticalization**, and **changes in case patterns** respectively, suggesting similar explanations for various other Slavic diachronic phenomena. In addition to accounting for a diverse set of grammatical changes within Slavic, the results also produce a more finely-tuned understanding of the comparative syntax of the modern Slavic languages, as well as a newly constrained view of the nature of syntactic change. In this respect, it can serve as a vindication of the claim, made by Harris and Campbell (1995), that "the causes of syntactic change are in effect the same as other types of language change" and should open the door to formal and more systematic study of diachronic syntax.

The possibility of analyzing syntactic change as similar to phonological change arises only now, in the climate of modern generative theory, which since 1981 and the publication of Chomsky's *Lectures on Government and Binding* (LGB) has led to an explosion of empirical advances in the syntax of practically every language family, including Slavic.<sup>1</sup> On the LGB view, all languages share various linguistic **principles** which contain **parameters of variation** allowing principles to appear in various languages in one of various forms. All languages, for

example, have **predicates** (such as verbs) and **arguments** of those verbs (such as direct objects). Languages differ simply in how they structure the relationship between the two (the **Head Direction Parameter**). This is illustrated in (1):

1) Head Direction Parameter Settings:



Other areas of parametric variation include the possibility of omitting pronominal subjects (Hyams 1986), overt movement of question words to the beginning of the sentence in questions (see Rudin 1988 on Slavic versions of this parameter), and others.<sup>2</sup>

Indeed, it is the notion of **principles** and **parameters** of the early 1980s, and not the early "transformational" theory of the 1960s, that has led to the greatest empirical advances in comparative syntax.<sup>3</sup> And this is reflected in the narrower area of diachronic syntax where the (earlier) "transformational component has proved to be an unenlightening context in which to seek motivations for syntactic change" (Jeffers and Lehiste 1979). On the more modern view, syntactic change involves the re-setting of parameters; visible syntactic changes can be seen as following from more principled underlying forces.<sup>4</sup>

just as we try to account for syntactic differences among, say, the contemporary Romance languages in terms of differing parametric values, so we want to account for difference between Latin and the contemporary Romance languages in terms of differing parametric values. This naturally implies parametric change over time. The agenda for the study of diachronic syntax is set: we can analyze the historical development of a given language in terms of differing parametric values at different times. *Syntactic change is thus seen as parametric change.* (Battye and Roberts 1995: 5-6)

The research program of the 1980s thus provides a picture of parameters underlying syntactic variation and syntactic change.

However, in the 1990s syntactic theory has undergone its most significant advance since Principles and Parameters, which although partially a culmination of development throughout

the Principles and Parameters years, also marks a break from the Deep Structure / Surface Structure approach of "transformational grammar."<sup>5</sup> This is the Minimalist Program of Chomsky (1995). It is only with Minimalism that the possibility of viewing parametric variation as variation in *features* has arisen, because in Minimalism, parametric variation reduces to variation in the formal features of the so-called **functional categories** (see below).<sup>6</sup> Syntactic change can then be seen as changes in these formal features, just as sound change is seen as changes in the features of particular phonemes or sets of phonemes.

Within the Principles and Parameters approach the problems of typology and language variation arise in somewhat different form than before. Language differences and typology should be reducible to choice of values of parameters.... One proposal is that parameters are restricted to *formal features*.... A still stronger one is that they are restricted to formal features of functional categories. (Chomsky 1995: 6)

This article represents the first attempt, to my knowledge, to utilize this strong claim in diachronic work within the Slavic family. In a descriptive sense, the article forwards our understanding of the mechanics of syntactic change considerably; it also brings into reconsideration many heretofore understudied phenomena of syntactic change within Slavic. The possibilities for newer, clearer understanding of a host of syntactic changes within Slavic and elsewhere are thus greater than ever before. For theoretical linguistics in general, and for the study of diachronic syntax in particular, this article represents the opening of a new testing ground for current theoretical claims.

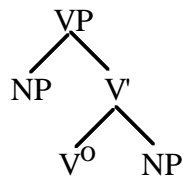
The structure of the article is as follows: In Section 2, I briefly summarize the syntactic framework assumed, focusing on the generally accepted distinction between **lexical** and **functional categories**. I then turn to three central kinds of syntactic change that must be captured by any theory of syntactic change. It is shown that all three can be analyzed as changes in features associated with functional categories. In Section 3, I exemplify this claim by analyzing three case studies of syntactic changes within Slavic as cases of feature change on items associated with functional categories. I conclude in Section 4 with mention of other

areas of syntactic change within Slavic to be analyzed this way and brief discussion of the general implications for the study of diachronic and synchronic syntax.

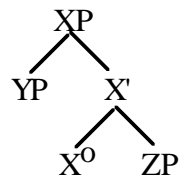
## 2 Functional Categories, Minimalism, and Syntactic Change

In this section, I sketch the basic minimal assumptions necessary for a theory of syntactic structure. I assume some form of X'-Theory (Jackendoff 1977). This involves commitment to some kind of distinct representation of **constituency**, **hierarchical structure**, **grammatical categories**, and **grammatical relations**. All of these are provided, for example, in the standard representation for a verb phrase such as (2a), and, by extension, for any phrase, as in (2b) with X, Y, and Z as variables.

