Diachronic Slavonic Syntax

Gradual Changes in Focus

Edited by

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# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preface</td>
<td>5</td>
</tr>
<tr>
<td>Hauke Bartels (Cottbus): Das (diachrone) Textkorpus der niedersorbischen Schriftsprache als Grundlage für Sprachdokumentation und Sprachwandelforschung</td>
<td>7</td>
</tr>
<tr>
<td>Jan Ivar Bjørnflaten (Oslo): Grammaticalization Theory and the Formation of Gerunds in Russian</td>
<td>19</td>
</tr>
<tr>
<td>Mojmir Docekal (Brno): Negative Concord: from Old Church Slavonic to Contemporary Czech</td>
<td>29</td>
</tr>
<tr>
<td>Hanne Eckhoff and Dag Haug (Oslo): Aligning Syntax in Early New Testament Texts: the PROIEL Corpus</td>
<td>41</td>
</tr>
<tr>
<td>Mirjam Fried (Princeton/Prague): A Construction Grammar Approach to Grammatical Change</td>
<td>53</td>
</tr>
<tr>
<td>Jasmina Grkovic-Major (Novi Sad): The Role of Syntactic Transitivity in the Development of Slavic Syntactic Structures</td>
<td>63</td>
</tr>
<tr>
<td>Bjorn Hansen (Regensburg): Constructional Aspects of the Rise of Epistemic Sentence Adverbs in Russian</td>
<td>75</td>
</tr>
<tr>
<td>Hakyung Jung (Seoul): Preconditions and Motivations in the Grammaticalization of the North Russian Be-perfect</td>
<td>87</td>
</tr>
<tr>
<td>Petr Karlík (Brno): Old Czech Adjectives with the Meaning of Passive Potentials</td>
<td>99</td>
</tr>
<tr>
<td>Alexander Krasovitsky, Matthew Baerman, Dunstan Brown, Greville G. Corbett, Peter Williams (Guildford): Morphosyntactic Change in Russian: A Corpus-based Approach</td>
<td>109</td>
</tr>
</tbody>
</table>
Marija Lazar (Hamburg): Placement of the Reflexive *sja* in Russian Business Writing 121

Julia McAnallen (Berkeley): Developments in Predicative Possession in the History of Slavic 131

Krzysztof Migdalski (Wroclaw/Connecticut): The Diachronic Syntax of Perfective Auxiliaries in Polish 143

Achim Rabus (Freiburg): Die Relativisatoren im Ruthenischen 155

Gilbert Rappaport (Austin): The Grammaticalization of the Category *Masculine Personal* in West Slavic 169

Radoslav Večerka (Brno): Entwicklungsvoraussetzungen und Triebkräfte der slavischen Syntax 181

Ljuba Veselinova (Stockholm): Standard and Special Negators in the Slavonic Languages: Synchrony and Diachrony 195
PREFACE

The present volume is dedicated to the study of the gradualness of syntactic change in the Slavonic languages. Questions of diachronic changes in syntactic structures have always been an important field within Slavonic linguistics. In the last decades of the twentieth century, however, we witnessed an increasing dominance of synchronic linguistics leading to a shift away from diachronic syntax. The aim of this book is to give an overview of recent developments in the field emphasizing, thus, the importance of diachronic Slavonic syntax in general. The focus is on the mechanisms of syntactic change with special reference to intermediary steps and on the question of how these micro-changes can be detected empirically. The book contains works showing applications of new theoretical syntactic models to Slavonic languages on one hand, and articles presenting recent developments in the field of Historical Corpus Linguistics, on the other. The volume is open to diverging theories of syntactic structure and, therefore, reflects recent developments of functional frameworks like ‘Construction Grammar’ and ‘Grammaticalization Theory’, and also formal models like Generative Grammar. The syntactic structures addressed range from NP internal categories like gender, VP internal ones like analytical auxiliary constructions to the level of the clause (argument realization, modality, possession, negation) and, finally to the level of the complex sentence (gerunds, participles, relative clauses). Whereas the book has a narrow focus on the mechanisms of syntactic change and their empirical foundation, it tries to cover a wide range of languages including the major languages like Russian and also less used languages like Lower Sorbian, giving an adequate impression of the Slavonic language family as a whole. It contains individual studies on Russian, Czech, Ruthenian, Lower Sorbian, and Polish, and also includes general comparative resp. typological papers. The book’s seventeen contributions reflect the breadth and diversity of current research in Slavonic historical syntax. The title of the book deserves some explanatory remarks. We understand the term gradualness as the diachronic counterpart of synchronic gradience which, following Aarts (2007), \(^1\) comes in two types: 1) **subsective gradience** involves a single class of linguistic elements and allows for a particular element X from that category to be closer to the prototype of the category than some other element Y; 2) **intersective gradience** involves two categories and allows for less central members of a category to exhibit features of a neighbouring category. This view is in line with the Prague Functional School which propagated the idea that linguistic categories should be seen as formations with a compact centre and a gradual transition into a diffuse periphery which infiltrates into the peripheral domain of the next category (Daneš 1966).\(^2\)

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The volume is a collection of papers most of which were presented at the International Conference ‘Diachronic Syntax of the Slavonic Languages: Gradual Changes in Focus’, held at the University of Regensburg, Germany, 5-6 December 2008. The conference which was supported by the Regensburger Universitätsstiftung and the Deutscher Akademischer Austauschdienst DAAD was jointly organized by the Department of Slavonic Studies, University of Regensburg, Germany, the Centre for Interdisciplinary Research on the Ancient Languages and the Early Stages of Modern Languages of the Masaryk University, Brno, Czech Republic, in cooperation with the Department for Serbian Language and Linguistics, University of Novi Sad, Serbia. Key note speakers were Mirjam Fried (Princeton/Prague), Jasmina Grković-Major (Novi Sad), Peter Kosta (Potsdam), Radoslav Večerka (Brno) and David Willis (Cambridge). Information about that conference can be found in LINGUIST List Vol-19-1572.

Finally, we would like to thank Tilmann Reuther for including this volume in the series ‘Wiener Slawistischer Almanach – Sonderbände’.

Björn Hansen and Jasmina Grković-Major
Regensburg / Novi Sad
The present sociolinguistic situation of Lower Sorbian with a decreasing number of native speakers is one of the main reasons for the growing importance of an electronic textual corpus for linguistic research. After a short overview of the history, composition and previous use of the Lower Sorbian corpus this contribution focuses on the usefulness of corpus-based investigations into the history of the Lower Sorbian literary language, which is generally characterized by strong dynamics. Examples are given for different changes, sometimes showing the great but often opposing influence of important writers. But also long-term developments can be illustrated, e.g. the replacement of German loanwords for purist reasons. The few examples of the use of statistical means for corpus-based research into Lower Sorbian promise interesting insights into the changeable development of this Western Slavonic language over the last two centuries.

1. Das Textkorpus

1.1. Zu seiner Bedeutung für Forschungen zum Niedersorbischen

Projekts laufenden intensiven Revitalisierungsbemühungen1 von Bedeutung ist, wurde und wird noch maßgeblich von diesem Kreis erarbeitet, dessen unermüdlichem Einsatz über das Ruhestandsalter hinaus große Anerkennung gebührt. Schon heute ist es aber auch für diese Muttersprachler schwierig oder gar unmöglich, auf bestimmte linguistische (hier besonders lexikalische) Fragestellungen, die andernorts durch Informantenbefragungen relativ zuverlässig zu klären wären, befriedigende Antworten zu finden. Zu klein ist die Zahl der noch verfügbaren kompetenten Sprecher, zu verbreitet auch bereits das Phänomen der nur teilweise vorhandenen oder nur noch „erinnten“ Sprachkompetenz². So zeichnet sich ab, dass die schon heute große Relevanz des niedersorbischen Textkorpus mit Blick auf zukünftige Forschungen noch deutlich zunehmen wird. Dabei geht es nicht nur um Sprachdokumentation, sondern auch darum, durch die schrittweise Auswertung des Korpus eine möglichst genaue Kenntnis der schriftsprachlichen Tradition zu erlangen, um dann auf dieser Grundlage neuere Veränderungen besser beurteilen und unter Umständen nötigen Sprachausbau oder Kodifizierungen kompetent vornehmen oder begleiten zu können.

1.2. Aktuelle Zusammensetzung und Perspektiven

Diese Zusammensetzung des Korpus, in dem wenige umfangreichere Quellen dominieren, stellt für die Forschung ein methodisches Problem dar, zumal wir es überdies mit einem starken Einfluss einzelner Personen auf die jeweilige Textgestalt zu tun haben. Der BC zum Beispiel hatte in dem langen Zeitraum von 1848 bis 1933 nur wenige Redakteure, die für den Großteil der Texte verantwortlich zeichneten. Dies wird an

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¹ Diese beziehen sich nicht auf die Dialekte, sondern auf die mündliche Variante der Schriftsprache, die in aller Regel erst als Zweisprache erworben wird.
² Gemeint sind hier Informantenäußerungen der Art „damals sagte man bei uns im Dorf …“ oder „mein Opa hat dazu immer … gesagt“.
³ Nach Möglichkeit sollen auch bisher noch nicht edierte Handschriften einbezogen werden.
⁴ Die Zeitung änderte im Laufe der Jahrzehnte mehrmals ihren Namen; im Folgenden findet überwiegend die Abkürzung BC Verwendung.


1.3. Zugänglichkeit
Bisher ist das Korpus nur institutsintern zugänglich. Es ist aber noch für 2010 die Bereitstellung großer Teile im Internet geplant, so dass in der Folge eine wachsende Anzahl niedersorbischer Texte online für Korpusrecherchen zur Verfügung stehen wird. Der Zugriff wird unter anderem über die Adresse http://www.niedersorbisch.de möglich sein.

1.4. Bisherige und zukünftige Nutzungen

Zum einen wird das Korpus neben anderen wichtigen Quellen (v.a. älteren Wörterbüchern des Niedersorbischen) Grundlage für ein historisch-dokumentierendes Wörterbuch der niedersorbischen Schriftsprache sein. Mit vorbereitenden Maßnahmen
hierzu wurde bereits begonnen, so etwa mit der Lemmatisierung der im Korpus enthaltenen Wortformen und mit der Digitalisierung älterer Wörterbücher.


