

Degrammaticalization, exaptation and loss of inflection: Evidence from Slavonic

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Recent work in grammaticalization has highlighted cases where former inflectional affixes have gained independence on an unexpected path towards clitic or full-word status. Such cases challenge the hypothesized unidirectionality of grammaticalization at the formal level (word > clitic > affix). This article considers two cases from Slavonic languages: in the first, various Slavonic languages reidentified a former conditional-mood person-number inflection as the present tense of the perfect auxiliary 'be'; in the second, the genitive singular *-a* inflection of Bulgarian masculine nouns was reidentified as a form of the definite article. In both cases, a former inflectional affix came to be identified with some other pre-existing less bound morph, allowing the languages to eliminate some inflectional category: person-number inflection on the conditional and case inflection on nouns respectively. These cases are part of general patterns of degrammaticalization in which obsolescent morphological markers are reassigned to productive functions, whether to an existing morph or to create a new morph (exaptation-adaptation). Since the new morph may be of any grammatical type, and language learners do not compare the new status of the morph with its old status, this inevitably leaves open the possibility of degrammaticalization if the new function of the morph happens to be less grammatical or more phonologically independent than its old function.

1 INTRODUCTION

Grammaticalization, the emergence of morphemes expressing grammatical categories from formerly lexical material, is generally considered to be a unidirectional phenomenon. Items may develop more grammatical functions and may become more morphologically integrated into another element, but not the reverse. This article considers possible examples of counterdirectional changes, 'degrammaticalizations', in Slavonic languages. It examines possible kinds of degrammaticalization, and focuses on one particular type of example, where former inflectional affixes acquire greater independence as the inflectional system of which they were once a part disintegrates.

1.1 Characteristics of grammaticalization

Grammaticalization involves changes at formal, functional and semantic levels. At a formal level, items shift from phonologically independent words (free morphemes) to clitics phonologically dependent on neighbouring items, and ultimately to bound morphemes, affixes that select a particular category. This involves loss of phonological independence to a greater or lesser extent and / or development of narrower selectional requirements, for instance, attachment to an element of a particular grammatical category.

At a functional level, items change category, moving along a cline from the most lexical categories such as noun or verb to the most functional categories such as case or agreement inflection. Although the exact nature of the cline from lexical to grammatical is open to some debate, it is reasonable that there are intermediate stages. For instance,

prepositions are less lexical than nouns or verbs, and some prepositions, for instance *despite*, are more lexical than others, such as *of*; auxiliaries are less lexical than full verbs, but more lexical than tense inflections; articles are less lexical than demonstratives, and so on.

At a semantic level, items undergo various developments that can broadly be characterized as the emergence of abstract meanings out of and alongside concrete ones.

Movement at these three different levels can be shown in terms of the following hierarchies, where > is taken to represent the single permitted direction of change:

- (1) a. Formal hierarchy of grammaticalization
free morpheme / word > clitic > affix
- b. Functional hierarchy of grammaticalization
lexical > functional / grammatical
- c. Semantic hierarchy of grammaticalization
concrete > abstract

Any movement to the right along these clines is usually considered grammaticalization. As Kiparsky (2005: 3–4) notes, some definitions make reference only to one of these hierarchies. Existing definitions making reference to form and lexical vs. grammatical function are given in (2) and (3). A purely semantic definition could also be conceived of along the lines of (4).

- (2) Formal definition of grammaticalization: a change ‘by which the parts of a constructional schema come to have stronger internal dependencies’
(Haspelmath 2004, cited in Kiparsky 2005: 3)
- (3) Functional definition of grammaticalization: a change ‘where a lexical unit or structure assumes a grammatical function, or where a grammatical unit assumes a more grammatical function’
(Heine, Claudi and Hünemeyer 1991, cited in Kiparsky 2005: 3)
- (4) Semantic definition of grammaticalization: a change whereby abstract grammatical meanings come to be encoded using items which formerly encoded more concrete meanings

None of these definitions is entirely adequate on its own, since there are changes that are widely regarded as grammaticalization that fit only one of them. An item that develops the status of a clitic will undergo grammaticalization according to the definition in (2), but, unless it changes its meaning or grammatical function, it will not fit either of the other definitions. An example is the development of clitic auxiliaries such as in *would’ve* /əv/ or *I’ve* /v/ for full form *have* /hæv/ in English. Grammaticalization along the functional axis only happens when an item changes grammatical category but not form or meaning. Finally, grammaticalization of prepositions (for instance, German *nach* ‘after’ > ‘according to’) or complementizers (for instance, English *since* ‘posterior in time’ > ‘as a result of’) to encode more abstract relations may involve movement only along the semantic hierarchy.

A shift to the right along any of the hierarchies in (1) must therefore be regarded as constituting grammaticalization. Many examples involve movement along all three, and, in fact, movement to more functional grammatical status often involves an increase in abstraction. A good example of grammaticalization involving all three hierarchies is the development of the Bulgarian future marker *šte* from the third-person singular present tense of *xŭtĕti* ‘want’, *xŭšte* (for details, see Kuteva 2001: 125–8). In the course of its historical development, it changes category from control verb to auxiliary. The formal reduction involves the irregular loss of the first syllable, plus a phonological reduction to clitic status. The category shift from lexical (verb) to functional category (auxiliary) is further reflected in

the loss of independent argument structure on the part of *xǔtēti*. Whereas only volitional subjects were allowed at one period, later any subject permitted by the complement verb is possible. This leads to the spread of *xǔtēti* to contexts such as ‘It will rain’. Ultimately it also ceases to show subject-verb agreement, turning into an invariant future particle. Finally, the shift from volitional meaning to prediction/future meaning represents an increase in the degree of abstraction conveyed.

1.2 Degrammaticalization and deflexion

The search for examples of degrammaticalization involves looking for developments that involve movement to the left on the hierarchies in (1). Since grammaticalization may involve only one of the hierarchies, counterdirectional changes need involve only one of them, although, of course, we might hope also to find changes that involve more than one.

Many potential cases of degrammaticalization have been discussed in the literature (for a list, see Campbell 2001: 127–8). In order to be a serious challenge to the unidirectionality hypothesis, however, it needs to be demonstrated that the cases in question proceed in much the same way as grammaticalization itself, via reanalysis of existing forms, rather than by creation of new items *ex nihilo*. This criterion rules out zero conversions (‘lexicalizations’), such as the preposition to verb change of *down* in *down a beer* or *up* in *up the price* or the affix to free word change involved in the creation of words such as *ism* or *teens*, since they involve a morphological derivational process which has nothing in common with grammaticalization (Hopper and Traugott 1993: 127, Norde 1998: 235–6, but Newmeyer 2001: 209 takes the opposite view that these are legitimate counterexamples). However, other cases look more promising, in particular, cases where affixes gain greater autonomy (Norde 1998, Norde 2001a, Norde 2001b), and cases of syntactic reanalysis leading to a category shift in the ‘wrong’ direction (syntactic lexicalization) (Willis in press).

It is the former group that will form the focus of this article. Potential cases that are considered involve a change from inflectional affix to a less affixal, more clitic-like status, either a clitic or a phrasal affix. They seem particularly likely during the loss of an inflectional category (deflexion). As some class of morphological inflection is lost, one or a small number of the previous inflectional morphs may survive, developing morphologically more independent properties than previously. In this section, some existing cases are outlined. A frequent, though not universal, factor in these cases is that the other morphological exponents of the category expressed by the degrammaticalizing item have become or are becoming obsolete. It means that cases of affix-to-clitic degrammaticalization by deflexion have much in common with exaptation, the phenomenon of reusing obsolescent morphological material for new uses (Lass 1990, Vincent 1995). We will return to this issue in section 4.1, where it will be argued that exaptation (and the related concept of adaptation) and affix-to-clitic degrammaticalization are essentially aspects of a single scenario for change.

Norde has discussed the development of the genitive *-s* case ending in English and Swedish into a possessive phrasal affix (Norde 1998, Norde 2001a, Norde 2001b) (for alternative views, see Allen 1997, 2003, Börjars 2003 and Delsing 1999, 2001). In Old English and Old Swedish, the *-s* case appeared as an inflection on each word (or, more accurately, each head) of a genitive noun phrase phrase, as in (5) and (6), as would normally be expected of a case feature.

- (5) þes deofles bearn
 the.GEN devil.GEN child
 ‘the devil’s child’

(Old English, Norde 2001b: 247)

- (6) ens salogs manz munne
 a.GEN blessed.GEN man.GEN mouth
 ‘a blessed man’s mouth’(Old Swedish, Norde 2001b: 247)

In modern English and Swedish, *-s* attaches at the phrasal level, at the end of the phrase, and appears once only. This is clearest in ‘group-genitive’ constructions, where there is material after the head noun and the *-s* attaches to the last word, even though it is not the head:

- (7) the man on the street’s opinion
 (8) folket på gatans omdöme
 [people on the.street]-s opinion
 ‘the man on the street’s opinion’(Norde 2001b: 247)

In Swedish, *-s* generally attaches to a noun, although not necessarily the head noun (as (8) shows), but, in English, the *-s* of the group genitive can attach freely to any category:

- (9) a. the man who is drunk’s hat
 b. in a month or two’s time
 c. the man I saw yesterday’s hat(Norde 2001b: 249)

If the possessive *-s* of Modern English and Swedish developed from the genitive case ending, then this is degrammaticalization at two of the levels in (1). First, the item gains greater positional freedom, moving away from the bound morpheme ending of the formal hierarchy towards the clitic position. This is true even though the modern forms of these items have some affixal properties. As has been noted (Börjars 2003, Zwicky 1987), the form of possessive *-s* in both languages is not entirely predictable from the ordinary phonological rules of these languages (for instance, we find *the horses’ stables* /ɪz/ not **the horses’s stables* /ɪzɪz/). Such behaviour is characteristic of affixes rather than clitics. For this reason, it has been proposed that possessive *-s* in both languages is an affix attaching to a phrase rather than to a head (a phrasal affix) (Zwicky 1987). Such an analysis deals quite successfully with the mixed affix-like and clitic-like behaviour of possessive *-s*, but even if correct, the change from head affix to phrasal affix goes against what is expected in standard grammaticalization.