- 2) a. Basic constituent structure of the verb phrase:



- b. Basic constituent structure of any phrase:



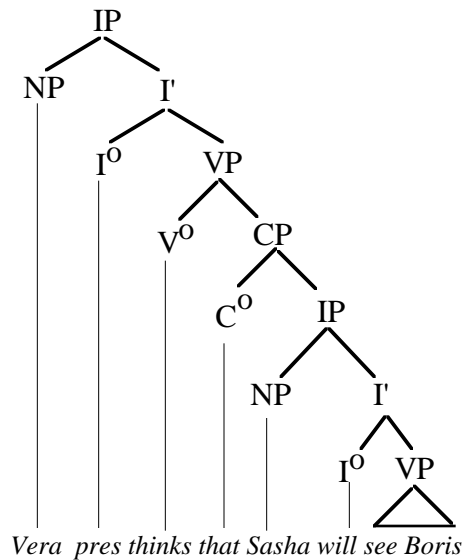
Furthermore, I assume a difference between the traditional categories of open-class (lexical) and closed-class (grammatical/functional) words. In modern theory, this distinction is maintained as a difference between **lexical** and **functional categories**: "Virtually all elements of the lexicon belong to the *substantive categories*, which we will take to be noun, verb, adjective, and particle.... The other categories we will call *functional* (tense, complementizer, etc.)" (Chomsky 1995: 6) Functional categories share the internal structure of (2b) with lexical categories, but

refer to a purely grammatical relation, rather than to a lexical, referential notion. Examples of standardly assumed functional categories are given in (3):

- 3) a. Standard functional categories:

CP (complementizer phrase)  
 IP (inflection phrase)  
 NegP (negation phrase)  
 DP (determiner phrase)  
 AgrP (agreement phrase)

- 3) b. Structure of a complex sentence with functional categories:



(See Abney (1987) and Rubin (1994) for extensive discussion of the formal nature of functional categories.)

The central claims to be developed in this article are summarized in (4):

- 4) a. The locus of syntactic change is the functional category.  
 b. Syntactic change is best characterized in terms of changes of features

This approach allows us unique new insight into the essential kinds of syntactic change, which Harris and Campbell (1995) give as **reanalysis** and **grammaticalization**. I will add to this list **changes in case patterns**, (to be distinguished from morphological change, in which the endings undergo leveling, analogy, merger and so on.) I take **changes in case patterns** to

refer to the appearance or loss of a case distinction, or to a new mechanism of case assignment, regardless of the actual morphological form of particular cases.<sup>7</sup>

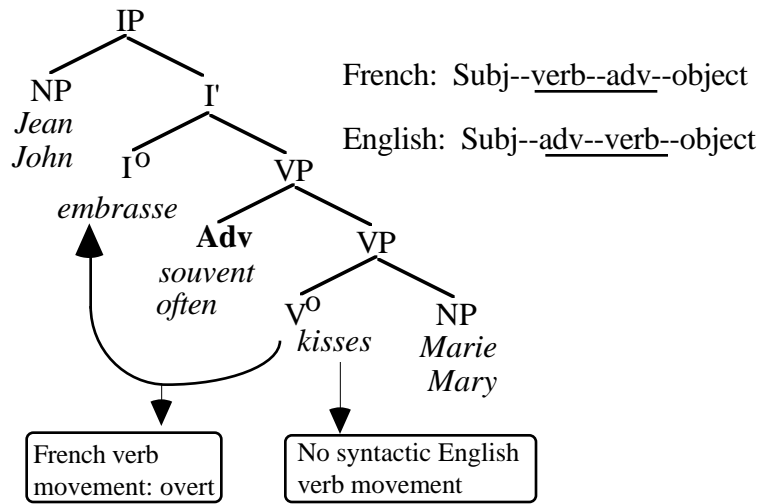
In brief, under this approach, **reanalysis** is either: i) the reassociation of a lexical item or particle with a different functional category or ii) the acquisition of new features by a functional category. **Grammaticalization** is the change of an element from a **lexical** to a **functional category**. **Changes in case patterns** result from feature changes related to the functional categories that assign (or check) case.

This last point requires a further presentation of the basic ideas of Minimalism. Within Minimalism, it is a guiding assumption that the particular syntactic derivations leading to grammatical sentences in any given language are *forced* by a combination of invariant linguistic principles and language-specific requirements. We now see standard word order distinctions between French and English, for example, as involving nothing more than the strength of the features of the functional category Agreement (see Pollock 1989). Consider (5-6):

- 5) a. (French) Jean **embrasse souvent** Marie.  
Jean kisses often Mary  
"John often kisses Mary."  
  
\*b. (French) Jean **souvent embrasse** Marie.  
Jean often kisses Mary  
"John often kisses Mary."
- 6) \*a. John **kisses often** Mary.  
b. John **often kisses** Mary.

Descriptively, the facts in (5-6) can be accounted for by saying that French verbs raise to the functional category INFL, crossing adverbs and negation, and creating the surface word orders seen in (5a). In English there is no such raising and the opposite word orders occur (6b). This difference is schematized in (7):

7) French vs. English verb movement possibilities:



But why should languages differ in this way? How does a French child learn *how* to raise a verb even if he/she has evidence for that movement? What prevents him/her from raising it to the wrong place, or in the wrong constructions, or at the wrong time? Current linguistic theory provides a single, explanatory answer to these questions: All languages move verbs to I<sup>0</sup> in the same way. A child needs only to learn the "strength" of his/her language's agreement system to determine the *surface* placement of a verb in his/her language. The features of French agreement are "strong" and require verbal forms to come into contact with them in the syntax. The correspondingly "weak" English agreement allows "procrastination" in verb-raising, which *also occurs in English*, but later, post-syntactically. Thus modern grammatical theory allows us to see a descriptive difference in word order as the surface result of a simple difference in one feature-based parameter setting: strong Agr induces overt verb-raising in French. The word order facts among verbs, adverbs, and negation follow from that. This not only explains the typological distinction between French and English, it also solves the acquisition riddle with respect to such a difference, and to verb-raising in general, namely that movement is a generally available syntactic process, and what children must learn is simply whether or not such movement occurs in the syntactic component in their language, or not.<sup>8</sup>