2. Korpusbasierte Sprachwandelforschung

2.1. Konkurrierende Passivkonstruktionen im Niedersorbischen

In den beiden oben erwähnten Studien, deren Ergebnisse hier nur kurz rekapituliert werden können, ging es um zwei auffällige gegenläufige Entwicklungen in der niedersorbischen Schriftsprache vor allem des 19. Jahrhunderts: (a) die puristisch motivierte Zurückdrängung des Lehnwortes *wordowaś* ‘werden’ und, damit einhergehend, der mit dieser Entlehnung als Auxiliar gebildeten Passivkonstruktion (list jo južo napisany wordowal ‘der Brief wurde schon geschrieben’) sowie (b) die ersatzweise „Revitalisierung“ einer aus dem älteren Schrifttum noch bekannten, mit den Aoristformen von *byš* ‘sein’ gebildeten Passivkonstruktion (list bu južo napisany ‘dass.’). Die folgende Graphik zeigt diesen Wandel zusammenfassend:

2.2. Konkurrierende Bezeichnungen der Person: paršona vs. wósoba

(1) Ale jo ga na twójej paršonje tak wjele lažane, lěc ta sobu žo, ab nic? No, tak wjele cu ši gronış: njejs[y]-li ty hyšći nazgônîl, co na jadnej wósobje jo lažane, ga bužoš to raz z góřenim wuznâ! (BC 43/1867) – Aber ist denn an deiner Person so viel gelegen, ob sie [die Person] nun [zur Wahl] mitgeht oder nicht? Na ja, so viel will ich Dir sagen: falls Du noch nicht erfahren hast, was von einer Person abhängt [was an einer Person gelegen ist], dann wirst Du das mal mit Ärger erkennen!6

Paršona kann in den ersten zwei Jahrzehnten das Feld ganz für sich allein behaupten7:


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6 Das Beispiel ist vor allem orthographisch dem heutigen Stand angepasst worden.
8 Die absolute Frequenz von paršona (p. Tsd.) ist in der Graphik gruppiert für jeweils drei (1848-50) bzw. fünf Jahre angegeben, um allzu starke, im gegebenen Zusammenhang irrelevante Schwankungen in der Darstellung auszublenden. Die logarithmische Trendlinie zeigt die generelle Entwicklung.

Betrachtet man nur den prozentualen Anteil von paršona nach der Jahrhundertwende und im weiteren Verlauf bis zur Einstellung des BC 1933, so zeigen sich hier erneut erhebliche Schwankungen mit einem zumindest zeitweise erneut steilen Anstieg:

Abb. 3: Prozentualer Anteil von paršona an der Gesamtmenge von paršona/wósoba

Bei genauerem Hinsehen zeigt sich freilich, dass vor allem das Auf und Ab beim Gebrauch von wósoba ursächlich für diese Entwicklung sind, während sich die Verwendung des deutschen Lehnworts auf niedrigem Niveau relativ stabil zeigt:

Abb. 4: Frequenz von wósoba und paršona (p. Tsd.)

2.3 Die Relativatoren *kót(a)ryž* und *kenž*

Wandel im Sprachgebrauch gab es auch in Bereichen, in denen der Purismus als „Motivator“ zur Vermeidung oder Förderung bestimmter sprachlicher Ausdrucksmittel keine Rolle spielte. Als Beispiel dient hier die Alternative zwischen dem Relativpronomen *kót(a)ryž* und dem indeklinablen *kenž*. Die beiden Formen bilden zusammen mit anderen (wie *ako* oder *kakiž*) das Feld der niedersorbischen Relativatoren und sind unter bestimmten Umständen austauschbar. Dabei gilt die Regel, dass *kenž* im Nominativ sowie im mit dem Nominativ formidentischen Akkusativ für *kót(a)ryž* eintreten kann (Starosta 1992:20f). Selbstverständlich müssten auch hier, noch stärker als zuvor für das Feld der Personenbezeichnungen, in eine umfassende Untersuchung weitere Formen einbezogen werden, da z. B. auch *ako* teilweise mit *kót(a)ryž* und *kenž* konkurriert. Da es in diesem Artikel aber vor allem darum geht zu zeigen, wie die Auswertung des Textkorpus zur Untersuchung von Sprachwandel im Niedersorbischen herangezogen werden kann, beschränken wir uns hier – und zwar wiederum nur in Umrissen – auf die Konkurrenz zwischen *kót(a)ryž* und *kenž*.

![Diagramm](image)

**Abb. 5: kenž und kót(a)ryž (p. Tsd.; gruppierte Darstellung)**

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9 Unterschiedlich Schreibweisen der beiden Relativatoren (z. B. mit oder ohne das sogenannte „ut“ (<ō>) vs. <o>), oder verschiedene Schreibungen des heutigen -ž (etwa mit Punkt oder Strich als Diakritikum) wurden bei der Auswertung berücksichtigt. Zur Formvariation *kótryž* vs. *kótryž* (daher die Schreibung *kót(a)ryž*) vgl. Fußnote 12.

10 Der Zusatz „nur konkurrierende Formen“ in den Graphiken meint, dass nur die Formen von *kót(a)ryž* in den Vergleich bzw. die Berechnung einbezogen wurden, die der Regel entsprechend (s.o.) auch tatsächlich in Konkurrenz zu *kenž* stehen.

![Diagramm](attachment:Diagramm.png)

*Abb. 6:* Anteil von *kenž* gegenüber allen bzw. nur den konkurrierenden *kót(a)ryž*-Formen

Wie stark die Veränderungen bei den beiden oben erwähnten Wechseln von Pank zu K. Šwjela (1863/64) und dann von Kito zu Bogumil Śwjela (1915/16) hinsichtlich der Verwendung von Relativatoren waren und wie groß damit der Einfluss einzelner Personen

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\(^{11}\) Dem sorbischen Sprachatlas (Faßke 1996) zufolge ist *kót(a)ryž* in den niedersorbischen Dialekten randständig und *kenž* gar nicht gebräuchlich. Die hier dargestellten schriftsprachlichen Verhältnisse stehen also in deutlichem Kontrast zu den dialektalen.

auf die textuell abgebildete Sprachpraxis war, macht auch die folgende Graphik deutlich, die die Frequenz aller Formen von kót(a)ryž im relevanten Zeitraum zeigt:

Abb. 7: Frequenz von kót(a)ryž (alle Formen; p. Tsd.)


2.4. Fazit & Ausblick

Jenseits der gezeigten Schwankungen und individuellen Einflüsse sind aber gleichwohl Entwicklungstendenzen erkennbar, die bis heute die Gestalt der Schriftsprache bestimmen. Hierzu zählt die deutliche und auch im heutigen schriftlichen Sprachgebrauch noch gültige Zurückdrängung des Lehnworts wordowaš und der entsprechenden Passivkonstruktion ebenso wie vieler anderer deutscher Entlehnungen, für die hier stellvertretend paršona stand. In beiden Fällen wurden sprachliche Ausdrücke bzw. Konstruktionen aus dem Zentrum in die Peripherie verdrängt und gelten zudem in der Folge als stilistisch (umgangssprachlich-dialektal) markiert. Es stellt sich in diesem Zusammenhang die Frage, wie bei einer Untersuchung, in der wir es mit allmählichen,
graduellen Veränderungen zu tun haben, die Grenzen zwischen dem Wandel des Systems oder nur des (teilweise individuellen) Sprachgebrauchs, ggf. der Norm im Sinne Coserius (1970) zu ziehen sind. Das Beispiel kenž vs. kót(a)ryž zeigt überdies, dass sich über längere Zeiträume relativ stabile Verteilungen sehr schnell wieder ändern können, wenn die schriftsprachliche Norm wie im Niedersorbischen nur wenig gefestigt ist.

Im vorliegenden Beitrag konnten nur wenige Schlaglichter auf die neuere niedersorbische Sprachgeschichte geworfen werden. Es zeichnet sich jedoch in der beginnenden Auswertung des Textkorpus unter Anwendung quantitativer Methoden ein Forschungsfeld ab, das interessante Einsichten in die Entwicklung dieser westslawischen Schriftsprache verspricht.

Literatur


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GRAMMATICALIZATION THEORY 
AND THE FORMATION OF GERUNDS IN RUSSIAN

Summary

The present paper aims at an interpretation of the formation of gerunds, деепричастия, in Russian within a theoretical framework of grammaticalization. It is argued that a morphological change made Pl participles in attributive position homophonous with FSg participles in the same position. These homophonic forms gave rise to an ambiguity which triggered a subsequent reinterpretation of all participles in attributive position and led to loss of the capability to express morphosyntactic properties. This process of decategorialization rendered the erstwhile declinable participles undeclinable and more grammatical whereby they shifted from a major word class into an intermediate one.

The theoretical framework of this paper is the theory of grammaticalization which in recent years has been formulated by a number of functional linguists (Hopper/Traugott 2003, Heine/Kuteva 2007). In this framework all linguistic material show different degrees of grammaticalization. At one end are lexical items with referential properties, at the other end are functional or grammatical words with no referential properties beyond the language itself. In this way linguistic material can be arranged hierarchically according to degree of grammaticalization. Generally, major categories like nouns and verbs are placed at the top, while minor categories like prepositions, pronouns and conjunctions are on the lower end. Between these two end-points, intermediate categories like adjectives and adverbs are placed. Since it is well established in a cross-linguistic perspective that minor or intermediate categories have their origins in major categories, but hardly the other way around, it is a basic tenet of the theory of grammaticalization that change is unidirectional. In morphosyntactic change this implies that word-forms move from a higher to a lower category and in this process they become more grammatical. When a form in this way undergoes grammaticalization from a lexical to a more grammatical form, it tends to lose morphological and syntactic properties and is subjected to a process of decategorialization.

In this paper it will be described how the Russian gerunds, деепричастия, emerged as the result of a process of decategorialization where erstwhile declinable participles through grammaticalization shifted from a major category to an intermediate one as undeclinables. While the shift from a category to another can be described in terms of diachronic correspondences, the transition from one category to another will be interpreted as gradual since language change is understood as occurring in the process of transmitting linguistic material from speaker to speaker. In this transmission innovations are made on the speaker’s level and extended gradually to relevant environments and to other speakers. It is therefore crucial in understanding language change to come as close as possible to the speaker’s level. In historical linguistics, it will be claimed, this can be achieved most successfully in investigating texts while taking into account all ascertainable variation as indicative of on-going change. But before launching this investigation, some preliminaries have to be made.

It is well known and well studied how the clearly main function of the nominal short forms of the active present and active past participles in non-attributive position was to
express predicativity in Old Church Slavic¹ and in other Slavic languages in their older stages.² In these cases it is of crucial importance that in Old Church Slavic as in Greek, these participles in appositive position showed agreement with their matrix word with regard to the categories of case, number and gender. These participles will therefore here be named predicative participles. The use of the predicative participles in Old Church Slavic compared with the gerunds in contemporary Russian can be illustrated by the following examples:

**John 13, 22³**
Old Church Slavic (Zographensis, Růžička 1963: 152):
съзирахац же са между собом ученици (MNPl), не домыслалце (MNPl) о комь гьеть
Russian (Synodal Translation 1876):
Тогда ученники (NPl) озирались друг на друга, недумевая (PrG), о ком Он говорит.
English (King James Version):
Then the disciples looked one on another, doubting of whom he spake.