The category shift also represents a move from the grammatical towards the lexical end of the functional hierarchy. English and Swedish possessive *-s* are often analysed as definite determiners (Abney 1987), in which case their historical development involves a category shift from case marker to determiner, a move from more to less functional. This view is supported by other changes in the syntax of possessive *-s*. In modern English a possessor noun phrase may not co-occur with a determiner:

- (10) *the John’s daughter (cf. the daughter of John)

Such a restriction did not hold in Old English (Rosenbach 2004: 83–5). The imposition of this restriction is a historical innovation which receives a straightforward explanation if *-s* now occupies a syntactic determiner position, thereby automatically preventing co-occurrence with another determiner. However, this means that it occupies a syntactic position at some level of representation today, whereas in older stages of the languages, it was a subcomponent of a word. Clearly this represents an upgrading of its status.

Other cases where inflections seem to develop greater independence have been proposed in the literature. A useful distinction between two types can be made:

- (i) affix > clitic/phrasal affix degrammaticalizations leading to creation of a new item;
- (ii) affix > clitic/phrasal affix degrammaticalizations to an existing item.

English and Swedish possessive *-s* are instances of the first: the change leads to the creation of a new item, the languages not previously having had a phrase-level possessive marker *-s*. Another example is the innovation of a first-person plural pronoun *muid(e)* in some Irish dialects from an earlier inflection (Bybee et al. 1994: 13–4, Doyle 2002). The *-muid/-mid* suffix had become the only inflection in some paradigms, and hence was liable to reanalysis.

An example of the second case is the development of the first person plural endings in some varieties of Spanish, for instance, New Mexican Spanish (Janda 1995). Janda claims that the first person plural ending *-mos* in standard Spanish forms such as *cantábamos* ‘we were singing’ was reanalysed as a form of the object clitic *nos*, as a result of which *nos* became merely a marker of first person plural (rather than encoding case distinctively). It was susceptible to this because it was one syllable longer than other members of the verbal paradigm (such as first singular *cantaba* ‘I was singing’, second singular *cantabas*, third singular *cantaba* etc.), and the paradigm was in any case morphologically impoverished in the varieties concerned. That is, *-mos* degrammaticalized, being assigned to a more independent pre-existing morpheme, because it was paradigmatically isolated.

1.3 Affix > clitic/phrasal affix degrammaticalizations in Slavonic

Let us now turn to the Slavonic degrammaticalization data. Two possible cases will be considered, the development of the conditional across the Slavonic languages, focusing on languages where there is evidence of degrammaticalization; and the development of the short form (*-a*) of the Bulgarian masculine definite article. The evidence for degrammaticalization in these cases will be considered. It will be argued that, in so far as the evidence supports the idea that these changes are counterdirectional, they occur because speakers and learners, in an attempt to make sense of an obsolescent or impoverished grammatical subsystem, analyse forms that they encounter in terms of another area of grammar or lexicon.

2 THE SLAVONIC CONDITIONAL

2.1 Overview of the formation of the conditional in Slavonic languages

The conditional mood is formed in all Slavonic languages using a particle or auxiliary (both derived from the aorist of ‘be’) plus the ‘*l*-participle’, synchronically either a past participle or else a finite past tense verb, depending on the language. Examples are given in (11)–(15).

- (11) Esli **by** vy **byli** na moem meste, čto **by** vy **sdelali**?
if COND you be.PAST.PL in my position what COND you.do.PAST.PL
‘If you were in my position, what would you do?’ (Russian)
- (12) Če **bi** **bili** na mojem mestu, kaj **bi** **naredili**?
if COND be.PP.PL in my position what COND do.PP.PL
‘If you were in my position, what would you do?’ (Slovene)
- (13) Kad **biste** **bili** na mom mestu, šta **biste** **učinili**?
if COND.2PL be.PP.PL in my position what COND.2PL do.PP.PL
‘If you were in my position, what would you do?’ (Serbian)

- (14) Ako bjaxte na moe mjasto, kakvo **bixte napravili?**
 if be.IMP.F.2PL in my position what COND.2PL do.PP.PL
 ‘If you were in my position, what would you do?’ (Bulgarian)
- (15) Gdy**byście byli** na moim miejscu, co **byście zrobili?**
 if-COND.2PL be.PP.PL in my position, what COND.2PL do.PP.PL
 ‘If you were in my position, what would you do?’ (Polish)

The main forms of the conditional marker can be seen in Table 1 (see Panzer 1967 for a fuller overview of the different languages). This table gives the forms in the standard languages. Some important nonstandard variants in Serbian and Croatian will be discussed in due course.

	Lower Sorbian	Upper Sorbian	Polish	Czech	Slovak
first sg.	by	bych	bym	bych	by som
second sg.	by	by	byś	bys	by si
third sg.	by	by	by	by	by
first pl.	by	bychmy	byśmy	bychom	by sme
second pl.	by	byšće	byście	byste	by ste
third pl.	by	bychu	by	by	by

	Russian	Ukrainian	Slovene	Serbian Croatian	Macedonian	Bulgarian
first sg.	by / b	by / b	bi	bih	bi	bix
second sg.	by / b	by / b	bi	bi	bi	bi
third sg.	by / b	by / b	bi	bi	bi	bi
first pl.	by / b	by / b	bi	bismo	bi	bixme
second pl.	by / b	by / b	bi	biste	bi	bixte
third pl.	by / b	by / b	bi	bi	bi	bixa

Note: Upper Sorbian also retains dual forms, not listed here.

Sources: Bielec 1998: 55, Pugh & Press 1999: 254–5, Stone 1993: 638, Herrity 2000: 183–5, Short 1993: 491, Panzer 1967: 30, Hauge 1999: 127–8.

Table 1. Paradigm of the conditional auxiliary or particle in Slavonic standard languages.

As can be seen from Table 1, there are two main ways in which the languages vary. First, some languages have an invariant marker *by* (Lower Sorbian, Russian, Ukrainian and possibly Slovak) or *bi* (Slovene, Macedonian), identical to the third person singular form in languages with an inflecting form. Other languages have a fully inflected auxiliary paradigm.¹ No language distinguishes six different forms in the paradigm, since most (except Polish and Czech) do not distinguish second person singular from third person singular, and most (with the exception of Bulgarian) do not distinguish third person plural from third person singular.

A second axis of variation concerns the form with which the conditional marker

¹ The distinction is really between languages with agreement and those without, rather than between those with particles and those with auxiliaries. Even among languages that lack agreement, some (e.g. Slovene) have non-inflecting auxiliaries, while others (e.g. Russian) have a nonverbal conditional particle. Whereas Russian *by* may be used as a modal particle in nonfinite and nonverbal contexts, Slovene *bi* requires a past participle or an elipsis context in which a past participle can be reconstructed (Panzer 1967: 25). This suggests that Slovene *bi* functions as an auxiliary, whereas Russian *by* does not.

combines. Although in all languages, the conditional marker combines with what is historically an active past participle (the ‘*l*-participle’), the synchronic status of this varies. In all languages with inflected auxiliaries (Upper Sorbian, Polish, Czech, Serbian, Croatian and Bulgarian), the conditional marker combines with what has remained a past participle, an element that combines with auxiliary ‘be’ in other contexts. This is also true of some languages with a conditional particle, Lower Sorbian, Slovene and Macedonian. However, in Russian, Ukrainian, Belarusian and Slovak, the conditional marker combines with what is actually a past tense. This is clearest in Slovak, where the conditional is formed using both the conditional particle (*by*) and the past tense formed using auxiliary ‘be’ (*som, si* etc.):

- (16) Keby **ste** **boli** na mojom mieste, čo **by** **ste** **robili?**
 if-COND be.PRES.2PL be.PP.PL in my position what COND be.PRES.2PL do.PP.PL
 ‘If you were in my position, what would you do?’
- (17) Keby **som** **bol** na tvojom mieste, asi **by** **som**
 if-COND be.PRES.1SG be.PP.SG in your position perhaps COND be.PRES.1SG
 to **ohlasil** policii.
 it report.PP.SG police.DAT
 ‘If I were in your position, perhaps I would report it to the police.’

Forms such as *ste boli*, *ste robili*, *som bol* and *som ohlasil* are simply the past tense of the respective verbs. This is also true in Belarusian, Russian and Ukrainian, since those languages have reanalysed the *l*-participle as a simple past tense that never co-occurs with an auxiliary.

2.2 Reconstruction of Common Slavonic conditional

The paradigms for the conditional auxiliary in two early Slavonic languages, namely Old East Slavonic and Old Church Slavonic are given in Table 2. Both languages have an inflected auxiliary, with distinct forms in all person-number combinations, except the second person singular, which is identical to the third person singular, and the second person dual, which is identical to the third person dual. Old East Slavonic is the ancestor of the modern East Slavonic languages, Belarusian, Russian and Ukrainian. We can see that these languages once had inflections on the conditional auxiliary that have since been lost. Old Church Slavonic is a South Slavonic language, quite close to the ancestor of the modern South Slavonic languages, Bulgarian, Croatian, Macedonian, Serbian and Slovene. It too has inflections which have been lost entirely in some of the modern standard languages (Slovene and Macedonian).

	Old East Slavonic	Old Church Slavonic I	Old Church Slavonic II
first sing.	byx”	bimī	byxŭ
second sing.	by	bi	by
third sing.	by	bi	by
first dual	byxovi	—	byxově
second dual	bysta	—	bysta
third dual	bysta	—	bysta, byste
first plur.	byxom”	bimŭ	byxomŭ
second plur.	byste	biste	byste
third plur.	byša	bŏ, biše	byše

Table 2. Paradigm of the conditional auxiliary in early Slavonic languages.

Old Church Slavonic has two conditional paradigms. Paradigm II is cognate with the forms found in modern Slavonic languages. Historically, it has the morphological form of a simple past tense (aorist), although synchronically already in Old Church Slavonic these forms are used as conditional auxiliaries. Paradigm I is the historical conditional paradigm of ‘be’, which was already evidently tending towards obsolescence in Old Church Slavonic. For further details of the conditional in Old Church Slavonic, see Bräuer (1957) and Trost (1972).