Various recent work in diachronic syntax closely shares the spirit of this article. Roberts (1985) analyzes the rise of the class of English modals as being caused by the appearance of a *feature* that associated certain verbs with a higher syntactic category and not others. Platzack (1995) analyzes the loss of V2 in Old French/ Mid English as due to a change in association of the feature [+F] from being in C<sup>0</sup> (V2 languages) to being in I<sup>0</sup>. In the next section we shall see how well-known examples of syntactic change in Russian can also be analyzed as feature change, thus leading to a sharper understanding of the functional structure of Slavic clauses and phrases, and to the unification of various groups of syntactic phenomena under consideration.

### **3. Central Examples of Syntactic Change in Slavic**

In this section I present examples of well-known instances of syntactic change from the Slavic language family and show how they are to be analyzed as resulting from feature change.

#### **3.1. Reanalysis and Long Form Adjectives**

"Reanalysis is a mechanism which changes the underlying structure of a syntactic pattern but does not involve any modification of its surface manifestation" (Harris and Campbell 1995: 50) In this section, we will see how a well-known case of change in syntactic distribution can be shown to adhere to (4), and more narrowly, to (8):

- 8) Reanalysis is either<sup>9</sup>
  - i) the reassociation of a lexical item or piece of morphology with a different functional category
  - ii) the acquisition of new features by a functional category

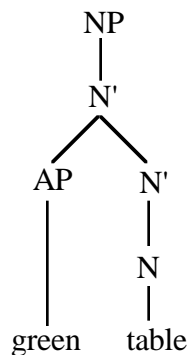
Descriptively speaking, the development of the situation with Modern Russian Long-Form adjectives is a clear case of reanalysis. In the older forms of the language, the combination of a Long-Form adjective and a noun carried a meaning of definiteness. Conversely, a Short-Form adjective with noun gave an indefinite reading to the noun phrase (Borkovskij 1978).<sup>10</sup> In Modern Russian, the identical surface combinations reflect a different

underlying structure. The Long-Forms have become the only form possible for attributive adjectives; the Short-Forms serve as bare predicates.<sup>11</sup> This is shown in (9).

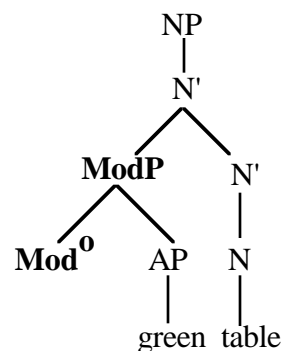
- 9) a. [umnaja devuška] ...  
 NP[smart (Long-Form) girl]-NOM  
 "a/the smart girl" [n.b.: ambiguous for definiteness]
- b. \*[umna devuška] ...  
 NP[smart (Short-Form) girl]-NOM
- 10) a. Devuška -- umna.  
 [The] girl-NOM [is] smart (Short-Form)  
 "The girl is smart."
- b. Devuška -- umnaja  
 [The] girl-NOM [is] smart (Long-Form)  
 "The girl is a smart one."

With the discovery of functional categories, however, both the distribution of Long and Short Form adjectives in Modern Russian and the diachronic change involved can be captured in an explanatory and independently motivated fashion. Rubin (1994) proposes a functional category approach to modification in general, in which all "modifiers consist of a functional shell surrounding a denotational core, just as sentences and nominal expressions do." (Rubin 1994: 8) This is schematized in (11):<sup>12</sup>

11) a. **Traditional view of modification**



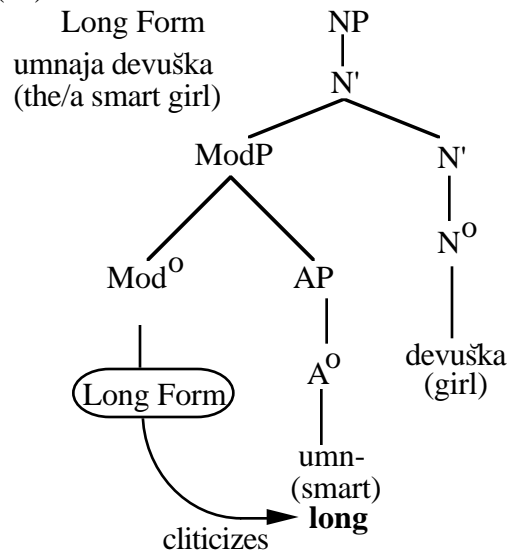
b. **Functional category view**  
 (Rubin 1994)



Rubin (1994) and Bailyn (1994) extend this analysis to the Modern Russian adjectives. In those accounts, Russian Long-Form Morphology heads the functional category ModP. The functional category analysis of modification allows us for the first time to maintain the

traditional category "adjective", and still to account for the distribution seen in (9-10) above. Under this analysis, every Long Form adjective consists of two parts: the morphology itself (which heads ModP) and the adjective itself (the complement of the ModP containing the Long-Form morphology.)<sup>13</sup> The category "adjective" itself excludes this morphology, allowing us to see Short-Form and Long-Form adjectives as *lexically identical*.<sup>14</sup> The structure of an NP containing a Long-Form adjective is shown in (12):

12) Structure of (9a)



Rubin (1994) shows that the Russian situation schematized in (12) is only one example among many, typologically speaking, in which attributive (modification) uses of phrases are morphologically distinct from predicative uses. (Other languages include Romanian, Chinese, Tagalog, and German.) Rubin's analysis gives new insight into an old issue in the synchronic analysis of Russian adjectives; it also allows us to see the historical reanalysis of Long-Form morphology in terms of the principles given in (4) and (8) above. To do so, we need first to embark on a brief excursus into the history of the Long Form adjective.