**Luke 2,19**
Old Church Slavic (Zographensis, Růžička 1963: 150):
маць (FNSg) же съмаяше въ са гьы съгъ сълагаяши (FNSg) въ сръдяще своемъ
Russian (Synodal Translation 1876):
А Мария (FNSg) сохраняла все слова сии, слагая (PrG) в сердце своем.
English (King James Version):
But Mary kept all these things, and pondered them in her heart.

These examples can serve as illustration of the point of departure and the present situation and make up what has been called diachronic correspondences. While the present active participles in Old Church Slavic fully agree with the matrix subject, i.e. ученици - домыслалце, мариц - сълагаяши, there is no such agreement in Russian, i.e. ученики – недумевая, Мария – слагая. The form of the gerund does not change in accordance with neither number nor gender of the matrix subject.⁴

So, when comparing the predicative participles of Old Church Slavic with the gerunds in Contemporary Standard Russian, it is clear that the morphosyntactic properties of case, number and gender possessed by the Old Church Slavic predicative participles are not present in the modern Slavic gerunds of the Russian type. The development leading

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¹ “Die Prädikativität ist... die überlegene Hauptfunktion der Kurzpartizipien, zu der vor allem die Nominativformen drängen” (Růžička 1963: 13). Another important work in this respect is Večerká 1961.

² “Im Lavrent’evskij spisok ist die Verwendung als zweitrangiges Prädikat die weitaus häufigste Funktion der aktiven Partizipien in ihrer unbestimmten Form” (Stola 1956: 15).

³ The Russian, English and Czech verses are imported from http://unbound.biola.edu/

⁴ Czech, i.e. spisovná čeština, seems to occupy a unique position among the Slavic languages since it has preserved the agreement of the gerund with the matrix subject. In Czech the gerund changes, agrees with the matrix subject with regard to number and gender, cf. John 13, 22 (Bible Kralická 1613): Tedy učedlníci vzhledali na sebe vespolek, pochybují, o kom by to pravil, Luke 2,19: Ale Maria zachovávala všecka slova tato, skládají je v srdci svém.
from declinable predicative participles to indeclinable gerunds is therefore a typical process of loss of morphosyntactic properties which involved altogether three categories, the category of case, number and gender. The category of case was lost or became irrelevant as the predicative participle referred to a nominative subject. It is therefore basically the loss of the ability to express the categories of number and gender that gave rise to the Slavic gerunds. The formation of gerunds is consequently a process of decategorialization as sketched above, where a linguistic expression looses morphological and syntactic properties. When a declinable predicative participle is turned into an indeclinable gerund, a typical case of decategorialization can be said to have taken place. I will return to this below.

The aim of this paper is to explore this process as detailed as possible in order to approach the speaker’s level as indicated above. The attention has therefore been directed to texts from periods in which it is assumed that the greatest variation is observed in the use of the predicative participles in terms of vacillation of agreement between the predicative participle and the matrix subject it refers to. On the basis of the available literature, above all the works of Kuz’mina and Nemčenko (1982), Nikiforov (1952) and Stola, I have tentatively found that the largest amount of variation in forms implementing reference with matrix subjects can be observed in texts from a period roughly between late 16th century and mid 17th century.

Texts of this kind are above all the letopisi and povesti, i.e., chronicles and tales (Kuz’mina/Nemčenko 1982: 322). The main sources for this contribution have for various reasons been Pskovskaja pervaja letopis’, Tichanovskij spisok, (PPL), Kazanskij letopisec (KL) and two tales, the Tale of Ulijanija Osor’ina (Skripil’ 1948) and the Tale of Peter and Fevronia (Skripil’ 1949). These tales have been chosen because the gender and number of the main characters in them differ. In one we have a female heroine, in another we have both male and female main characters. This strategy has been chosen since deviations in the implementation of reference can most easily be grasped when wrong forms of the predicative participles are used.

If we now turn to what happened with the predicative participles in Russian, the first recorded change in the predicative participles occurred in the plural, where the

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5 Stola (1956: 24) seems to have grasped some of the complexities of the process to be investigated here: “Ob aber der Prozess der Verwandlung der unbestimmten Partizipialformen zu Deepričastija weiterhin geradelinig verlaufen ist, d.h. ob die maskuline Singularform, zumindest beim Partizip des Präsens, kontinuierlich und stetig die anderen Formen immer mehr zurückdrängte oder ob die Entwicklung einen komplexeren Weg genommen hat, - darauf scheinen manche Denkmäler des 15. – 17. Jahrhunderts hinzudeuten, die ein Kunterbunt verschiedenster Partizipalformen in der Funktion eines zweitrangigen Prädikats aufweisen, - das könnte nur eine systematische Analyse einer grösseren Anzahl späterer Denkmäler erweisen. Ebenso könnte auch nur dieser Weg darüber Aufschluss geben, wo im russischen Sprachgebiet und wann sich dieser Wandel zuerst endgültig durchgesetzt hat”.

6 Not all extant forms of the predicative participles have been taken into account here. There are relatively rare forms of the predicative participle ending in -a, generally implementing Masculine reference, cf. KL: 88: ‘въ то время въ Москвѣ бегунь…оставь землю свою…в невѣ ж родица и лести на прежде сего…хотяща…’ Another rare form is the following obvious analogical form, ‘и бысть глаз от иконы пресвятя божородицы, глаголющь еще…’ (Skripil’ 1948: 302). It is not possible, however, within the framework of this paper to go into details pertaining to these forms.
original ending in –e\(^7\) is replaced by a morpheme –i. According to the findings of Kuz’mina and Nemčenko (1982: 315), singular examples of this kind are found before the 14\(^{th}\) century. This change has been considered in several studies as deviations in the agreement of the predicative participle with the subject of the matrix sentence. Initially, however, this change did not have anything to do with agreement as such. In my reasoning, it is important that the replacement of the Pl morpheme –e by the morpheme –i has to be seen on the background of the general changes taking place in the East Slavic/Russian declination where the most important change was the emergence of a plural paradigm without the category of gender. The loss of gender distinctions in the plural entailed a development towards an increasingly unified plural paradigm with a reduced number of morphemes. As the NPl morpheme –e was restricted to a small, clearly definable groups of nouns (cf. Unbegaun 1935: 178-182), the morpheme –i expanded at the expense of the morpheme –e. After the 14\(^{th}\) century the number of relevant examples grows. This seems to be a situation which continued for a number of centuries. In texts from the late 16\(^{th}\) century, e.g. the Kazanskij letopisec (KL), examples of this kind are quite numerous.

KL: 3: живяху же за Камою рекою...Болгарские князи и варвари, владеющи поганымъ взыкъ черемискимъ, незнающе Бога, никого законы не имущи: обои же бяху служаще и дани дающе Рускому царству до Батыя царя
KL: 6: по своей воли живущи и сами собой властующие и никому же покоряющиеся
KL: 110: борзо идучи и друг друга женьущи и друг друга сослужающи
KL: 112: и мнои бяху люди живущи в них, имеюще селение
KL: 125: Черешиса, наеждующи на станы, возмущающи въ ноции
KL: 7: против его небоязненно изшедши
KL: 9: люди оставляющи страх въ Его
KL: 12: черемиса, зовемая отяки...забежавши тамо

In the text of the First Pskov Chronicle (PPL) from the first half of the 17th century (PPL: X), more or less the same picture emerges:

PPL: 57: и князь псковский Александр Василиевичь посадники новгородскія, и посадники псковскихъ, и бояры много ждущи поганыхъ...
PPL: 66: и екопивши псковчи пригорожанъ, и пойдоша...
PPL: 20: По толь же отрккоа псковчи Андрею князю, ркущи тако...

---

\(^7\) The original ending in FNPl is in Old East Slavic –ě. This ending is recorded in the material of Kuz’mina and Nemčenko (1982: 316) only once. The general ending in FNPl is the same as in MNPl – e.

\(^8\) Originally, my investigation of the Kazanskij letopisec was based upon the assumption that this was a text from the second half of the 16\(^{th}\) century. There are, however, several features related to the function of the predicative participles in the text which could indicate a later dating of the text. This is an issue that cannot be addressed within the framework of this contribution. The dating of the text of Kazanskij letopisec has, however, been subjected to discussions. For a short overview of the issue, cf. “Textgeschichte der ‘Historie vom Zartum Kasan’”, in Kämpfer 1969: 31-37.
PPL: 19: тако же псковичи перебродишася с ними, блюдущи своих домовъ, женъ и дети от Литвы.
PPL: 12: По томъ, того же лѣта, воевавши села около Острова, поидоша ко Пскову подле Великую рѣку, воюючи села и погосты и под град Псковъ подъѣхавши.

An overview of the diffusion of the ending –i when comparing to the original one –e in the First Pskov Chronicle (Tichanovskij spisok, PPL: 3-73) gives the following picture:

Table 1. Endings in the Plural Predicative Participles in the First Pskov Chronicle (PPL)

<table>
<thead>
<tr>
<th>Present Active Participle Pl</th>
<th>Past Active Participle Pl</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ending –e</td>
<td>Ending -i</td>
</tr>
<tr>
<td>x40</td>
<td>x12</td>
</tr>
<tr>
<td>76,92%</td>
<td>23,07%</td>
</tr>
<tr>
<td>Ending -e</td>
<td>Ending -i</td>
</tr>
<tr>
<td>x91</td>
<td>x13</td>
</tr>
<tr>
<td>87,50%</td>
<td>12,50%</td>
</tr>
</tbody>
</table>

All Participles Pl9

<table>
<thead>
<tr>
<th>Participles with the ending -e</th>
<th>Participles with the ending -i</th>
</tr>
</thead>
<tbody>
<tr>
<td>83,97%</td>
<td>16,05%</td>
</tr>
</tbody>
</table>

It appears, consequently, that the number of participles with the ending –i was considerable by the beginning of the 17th century.10 This reflects a development which had far-reaching consequences for the ability of the predicative participles to maintain agreement with the respective matrix subjects. When the ending in –i spread to an increasing number of Pl predicative participles, a growing number of forms homophonous with the FSg predicative participles occurred, e.g. Pl имуще > имущи = FSg имущи. This implied that a growing number of homophonous Pl/FSg forms were ushered into the language. This development could not but have consequences. For when a Pl form like имущи was replaced by имущи, an ambiguous form replaced an unambiguous one as the latter could in relevant contexts be reinterpreted as a predicative participle implementing agreement with a Pl matrix subject form as well as predicative participle implementing agreement with a FSg matrix subject. In the texts, a number of instances are observed where forms like имущи are implementing Pl agreement as well as FSg agreement. These forms tend, consequently, to be reinterpreted as equally FSg predicative participles and Pl predicative participles:

Ref FSg: (она) и чада имущи и рабы владычии (Skripil’ 1948: 300)
Ref Pl: (они) некого закона не имущи…владычии поганымъ языкомъ (KL, 3)