The Old East Slavonic paradigm and the Old Church Slavonic paradigm I are so similar that they more or less guarantee the form of the paradigm that should be reconstructed for Common Slavonic. The reconstructed conditional paradigms are essentially identical to those of Old Church Slavonic. Paradigm II is the one that concerns us here, since it is the one that gives rise to the modern forms. Of particular note for the subsequent developments is the fact that it distinguishes third person plural *byše* from third person singular *by*, but does not distinguish second and third person singular, both *by*. The dual forms survive only in Upper Sorbian, and will be disregarded in subsequent discussion.

2.3 Historical developments as degrammaticalization

2.3.1 Russian

East Slavonic languages have lost inflection on the conditional auxiliary, and now have an invariant particle that may appear with a past tense verb, giving an ordinary conditional interpretation, with an infinitive and in various nonverbal contexts. In this section it will be argued that during the period when inflection was being lost, the second person plural form *byste* was initially reanalysed as two separate words, both clitics. Since this involves a person-number affix being reanalysed as a clitic auxiliary, it amounts to degrammaticalization.

Avanesov and Ivanov (1982), following Sobolevskij (1962 [1907]), cite examples of failure of subject-verb agreement as early as the thirteenth century in Russian texts, although clear and frequent examples appear only in the fourteenth century. In (18), we find third or second person singular *by* for expected second person plural *byste*.

- (18) Ašče **by** slěpi **byli**...
if COND blind.PL be.PP.PL
‘If you (plur.) were blind...’
(*Moscow (Sijiskij) Gospels* 20v, John 9.41, 1339, Sobolevskij 1962 [1907]: 244)

Some of the most reliable evidence for the loss in vernacular Russian comes birchbark documents from Novgorod. Table 3 shows the patterns found in the birchbark documents dated to after 1300 in Zaliznjak (1995).

	sing.	plur.
first person	byx” (1 attestation)	not attested
second person	by esi (11), by (1)	by este (2)
third person	by (8), b” (3)	not attested

Table 3. The paradigm of the conditional auxiliary in Novgorod birchbark documents dated to 1300 onwards.

The most important change here is that, in the second person, we find almost exclusively *by esi* for earlier *by* in the singular, and *by este* for earlier *byste* in the plural. These forms are composed of the third person conditional auxiliary *by* plus the present tense of the verb ‘be’. Examples are given for the singular in (19), and for the plural in (20).

- (19) čto by es’ ospodine unjal” ego...
that COND be.PRES.2SG lord take-away.PP.SG him
‘You should take him away, lord...’ (DND 446, 1340s–1390s)
- (20) čo bi este poixali vo gorodo ko radosti moei
that COND be.PRES.2PL go.PP.PL to city for joy my
‘You should go into the city for me.’ (DND 497, 1340s–mid 1380s)

There are similar examples with noninflecting *by* plus ‘be’ in the second person in the third section of the First Novgorod Chronicle (NPL 100.14–20), written in the mid fourteenth century, but not in earlier sections, dated to the thirteenth and first half of the fourteenth century. We also find examples in fourteenth- and fifteenth-century chancery documents from the northwest and northeast of Russia (second person singular: ASEI 97, 123; GVNP 53.13, 53.18; second person plural: ASEI 53, 102, 102, 113; GVNP 50.5, 50.6 (x2), 96.10).²

We can therefore conclude that, by the mid fourteenth century, some varieties of Russian had replaced the synthetic *byste* form of the second person plural with an analytical form *by este*, and in the singular had introduced auxiliary ‘be’ (*esi*) into the conditional.

On the face of it, the replacement of *byste* by *by este* looks like a plausible candidate for degrammaticalization, since it seems to involve a bound agreement morpheme *-ste* being reanalysed as an auxiliary. However, we need to investigate two things. First is the status of the new form *by este*. Is it clear that this involves strengthening of phonological form? Is there parallel counterdirectional movement along other grammaticalization clines?

Secondly, we need to investigate whether there is historical continuity, via reanalysis, between the two stages. The creation of a new structure that happens to involve elements similar to an old structure is not sufficient for degrammaticalization. Compare again, for instance, English possessive *-s*. For this to be degrammaticalization, one criterion that it must meet is that of having developed continuously from a genitive case ending and not from constructions like *the man his book* (Allen 2003, Janda 1980). A good case for

² Nikiforov (1952: 139) describes this as ‘a literary form, in which the present tense of the verb ‘be’ evidently indicated person according to the model of the perfect’. It should, however, be evident, both from the documentary evidence of it in vernacular texts, and from comparative evidence of Ukrainian and Slovak, that the form must have had general nonliterary uses in some varieties in the fourteenth and fifteenth centuries.

degrammaticalization can be made only if it can be shown that the new structure arose via a continuous tradition from the old one.

Let us consider the evidence that the change is counterdirectional first in terms of the hierarchies in (1). Essentially, the claim is that this change represents a move towards the stronger end of the formal hierarchy, that is, it is a change from affix to clitic. Furthermore, it involves a move to the stronger end of the functional hierarchy, being a change from person-number marker to auxiliary. The change from *byste* to *by este* seems to indicate that speakers identified the second part with the perfect auxiliary *este*, and that the construction was reanalysed as being formed from a conditional particle *by* and a form of the periphrastic past tense (*este* + past participle) (more on this reanalysis below). Since both *by* and *este* are clitics, their position is regulated by the fairly strict rules of clitic ordering that Old East Slavonic, like most other Slavonic languages, manifested (on Old East Slavonic clitics, see Zalaznjak 1995: 167–71, and on Slavonic clitics generally Franks and King 2000). This limits the scope for the two elements to be separated (but see section 2.3.4 below). In principle, following the rules for Old East Slavonic clitic placement, it should be possible for *by* and *este* to be separated by a dative or accusative pronominal clitic. However, these clitics themselves were declining in Old East Slavonic, being replaced ultimately by their full-form counterparts. I have found no examples where *by* and *este* are either not adjacent or else in a reversed order. However, in the second person singular, cases do exist. In (21), *by* and *esi* are separated by a reflexive clitic, and in (22) the usual order of *by* and *esi* is reversed.

- (21) ...da moei by sja esi, s(y)nu, gramoty ne oslušal...
 that my COND REFL be.PRES.2SG son letter NEG ignore.PP.SG
 ‘...that you, my son, should not ignore my letter...’ (ASÈI 97, 1448)
- (22) naradil” esi bi ego
 prepare.PP.SG be.PRES.2SG COND it
 ‘You should arrange it.’ (DND 618, 1360s–start of the 1400s)

Assuming that *by este* was parallel, this is evidence for increased independence of the two elements.

On a purely phonological level, the spelling *by este* seems also to indicate phonetic strengthening from /bɨstʲe/ to /bɨ jestʲe/. It is difficult to be certain whether this is the case, since the perfect auxiliary *este* was clearly itself a clitic (Zalaznjak 1995: 167–9), unstressed in this environment, and might be expected to be reduced in form. However, there is not a single example in the birchbark documents of the initial vowel of these auxiliaries not being written, whereas loss of the final vowel in the second person singular from *esi* to *es* is attested. This is evidence that *by este* does indeed represent /bɨ jestʲe/, and therefore that the form strengthened phonologically at this period.

Let us now consider the basis for and progression of the reanalysis and emergence of the new forms *by este* and *by esi*. Crucial to the reanalysis is the morphosyntax of the Slavonic past (perfect) tense. A general feature of early Slavonic languages is that the perfect auxiliary is normally omitted in the third person singular and plural. Thus there is initially a contrast between (23) and (24). Given this alternation, it is natural to posit a null auxiliary in the third person here for Old East Slavonic in examples like (24).

- (23) ...a to esme dali Ivankovi...
 and that be.PRES.1PL give.PP.PL Ivan.DAT
 ‘...and we have given that to Ivan...’ (GVNP 2. 16, 1266)

- (24) ...knjaz' velikyi **poslal**" k vamo svoego syna...
 prince grand send.PP.SG to you own son.ACC
 '...the Grand Prince sent you his son...' (GVNP 35.4, 1302)

In Old East Slavonic, the auxiliary was, however, also increasingly omitted outside the third person from the twelfth century onwards (Kiparsky 1967: 226–7, Nørgård-Sørensen 1997: 4–5), to such an extent that it was lost entirely, and the past participle was reanalysed as a simple past tense, as it is in the modern East Slavonic languages.

The existence of a null perfect auxiliary created a potential problem in the conditional. It is generally accepted that reanalysis requires there to be some context in which there is potential syntactic ambiguity (Timberlake 1977), that is, a context where a language acquirer could reasonably assign two structures and must make a choice between them. Such ambiguity was present in the third person: since the auxiliary in the perfect was habitually null in the third person, a language acquirer could interpret the *l*-participle in a conditional structure either as a participle or as a sequence of null auxiliary plus participle. That is, there was potential for the reanalysis in (25), where earlier speakers treat conditional *by* as selecting a past participle, whereas later speakers treat it as selecting for a full perfect periphrasis.³

- (25) [_{MP} [_M *by*] [_{VP} [_V past participle]]] =>
 [_{MP} [_M *by*] [_{AspP} [_{Asp} null auxiliary 'be'] [_{VP} [_V past participle]]]]

The latter analysis implies that the conditional marker was not an auxiliary, assuming a sequence of two finite auxiliaries to be a crosslinguistically marked option. Therefore, this analysis could be rejected if there was evidence that the conditional marker was an auxiliary rather than a modal particle. Person-number inflection would provide this evidence. However, such evidence was clearly lacking in the third and second person singular, where the form of the conditional auxiliary, *by*, had a zero inflection. In the third person plural, it is unclear whether such evidence was available. The inherited inflected form *byša* is not well attested in vernacular texts, the context for it being absent in a number of key texts. It seems to have disappeared early in a number of other Slavonic languages, such as Slovak (Stanislav 1967–73: ii.451), Serbian and Croatian (Belić 1962: ii.86) too. The Synodal manuscript of the somewhat later Pskov Chronicle, where the third person plural is well attested, shows almost no agreement there, despite having agreement in the first person consistently. Relevant examples are given in (26) and (27).