In a *pre-Old East Slavic* stage, Long-Forms were pronominal forms which became attached to the nominal ending, as shown in (13):

13) Source of Old Russian Long Form Morphology (Fem Sg. example)

OESlav: /-aja/ < /-a/ + /-j-/ + /-a/ (pre-OESlav)

In Old East Slavic such adjectives appeared in definite noun phrases only. Indefinite noun phrases could contain only Short-Form adjectives. This is shown in (14-15):

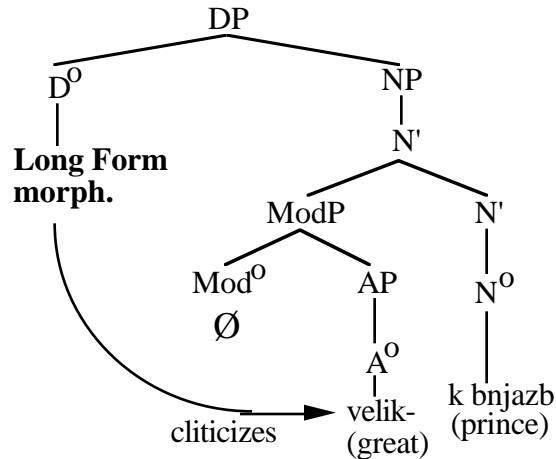
- 14) a. **OES** A velikyi k њjazb...  
and [great-**Long** prince]  
"And **the** great prince . . ."
- b. **OES** Bě že v b svjatuju nedělju.  
was emph. on holy-**Long** Sunday  
"[It] was on **the** Holy Sunday."
- 15) a. **OES** povelě iskopati jamu veliku i gluboku  
ordered to dig [hole great-**Short** and deep-**Short**] -ACC  
"[He] ordered [them] to dig **a** great and deep hole."
- b. **OES** I jako uslyša šp bt b z bl b okrbst b šatbra...  
and when heard whisper evil-**Short** around tent  
"And when [he] heard **an** evil whisper near the tent..."
- c. **MR** I kogda uslyšal on zloveščij šepot okolo šatra...  
And when heard he evil-**Long** whisper aroun tent  
"And when he heard **an** evil whisper near the tent..."

The analysis for Old East Slavic is quite straightforward, and exactly parallels analyses of many languages since Abney 1987, particularly Hungarian, especially considering the pre-Old East Slavic situation noted in (13): in Old East Slavic, Long-Form morphology headed the Determiner category (DP). This also applies to Modern Serbo-Croatian in those cases where the distinction is maintained as shown in (16):

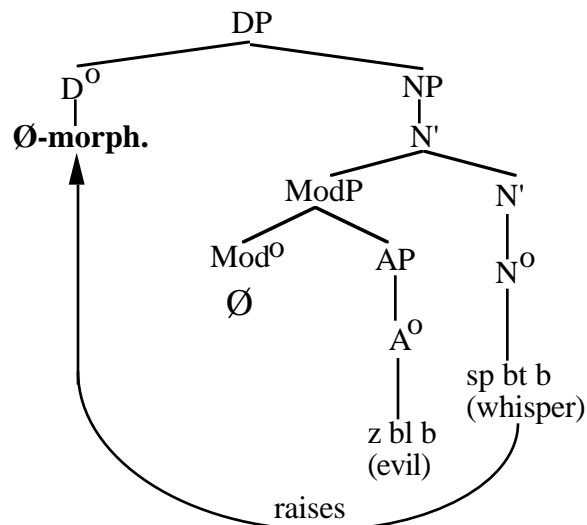
- 16) a. dobar čovek  
good-**Short** person  
"a good person"
- b. dobri čovek  
good-**Long** person  
"the good person"

On this account, (13) can be represented as in (17) and (18):

- 17) The structure of a definite DP in Old East Slavic: The structure of (13a):



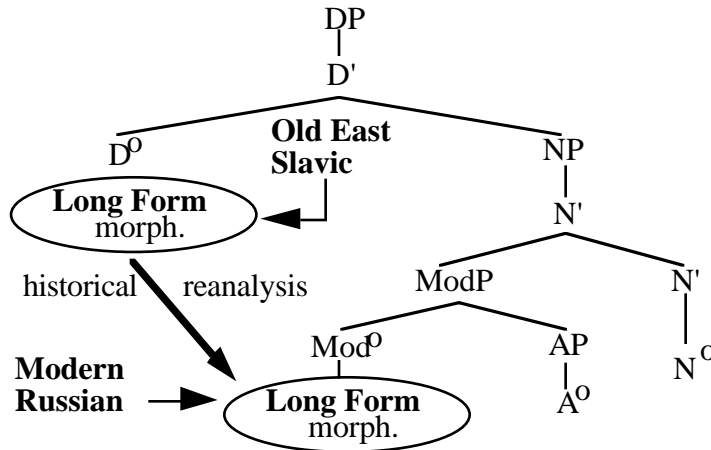
18) The structure of an indefinite DP in Old East Slavic: The structure of (13b):