As demonstrated by numerous examples from a number of texts from the 16th/17th centuries, forms like имущи and имущи were co-existing and it was not possible with reference to these participles alone to decide anything about which matrix subjects they referred to, whether it was a Pl or a FSg subject. The language user, in this situation, however, when confronted with two forms, would try to sort out in which contexts to use which form. If the command of this distinction is no longer part of his internalized

9 Just a minor fraction of the present active participles in plural are rendered in their East Slavic form, i.e. with the ending -či. These instances are: twice воюючи (PPL: 12), once съпрятываючи (PPL: 23), and once гонячися (PPL: 31). It is notable that in all these cases the ending is –i.
10 The dating to the first half of the 17th century is the one given by A. Nasonov in PPL: X.
grammar, the language user may make a wrong guess and distribute the forms wrongly. It is therefore claimed here that wrong distribution of the co-existing forms is indicative of an on-going change. There is no longer an unambiguous link between the predicative participle and the matrix subject when the reference to the matrix subject can be implemented by two different forms:

Ref FSG: (она) и родившие десять сынов и три дочери (Skripil’ 1948: 294)
Ref FSG: она же благочинны и смыслены ответы дающие (Skripil’ 1948: 311)

And when the reference can be implemented by two different forms, it can be reason to claim that the agreement of the predicative participle was about to get lost. In order to grasp this development as clearly as possible, several manuscripts of the same text have been investigated. But in contrast to previous investigations, the predicative participles have not been sorted out and classified according to form, to their morphological make-up. In my investigation the predicative participles have been sorted out and classified according to the reference implemented by them irrespectively of form. An investigation of the *Tale of Ulijanija Osor’ina* yielded the results displayed in table 2. This table shows clearly that the largest amount of variation and deviation concerns the predicative participles which implement reference with a FSG matrix subject, while the implementation of Pl reference shows less deviation and variation. The masculine reference is, on the other hand, implemented 100% by morphologically masculine forms.

Table 2. Classification of predicative participles according to reference in *Povest’ ob Ulijanii Osor’inoj* (Vtoraja redakcija, 2-i variant)\(^\text{11}\)

<table>
<thead>
<tr>
<th>Singular</th>
<th>Present</th>
<th>Past</th>
<th>Plural</th>
<th>Present</th>
<th>Past</th>
</tr>
</thead>
<tbody>
<tr>
<td>ref M</td>
<td>ref F</td>
<td>ref M</td>
<td>ref F</td>
<td>ref F</td>
<td>ref Pl</td>
</tr>
<tr>
<td>x13</td>
<td>x78(^\text{12})</td>
<td>x5</td>
<td>x23</td>
<td>x12</td>
<td>x3</td>
</tr>
<tr>
<td>+13</td>
<td>+(42.3%)</td>
<td>+(100%)</td>
<td>+(28.5%)</td>
<td>+1</td>
<td>+(100%)</td>
</tr>
<tr>
<td>+(100%)</td>
<td>-42M</td>
<td>-15M</td>
<td>-3Pl</td>
<td>-42M</td>
<td>-11</td>
</tr>
<tr>
<td></td>
<td>-(53.8%)</td>
<td>-(71.4%)</td>
<td>+(91.7%)</td>
<td>+(3,8%)</td>
<td></td>
</tr>
</tbody>
</table>

A divergent picture of the variation in forms is obtained when comparing the data of another manuscript of the same tale. The results of a similar investigation of the predicative participles in terms of reference with regard to matrix subjects are shown in table 3. This table shows again that the largest number of deviation and variation are found

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\(^{11}\) All texts and data are taken from the editions made by Skripil’ (1948).

\(^{12}\) The table should be read in the following way. Here x78 means that 78 recordings of predicative participles with F reference have been made. 33 are correct in the sense that the references have been implemented by F forms and are therefore marked as +33, i.e. 42.3% of all recordings. Among the incorrect forms, in 42 cases the references have been implemented by M forms, therefore marked negatively, -42M, making up 53.8% of all recorded references in this case. Finally, the reference to the F matrix subject was in 3 cases implemented by Pl forms, making up 3.8% of all recorded predicative participles.
with the regards to forms which implement reference to FSg subjects and Pl subject. In table 3 this is even more salient than in table 2.

Table 3. Classification of predicative participles according to reference in *Povest’ ob Ulijanii Osor’inoj* (Vtoraja redakcija, 1-j variant)

<table>
<thead>
<tr>
<th>Singular</th>
<th>Present</th>
<th>Past</th>
<th>Plural</th>
<th>Present</th>
<th>Past</th>
</tr>
</thead>
<tbody>
<tr>
<td>ref M</td>
<td>ref F</td>
<td>ref M</td>
<td>ref F</td>
<td>ref Pl</td>
<td>ref Pl</td>
</tr>
<tr>
<td>x16</td>
<td>x51</td>
<td>x4</td>
<td>x10</td>
<td>+8</td>
<td></td>
</tr>
<tr>
<td>+16</td>
<td>+16</td>
<td>+17</td>
<td>+(80%)</td>
<td>+5</td>
<td></td>
</tr>
<tr>
<td>+(100%)</td>
<td>+(100%)</td>
<td>+(77,27%)</td>
<td>+17</td>
<td>+(62,5%)</td>
<td></td>
</tr>
<tr>
<td>-4Pl</td>
<td>-4M</td>
<td>-(18,18%)</td>
<td>-4M</td>
<td>-2F</td>
<td></td>
</tr>
<tr>
<td>-(7,84%)</td>
<td>-1Pl</td>
<td>-(10%)</td>
<td>-1F</td>
<td>-25%</td>
<td></td>
</tr>
<tr>
<td>-40M</td>
<td>-(5,54%)</td>
<td>-(10%)</td>
<td>-1M</td>
<td>-12,5%</td>
<td></td>
</tr>
<tr>
<td>-(78,4%)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

These two tables illustrate that when a variety of manuscripts relating to one and the same text and variant readings, raznočtenija, are taken into account, crucial information of the variation in forms can be obtained and provide clues to an interpretation of the changes going on. In order to illustrate this further, a passage from two different manuscripts of the *Tale of Peter and Fevronia* can be referred to:

**Chludovskij spisok, 16¹ century:**

По вечері же святая княгиня Февронія ходящи по брегу и видевши древца твя, благослови, рекии: Да будуть ся на утрі древе велико, имущи ветви и листвие. Еже и бысть. Вставши бо утрі обретоша твя древе велико древие, имущи ветви и листвие (Skripil’ 1948: 241).

**Moskovskij spisok, 16¹ century:**

По вечері же святая княгиня Февронія ходящи по брегу и видевши древца твя, благослови, рекии: Да будуть ся на утрі древе велико, имущи ветви и листвие. Еже и бысть. На утрі же вставши людие их и видевши древца твя, на них котлы висяху, великое древие возрастье, имущи ветви и листвие (Skripil’ 1948: 254).

The first three predicative participles in the *Chludovskij* manuscript have feminine forms and feminine reference, ходящи, видевши, рекии. The following predicative participle вставши has feminine form, but Pl reference. In the *Moskovskij* manuscript, however, all the three feminine and the single Pl references referred to, are implemented by apparent Pl predicative participles, cf. ходяще, видевше, рекие, вставши. The data provided here should allow for the conclusion that the erstwhile Pl and FSg predicative participles had merged. In a language in which the category of number is otherwise pervasive, this merger triggers an ambiguity which was not implemented elsewhere. In other words, a situation had emerged which could not be expected to be stable since some forms of the predicative

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¹3 This is one of extremely rare examples of a predicative participle with Neuter reference. As can be seen from the two texts, the Neuter reference is implemented with the same form as the F and Pl references.
participles could now be perceived as defect with regard to the properties which they potentially should express. In this respect the merged Pl/FSg-form had entered a process of decategorialization, losing the ability to express unambiguously the category of number. This implies that these forms cannot be considered nominals anymore which in this case implies that they had left the category of nominals and shifted from a the major word-class of nominals to the intermediate one of adverbs. And as already pointed out, loss of morphosyntactic property and ensuing shift from a major word-class to a lesser one is at the core of grammaticalization theory.

The merger of the Pl/FSg-forms triggered a new relationship between the two remaining forms of the erstwhile predicative participles. The MSg form was now the only form of the predicative participles which could unambiguously implement reference to a matrix subject in Sg. By replacing the common Pl/FSg form by a MSg form, the reference in terms of the category of number could be rendered unambiguous. The process itself can be illustrated by comparing various versions of the tales investigated here. In the Tale of Peter and Fevronija (Skripil’ 1948), it can be observed how various forms of the predicative participle are used in various manuscripts of the text. In the basic manuscript G for the edition presented by Skripil’, the masculine form of the predicative participle is used to implement agreement with the feminine subject (Skripil’ 1948: 226).

<table>
<thead>
<tr>
<th>manuscript</th>
<th>жена же</th>
<th>слышав (MSg)</th>
<th>такую речь</th>
</tr>
</thead>
<tbody>
<tr>
<td>manuscript E:</td>
<td>слышавши (Fsg)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>manuscript V:</td>
<td>слышавши (Fsg)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>manuscript L:</td>
<td>слышавши (Fsg)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>manuscript P:</td>
<td>слышавше (Pl)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Considering the data in these manuscripts, it seems reasonable to claim that the choice of the MSg form of the predicative participle in G avoided the ambiguity intrinsic in the other forms at this stage. The choice of the MSg form by the scribe of manuscript G represents a solution with regard to the ambiguous forms in the other four manuscripts. Crucial is, however, that when reference to female matrix words here is implemented by MSg forms, it follows that a reinterpretation has been forced upon the MSg form as this form now is reinterpreted as able to implement M as well as F references, whereby it is rendered indifferent to the M/F gender distinction and loses the morphosyntactic property of gender. This reinterpretation implies, consequently, that no distinction with regard to gender can be upheld any longer. The result is that a second predicative participle has turned into an ambiguous form. This ambiguity has made it impossible to express unequivocally gender distinctions in the same way as the FSg/Pl had become ambiguous with regard to the number distinctions. In this way two ambiguous predicative participles had come into being. The ambiguity implied that both forms were defective with regard to the categories they were supposed to express. For while a lexical item which expresses properties like case, number and gender is a nominal, a lexical item which no longer expresses these properties cannot be considered a nominal anymore. Since the erstwhile predicative participles now had lost these properties, i.e. the capability to express the categories of case, number and gender, they were no longer members of the major word-class of nominals. The process these lexical items had been through is what here has been called decategorialization which in its turn implies that the forms had shifted to a new role in the organization of the discourse (Hopper/Traugott 2003: 108).
Summing up the analysis undertaken in this paper, the transition from a major to an intermediate category has been described. Interplay of linguistic levels has been illustrated as a rather trivial morphological change led to the merger of two predicative participles with the result that these forms’ ability to express the category of number was lost. This reinterpretation of the two forms as merged triggered loss of morphosyntactic properties and grammaticalization. Since the reinterpretation necessarily preceded the loss of category, it can be concluded that in this case grammaticalization is an effect, an effect of the reinterpretation and not the cause for it. Similar mechanisms are involved when a reinterpretation of the MSg predicative participle was forced on the form as being able to implement M as well as F reference. The reinterpretation preceded grammaticalization.