- (26) ...i biša čolom, čtoby poslal svoix bojar" k dělu svoem
 and ask.PAST.3PL that+COND send.PP.SG own noblemen to business own
 knjazju Vitovtu, i **vdarili by** čolom" za pskovič...
 prince Vytautas and give.PP.PL COND forehead for Pskovians
 '...and they asked him to send his noblemen on their business to Prince Vytautas and
 for them to intervene on behalf of the Pskovians...' (PL ii.41.38–9, end 15th c., after 1486)
- (27) I mnogo biša čolom' pskoviči, **aby mstili** poganym Nēmcom
 and much ask.PAST.3PL Pskovians that+COND avenge.PP.PL heathen Germans

³ In (25), *by* is treated as head of a mood projection (MP). Rivero (1991) has argued that in some Slavonic languages (e.g. Bulgarian) the conditional marker heads MP, whereas in others (e.g. Slovak) MP is a specifier of TP. For present purposes the distinction between these analyses is not relevant.

krove xristian'skyja.
blood Christian

‘And the Pskovians asked many times for them to take revenge on the heathen
Germans for Christian blood.’ (PL ii.61.24–5, end 15th c., after 1486)

If evidence for inflection from the third person plural was lacking, this left the first person and the second person plural to provide the necessary evidence. However, the second person plural also manifested the potential for ambiguity, albeit for a rather different reason. The form of the conditional auxiliary *byste* was open to being interpreted either as an inflected auxiliary or as a sequence of two words, conditional particle *by* plus auxiliary *este*. This potential reanalysis is given in (28).

- (28) [MP [M *byste*] [VP [V past participle]]] =>
[MP [M *by*] [AspP [Asp *ste*] [VP [V past participle]]]]

Note that if degrammaticalization is impossible, a learner could reject this analysis immediately. However, the basis for rejecting the second analysis would be by comparing it to the first analysis. Clearly, learners cannot do this, since they cannot tell which of the analyses they are considering is the older and which is the innovation.

The only good evidence for the existence of an auxiliary paradigm therefore came from the first person forms *byx*” and *byxom*”. If this evidence were ignored, and these forms were treated as the exceptional case rather than the product of the productive rule, then the reanalysis in (25) could take place. It seems that this is what happened in some varieties of Old East Slavonic in the thirteenth or early fourteenth century.⁴

The case of degrammaticalization that interests us was a by-product of this reanalysis. Sense could be made of the form *byste* under the new analysis only if it too underwent the reanalysis in (28). The person-number suffix *-ste* was treated as a form of the auxiliary *este*. It probably underwent phonological strengthening at the same time (see above).

A second by-product of the reanalysis is the introduction of the auxiliary into the second person singular. This follows automatically once the new structure in (25) is adopted, since this treats the conditional marker *by* as selecting for a perfect (past) tense verb, and therefore any acceptable form of the perfect will be acceptable after it.

One final question needs to be addressed, namely why we do not find new analytical first person forms of the type *by esm*’ (singular) or *by esmja* (plural) in place of the inherited forms *byx*” and *byxom*”. The answer must be that the traditional forms were not open to reinterpretation and were treated as exceptions to the general pattern. The new analytical forms are found in Ukrainian and Slovak.

In so far as this account presents an internally coherent sequence of events, it amounts to degrammaticalization to an existing category as described in section **Error! Reference source not found.** The *-ste* affix in *byste* is reanalysed as a member of an existing morpheme, the clitic auxiliary *este*.

2.3.2 Ukrainian

Ukrainian undergoes the same development as Russian. Middle Ukrainian (fourteenth and fifteenth century), as attested in chancery documents, manifests the conditional paradigm in Table 4. For a discussion of other aspects of the development of the modern Ukrainian conditional marker *by*, see Sydorenko (1995).

⁴ As will be seen below, it is not clear where the reanalysis arose. Similar reanalyses turn up in Ukrainian and Slovak, and it is possible that it diffused into Russian from Ukrainian.

	sing.	plur.
first person	by / byx”	byxom” / byxmo
second person	by / by esi	by / by este
third person	by	by

Table 4. The paradigm of the conditional auxiliary in fourteenth- and fifteenth-century Ukrainian (based on Hrynčyšyn et al. 1977: 63–5, 135–6, 145; Nimčuk et al. 1978: 299–303, 334).

There is no longer any inflection of *by* outside the first person. In the second person, the same analytical forms, singular *by* > *by esi* and plural *byste* > *by este*, are found as in Russian texts of the same period. Examples of the innovating second person singular and plural forms are given in (29) and (30) respectively.

- (29) a. A moix” pošlin” mne ne dajut’, to **by** **esi**
and my duties me NEG give.PRES.3PL that COND be.PRES.2SG
vele(l) dati.
order.PP.SG give
‘And they won’t pay me my duties; you should order [them] to pay.’
(UH Appendix 2.28–9, 1484)
- b. ...a takož” što:**by** **esi** ix” krivd” **boronil**”, i mytu
and also **that-COND** be.PRES.2SG them harm defend.PP.SG and rent
by **esi** našomu vo vsem” **by(l)** pomočen”...
COND be.PRES.SG our in all be.PP.SG **responsible**
‘...and also that you should defend them from harm, and you should be
responsible in full for our rent...’
(UH 15.21–2, 1487)
- (30) a. ...ta i Waszab miłost žalowali, syły **by** **ieste** nam
‘...and and **your-COND** grace ask.PAST.PL force COND be.PRES.2PL us
w tom ne **czynili**...
in that NEG do.PP.PL
‘...and **we asked your Grace** that you should not subject us to force for that...’
(1433, Hrynčyšyn et al. 1977: 135)
- c. ...i na to **by** **este** vaša ml(s)t’ emu prisjagu **vdelali**
and on that COND be.PRES.3PL your grace him oath make.PP.PL
pere(d) nami i to(t) list” prisja(ž)ny(i) nam” dali.
before us and that letter oath us give.PP.PL
‘...and then, your Grace, you should make him an oath in front of us and give us
that oath letter.’
(1496, Hrynčyšyn et al. 1977: 136)

As in Russian, there has been a reanalysis requiring an uninflected conditional marker to co-occur with a past tense verb. Again as in Russian, the second person forms are brought into line with this new analysis, while the first person forms, especially in the plural, retain the conservative synthetic forms. We can surmise that the first person plural form survives best because it cannot easily be integrated into the new analysis in the way that the second person forms could. It was also phonologically more salient that its singular counterpart.

The Ukrainian evidence thus provides further confirmation of the degrammaticalization of *byste*. Conceivably this is an independent development, but more likely it is part of the same reanalysis found in Russian. If so, the textual evidence does not allow us to identify easily the direction of diffusion.

2.3.3 Slovak

As we saw in Table 1 above, Slovak is the only modern standard Slavonic language to use a conditional particle and a past tense containing auxiliary ‘be’ together in its current formation of the conditional. Against the background of the Russian and Ukrainian evidence, this no longer seems like an isolated innovation, but rather the result of more general patterns of reanalysis. The earliest documented Slovak texts, from the late fourteenth and fifteenth centuries, show a fairly conservative pattern, with regular descendents of the Common Slavonic forms except in the third person plural, where inflection had already been lost and the third person singular form *by* substituted. These are also the only forms given in Bernolák’s grammar of 1790 (Pavelek 1964: 356–9). As can be seen from Table 5, these contrast sharply with the contemporary Slovak forms, which show a thorough realignment according to the same reanalysis as we have already seen for Russian and Ukrainian. As in those languages, we must posit a reanalysis based on the uninflected third person forms, according to which the following participle was reanalysed as the entire past tense form. The second plural was reanalysed to fit this, with the inflection reanalysed as an auxiliary, and the remaining persons (first person singular and plural and second person singular) underwent radical reshaping to bring them into line with the new analysis. Dialectally, first person singular *bich* survives (Krajčovič 1988: 145). Since, unlike Russian and Ukrainian, Slovak has not lost the auxiliary ‘be’ in its perfect tense, the results of this reanalysis are still very evident in the contemporary language. It might be objected that these changes are analogical morphological changes, but this seems unlikely. For it to be analogical, the change from *bych* > *by som* would need an appropriate model from Slovak verbal morphology, but no Slovak verb has the ending *-som* in the first person singular. The change only makes sense if *som* really is a form of auxiliary ‘be’.

	Fifteenth-century Slovak	Contemporary Slovak
first sg.	<i>bych</i>	<i>by som</i>
second sg.	<i>by</i>	<i>by si</i>
third sg.	<i>by</i>	<i>by</i>
first pl.	<i>bychme</i>	<i>by sme</i>
second pl.	<i>byste</i>	<i>by ste</i>
third pl.	<i>by</i>	<i>by</i>

Table 5. The paradigm of the conditional auxiliary in fifteenth-century and contemporary Slovak (based on Krajčovič 1988: 144–5, Stanisláv 1967–73: 451).

2.3.4 Serbian and Croatian

In Serbian and Croatian, there are some similar, but apparently independent, developments. Reshaping of the first person plural forms occurs from Old Church Slavonic *byxomŭ* to modern Serbian and Croatian *bismo*. Other parallel forms are also reported as a possibility for the first and second person singular, namely *bi sam* and *bi si* respectively (Panzer 1967: 39). This is inexplicable by regular sound change. There are two ways to analyse the change. On one view, it makes sense if the second person plural form *biste* was reanalysed as conditional *bi* plus present tense of ‘be’ (*ste*). Given this reanalysis the expected first person plural form would be *bismo*. A second possibility would be to resort to the fact that, unlike many Slavonic languages, Serbian and Croatian have full (non-clitic) forms of the verb ‘be’ alongside clitic forms. The full forms, *jesam*, *jesi*, *je*, *jesmo*, *jeste*, *sa*, look like a stem *je-* plus a person-number ending, so the conditional forms could have arisen via (purely morphological)

analogical extension of these person-number endings to the conditional stem *bi-*.

Evidence in support of the first of these analyses comes from the fact that, in colloquial Serbian and Croatian, the conditional auxiliary may be split in two by the question clitic *li*:

- (31) **Bi li ste** vi to učinili?
 COND Q be.PRES.2PL you that do.PP.PL
 ‘Would you do that?’