We are now in position to see the way in which a change in features underlay the diachronic reanalysis. In OES, Long-Form morphology carried a meaning of definiteness and headed DP. The system was weak because definiteness could only be shown when adjectives were present. Diachronically, the Long-Form morphology began to lose its nominal (D or N) feature. The element's agreement morphology acquired features that could only be checked within ModP. A change in *features* led to the overall reanalysis of Long-Form morphology as heading ModP rather than DP. The feature change and resulting shift are shown in (19a-b):

- 19) a. Adj (LF) [+D], [Mod unspecified] --> [+Mod], [D unspecified]

b. Results of reanalysis of Long Form Morphology:



In short, the Long-Form morphology became reassociated with the ModP functional category rather than the DP functional category. Because independent morphology is typologically associated with both of these categories (see Abney 1987 and Rubin 1994) it is therefore not surprising to find a piece of morphology undergoing such a change.<sup>15</sup> Without the functional categories analysis, we could neither properly describe or explain this change, let alone gain insight into the nature of reanalysis. The tools of modern syntactic theory, created to tackle synchronic issues of great complexity, have once again proven their empirical adequacy by providing simple, explanatory accounts of other aspects of grammar, in this case historical change.

### 3.2. Grammaticalization and Russian "Five"

Meillet (1912) describes **Grammaticalization** as "the attribution of a grammatical character to a formerly independent word" in the progression: *mot autonome --> mot accessoire-->élément grammatical*. Kuryłowicz (1964) puts it only slightly differently: "Grammaticalization consists in the increase of the range of a morpheme advancing from a lexical to a grammatical or from a less grammatical to a more grammatical status" (Harris and Campbell: 20).

Here, we do not really need specific examples to see how Grammaticalization can be seen as feature change. Since early generative grammar, various syntactic categories have been known to be made up of features, such as  $\pm N$ ,  $\pm V$  and others. Were a noun, for example, to lose its N feature, and acquire a quantificational feature, allowing it to head a Number or Quantification Phrase, we would have a standard case of Grammaticalization. The history of the Russian numeral *pjat'* ("five") shows exactly such a development. In Old East Slavic, the numeral was a feminine noun. This is shown in (20):

Old Russian: (from Babby 1987. All examples as given there.)

- 20) a. Ta pjat' staryx ženščin prišla  
 those-FEM 5-FEM [old women]-GEN arrived-FEM  
 "Those five old women arrived"
- b. S toju pjat'ju staryx ženščin  
 with those-INSTR-F 5-INSTR-F [old women]-GEN  
 "with those five old women"

Modern Russian:

- 21) a. Te pjat' staryx ženščin prišli  
 those-PL 5 [old women]-GEN arrived-PL  
 "Those five old women arrived"
- b. S temi pjat'ju starymi ženščinami  
 with those-INSTR-PL 5-INSTR [old women]-INSTR-PL  
 "with those five old women"

This case of Grammaticalization is summarized in (22):<sup>16</sup>

22) Grammaticalization:

Old East Slavic **pjat'**: [+N] --> Modern Russian **pjat'**: [ (-N), [+Q] ]

Grammaticalization is perhaps the simplest of the three case studies to perceive in terms of features, because it effects individual lexical items. However, in combination with the other kinds of diachronic changes under consideration, the example remains central to the argument that all syntactic change be explained in terms of feature change.

### 3.3. Changes in Case Patterns and the Russian Predicate Instrumental

One of the main characteristics of the Minimalist approach is the extension of the notion of **Structural Case** (cases directly related to structure, such as Nominative, Accusative, Ergative, Absolutive as opposed to lexical or semantic cases) to cover a wide range of "agreement" phenomena. On this approach, all syntactic movement is driven by the need to "check" Case and other features in some functional category (Chomsky 1995). Question words in Bulgarian or any multiple-WH language (see Rudin 1988), for example, have features that must be checked off in the syntax. This forces the movement that produces multiple WH questions. In languages such as Chinese, where these features are weak, overt movement is unnecessary. Further, descriptive findings, such as the French/English difference in verb placement (see examples 5-6 above) can be understood as resulting from a difference in feature strength. Strong features in French AgrP force verb raising in French; the weak features in English prevent it.

In this section, we will see how Slavic data can support an independently motivated functional category analysis of Predication found in Bowers 1993.

The Agreement / Instrumental alternation in Slavic secondary predicates has received considerable attention in both traditional and generative frameworks (Nichols (1973, 1981), Bailyn and Rubin (1991, 1993)) One general conclusion reached by most scholars is that an older system of case by agreement was replaced in some Slavic dialects by the Predicate Instrumental in a wide range of constructions beginning around the 14th-15th centuries. The source of this change is controversial, some (Nichols 1973) see a foreign influence, others argue for case change by analogy, while others maintain that both forms now compete with different meanings (Kamynina 1973). I will focus here simply on the rise of the grammatical predicate instrumental construction, replacing case by agreement, without being distracted by shades of meaning and remnant existence of other case assignment patterns such as that found

on semi-predicates such as *odin* and *sam* (but see Comrie (1973), Franks (1990), Franks and Hornstein (1992), Bailyn (1995a,b), and many others for discussion.)