The result of the processes outlined here was that a new category of indeclinable verbal adverbs came into being. This new category was initially made up by four forms, two present gerunds and two past gerunds.

И плакася, видя человека в беде (Skripil’ 1948: 319) 
Абие в той час иде в церковь...сама же теплыми слезами молящися (Skripil’ 1948: 298).

Имущи же блаженная издетска обычай по вся вечеры ...молиться...(Skripil’ 1948: 311).

И (он) вседает нань глаголощи пророче слово, ревнуя яко поревновахъ (KL: 110)

Жена же, слышав такую речь, в сердцы си твердо сохрани (Skripil’ 1948: 226)

Пот же в велицей ужасти бывъ, абие приде к ней, пад при ногу ея...(Skripil’ 1948: 302)

И митрополить Фегностъ приѣха в Русь, бывши в Цариград и в Ордѣ (LS: 69)

This is a situation which is amply described in treatments of the Russian language of the 17th century. In a work14 on the Moscow vernacular in the 17th century, it is stated that the erstwhile PrG form in –a and the form –ui are not strictly distinguished. Both forms were in use without any apparent restrictions (Cocron 1962). More or less the same pertains for the PG in –v versus –vši, as indicated in other works (Veyrenc 1962: 76). The further development of these forms and how they were preceived and treated as деепричастия in the the codification process of the Russian Standard Language is, however, beyond the scope of this contribution.15

References


14 “Лексически сферы применения деепричастных образований a – a (-я) и соосвенных на –чи, не были строго разграничены” (Котков 1974: 278).

15 A treatment of the деепричастия in the the early codification process of the Russian standard language can be found in Bjørnflaten 2009.
Kotkov, S.I. 1974. Moskovskaja reč’ v načalnyj period stanovlenija russkogo nacional’nogo jazyka, Moskva.
Skripil’, M.O. 1948. “Povest’ ob Ulijanji Osor’inoj”, Trudy otdela drevne-russkoj literatury VI.
Skripil’, M.O. 1949. “Povest’ o Petre i Fevronii”, Trudy otdela drevne-russkoj literatury VII.

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Mojmír Dočekal

NEGATIVE CONCORD:
FROM OLD CHURCH SLAVONIC TO CONTEMPORARY CZECH*

Summary

The article examines negative concord phenomena in a diachronic perspective. It compares Old Church Slavonic and Contemporary Czech and discusses how these two languages fit into the generally accepted typology of negative concord languages. Another point of interest is the fact that negative concord presents a compositional problem for the semantics of natural language. This problem is solved by a syntactic theory of negative concord (Penka 2007, Zeijlstra 2004) which can get to grips with typological and even semantic facts. The article shows how this theory can be applied to the two diachronic stages of Czech and discusses a number of issues raised by Czech data.

1. Goal

The goal of this article is as follows: (i) to identify semantic properties of the preverbal negative marker and negative indefinite pronouns; (ii) to look at the development of negation from Old Church Slavonic to Contemporary Czech (even if Contemporary Czech is not direct offspring of Old Church Slavonic, I take this ahistoric stance and look at these two language stages because it allows me to say something I hope interesting about change of Negative Concord in Slavonic languages); (iii) to investigate Negative Concord from a diachronic perspective. Negative concord is a term (see Penka 2007, Zeijlstra 2008 and many others) that is used for describing a well known fact about negation: in some languages multiple occurrences of negation are interpreted as one semantic negation and this is termed Negative Concord. Examples of Negative Concord from contemporary Czech appear under (1).

(1) Nikdo neviděl nikoho.
Nobody NEG-saw nobody

‘Nobody saw anybody.’ = ¬∃xy[Person(x) & Person(y) & Saw(x,y)]

2. Preliminaries

I assume a classical logical definition of negation. Negation has the logical type <t,t> (i.e. it is a function from truth values to truth values), and it is a truth function which reverses truth values, as can be seen under (2). In syntax let us assume that negation is located somewhere above the Asp and below the TP projection – see Kosta (2001) for syntactic details of negation in contemporary Czech (CC). But because I will discuss mainly semantic properties of negation, nothing hinges on the syntactic details.

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Mojmír Dočekal

(2) \[[\neg]\] =

\[
\begin{array}{c|c}
1 & \rightarrow & 0 \\
0 & \rightarrow & 1 \\
\end{array}
\]

(2) of course cannot characterize all occurrences of negation in natural language: metalinguistic negation or constituent negation for example are not covered. But in this article I focus mostly on sentential negation, which is a fairly good match for the truth function under (2). I consistently distinguish between sentential negation as a syntactic preverbal marker in natural language and propositional negation as a semantic operator which can be found in the logical form of sentences. Crucial for the distinction between sentential and constituent negation is that the former has scope over an event variable, as is shown by Acquaviva (1997): examples appear under (3). While (3-a) represents sentential negation because the sentence claims nonexistence of the event, (3-b) is a constituent negation because its truth conditions locate the scope of negation below the event variable. Although it is true in most cases that sentential negation corresponds to high scope of negation above the event variable, this is not always the case. At least since Russell, we know that there are two readings for sentences like (4): de re and de dicto, respectively. Their truth conditions are rendered as (4-a) and (4-b), and ambiguity depends on the scoping of negation and the generic operator; see Neale (1990), Chierchia (1995) for details.

(3) a. *John didn’t meet Mary. = \neg \exists e[\text{Agent}(John,e) \& \text{Theme}(Mary,e) \& \text{Meet}(e)]

b. John met not Mary. = \exists e[\text{AGENT}(John,e) \& \neg \text{Theme}(Mary,e) \& \text{meet}(e)]

(4) The French king isn’t bald.

a. \text{Gen s}[\text{the } x: \text{FrenchKing}(x) \& \text{C}(j,s)\neg \text{bald}(x,s)]

b. \neg \text{Gen s}[\text{the } x: \text{FrenchKing}(x) \& \text{C}(j,s)\text{bald}(x,s)]

In Slavonic languages there is a well-known syntactic test for distinguishing sentential (SN) from constituent negation (CN): SN can license negative pronouns in negative concord (NC) languages like Czech, while constituent negation cannot:

(5) a. Nikdo nepotkal Marii.

Nobody NEG-met Mary

‘Nobody met Mary.’

b. *Nikdo potkal ne Marii.

Nobody met NEG Mary

‘Everybody met not Mary.’

With respect to the relationship between negation and pronouns we can distinguish two important types of indefinites: negative words (n-words, in CC: nikdo, nic, nikde, ...) and Negative Polarity Items (NPIs)/Free Choice Items (FCIs – in CC kdkoliv, kdekoliv, jakkoliv, ...). Błaszczak (2001) discusses the distribution and semantics of NPIs/FCIs in Polish (similar to CC in many respects) at greater length. Let us assume that NPIs/FCIs are licensed semantically/pragmatically by a broad class of items which can be united under the semantic notion of nonveridicality, and also that the licensing of n-words is a syntactic phenomenon. N-words in CC are simply licensed by a clause mate sentential negation as under (6-a) to (6-c), but NPIs/FCIs can be licensed by the syntactically diverse but semantically unified class of items that is shown under (7-b) and (7-c). They are, however, ungrammatical without licensor – see (7-a).
(6) a. Nikdo nevolal nikomu.
   ‘Nobody called anybody.’

b.*Málo lidi volalo nikomu.
   ‘Few people called nobody.’

c.*Volal nikdo?
   ‘Did nobody call?’

(7) a. *Petr volal komukoliv.
   ‘Petr called anybody.’

b. Málo lidi volalo komukoliv.
   ‘Few people called anybody.’

c. Volal kdokoliv?
   ‘Did anybody call?’

3. Strict NC and non strict NC languages

Giannakidou (2002) distinguishes between strict NC languages (Greek, Serbian/Croatian, all other Slavic languages, as well as Hungarian, Romanian and Japanese) and non strict NC languages (Romance languages): in both types of languages, if an n-word is in postverbal position, the verb has to be accompanied by the preverbal negative marker. By contrast, if an n-word is in preverbal position, the requirement is exactly the opposite in non strict NC languages (examples from Giannakidou 2002):

(8) a. Nessuno ha letto niente.
   Italian
   n-person have.3sg read n-thing
   ‘Nobody read anything.’

b. Nadie dijo nada.
   Spanish
   n-person said.3sg n-thing
   ‘Nobody said anything.’

c. KANENAS *(dhen) ipe TIPOTA.
   Greek
   n-person not said.3sg n-thing
   ‘Nobody said anything.’

d. Nikt *(nie) uderzył nigogo.
   Polish
   n-person not hit.3sg n-person
   ‘Nobody hit anybody.’

e. Balázs *(nem) beszélt senkivel semmiről.
   Hungarian
   Balázs not spoke.3sg n-person n-thing
   ‘Balázs didn’t talk about anything with anybody.’

f. Dare-mo nani-mo iwa-nak-atta.
   Japanese
   n-person n-thing say.neg.past
   ‘Nobody said anything.’

At first sight, Old Church Slavonic (OCS) does not behave according to this division. Rather, it shares properties of both systems. I use data from the Codex Marianus in its e-text transliteration – the e-text can be found at http://www.slav.helsinki.fi/ccmh/marianus.html (the transliteration is based on Vatroslav Jagić’s edition) and numbers in brackets after each example correspond to numbering in e-text version of the mentioned e-text. In the Codex the postverbal n-words are always accompanied by verbal negation (see (9-a) – (9-d)), but preverbal n-words occur without negation on the verb in approximately 1/3 of the cases (see (10-a) – (10-c)), while in 2/3 of the cases they are used with a negation on the verb (see (10-d) and (10-e)). This
situation is quite representative of OCS, as other studies such as Večerka (1996) and references therein show.

(9) a. *ne pogubila nikogočo otv nih* (4180910)
b. *i ne est' ničesoo* (3040200)
c. *ne rodiš ni o komže* (2121410)
d. *ne vidēše nikogočo tokto !is edinogo* (1170800)

(10) a. *I reče k' nimt' nikogočo obidite* (3031410)
b. *ničesoo otvveštavaaše* (1271200)
c. *niktože est' iže ostavīt' domt'* (2102900)
d. *niktože nax' ne najet'* (1200700)
e. *I niktože ne znaet' !sna tukmo !otc* (1112700)

In all cases from the Codex Marianus where a preverbal n-word occurs without negation on the verb, the semantic negation is a propositional negation and has scope over the event variable: the meaning of (11-a) is (11-b):

(11) a. *ničesoo otvveštavaaše* (1271200)
b. ¬∃ e[Agent(x,e) & answer(e)]

Hence it seems that OCS represents a blend between strict and non strict NC languages. The main distinction between non strict NC languages and OCS is that in real non strict NC languages there is no possibility to have negation on the verb when the n-word is preverbal, as can be seen in (12) (examples from Haegeman 1995). On the other hand, the distinction between OCS and strict NC languages like CC is of course the possibility of n-words in OCS to occur in sentences without verbal negation – a construction that is totally ungrammatical in strict NC languages like Czech.