Such forms are possible for some speakers today, and, although rare, are attested historically. Daničić (1880–2: i.362) cites examples of *bismo*, *biste* and even *bih* being split up by other clitics from the fifteenth century onwards:

- (32) Bez toga ne **bi ih smo** poslali.
 without that NEG COND them -1PL send.PP.PL
 ‘With that we would not have sent them.’ (Spom. sr. 9, Daničić 1880–2: i.362)
- (33) **Bi li ste** mi umjeli rijeti?
 COND- Q -2PL me be-able.PP.PL tell.INF
 ‘Would you be able to tell me?’ (Besjed. kr. 28, 30, 39, Daničić 1880–2: i.363)
- (34) Rad **bi- ti- h** znati.
 glad COND- Q -1SG know.INF
 ‘I’d be glad to know you.’ (N. Nalješković 2, 39, Daničić 1880–2: i.363)

Such splitting of the conditional is not found in earlier South Slavonic, for instance, in Old Church Slavonic. The innovation only makes sense if *ste* in *biste* has been reinterpreted as a clitic form of ‘be’, rather than a person-number suffix as it once was.

Elsewhere in South Slavonic, some Macedonian speakers also allow *bi* plus perfect auxiliary ‘be’ plus past participle in a form reminiscent of these forms and of Slovak (Panzer 1967: 27). There are no such developments in Bulgarian, where the endings of the conditional do not resemble forms of ‘be’, and where five distinct forms of the paradigm remain.

2.4 Conclusion

We have seen that, at various points in the history of the Slavonic languages, forms of the conditional, particularly the second person plural form *byste* / *biste*, have been reanalysed as though they consist of a conditional particle plus a clitic form of the perfect auxiliary ‘be’. This reanalysis is revealed by patterns of change in the rest of the paradigm, where forms such as second-person singular *by esi* / *bi si* arose that cannot have developed analogically; and by cases where the two parts of the reanalysis are treated as syntactically independent units. This amounts to degrammaticalization via reanalysis to an existing morph, the second of the types discussed in section 1.2 above.

3 THE BULGARIAN DEFINITE ARTICLE

Consider now the second candidate for degrammaticalization. Some accounts of the development of the Bulgarian definite article derive one form, the ‘short-form’ or ‘oblique’ masculine *-a* /ə/, from an earlier genitive-accusative case ending. If true, this would amount to degrammaticalization for two reasons. First, on general theoretical grounds, on the hierarchy from lexical to functional in (1), case endings are more functional than articles, hence this

represents a shift from more to less functional. Secondly, whereas the case ending was a bound affix, suffixed to its head noun, the definite article has a freer distribution, showing some of the properties of a clitic. This section examines the evidence for the origin of this form of the article in the light of degrammaticalization. It will argue that, although the genitive-accusative case ending is not the source of the short-form definite article, some historical varieties of Bulgarian reinterpreted this case ending as a form of the article as Bulgarian was losing the morphological distinction between nominative and genitive-accusative case in animate nouns. It is therefore another instance of the second kind of affix > clitic/phrasal affix degrammaticalization described above, involving assimilation to an existing less functional morph.

3.1 Overview of the definite article in contemporary Bulgarian

Contemporary Standard Bulgarian has a postposed definite article, which attaches to the end of the first head of a noun phrase, hence observing a second-position constraint. The main forms of the article when attached to a noun are given in Table 6. Traditional descriptions state that the article varies according to the gender of the head noun (Stojanov et al. 1982–83: 118–19), although closer analysis reveals that, with the exception of feminine head nouns, the form actually varies according to the phonological form of the word to which it attaches.

	masc.	neut.	fem.	plur.
nom.	- <i>ăt</i>	- <i>to</i>	- <i>ta</i>	- <i>te</i> , - <i>ta</i>
obl.	- <i>a</i> /ə/	- <i>to</i>	- <i>ta</i>	- <i>te</i> , - <i>ta</i>

Table 6. The forms of the definite article in Contemporary Standard Bulgarian.

The distinction in the standard between nominative and oblique case in the masculine is a prescriptive rule that is not observed in Bulgarian dialects. The extent to which it has any historical justification is open to debate. Today, each dialect generally uses only one of the two masculine forms, with central and eastern dialects favouring the short-form article *-a* /ə/ in all syntactic positions (Gălăbov 1979). The long-form article *-ăt* is largely restricted to western and southern (Rhodopi) dialects, although its cognate *-ot* is standard in Macedonian. The Macedonian system is broadly similar, except that Macedonian, like some western and southern Bulgarian dialects, has a three-term ‘article’ system expressing deixis. Macedonian has three forms *-ot* ‘the’, *-ov* ‘this’ and *-on* ‘that’.

3.2 The historical development of the definite article

The date at which the Bulgarian definite article emerged has been the subject of some discussion, although there is a broad consensus that it had emerged by the thirteenth century (Dogramadžieva 1973: 91, Gălăbov 1950: 303–8), although it has been placed earlier (Svane 1958, 1961–62). The formal development of most forms of the article is fairly clear. The /t/-forms all develop from an earlier demonstrative, Old Church Slavonic *tŭ* ‘this’, whose paradigm is given in Table 7.

	masc.	fem.	neut.	plur.
nominative	tŭ	ta	to	tī, ty, ta
accusative	tŭ	tŏ	to	ty, ty, ta
genitive	togo	toje	togo	těxŭ
dative	tomu	toi	tomu	těmŭ
instrumental	těmī	toje	těmī	těmi
locative	tomī	toi	tomī	těxŭ

Table 7. The demonstrative *tŭ* in Old Church Slavonic.

It is generally agreed that Old Church Slavonic demonstratives, including *tŭ* ‘that’, *sŭ* ‘this’, and probably also *onŭ* ‘yonder’ and *ovŭ* ‘this, that (in contrast)’, had both strong (stress-bearing) and weak (clitic) forms. Although segmentally identical, they differed in their position. The strong forms could appear both alone and initially in the noun phrase, as well as in other positions within the noun phrase, whereas the weak forms were enclitic, and occupied second position. Generally this means that they were enclitic on the head noun. The enclisis rule must be old, as there are relics of it in other branches of Slavonic, for instance, in the particle *-to* in Russian, in the clitic demonstrative found in some northern Russian dialects, and in demonstratives fossilized in lexical items in a postnominal position in various Slavonic languages (for instance, Bulgarian *dnes*, Croatian and Serbian *danas*, Slovene *danes*, Czech *dnes* ‘today’ < **dŭnŭ sŭ* ‘this day’).

As a result of sound changes affecting /ŭ/ and /ŭ/ in late Old Church Slavonic, the final /ŭ/ which characterized most nominative singular masculine nouns was lost, except when followed by an enclitic. Thus lone nominative /gradŭ/ ‘city’ became /grad/, whereas with a following demonstrative /gradŭ tŭ/ ‘the city’ became /gradŭ t/, ultimately modern Bulgarian /gradət/. From this, a new form of the demonstrative /ət/ could be reanalysed.

Although these formal changes clearly date to the Old Church Slavonic period, it is less clear whether changes in meaning that would justify interpreting these forms as articles can also be dated to that period. The formal changes have often been interpreted as being in themselves sufficient to justify an article analysis, but, as Svane (1961–62: 236) notes, the two are logically completely independent. In any case, the demonstrative was reanalysed as an article at some point in late Old Church Slavonic or Middle Bulgarian (for further discussion, see Gălăbov 1950, Mirčev 1964: 232 and Svane 1961–62).

It is well known that new definite articles typically develop from former demonstratives (Lyons 1999). Clearly, the overall development of the Bulgarian definite article is a paradigm example of grammaticalization, via the following development:

(35) free-form demonstrative > bound/clitic demonstrative > bound/clitic article

After the change to article status, some cases of allomorphy develop. For instance, when the masculine nominative article is attached to an adjective, the form *-(i)jat* is now used. This seems to emerge only in the thirteenth century, replacing earlier phonologically regular *-yjt* (Svane 1961–62: 227–8).

3.3 The shift case ending > phrasal affix as degrammaticalization

The form of particular interest to us is the short-form masculine article *-a* /ə/. There are broadly two accounts of the emergence of this element. On one account, it develops from the

If the second account is correct, then this is an example of an article developing from a case ending. Even from the perspective of function, this would in and of itself represent degrammaticalization, since, on a cline from lexical to grammatical / functional, a definite article is more lexical than a case inflection. The second claim to status as degrammaticalization is formal: the Bulgarian article, even though partially affixal, shows a greater degree of syntactic independence than a case ending. In Old Church Slavonic, the case ending *-a* was a bound form. It could attach only to a noun; it could attach only to a noun of the stem class that selected it (o-stems), that is, not any masculine noun; and co-occurred with case, gender and number agreement throughout the noun phrase:

- In short, it was a morphological realization of a genitive-accusative case feature. This contrasts with the modern Bulgarian definite article, which shows greater syntactic independence, behaving in some ways as a clitic and in other ways as an affix.

The modern Bulgarian article is clitic-like in being positioned by reference to a phrasal unit, and not by reference to a particular category. It attaches to the end of the first head of the noun phrase, whatever category that element is. This can be seen in (37)–(39), where the article *-te* attaches to a noun, an adjective and a numeral respectively.

- Placement is sensitive to the syntactic structure of the noun phrase. If a prenominal adjective is itself modified in some way, the article appears on the head adjective, even if this means that it attaches later than the first word. This can be seen in (40), where *mnogo* ‘very’, which modifies the adjective *xubava* ‘nice’, is not an acceptable host for the article, which must attach to the adjective (for further examples of this phenomenon, see Halpern 1992: 342).

- The short-form article behaves identically in the relevant respects. In (41), it attaches to a noun; in (42) and (43) it attaches to the first adjective.