The basic change involved both argument and adjunct nominals in secondary predicates, which, in the vast majority of cases, are now marked Instrumental in Modern Russian.

Examples are given in (23):

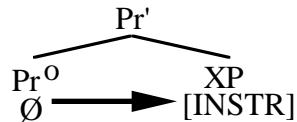
- 23) a. Ja            sčitaju            Sašu            durakom  
 I-NOM        consider        Sasha<sub>i</sub>-ACC    fool<sub>i</sub>-INSTR  
 "I consider Sasha a fool."
- b. Saša                    kažetsja            durakom  
 Sasha<sub>i</sub>-NOM        seems            fool<sub>i</sub>-INSTR  
 "Sasha seems to be a fool."
- c. Ja            našel ego            p'janym.  
 I<sub>i</sub>-NOM        found him<sub>k</sub>-ACC    drunk<sub>k</sub>-INSTR  
 "I found him drunk."
- d. My            tancevali            golymi.  
 we<sub>i</sub>-NOM        danced            nude<sub>i</sub>-INSTR  
 "We danced nude."

The independently motivated functional category Pr(edication) provides a simple, unified source of configurational case for the sentences in (23). The functional category PrP was originally motivated by Bowers (1993) using arguments based on English and French. This analysis unites primary predicates with secondary predicates ("small clauses") as complement of Pr<sup>0</sup>. The account combines crucial elements of the VP Internal Subject Hypothesis (Koopman and Sportiche 1991) with aspects of the Larson's (1988) "VP-shell". Under the PrP hypothesis, every I<sup>0</sup> selects a PrP complement. This category represents the "primary predication" found in every sentence. Pr<sup>0</sup> in turn selects any lexical category as its complement. If Pr<sup>0</sup> selects VP, we have a verbal sentence. If Pr selects AP, NP, or PP, we have a "verbless" copular sentence. "Small clauses" or "secondary predicates" are literally secondary instances of PrP, either selected (23a-b) or adjoined (23c-d), repeated as (25):

- 25) a. I consider Sasha a fool.  
 (Pr<sup>0</sup><sub>1</sub> selects VP, V<sup>0</sup> "consider" selects PrP, Pr<sup>0</sup><sub>2</sub> selects NP)
- b. We danced nude.        (Pr<sup>0</sup><sub>1</sub> selects VP, Pr<sup>0</sup><sub>2</sub> selects AP)

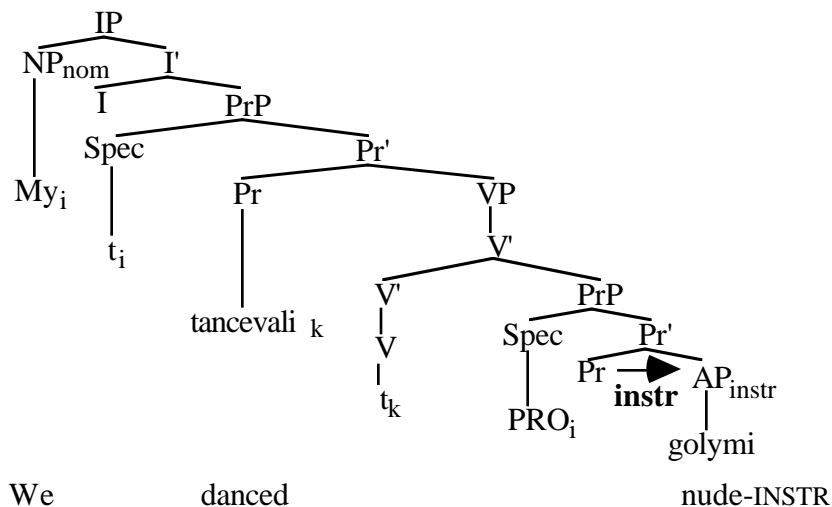
The descriptive fact that "[Russian] [+N] categories bear instrumental case when they are secondary predicates" (Pesetsky (1982)) was first tied in with a functional category by Bailyn and Rubin (1991) who show that "secondary predicates are in an instrumental case *position*" with the Case under government rule of (26):

- 26) Rule I (Russian): Pr<sup>0</sup> assigns instrumental case to its complement<sup>17</sup>  
 (from Bailyn and Rubin 1991)



(26) accounts for Instrumental case assignment in all the sentences in (23). The structure of (23d) is given in (27) as an illustration.

- 27) Structure of (23d): *My tancevali golymi*. "We danced nude." (PrP = V'-adjunct)



In other Slavic dialects, however, the situation is quite different. Secondary predicates show a kind of agreeing case form, that is, the predicate bears the case of the element that controls its reference. Examples from Serbo-Croatian are given in (24):

- 24) (Serbo-Croatian):

a. "double nominative"

(Ja)	plešem	go	/*golim.
I-NOM	dance-1sg	nude-NOM	/*nude-INSTR
"I dance nude."			

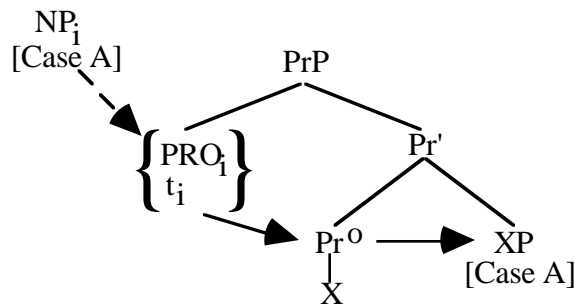
24) b. "double accusative"

Našao	sam	ga	pijanog	/ *pijanim
found	aux-1sg	him-ACC	drunk-ACC	/ *drunk-INSTR
"I found him drunk."				