(12) a. *Nessuno (*non) telefona a Gianni.*
   ‘No one calls Gianni.’
b. *Nadie (*no) hará eso.*
   ‘Nobody will do that’

c. ...

But contrary to the first impression that OCS does not fit into the distinction between strict and non strict NC languages, OCS is in fact strict NC language because parallel data to examples (9) and (10) can be found in Contemporary Greek and West Flemish (examples in (13) from Zeijlstra 2008) which are both classified as strict NC languages:

(13) a. *O Jannis *(dhen) dhiavase oute kan tis Sindaktikes Dhomes.*
   The Jannis NEG reads even the Syntactic Structures
b. *Oute kan ti Marie (dhen) proskalese o pritanis.*
   Even the Marie NEG invite the dean
c. ...

Contemporary Greek and West Flemish are both scrambling languages (as is OCS) and for Contemporary Greek the possibility of not expressing verbal negation depends on the preverbal position of the n-word, as is shown under (13-c). OCS is similar to
Contemporary Greek and West Flemish in this respect because the possibility of having a non-negated verb with an n-word does not depend on the syntactic status (Subject/Object) of the n-word; rather, it only depends on its linear position – see (10) above. What is crucial is that preverbal n-words may not be accompanied by a negated verb in non strict NC languages – and this is not the case in OCS. Hence the ambiguous behavior of OCS shows either that the distinction between strict and non strict NC languages is not fine-grained enough, or that OCS is closer to strict NC languages than to non strict NC languages (if the criterion is the impossibility of a negated verb with preverbal n-words in non strict NC languages). Let us assume that the distinction between strict and non strict NC languages is correct and look for evidence which would group OCS with strict NC languages.

Besides the distributional argument mentioned, there is also an argument from morphology: it is known that the negative imperative was regular in OCS; the example under (14) is from Večerka (1993). However, regular negative imperatives are not attested in non strict NC languages (Zeijlstra 2008). In non strict NC languages imperative forms may not be combined with the negative marker; in Spanish for example they are replaced by the subjunctive as under (15). This is explained by the fact that in non strict NC languages the negative marker on the verb carries semantic negation; in the imperative, however, this negation would have scope over the imperative operator, which would lead to wrong truth conditions: \( \neg \rightarrow ! \). Truth conditions of (15-c) would be ‘I don’t command you to read’ which explains its ungrammaticality. Let us thus assume that OCS was a strict NC language because it allows verbal negation with preverbal n-words, and because it has regular negative imperatives.

(14) ne v'svedi nas'ь v napastь
(15) a. Tu no lees. Spanish
    NEG read.2SG
    ‘You don’t read’
b. ¡Lee!’
    Read.2SG.IMP
    ‘Read!’
c. *¡No lee!’
    NEG read.2SG.IMP
    (‘Don’t read’)  (*TNI)
d. ¡No leas!’
    NEG read.2SG.SUBJ
    ‘Don’t read!’ (SN)

4. Penka’s and Zeijlstra’s theory

In this section I present the syntactic theory of Negative Concord developed by Penka (2007) and Zeijlstra (2004, 2008), which is able to account for the data presented. The basic assumption for strict NC languages in Penka/Zeijlstra’s theory is that all morphologically negated words come in fact without semantic negation. Technically, the tool that builds on this intuition is derived from contemporary generative grammar: n-words and sentential negation carry a so-called uninterpretable [uNeg] feature which is in agreement with the logical operator (propositional negation) that has an interpretable [iNeg] feature. Propositional negation is not equal to sentential negation in this system.
Sentential negation is a signal of propositional negation, but propositional negation is located higher in the syntactic tree than sentential negation.

A consequence of this theory is that n-words in strict NC languages are in fact indefinite phrases without any inherent negation. They carry only the uninterpretable feature which signals the presence of the propositional negation operator. This can be seen in the sentence (16) and in the explicit semantics of the lexical entries under (17). The semantic derivation on the grounds of a simplified syntactic tree appears under (18): negation on the verb (sentential negation) only signals the higher propositional negation operator (Op) which has no phonetic realization.

\( \text{Op}_{-\lbrack \text{iNeg} \rbrack} \text{Nikdo}_{\lbrack \text{uNeg} \rbrack} \text{ne}_{\lbrack \text{uNeg} \rbrack} \text{viděl} \text{nic}_{\lbrack \text{uNeg} \rbrack}. \)

(17) a. \([\text{nikdo}] = \lambda P. \exists x[\text{person}(x) \& P(x)] \)  
   b. \([\text{nic}] = \lambda P. \exists x[\text{thing}(x) \& P(x)] \)  
   c. \([\text{nevidí}] = \lambda y. \lambda x. \text{see}(x, y) \)

(18)

\[ \lambda P. \exists x[\text{person}(x) \& P(x)] \]
\[ \text{nikdo} \] \[ \text{nievidí} \]
\[ \text{vic} \]
\[ \lambda y. \lambda x. \text{see}(x, y) \]
\[ \lambda P. \exists y[\text{thing}(y) \& P(y)] \]

The theory also works quite well for non strict NC language. The main distinction between strict and non strict NC in the Penka/Zeijlstra theory lies in the semantic status of the negation on the verb – in strict NC languages the sentential negation is not semantically active (it has only a [uNeg] feature), but in non strict NC languages the sentential negation equals the propositional negation. How this works is shown under (19): the result of the semantic computation appears under (19-b). (20) shows why preverbal n-words are ungrammatical in non strict NC languages: the negation on the verb is semantically active, but the n-word nadie must be licensed by another semantic operator with negation semantics (nodie in the preverbal position is not c-commanded by the negation on the verb). Therefore the result is a double negation reading, as is shown under (20-a). Since languages generally avoid double negation, this is taken to be the reason for the ungrammaticality of preverbal n-words with negated verbs in languages like Italian or Spanish.

(19) \[ \text{No}_{\lbrack \text{iNeg} \rbrack} \text{vino nadie}_{\lbrack \text{uNeg} \rbrack}. \]  
   a. \([\text{no}] = \neg \)  
   b. \( \neg \exists x[\text{person}(x) \& \text{came}(x)] \)

(20) *\[ \text{Op}_{\lbrack \text{iNeg} \rbrack} \text{Nadie}_{\lbrack \text{uNeg} \rbrack} \text{no}_{\lbrack \text{iNeg} \rbrack} \text{vino}. \]  
   a. \( \neg \exists x[\text{person}(x) \& \neg \text{came}(x)] \)  

4.1. Evidence for the uninterpretable nature of n-words and verbal negation in Czech

In this section I present data showing that n-words and verbal negation in Czech are not accompanied by semantic negation; they merely signal that there is an interpretable
negative operator in their clause. This is important as the theory seems to be counterintuitive: it claims that morphologically negated words have no negative semantics. We will see, though, that this perspective is supported by actual data.

The theory predicts that the negative status of n-words in strict and non strict NC languages is only apparent; it merely signals the presence of operators with real semantic content. From this it follows that there can be operators intervening between an n-word and its interpretable operator. This is the case in so-called scope-split phenomena. Some variation of Penka’s (2007) example of scope split phenomena appears under (21). The most probable reading of (21) is (21-a) where the scope of the negation is above the modal verb, but the n-word (without negation, as an indefinite) is scoped below the modal verb. The second (highly improbable) reading under (21-b) outscopes the indefinite above modal verb. The third reading is probably ungrammatical in Czech as it would lead to scoping negation below modal verb. Scope split phenomena adduce evidence for the non negative status of n-words.

(21) Petr nemusel nosit žádnou kravatu.
   a. ‘It wasn’t the case that Petr was obliged to wear a tie’ = ¬ > must > ∃
   b. ‘There was no particular tie that Peter was obliged to wear.’ = ¬ > ∃ > must
   c. #‘It was obliged that Peter wears no tie.’ = must > ¬ > ∃

At first sight, (22) is a counterexample for the theory: if it is grammatical at all, it does not allow for the scope split reading (even if universal quantifiers are grammatical under inverse scope reading with negation in Czech). This is quite surprising but probably shows that there are intervention effects in the licensing of \( [u\text{Neg}] \) features on n-words. The reason of this is quite mysterious but reminiscent of the immediate scope constraint of Linebarger (1987). It also confirms the non licensing ability of sentential negation. If sentential negation were the licensor of n-words in (22), then this ungrammaticality would not arise.

(22) ??Každý učitel nemá žádné auto.
    every teacher have-NEG no car
    ‘No teacher has a car.’

Similar phenomena can be observed with some adverbials under (23): the reading (23-a) is ungrammatical for (23). This can only be true if negation is interpreted higher than below the adverbial. On the other hand, it is quite obvious that negation and other logical operators can scopally interact, so it is not clear how reliable this argument is.

(23) Petr moc nepil.
    a. # ‘The amount of liquid which Peter drank wasn’t big’ = much > ¬
    b. ‘It wasn’t the case that Peter drank a lot of liquid’ = ¬ > much

Maybe a better example can be construed using negation and the conjunction –li: (24) cannot mean that the implication is negated ((24) does not have the meaning “It is not the case that if Peter will buy the book, I will buy it myself”). This shows that negation is interpreted elsewhere than on the verb. This is good evidence for the non negative nature of verbal negation.

(24) Nekoupí-li Petr tu knihu, tak jí koupím sám.  → > ¬ / ∗¬ > →
'If Peter will not buy the book, I will buy it myself.'

A last piece of data in support of the theory is so called expletive negation (see Abels 2005 for detailed discussion and older references). Expletive negation is an interesting phenomenon. In a nutshell, the embedded sentence in (25) is interpreted as non negated even if its verb bears negation. This is also clear from the English translation. Expletive negation provides evidence to the end that sentential negation is not the same thing as propositional negation: it may be a byproduct of agreement. In (25) there is negation on the embedded verb, which however is uninterpretable: it is licensed by the interpretable negation on the higher psych verb (in lexical decomposition of the verb fear where we can assume that fear can be decomposed into something like hope + not to be the case, that …). This also explains why negative concord is not grammatical in expletive negation sentences, as (26) shows.

\[(25)\text{Petr se bál, aby Karel nepřišel.}\]

Peter SE afraid COMP Karel NEG-come.3.sg

‘Peter was afraid that Karel will come.’

\[(26)\text{*Petr se bál, aby nikdo nepřišel.}\]

‘Peter was afraid that nobody will come.’

The conclusion from this section is that the negative status of n-words and verbal negation in CC is only apparent – n-words are indefinites with special syntactic properties – they need a negative element with an interpretable Neg feature; also, verbal negation is not the locus of propositional negation. This is in agreement with Penka/Zeijlstra’s theory.