- (41) Pozdravixme profesora.
greet.PAST.1PL professor.the
'We greeted the professor.'
- (42) kapitanăt na bălgarskija nacionalen otbor
captain.the of Bulgarian.the national team
'captain of the Bulgarian national team'
- (43) preskonferencija na novija germanski poslanik
pressconference of new.the German ambassador
'a press-conference of the new German ambassador'

Degree of selectivity is a major criterion for clitic status used by Zwicky and Pullum: 'Clitics can exhibit a low degree of selection with respect to their hosts, while affixes exhibit a high degree of selection with respect to their stems.' (Zwicky and Pullum 1983: 503). They further note that conditions on the distribution of clitics are largely syntactic, whereas conditions on the distribution of affixes are largely morphological or lexical. We can see that, whereas the distribution of Old Church Slavonic *-a* was regulated by morphological and lexical factors (the stem class of the noun), the modern Bulgarian definite article *-a* has a distribution regulated syntactically by reference to its position within the entire phrase. If there is a historical continuity between them, this is a move from affix to clitic status.

With regard to allomorphy, there is no particular change. Old Church Slavonic *-a* was a realization of genitive case, which could be spelled out in various ways depending on the declensional class of the noun. The form of the modern Bulgarian definite article is partly determined syntactically via agreement with the head noun, but there is also a good deal of phonologically conditioned allomorphy, which is characteristic of an affix rather than a clitic ('Morphophonological idiosyncrasies are more characteristic of affixed words than of clitic groups.', Zwicky and Pullum 1983: 504). In (42) and (43), we see that the short-form article takes the suppletive forms *-jə/* (*bălgarski* + *-a* > *bălgarskija*) and *-ijə/* (*nov* + *-a* > *novija*) when it attaches to an adjective. The variants are paralleled with the long-form masculine article after adjectives, *-jat /jət/* and *-ijat /ijət/*.

Furthermore, only feminine singular nouns adhere strictly to the form required for their gender. So, feminine nouns take an article in *-ta*, whether they end in the characteristic ending *-a*, for instance, *knigata* 'the book', or not, as in *noštta* 'the night'. In other cases, the form used is most accurately determined by reference to the phonology of the word to which it attaches. Most masculine nouns end in a consonant and take the article *-ăt /ət/* or *-a /ə/*, but a masculine noun ending in *-o* takes the 'neuter' definite article *-to*, hence *djadoto* 'the grandfather'. Note that if the article is attached to an adjective accompanying the same noun, a masculine form returns, hence *starijat djado* 'the old grandfather'. Masculine singular nouns ending in *-a* and plural (mostly neuter) nouns ending in *-a* take the *-ta* form of the article, hence *bašta* 'father' has definite *baštata* 'the father' and *sela* 'villages' has definite *selata*, but with an adjective *starijat bašta* 'the old father' and *starite sela* 'the old villages' (Hauge 1999: 28, Stojanov et al. 1982–83: 119–20). Some masculine nouns (those formerly ending in a palatalized consonant, such as *den* 'day' and *učitel* 'teacher') select a form *-jat /jət/* or *-ja /jə/* when the article is attached to them, but, again, not when the article is attached to an accompanying adjective.

Finally, there are a number of cases where the form of the root noun is influenced by the presence of the article. For instance, Bulgarian has a productive process of /r/-metathesis, according to which the relative position of /r/ and schwa in roots that contain both is determined by syllable structure, with /r/ following schwa if the syllable would otherwise be open; and preceding if not. The definite article participates in this. Hence we have *grăk* /grək/

‘a Greek’, but, when the article is added, the form becomes *gǎrkăt* /gǎrkăt/ ‘the Greek’. For further details, see Elson (1976).

In sum, the Bulgarian article behaves syntactically like a clitic, but phonologically like an inflectional suffix. This dual nature is reflected in the types of formal analysis that have been proposed. The article has variously been analysed as an inflectional affix (Halpern 1992) or as a second-position clitic (Embick and Noyer 2001). Embick and Noyer (2001) argue that the article is an independent head that lowers onto the next head following it. Halpern (1992) proposes an analysis under which the (head of the) leftmost daughter of the maximal noun phrase is marked to bear morphological marking of definiteness.

The allomorphy described above is no greater than that found with case endings. The greater positional freedom of the article, and the fact that it is positioned by reference to syntactic criteria, justifies us in concluding that, on a hierarchy of formal integration from free to bound morph, as illustrated in (44), the article is closer to the left than a case ending is.

(44) free morpheme > clitic > affix

Consequently, the reinterpretation of a case affix as a phrasal affix represents a shift towards greater formal independence. Therefore, if the short-form masculine article is derived historically from a case ending, we are dealing with degrammaticalization.

3.5 The short-form article as a continuation of the genitive-accusative case ending

We now turn to the question of whether the short-form definite article derives from a former genitive-accusative case ending. Various forms of this hypothesis have been argued for or assumed by Columbus (1977), Galton (1967), Georgiev (1955), Mayer (1988), Stölting (1970); for commentary, see also Mirčeva and Xaralampiev (1999: 129) and Xaralampiev (2001: 131–2). Some authors either argue or assume that this case ending was reanalysed as a marker of definiteness, resulting in the creation of the short-form article. Others imply that the case ending was assimilated to the pre-existing short-form article. Since the details of the proposals are distinct, it will be worth looking at each in turn.

3.5.1 *The short-form article as a sporadic sound change*

Let us first consider the alternative proposal, also widely disseminated in the literature, that the short-form article is secondary to the long form, developing as a result of the loss of the final /t/. The loss of the final /t/ is rather mysterious; word-final /t/ is not lost in Bulgarian, so this account is forced to posit (implicitly) a sporadic sound change. This account appears to go back to Conev (1934: 507–9), who offers the most resolute defence of the sporadic sound change, suggesting parallels with other cases where word-final /t/ is lost in Bulgarian, namely in the third person singular present tense of the verb, in the (residual) infinitive, and in the spoken forms of some numerals. There are alternative explanations for some of these cases (cf. Ivanova-Mirčeva and Xaralampiev 1999: 134 on the present tense ending). This type of account is also basically assumed by Gălăbov (1979), who notes that the short-form article is limited to dialects of Bulgarian and Macedonian that lack a three-way determiner system, and consequently suggests that, when the three-way article system was given up, the /t/, which signalled the member of the article system that was unspecified for location, was no longer needed to express the opposition, and could be dropped. Although the generalization that Gălăbov noted is correct, the fact remains that this account basically says that the final /t/ ‘disappeared’, offering no good explanation as to why. Lack of stress is not a sufficient explanation either, given that the article is stressed when attached to certain nouns, but, even with these nouns, the short-form article is possible. Given these problems, such an account

cannot be accepted without giving full consideration to other possibilities.

3.5.2 *The genitive-accusative case ending as the source of the short-form article*

Galton (1967: 56), in a discussion of the trend towards analytic syntax in Bulgarian, says simply that ‘the masc. animate *-a* ending in the Sg., in its turn, was reinterpreted as an exponent of determinacy.’ He envisages this as the main development responsible for the emergence of the short-form article, presumably via reanalysis in the spoken language. Mayer concurs, noting that ‘the short form is generally considered to be derived historically from the genitive-accusative of personal nouns’ (Mayer 1988: 67, cf. also 112–13).

There are several problems with treating the case ending > article hypothesis as a general account of the development of the short-form article. First, the short-form article is actually /ə/, not /a/. Although /ə/ and /a/ are not distinguished in unstressed syllables, the distinction emerges when the article bears stress, as it must do when attached to certain nouns, such as *grad* ‘city’ or *sin* ‘son’. Conservative dialects of Bulgarian that maintain the old genitive-accusative ending for some nouns often manifest a stress alternation between the definite and genitive-accusative forms, for instance, Kjustendil dialect *sin* ‘son’, genitive-accusative *sina* ≠ definite article form *sinò* (Umlenski 1965: 89). Thus it seems unlikely that the short-form article represents the direct reflex of the case ending.

Secondly, the exact form of the short-form masculine article varies according to dialect. However, it is striking that, in general, the form it takes corresponds to whatever the reflex of Old Church Slavonic /ŭ/ is in that dialect. For instance, in the Slavonic dialect of Dolna Prespa, formerly spoken in northwest Greece, the masculine short-form article *-o*, for instance, *čòek* ‘man’, definite *čòeko* ‘the man’, or *sìn* ‘son’, definite *sìno* ‘the son’. The reflex of Old Church Slavonic ‘strong’ /ŭ/ is also /o/ in this dialect, for instance, *pèsok* ‘sand’ < Old Church Slavonic *pesŭkŭ*, or *sòn* ‘dream’ < Old Church Slavonic *sŭnŭ* (Šklifov 1979: 25, 49). This suggests that, in general, the short-form definite article is a development of an Old Church Slavonic /ŭ/, and, therefore, we should look for a morpheme that contained /ŭ/ for the source. The genitive-accusative case ending in dialects that retain it is, however, clearly the continuation of /a/ in Old Church Slavonic.

3.5.3 *Assimilation of the genitive-accusative case ending to the short-form article*

Georgiev (1955) seems to imagine a rather more limited reanalysis, whereby the genitive-accusative ending with names, as in (45), is reanalysed in some northeastern dialects as an article and then spreads to the nominative, as in (46). He notes that, in these dialects, proper names may take an article, as in (47). It seems that this use may have encouraged the reanalysis of *-a* as a form of the article.

- | | | |
|------|--|----------------------|
| (45) | Vidjax Borisa.
saw.1S Boris.ACC
‘I saw Boris.’ | (Georgiev 1955: 252) |
| (46) | Borisa dojde.
Boris.DEF came
‘Boris came.’ | (Georgiev 1955: 252) |
| (47) | Žekoto dojde.
Žeko.DEF came
‘Žeko came.’ | (Georgiev 1955: 252) |

It is not clear from Georgiev’s discussion whether he imagines that the short-form definite article already existed when the reanalysis of *-a* in (45) from genitive-accusative to definite marker took place. Presumably, though, since this reanalysis cannot account for the use of the

short-form article with common inanimate nouns, it must already have existed. In this case, there are two possible historical scenarios:

- (i) these dialects began to use the definite article with names (perhaps under Greek influence); when the case system was lost, the relic genitive-accusative ending *-a* was reinterpreted as a form of the short-form article, fitting into the existing system;
- (ii) the reverse: when the case system was lost, the genitive-accusative ending was reinterpreted as a marker of definiteness, that is, reinterpreted as a form of the short-form article; as a result of this, use of the article was innovated with names, and extended from the accusative of masculine names to the nominative, and to names of other genders.