In (24a) the predicate adjective *go* ('nude') is Nominative because of the Nominative subject that controls its reference. Similarly, in (24b) the secondary predicate *pijanog* ('drunk') is (animate) Accusative because the direct object to which it refers is also (animate) Accusative. Such case occurrences are called "oblique second cases" and can occur with Nominative, Accusative, Genitive, and Dative. Bailyn and Rubin (1991) characterize the Serbo-Croatian case assignment rule as in (25):

25) Rule A (Serbo-Croatian, Czech...): Case by Agreement:

$Pr^0$  assigns case A to its complement, where A is the case associated with the PRO or trace in its specifier (subject) position.



(25) shows how the mechanism of case assignment in Serbo-Croatian involves the Spec-Head agreement relationship (of which subject-verb agreement is an example). In Minimalist terms, we can see that  $Pr^0$  has no case features of its own, but "transmits" by agreement the case associated with its subject position (Specifier) to its complement.

Historical evidence, furthermore, shows that the Serbo-Croatian situation is the older of the two case assigning systems in Slavic. (I use E. Slavic examples here to show that East Slavic saw a direct change from Rule A to Rule I. The Old Church Slavonic examples show the same distribution (see Lunt 1974)).

26) (Old East Slavic):

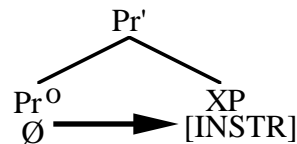
a.	Postavi	Mefodbja	episkopa
	set	Methodius-ACC	bishop-ACC
	"He made Methodius Bishop." (Example from Lomtev (1956), p. 212)		

- b.    viděli            sutb                    Volodimera            naga  
       saw            aux-3rd.pl.        Volodimer-ACC        nude-ACC  
       "They saw Volodimer nude." (Example from Lomtev, p. 220.)

We are now in position to view the historical development of East Slavic in terms of changes in the features of the functional category  $Pr^0$ .  $Pr^0$  in Old East Slavic and Old Church Slavonic, like Modern Serbo-Croatian, did not have its own case features, and therefore could only transmit the case associated with another nominal in the sentence. Leaving aside the issue of the *source* of the innovation<sup>18</sup>, we can now describe the historical change purely in terms of features on the functional category  $Pr$ . Bailyn and Rubin's (1991) version is given in (27):

27) **Diachronic Change** (In the development of Modern East Slavic):

Reinterpret  $Pr^0$  as an instrumental case assignor (Rule I replaces Rule A)



Under Minimalism, the picture is even clearer, as in (28):

28)  $Pr^0$  acquires instrumental case assignment features

$Pr$ : [-I] --> [+I]

In this section, we have seen that a functional category analysis of primary and secondary predicates allows us to account for various case phenomena in Slavic "small clauses". In Old Church Slavonic, Old Russian, Serbo-Croatian (and elsewhere),  $Pr^0$  does not have case features of its own, and therefore can only transmit case Rule A. In Modern Russian and Modern Polish,  $Pr^0$  assigns Instrumental case to its complement (Rule I). In the modern framework, we saw that this should be understood as  $Pr^0$  acquiring instrumental case assigning features on the way to Modern Russian. In this third case study the historical change can be explained as a change in the (case-assigning) features of the functional category  $Pr$ .

Under this account, we would expect the "double Nominative", "double Accusative", "double Genitive" and so on to have given way to the predicate Instrumental *at the same time*,

and not on a case by case (construction by construction) basis. This is exactly the development described in traditional historical grammars. Ivanov (1990) summarizes as follows: "konstrukcii s dvojnymi kosvennymi padežami byli utračeny, i na meste vtorogo vinitel'nogo, vtorogo datel'nogo i vtorogo roditel'nogo stal upotrebljat'sja tvoritel'nyj predikativnyj suščestvitel'nyx i prilagatel'nyx." ("Constructions with second oblique cases were lost and in place of the double Accusative, double Dative, and double Genitive the predicate Instrumental of nouns and adjectives began to be used." Ivanov 1990: 379) We now have a formal, unifying account for the mechanism of such a diachronic change, an account that would not be possible without the tools of modern syntactic theory, and particularly of functional categories and case checking.

#### **4.0. Summary and Extensions**

In all the case-studies in this article, diachronic changes were shown to involve functional categories. Furthermore, it was shown that the changes involved are all best explained as changes in the *feature makeup* of a functional category or an element associated with a functional category. In the first case, Long Form morphology is reassociated with ModP rather than DP after the features undergo a change away from definiteness. In the second case, the lexical item "5" is grammaticalized, adding a feature [+Q]. In the third case, a functional head acquires new features (making it an Instrumental case checker) . All examined case-studies are therefore consistent with the view that syntactic change is the product of generations of innovative children mapping primary linguistic data onto the structures made available by Universal Grammar, including a rich inventory of functional categories, such as DP, ModP, and PrP, whose feature makeup determines linguistic variation.

#### **4.1. Extensions**

The list of possible extensions of this kind of approach to diachronic syntax is almost endless, even within Slavic. The fate of the Genitive of Negation in the various dialects (full

Grammaticalization in Polish; association with discourse/functional structure in Russian, almost complete disappearance in Serbo-Croatian) is one example. The loss of morphologically marked case systems in Bulgarian and Macedonian certainly call out for such an analysis as well. The loss of verbal clitics and the present tense copula in Russian can now be formally related to the loss of the ability to drop pronominal subjects in Russian.