5. Problems and a partial solution

Despite its good empirical coverage, Penka/Zeijlstra’s theory faces a serious problem as far as I can see: if all n-words and verbal negation in strict NC languages are really without semantic negation, why should verbal negation be used when the n-word is sufficient to mark the presence of the sentential negation operator in case its scope is high enough? Therefore it seems that the theory predicts the existence of non strict NC languages, but that strict NC languages should be quite exceptional.

A partial answer to this problem can be found in Zeijlstra (2008) where building on the insights of Herburger (2001), Zeijlstra claims that verbal negation marks minimal scope of negative operators (see the Spanish example from Herburger (2001) under (31)). It is important to note that under (31) the postverbal n-word is grammatical even without negation on the verb (Spanish is a non strict NC language), but the sentence has a peculiar meaning: the baby is looking (there is an event of looking), but there is nothing on which it focuses. This is rendered in (32). The verbal negation then widens the scope of negation and extends it over the event variable which explains why negation on the verb is obligatory when the n-word is postverbal.

\[(31)\text{Temen que el bebé sea autista. Se pasa el tiempo mirando a nada.}\]

fear.3pl that the baby is.subj autistic. cl spends the time looking at n-thing

‘They fear the baby is autistic. He spends his time looking at nothing.’

\[(32)\exists e[\text{Agent(baby,e) } \& \neg \exists x[\text{thing(x) } \& \text{Theme(x,e) } \& \text{look(e)}]]\]
However, if this analysis is correct we expect that preverbal n-words are not accompanied by verbal negation because the scope of the negative operator that licenses these n-words is high enough above the event variable. This is exactly the situation of OCS, modern Greek and West Flemish. The question then is why OCS evolved into modern Slavic languages the way it did. Or, in other words, why did an optimal configuration change into a non optimal configuration? A plausible semantic solution does not appear to exist. We can patch the theory and assume something like Penka’s Principle for the expression of negation under (33) which would of course make the correct prediction. This, however, is nothing but restating the problem (as Penka herself admits). In the end the development from OCS into CC seems to be the reflex of Jespersen’s cycle which cannot be accounted for in semantic terms at all. The oft-quoted idea of Otto Jespersen (1917, 4) appears under (34). The situation in OCS admitted non negated verbs in sentences with n-words that are high enough to scope above event variables, but in diachronic evolution the situation changed and verbal negation (strengthening of negation in Jespersen’s term) became obligatory in accordance with Penka’s Principle for the expression of negation.

(33) Principle for the expression of negation:
Mark sentential negation on the finite verb, unless this results in a different meaning.

(34) The history of negative expressions in various languages makes us witness the following curious fluctuation: the original negative adverb is first weakened, then found insufficient and therefore strengthened, generally through some additional word, and this in turn may be felt as the negative proper and then in course of time be subject to the same development as the original word.

5.1. A partial syntactic solution
There is no guarantee that Penka/Zeijlstra’s theory can answer the problems that were discussed in the preceding section, but the data below seem to be promising. For one thing, negation in OCS was not incorporated into pronouns. Evidence from negation merging with PP is shown under (35) and (36). (36-a) – (36-c) are Old Czech examples from Lamprecht et al. (1986). The data clearly show that Penka’s principle for the expression of negation was not completely respected in OCS and Old Czech. This was already clear from the n-word examples. But another thing to be observed is that the position of negation was not fixed in OCS, e.g. negation in most cases occurred before the modal verb and sometimes even before main verb of modal + lexical verb constructions. The same holds true for negation and future auxiliary: with a participle, negation occurs sometimes before the auxiliary verb and at other times before the lexical verb, see examples from the Codex Marianus under (37). This of course is completely impossible in CC where the position of negation with respect to modal, auxiliary and lexical verbs is strictly fixed (for discussion of CC see Kosta 2001; for discussion of sentential negation in OCS see also Večerková 1996: 129, from which similar claims about the variability of the syntactic position of negation can be also inferred).

(35) ni vý iměx poklonite se otcji
(4042110)
(36) a. včecko ni za č by nejměl
b. ni sē s kým o to potáza
c. v ni v čem takovém
(37) a. I ne mogę ego iscělití (1171600)
b. ni umyště bo po tomь mogōt (3203600)
c. ne bôdetь poznano (3081700)
d. ne osiždeni bôdetе (1070100)

A possible partial solution for theoretical issues from the previous section would be to claim that negation before pronouns in preverbal position in OCS was still identified as sentential negation (the position of sentential negation was not fixed), and that in those cases where we see negation on both the verb and on the pronoun, the negation on the pronoun merges with the pronoun, a process whose end point is total fusion in CC. The verbal negation before indefinite pronouns in OCS will of course still be [uNeg], which however will be able to mark the scope of negation over event variables, something that merged negation on contemporary n-words is unable to do. But after the following step in Jespersen’s cycle, the negation landed on the verb, which meant that sentential negation could not only be expressed by the negation on n-words. This means that n-words can be accompanied with non negated verbs in OCS because the negation on these pronouns is in fact a sentential negation that marks the scope of the propositional negation over event variables. In case of postverbal n-words, the scope of negation would be too low below the event variable, which would lead to a constituent negation reading that is ungrammatical in most cases.

This explanation is at best a first step towards a formal theory that describes the diachronic changes from OCS to CC. Serious morphological and syntactic investigation are needed in order to decode the nature of merging negation in OCS. Moreover in some contemporary Slavonic languages (Serbian, Croatian) negation is still not merged into PPs. These languages, however, are strict NC languages, which means that the explanation for the non strict NC nature of OCS cannot rely on this “sentential negation on the wrong place” argument alone. Pursuing this track would lead beyond the scope of this article and is thus left an open issue for further investigation.

References

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ALIGNING SYNTAX IN EARLY NEW TESTAMENT TEXTS: THE PROIEL CORPUS

Summary

This paper first briefly describes the PROIEL corpus of old Indo-European translations of the New Testament and the syntactic annotation scheme used there. We then discuss our token alignment algorithm, and illustrate the usefulness of an aligned OCS–Greek parallel corpus in a brief sample study of OCS adnominal possession.

1. Introduction

This paper reports on ongoing work on the PROIEL parallel corpus of New Testament (NT) texts. The corpus consists of the Greek original NT and its earliest translations into Indo-European languages: Latin, Gothic, Classical Armenian and Old Church Slavic (OCS). The corpus is a cornerstone of the project “Pragmatic Resources in Old Indo-European Languages” at the University of Oslo. Our aim is to do a series of contrastive studies on what syntactic devices these languages use to express pragmatic categories, with focus on word order, pronouns, participles as backgrounding devices, definiteness and pragmatic particles.

The corpus is a unique resource to OCS, since all serious syntactic studies of this language must take the Greek original into account. Since the corpus is relatively small, we have the opportunity to do detailed, manual morphological, syntactic, information-structural and semantic (e.g. animacy) annotation of the texts. Furthermore, since this is a parallel corpus, the texts are aligned in order for the users to be able to perform the multi-language queries necessary to contrastive work. In this paper we demonstrate the syntactic annotation, and describe and discuss our method of automatic token alignment. We then demonstrate the usefulness of the corpus to Slavicists in a preliminary study of OCS possessive adjective and adnominal dative constructions. In the PROIEL project’s main field of interest, the expression of pragmatic categories, there has been a general pessimism in the literature as to whether indigenous Slavic features can be separated from Greek influence (in particular on the issue of word order, cf. Lunt 1977: 440, Huntley 1993: 164). We believe that a fully annotated and aligned parallel corpus of OCS and Greek can provide new answers to these and other long-standing questions in Slavic diachronic syntax.

2. Syntactic annotation

For the syntactic annotation of the corpus, we use an enriched version of dependency grammar. Dependency grammar is ideal for annotating free-word-order languages such as OCS and Greek, since the information on syntactic dependencies and word order may be

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1 http://www.hf.uio.no/ifikk/proiel/
2 Our OCS text is the Codex Marianus (Jagić 1883), our Greek text is the Tischendorf edition of the NT (Tischendorf 1869–1872).
kept in separate layers. Compared to the annotation guidelines of e.g. the Prague Dependency Treebank (PDT), our annotation differs in three main ways:

– minimal use of empty nodes is allowed, for verb ellipsis and asyndetic coordination
– the syntactic relation labels are more fine-grained (e.g. the PDT OBJ has been split into OBJ, OBL, AG and the supertag ARG)
– we use secondary dependencies to deal with structures where the subject of a nonfinite verb is coreferent with an element of the matrix clause (control and raising phenomena)

3. Applying the annotation scheme

Our point of departure is the following example:

(1)  
kaê bo poľka ēstъ chàkoy dũte probrãqetъ
  what  for  use   is   to-man  if  gains
večь mirь. a sebe pogubitъ.  li otšte(ty)ty.
whole  world  but  self  destroys  or  forfeits
‘What use is it to a man if he gains the whole world, but destroys or does damage to himself?’ (Luke 9:25)

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3 See http://ufal.mff.cuni.cz/pdt2.0/.
4 Haug/Johndal 2008 describes the differences between the PROIEL annotation and that of the Latin Dependency treebank, which uses the PDT scheme. For more on our annotation, see our syntactic guidelines at http://www.hf.uio.no/ifikk/proiel/publications/guidelines.pdf. Haug et al. 2009a gives a technical account of the corpus, for a more linguistic account, see Haug et al. 2009b. The corpus is freely accessible at http://foni.uio.no:3000/, where XML exports the underlying corpus data are also available. Users need to register.
We see that the syntactic analysis is close to a “traditional” one in many respects: subjects (SUB), predicates (PRED), objects (OBJ) and attributes (ATR) are immediately recognizable. That subjunctions head dependent clauses is also a familiar solution, but note the slight deviation from the PDT scheme where the subjunction, though heading its clause, bears a “bridging relation”, whereas the dependent verb bears the function of the clause (in this case ADV). In our analysis, the dependent verb is a PRED. We see that AUX is a label used not only for auxiliary verbs (as with l-participles), but also for other “grammatical words”, e.g discourse particles such as ἀλλά and negations.

The sentence shows us one of the uses of having a more refined set of category labels for verbal arguments: In dative constructions where the dative depends on a copula that also has a nominative subject, the dative is considered an oblique argument (OBL), since this type of “possessive” construction is frequent and well established, and can be said to license the dative argument.

The example also demonstrates how coordinations are done: the conjunction heads the coordinated pair and bears their syntactic relation label, in this case PRED, whereas the PDT would use COORD, a concept similar to the bridging relations. An argument shared between two clauses, such as the OBJ in this sentence, must be indicated by a secondary relation, represented as a dotted arrow in the tree.

Looking at the corresponding Greek sentence, we find that it differs substantially in structure:

(2) τί γάρ ὡφελεῖται ἄνθρωπος κερδήσας τὸν
what for is-profited man having-gained the
‘For what does it profit a man if he gains the whole world and loses or forfeits himself?’