In either case, the proposed reanalysis involves a defunct case ending being reanalysed as a form of an already existing morpheme.⁵

This is ultimately the view that emerges from Stölting's (1970) discussion. As morphological case distinctions were lost in Bulgarian, masculine personal names and nouns denoting male family relations kept the old accusative ending (*-a*) longest. These were mostly definite, so the genitive-accusative ending, now used (accidentally) mostly in definite contexts, came to be identified as inherently definite. This led to the creation of a system that can be hypothesized on the basis of evidence from Bulgarian chancery documents from Wallachia from the second half of the fifteenth century whereby animate masculine singular nouns in object position were marked with the old genitive-accusative *-a* ending when definite, but with zero (indicating general case, continuing the old nominative) otherwise. Bernštejn's (1948) study of these texts indicates something of this order: zero for indefinite and after a demonstrative (where no article is the rule in modern Bulgarian); and *-a* for definite. The distinction is not made consistently, but it emerges frequently enough to suggest some reality in the spoken language of the time. Examples are given in (48) (indefinite, no case ending), (49) (demonstrative, no case ending) and (50) (definite, with case ending).

- (48) a. *dadoše edin kon*
give.IMP.3S one horse
'he gave a horse'
- b. *e kupil edin kon*
is bought.PAST-PART-ACT one horse
'he has bought a horse' (Bernštejn 1948: 289)
- c. *mi naidete edin kon velik i xubav*
me.DAT find.2P one horse big and nice
'find me a big and nice horse' (Bernštejn 1948: 355)
- (49) *zaradi tăizi kon*
because-of that horse
'because of that horse' (Bernštejn 1948: 289)

⁵ In fact, the reanalysis seems to have no effect on the surface form of the cases in (45) to (47) at all. If the short-form article already existed, and the dialect allowed definite articles with proper names, then both (45) and (46) were already possible. In this case, all Georgiev is saying is that instances of the genitive-accusative *-a* were assimilated to another syntactic pattern, namely that of the definite article. This is effectively saying that speakers / learners needed to 'rescue' the forms in *-a* (formerly analysed as case forms), while other aspects of the accusative-genitive case system (for instance, case endings on adjectives) were allowed to fall away. The crucial innovation in the dialect would be the extension of the definite article to use with proper names, which would innovate all the surface forms in (45) to (47).

- (50) a. oni mu sut uzeli koně
 they him.DAT are.3P take.PAST-PART-ACT horse.ENDING
 ‘they have taken the horse off him’
 b. člověku, što est prodal koně
 man REL is sell.PAST-PART-ACC horse.ENDING
 ‘the man who has sold the horse’ (Bernštejn 1948: 290)

The genitive-accusative ending survived best in these texts in precisely this function. In its function as a marker of possession, it had already been replaced to a great extent by the dative; and after such prepositions as *ot* ‘from’, which had once required a genitive, the general, former nominative form had already been generalized to a large extent (Bernštejn 1948). As a result, the genitive-accusative inflection became functionally equivalent to the short-form definite article, which Stölting (1970: 168) seems to assume already existed. In unstressed position, the /a/ ending of the genitive-accusative and the /ə/ of the article would have merged as /ə/. This allowed the /a/ ending to be reinterpreted as simply being the article.

3.5.4 Further evidence from modern Bulgarian sources

Columbus (1977) and Stojkov (1950) provide evidence from nineteenth-century texts consistent with this view. Columbus notes cases from the work of Sofronij Vračanski (1739–1814/16) where the genitive-accusative ending is interpreted as definite, with an indefinite interpretation resulting when a zero ending is used. In both of the following cases, the first example has no ending as it is indefinite, whereas the second has an ending and is definite:

- (51) a. ...zaradi da si postavjat sebe nov kral
 in-order COMP self.DAT install.3PL self new king
 ‘...in order to install a new king for themselves’
 b. Tie poišla pri kralja Grimalda
 they come.PAST-PART to king.ENDING Grimald
 ‘They came to the court of King Grimald’ (Columbus 1977: 181)
 (52) a. Edna žena imala muž pian
 one wife have.PAST-PART husband drunken
 ‘A wife had a drunken husband’
 b. ami zašto mja ti ne vozmeš kato muža tvoego
 but why me.ACC you NEG take.2S as husband.ENDING your.ACC
 ‘but why will you not take me as your husband’ (Columbus 1977: 181)

Columbus (1977: 184) concludes that ‘the old Slavic genitive-accusative, rather than falling away into a defunct status, served to strengthen the developing definite category of the noun in Bulgarian and to place it into sharper opposition with the non-definite, specifically where this genitive-accusative had a definite sense itself: in those noun stems which were defined as having personal status’. By this time, the case system was essentially obsolete in spoken Bulgarian, although the old masculine genitive-accusative ending remained as a relic. Nevertheless, the pattern observed here is consistent with that noted above for fifteenth-century chancery documents. Stojkov (1950: 16–19) rejects the idea that the genitive-accusative inflection is the general source of the short-form article, on the basis of phonetic differences as discussed above (section 3.5.2). However, he notes a similar system to that noted by Columbus in Petăr Beron’s *Riben bukvar* (‘Fish primer’, 1824), a work otherwise close to vernacular Bulgarian. The long-form article is used here in the forms /at/ and /ət/ (spelled in Cyrillic *-amъ* and *-āmъ* respectively). The genitive-accusative case inflection is also used with animate nouns and inanimates, and always definite in interpretation.

- (53) Izvika ot prozorica.
call.PAST.3S from window.ENDING
'He called out of the window.' (Petăr Beron, *Riben bukvar*, 1824, 76, Stojkov 1950: 5)

The case ending and the long-form article are in parallel distribution, and sometimes appear to be in competition, as in the (54) with case inflection on *carja* 'emperor', as against the definite article in (55) on *ovčarjat* 'shepherd', both in the same function (definite object).

- (54) Dojde pri carja.
come.PAST.3S to emperor.ENDING
'He came to the emperor.' (Petăr Beron, *Riben bukvar*, 1824, 82, Stojkov 1950: 5)
- (55) Otide valkāt pri ovčarjat.
go.PAST.3S wolf.the to shepherd.the
The wolf went to the shepherd.'
(Petăr Beron, *Riben bukvar*, 1824, 56, Stojkov 1950: 5)

Morphologically, however, Beron still treats the *-a* ending as a case inflection, as can be seen from (56), where the noun is modified by a preceding adjective. Here, the adjective bears a case ending, and the genitive-accusative inflection *-a* remains on *zavistnika*, and does not move to the adjective, as it would if this were a form of the article.

- (56) Vion vide ednogo zavistnika.
Vion see.PAST.3S one.GEN envious-person.ENDING
'Vion saw an envious person.' (Petăr Beron, *Riben bukvar*, 1824, 45, Stojkov 1950: 5)

The view that the genitive-accusative ending was assimilated to the short form article depends crucially on the claim that, of all the case endings, it was the genitive-accusative of masculine animate nouns that survived longest in spoken varieties. This seems fairly clear, and is corroborated by evidence from a number of traditional dialects that maintain a variant of such a system, using the old genitive-accusative ending with masculine personal names and sometimes with masculine animate or masculine human nouns. An example is given from the (western) Kjustendil dialect in (57).

- (57) Stèvena sam pratila na učilište.
Steven.ENDING am sent.PAST.PART.ACT to school
'I have sent Steven to school.' (Umlenski 1965: 89)

In the (Rhodopi, southern) Tixomir dialect, as described by Kabasanov (1963: 50), a definite article is normally used with personal names. With masculine names, the genitive-accusative ending may replace the definite article in object position. Stojkov (1993 [1962]: 228) notes that retention of the genitive-accusative ending is, on the whole, a feature of eastern dialects. These are also those dialects where the short-form definite article is best represented.

3.6 Conclusion

The genitive-accusative case inflection cannot be the sole source for the Bulgarian short-form article. This is because there are various phonological differences between the two, such that the short form of the article can reliably be determined by removing the /t/ from the long form, but cannot reliably be determined by reference to the former case ending.

There is nevertheless good evidence that some varieties of Bulgarian went through a stage where the *-a* ending was interpreted as simultaneously a marker of definiteness and of accusative case. The *-a* ending survived longest of all the case endings. There must therefore have been (and still are) varieties where this was essentially the only case ending. It seems reasonable to suppose that, under such circumstances, some of those varieties reinterpreted this case ending as a form of the short-form definite article, which either already existed in the variety, or which came into the variety via contact with other dialects. This reinterpretation meant that case inflection could be eliminated entirely from the varieties in question. We can conclude that the genitive-accusative *-a* inflection was reinterpreted as a form of the pre-existing short-form definite article. This makes the development an instance of degrammaticalization via merger with an existing item.

4 ISSUES IN DEGRAMMATICALIZATION

The central feature that the cases discussed have in common is that in both an inflection (person-number ending and case-number ending) is reassigned to another category (auxiliary and definite article respectively). The new category is less ‘grammatical’ on the hierarchy from lexical to grammatical, and is expressed using material that is more independent morphophonologically.

4.1 Exaptation and adaptation

Heine (2003) offers a critique of degrammaticalization, arguing that all (or almost all) proposed instances of degrammaticalization are in fact instances of some other process. Heine cites euphemism, lexicalization, exaptation, adaptation, replacement and upgrading as the processes involved. The two that are relevant here are adaptation and exaptation. Let us consider each in turn.

4.1.1 Adaptation

It is true that the examples outlined here involve adaptation, defined by Heine as ‘a process whereby old taxa are adapted to new taxonomic categories’, which ‘serves in particular to adapt grammatical forms to new word classes or morphological paradigms’ (Heine 2003: 169). Heine goes on to note that adaptation is often a part of grammaticalization: when an item changes category, it takes on the characteristics of its new category. To give an example, when Welsh *hyd* ‘length’, a noun, grammaticalized as a preposition ‘along’, it gained person-number inflections like other Welsh prepositions, hence *hyd* ‘along’ but *hyd-ddo fe* ‘along it (masc.)’, just like *gan* ‘with’ but *ganddo fe* ‘with it (masc.)’. Adaptation then is simply an aspect of category reassignment, that is, it is one of the possible consequences (actualizations) of reanalysis. If adaptation is part of grammaticalization, then it is nonsensical to say that an example of degrammaticalization is excluded because it involves adaptation.