The three case studies examined in this article should, at very least, be instructive in the opening of a new avenue of attack on the thorny problems of historical syntax. Modern syntactic theory has provided the ability to make the extremely strong, and in my view appealing, claim that syntactic change and phonological change are much more similar than could previously have been noticed. We have seen that a wide range of diachronic phenomena are now analyzable in formal terms, in particular using the tools of modern generative theory, allowing our hypotheses to lead to the search for new data that may prove or disprove the claims made here, to the general betterment of the field of Slavic linguistics.

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#### NOTES

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<sup>1</sup>See Franks 1995, Babby 1975,1987, Rudin 1985, 1988, Bailyn 1995a,b, among many others.

<sup>2</sup>Many cross-Slavic phenomena are examined in this framework in Franks (1995). However it should be noted that this work appeared in the middle of the transition to Minimalism and does not therefore fully fill the gap in our understanding of parametric variation within Slavic. The article should pave the way toward future research in this respect.

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<sup>3</sup>The attacks against early transformational theory were powerful, and to a large extent, correct. What has remained is little more than the notion of syntactic derivation, and a modular approach to linguistic phenomena. However, these remaining aspects of generative analysis should not be overlooked by traditional scholars. Only they allow the fruitful possibility of analyzing related languages as differing in the realization of basic **principles** that are common to all languages.

<sup>4</sup>This possibility has led to a renewed interest in diachronic syntax, especially within the Germanic and Romance languages, as in Roberts (1985, 1993), Lightfoot (1993), and Batty and Roberts (eds) (1995).

<sup>5</sup>For a Russian language summary of these and other developments within the field of generative grammar see Bailyn (in press).

<sup>6</sup>It should be noted at the outset that the approach proposed here is not meant to supersede the rich tradition of historical studies of the Slavic languages. On the contrary, it represents a recognizable kind of natural development within science: the merging of findings from two distinct disciplines into a newer, and often more formal, theory of the phenomena under investigation. "Generative grammar can be regarded as a kind of confluence of long-forgotten concerns of the study of language and mind, and new understanding provided by the formal sciences." (Chomsky 1995: 4)

<sup>7</sup>This is not to imply that morphological change might not drive syntactic **change in case patterns**, but as always, surface changes forces underlying restructuring in the language system, which can now be seen in terms of functional categories.

<sup>8</sup>The advantages of this analysis over Chomsky's (1991) proposal of a difference between overt raising in French and lowering ("Affix Hopping") in English is part of the overall theoretical motivation of Minimalism (see Chomsky 1995).

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<sup>9</sup>In fact, as we shall see, it is more precise to say that traditional cases of "reanalysis" *begin* with either (i) or (ii), which in turn result in a range of effects, some of which may have triggered initial use of the term "reanalysis."

<sup>10</sup>See Adamec (1966) among many others.

<sup>11</sup>On the issue of apparent Long Form predicate adjectives, see Babby (1975), Siegel (1976), Timberlake (1993), Bailyn (1994). The general consensus is that these uses are also attributive, with a (null) generic head. The NP headed by the generic N is the actual predicate.

<sup>12</sup>Rubin (1994) provides extensive typological evidence for the morphological manifestation of this category as well as a host of theoretical considerations.

<sup>13</sup>There is some disagreement as to how the adjective and morphology come together. In a Minimalist account, the Adjective is selected fully inflected from the lexicon, and then raises to Mod to have its features checked. I retain the traditional notation (cliticization of a piece of morphology) for purposes of explication. Minimalists should have no trouble translating into a checking account.

<sup>14</sup>This is not to say that there are no lexical gaps. Certainly some adjectives only appear as Short-Forms (*rad, rada* 'glad'), some have lexical distinctions (*bolen, bol'na* 'sick' vs. *bol'noj, bol'naja* 'a patient', and many do not allow bare Short-Forms (see Timberlake 1993), but this does not undermine the syntactic reality of the analysis proposed here. Feature checking is involved when the two categories come together, and unacceptable combinations will be so marked by appropriate lexical features leading to ungrammaticality when checking occurs. This situation is thus no different from other morphological paradigmatic gaps within Minimalism.

<sup>15</sup>See footnote 13.

<sup>16</sup>For an extensive analysis of these phrases, see Franks (1995)

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<sup>17</sup>Here, I will accept the spirit of Bailyn and Rubin (1991) under the necessary assumptions for the analysis to be captured in the more restrictive Minimalist framework. That is, I assume that Case checking occurs *within* the functional category Pr, which in Russian has Instrumental case assignment features. Any NP or AP complement that does not carry the same features (in the form of instrumental case morphology) will cause a features mismatch when checking occurs, and the derivation will fail. Thus instead of saying "Pr<sup>0</sup> assigns case to its complement; in Russian, Pr<sup>0</sup> assigns Instrumental (Rule I)" we are now in a position to say that "Russian Pr<sup>0</sup> carries an Instrumental case feature"

<sup>18</sup>It may or may not prove possible to determine the exact source of the innovation in such cases, just as it is often difficult to do so with phonological change. Tendencies are often identified in phonological change, and if one could identify tendencies in syntactic change involving features, they could be expected to look much like the one proposed here: toward a stronger, more independent set of features for functional categories, especially those that are phonetically null. Further research is needed in this area.

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