In both of the current instances, since the category reassignment goes in the ‘wrong’ direction, the adaptation also goes in the ‘wrong’ direction. The conditional inflection is reanalysed as an auxiliary, hence is adapted to the morphosyntax of an auxiliary. The genitive inflection is reanalysed as a definite article, hence is adapted to the morphosyntax of the other forms of the definite article. Saying that adaptation is involved does not detract from the status of these examples as counterdirectional changes. In fact, it enhances their status, because it demonstrates that their development involved processes that are also often involved in grammaticalization.

Heine seems also to have another definition of adaptation in mind when he says that

adaptation ‘may take place when a grammatical category declines ... and the surviving form is adapted to other categories’ (Heine 2003: 170). This is the special case, and, as Heine notes, it is nondirectional. It has much in common with exaptation, to which we now turn.

Thus far, we have two distinct senses of the term ‘adaptation’. These are:

adaptation₁: the process by which an item that has been assigned to a new morphosyntactic category in time adopts the morphosyntactic characteristics of its new category;

adaptation₂: the phenomenon of a morph that instantiates an obsolescent morphosyntactic feature being reassigned to express some other existing morphosyntactic feature and which, in doing so, is reassigned to some other existing morphosyntactic category.

Definition 2 also applies to our cases. The conditional inflection encoded the person-number features of the conditional auxiliary which became obsolescent. It was reassigned to express the perfect auxiliary (including its person-number features), and, in doing so, became an auxiliary. The genitive affix in Bulgarian encoded declensional class, case and number on nouns, the first two of which became obsolescent, and, in doing so, became a definite article (with declension-class/gender and number features).

4.1.2 Exaptation

Definition 2 of adaptation is very reminiscent of exaptation, a phenomenon first highlighted in Lass (1990) and Vincent (1995), and defined by Heine as occurring when ‘grammatical forms which have lost most or all of their semantic content ... are put to new uses as semantically distinctive grammatical forms’ (Heine 2003: 168). In his original formulation, Lass (1990) viewed linguistic exaptation as the reuse of morphology that formerly encoded a grammatical distinction which has now been lost. According to his account, the grammatical distinction is lost *before* the reassignment of the morphology that encoded it to some other function. The language goes through a period where the item in question has no function, and is purely ‘linguistic junk’. This is clear from his example of Afrikaans adjective endings, where, he claims, the endings, which formerly encoded gender, number, case and definiteness, encoded nothing for a period, before being reassigned to encode adjective class. As Vincent has pointed out (Vincent 1995: 435–6), it is not clear that the notion of ‘linguistic junk’ is coherent. In particular, it seems unlikely that language learners can successfully acquire an item that has no function in their language. To learn the distribution of an item, and therefore to be able to use it natively, is, in effect, to learn its function. Given this objection, it seems more reasonable to assume instead that exaptation involves the direct reanalysis of the obsolescent function (or a related function that emerged from it) to the new function.

Exaptation, unlike adaptation₂, often leads to the expression of a new category. Lass comments that ‘prior coding of the category in question is not a precondition for exaptation’ (Lass 1990: 82), which suggests that the item can be reassigned either to encode a feature that was not encoded in the language before (as is the case in Afrikaans, which did not previously encode adjective class), or one that was previously encoded. This leads us to the following definition of linguistic exaptation:⁶

linguistic exaptation: the phenomenon of a morph that instantiates an obsolescent

⁶⁶ Note that it is the feature that the morph expresses, and not the morph or its feature value that are obsolescent. In the Bulgarian example above, the feature of case was obsolescent, although the morph *-a* and the feature value [genitive] were surviving the increasing obsolescence of the feature ‘morphological case’ itself.

morphosyntactic feature being reassigned to express some other new or existing morphosyntactic feature and which, in doing so, is reassigned to some other new or existing morphosyntactic category.

The only difference between this definition and the definition of adaptation₂ is that adaptation₂ is necessarily assimilation to an existing feature or category, whereas exaptation can (and perhaps preferentially does) involve the creation of a new feature or category. This difference does not justify making a distinction between them. Furthermore, the second part of the definition amounts to category reanalysis (Harris and Campbell 1995: 63). Hence, we are lead to the following definitions:

exaptation-adaptation₂: the phenomenon of a morph that instantiates an obsolescent morphosyntactic feature undergoing category reanalysis;

category reanalysis: a type of reanalysis that involves some morphosyntactic item being reassigned to express a different morphosyntactic feature and which, in doing so, is reassigned to a different morphosyntactic category;

reanalysis: a process which changes the underlying structure of a morphosyntactic pattern without any immediate modification of its surface manifestation (cf. Harris & Campbell 1995: 61, Langacker 1977).

Therefore, what is special about exaptation-adaptation₂ is (only) that it involves obsolescent morphosyntactic features. In effect, by using a special term, we are saying that morphs that encode obsolescent morphosyntactic features are more likely to undergo reanalysis and that the reanalyses that they undergo may be unexpected or atypical. In other contexts, category reanalysis, like grammaticalization, is largely unidirectional. The correct position may be that language change (of the relevant kind) always proceeds from less grammatical to more grammatical except under defined circumstances. Our task in working on degrammaticalization is then to define the circumstances under which counterdirectional changes may take place. This can be summed up in the following hypothesis:

Category reanalysis is unidirectional (N > P, V > Aux etc. but not *P > N, *Aux > V; and free word > clitic and clitic > affix etc. but not *clitic > free word and *affix > clitic), except in exaptation-adaptation₂.

This hypothesis is too strong. Degrammaticalization of Estonian *es* ‘question particle’ and *ep* ‘affirmative adverb’ (Campbell 1991) does not appear to have accompanied the obsolescence of a grammatical feature, nor does the change of abessive case suffixes to clitics in various Balto-Finnic languages (Seto, Võru, Vepsian and Saami), which Kiparsky interprets as being due to paradigmatic analogy (Kiparsky 2005). However, it does account for a sizeable proportion of the well-documented cases involving deaffixation, including the English and Swedish possessive above, Irish *muid(e)* (person-number suffix > independent pronoun ‘we’) (Bybee et al. 1994: 13–4, Doyle 2002), and New Mexican Spanish *-mos* > *-nos* (Janda 1995).

4.2 Degrammaticalization and reconstruction

Identifying exaptation-adaptation₂ as a systematic cause of counterdirectional changes does not makes them any less of an exception to unidirectionality. This is particularly clear when

we examine its effect on the task of morphosyntactic reconstruction. One of the things that made research in grammaticalization so exciting was the fact that it seemed to offer a watertight guide to reconstruction. If change can only proceed from less to more grammatical or if all grammatical markers have their original in lexical or at least less grammatical markers, then, in comparative reconstruction, if a given form has a more grammaticalized status in one language and a less grammaticalized status in another, we can confidently posit the less grammaticalized form and function in our reconstruction. Exceptions to unidirectionality, whatever process they represent, pose practical difficulties for this procedure (Newmeyer 2001: 215–16).

Consider again the example of the Slavonic conditional as set out in Table 1 above. Using principles of grammaticalization as our guide, a hypothesis easily comes to mind: the protolanguage was like Slovak in forming its conditional using a conditional particle plus auxiliary ‘be’ and a past participle. In all the daughter languages except Slovak, the auxiliary ‘be’ has grammaticalized as a person-number affix. In some (Polish, Serbian and Croatian) this is relatively clear, but in others (Upper Sorbian, Bulgarian) the endings have been reformed analogically (the endings in question exist or existed in other paradigms, so an analogy story would not be implausible). Some languages (Russian, Slovene etc.) have gone further in eliminating the endings that grammaticalized in this way entirely. This hypothesis is completely wrong, but the logic of grammaticalization does not refute it. In fact, it offers it support. Unless we can identify that degrammaticalization has taken place (which is only possible in this case using the textual record), we cannot know to rule out this hypothesis.

5 CONCLUSION

The grammatical changes described in this article have been shown to be counterdirectional in the sense that they result in the assignment of an inflectional affix (person-number and case suffix) to a less grammatical category where it is assigned greater morphosyntactic freedom. We have seen that these changes can be characterized as exaptation-adaptation: material from an obsolescent subsystem survives and is reused in both cases; it then adapts to fit the properties of other members of the category to which it is reassigned. This makes them instances of degrammaticalization. Degrammaticalization is not a unitary process, and so calling these cases exaptation-adaptation does not make them any less counterdirectional or any less instances of degrammaticalization. Rather they demonstrate one of the important scenarios under which unidirectionality does not apply, namely in contexts of obsolescent morphosyntax.

TEXT ABBREVIATIONS

- ASĖI* Golubcov, I. A., Zimin, A. A., and Čerepnin, L. V. eds. 1952. *Akty social’no-èkonomičeskoj istorii severo-vostočnoj Rusi konca XIV-načala XVI v.* Moscow: Izdatel’stvo Akademii Nauk SSSR.
- DND* Zaliznjak, A. A. 1995. *Drevnenovgorodskij dialekt.* Moscow: Jazyki Russkoj Kul’tury.
- GVNP* Valk, S. N. ed. 1949. *Gramoty Velikogo Novgoroda i Pskova.* Moscow: Izdatel’stvo Akademii Nauk SSSR, 1949.
- NPL* Dietze, Joachim ed. 1971. *Der erste Novgoroder Chronik nach ihrer ältesten Redaktion (Synodalhandschrift).* Leipzig: Edition Leipzig.
- PL* Nasonov, A. 1967 [1941]. *Pskovskie letopisi.* Düsseldorf, The Hague [Moscow]: Brücken-Verlag, Europe Printing [Izdatel'stvo Akademii Nauk SSSR].

Supr. Zaimov, J. and M. Kapaldo. eds. 1982. *Suprasălski ili Retkov sbornik*. Sofia: Izdatelstvo na Bălgarskata Akademija na Naukite.
UH Rusanivs'kyj, Vitalij Makarovyč ed. 1965. *Ukraïns'ki hramoty XV st.* Kiev: Naukova dumka.

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