Firstly, we see that the first coordination is done by a particle, not by a conjunction. Our definition of conjunctions is strict: only elements that can coordinate phrases as well as clauses are considered conjunctions. So δὲ is not a conjunction by this criterion, but rather a particle marking the second conjunct in an asyndetic coordination. The coordination is therefore headed by an empty conjunction node labelled C, and the particle δὲ is instead taken as an AUX on the second conjunct, which, incidentally, is itself a coordination headed by ἢ.

Secondly, we see that the Greek sentence does not have an adverbial clause headed by a subjunction, like the OCS sentence has. Instead, the conditional content is conveyed by coordinated predicative participles, which bear the label XADV in our annotation scheme. The XADV relation is used on adverbial elements which have an external subject: the subject of the participle is to be found among the other dependents of its PRED mother node – in this case it is the subject, ἄνθρωπος as signaled by case agreement on the participle. The secondary dependency is again shown as a dotted arrow, this time labeled XSUB, in the tree. Since the subject is the same for all the coordinated XADVs, the secondary relation goes from the null conjunction to ἄνθρωπος.

4. Token alignment

The OCS translation of the Gospels is extremely literal at least when it comes to the order of lexical words: even in cases where the syntactic structure is significantly altered, words with the same or similar lexical content tend to come in the same order. For this reason we
found it advisable to develop our own algorithm for token alignment, which we could tailor suit to the task at hand, instead of relying on more generally applicable tools such as GIZA ++. Given the literalness of the translation, the token alignment could be done automatically with great precision: in test runs, the success rate is typically 95–97%, which means that the data are directly usable for research at least on frequent phenomena.

The token alignment is a two-step process. First, a dictionary of ranked, candidate Greek lemmata for every Slavic lemma is generated using collocation measures. Next, the information in this dictionary is combined with other information in the corpus, such as the morphological tag, syntactic relation and word order, to align the Slavic tokens to tokens in the corresponding Greek sentence.

The dictionary is based on collocation measures alone. The input to the process are pairs of lists of lemmata in corresponding information units, i.e. Bible verses. Every time a Slavic lemma appears in the same verse as a Greek lemma, it is a potential translation equivalent.

(3) \[τίς, γάρ, ὤφελέω, ἄνθρωπος, κερδαίνω, ὁ, κόσμος, ὠς, ἐλαφροῦ, δὲ, ἀπόλλυμι, ἡ, Ἲμι]

(4) \[κύρι, θο, πολίσα, κύτι, πλεύσκικ, αὐτ, προσφέρτεί, κύκ, μιρ, α, ες, ποροφείτη, ας, οτρήτη]

Every lemma in (3) is a potential translation equivalent of every lemma in (4). Counting such co-occurrences for each pair of Greek and Slavic lemmata we can construct contingency tables with four cells, containing the number of information units where: 1) both lemmata occur, 2) the Greek lemma occurs, but not the Slavic, 3) the Slavic lemma occurs, but not the Greek, and 4) neither of the lemmata occur:

<table>
<thead>
<tr>
<th></th>
<th>τίς</th>
<th>No τίς</th>
</tr>
</thead>
<tbody>
<tr>
<td>κύτο</td>
<td>65</td>
<td>4</td>
</tr>
<tr>
<td>No κύτο</td>
<td>243</td>
<td>3258</td>
</tr>
</tbody>
</table>

We then run statistical tests on these tables to find the significance of the number of collocations. Since the tables are typically ‘skewed’ in that there are few co-occurrences and many non-occurrences the chi-square test gives poor results and we use a log likelihood measure instead, see Cysouw et al. (2007). In this way we are able to pick out κύτο as a good translation equivalent of τίς even though the latter word has a much larger area of use.

Next the correspondence candidates are ranked using the significance data. However, the most common Greek words will typically turn up as good candidates for all Slavic lemmata, and to avoid this problem we also rank the Slavic words as candidate correspondences to the Greek ones and then combine these two ranks.

In the next step, the token alignment system is fed with two sequences of tokens to be aligned. The algorithm first identifies “anchors”, i.e. words that are the best equivalents from the dictionary and occur in the same position of the sentence, as measured simply by counting the number of words from the left and allowing a maximum difference of one word.

After these anchors have been fixed, the algorithm can now use them to measure
word order differences more precisely by looking at differences in distance from the closest anchor both to the left and to the right. It is also possible to identify “crossing alignments”, which imply a transposition of word order. Since we know that this is something the translators avoided, we can penalize such alignments. Furthermore, potential alignments are weighed for differences in part of speech, syntactic relation and rank in the dictionary. In each iteration, the algorithm computes scores for all possible token alignments and choose the best ones. Scores are then recomputed with extra information coming from the already aligned token, and the process is repeated until the best alignment score is above a certain threshold, at which point the algorithm halts.

Let us look at an easy example where the structure is the same in both Greek and Slavic, Luke 9:6. English glosses are added for expository purposes, but are not actually parts of the alignement. The Greek tokens are followed by their linearization indices:

isxodâste ἐξερχόμενοι (0) ‘going out’

καὶ (7) ‘and’

κατὰ (3) ‘along’

κώμας (5) ‘villages’

εὐαγγελιζόμενοι (6) ‘preaching the gospel’

καὶ (7) ‘and’

θεραπεύοντες (8) ‘healing’

πανταχοῦ (9) ‘overall’

Remaining original words: τὰς (4)

‘And they departed and went through the towns preaching the gospel and healing everywhere.’

As we can see, all tokens except the Greek definite article are perfectly aligned and the word order is the same. The syntactic structure of the sentences are also the same:
In such cases, which are fairly frequent, the token alignments are directly useable as syntactic alignments as well - we can directly compare not only the lexical rendering of, say, Greek κατὰ as Slavic еккошь, but also their respective subgraphs κατὰ τὰς κώμας and еккошь виши, and their functions within the clause. The same holds for the other elements in the sentence, e.g. the participles.

In other cases, such as our original example, matters are more complicated. The token alignments look like this:

Alignments for Luke 9:25

<table>
<thead>
<tr>
<th>Greek</th>
<th>Latin</th>
</tr>
</thead>
<tbody>
<tr>
<td>κακ</td>
<td>ти (1)</td>
</tr>
<tr>
<td>по</td>
<td>γάρ (2)</td>
</tr>
<tr>
<td>полъша</td>
<td>ωφελείται (3)</td>
</tr>
<tr>
<td>есъ</td>
<td>ἀνθρώπος (4)</td>
</tr>
<tr>
<td>ψάκος</td>
<td>апολέσας (5)</td>
</tr>
<tr>
<td>аи</td>
<td>дε (6)</td>
</tr>
<tr>
<td>погуби</td>
<td>ἀπολέσας (7)</td>
</tr>
<tr>
<td>ли</td>
<td>ἤ (8)</td>
</tr>
<tr>
<td>αти</td>
<td>ἡμιοθείς (9)</td>
</tr>
</tbody>
</table>

Remaining original words: тὸν (6)

Again, we find that most of the tokens are aligned; the exceptions are the Greek article, the OCS есъ in the copula-predicate noun complex translating the Greek ὡφελείται, and the OCS subjunction аи, which corresponds only to a part of the meaning of the Greek
participle usage. The token alignment thus suggests that the sentences are very similar with the exception of some word order transpositions (весь and миръ, а and себе). But as we saw above, these sentences are in reality quite different from a structural point of view.

This is both a strength and a weakness: on one hand, the token alignments do not directly show the real differences in structure between the two sentences; on the other hand, they can be used to retrieve such differences through subtle queries. A inquiry into the translations of Greek participles would for example have to use the token alignment as a basis for further queries in both tree structures: for example, if the corresponding Slavic verb is finite, does it occur in a main clause or in a subordinate clause? And if, as it happens here, the translation is a subordinate clause of a particular type, is this meaning nuance expressed e.g. by a particle in the Greek (not the case here)? Such queries typically rely on previous knowledge of possible translation equivalents - it is not possible to find the translation correspondence between полъя естъ and ὀφελεῖται unless the query is instructed to include the head finite verb of predicative nouns that have been token aligned to finite verbs.

This information, as well as the correspondence of the Greek participle to a finite conditional subordinate clause, could be expressed by enriching our alignments with dependency subgraph alignments where e.g. аще and κερδήσας would be directly aligned based on the semantic correspondence of their respective subgraphs. We have experimented with such alignments but have as of yet not found a completely satisfactory way of representing them, and they remain experimental. Once they are fully implemented, it should be possible to gradually include dependency alignment information in the database based on results of queries done on the token alignment alone.

5. Application: OCS adnominal possessives

The usefulness of a token-aligned parallel corpus of OCS and Greek is self-evident, and can be demonstrated in a preliminary quantitative study of a phenomenon where Greek and OCS are known to differ substantially: For the expression of adnominal possession, Greek generally uses the typical broad Indo-European genitive across the board. OCS, on the other hand, displays a broad range of construction types that interact and overlap in interesting ways (cf. Huntley 1984, Eckhoff 2007, ch. 6). In this small study we will focus on the “classical” possessive adjectives (PAs) and adnominal datives respectively, examples such as tektonovъ сынъ ‘the carpenter’s son’, цѣлованіе марііно ‘Mary’s greeting’, богъ иквовъ ‘the God of Jacob’, мятаремъ друю и грѣшникомъ ‘a friend of tax-collectors and sinners’, отпѣшеніе грѣхомъ ‘the forgiveness of sins’. These two construction types are interesting in that neither are present in the Greek, and in that they are not in the type of complementary-distribution-like relationship as the PAs and the adnominal genitives are. Note that the constructions do not necessarily express possession in any strict sense.

We took out all occurrences of adnominal datives and all occurrences of denominal

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5 Note that our interpretation of adnominal datives is liberal: we have included all cases where the dative could be interpreted as adnominal, i.e. also cases that are ambiguous between an adnominal and an adverbal reading.
adjectives in -\textit{ov}-, -\textit{in}- and -\textit{j}-.\footnote{We excluded adjectives with a clear categorizing meanings, in examples such as “camel hair”, “needle’s eye” and similar, but we did not exclude non-human referents on principle.} on the condition that they must be dependent on a noun and have a Greek token alignment. In constructions with coordinated dependents we only took out the first conjunct. For the dative constructions we only took out nouns, adjectives and participles, excluding pronouns.

The first thing we want to ascertain is whether dative constructions and PA constructions are translated from the same types of Greek constructions. They mostly are: 80\% of all PA constructions\footnote{20 out of the remaining 25 occurrences had indeclinable proper noun possessors.} and 85.6\% of all dative constructions are translations of Greek adnominal genitive constructions. Thus, there is little to indicate that the Greek morphosyntactic realization influences the OCS choice of construction.

What does give us interesting differences between the constructions, on the other hand, is the presence or absence of definite articles in the Greek source construction. Looking for articles on the possessor will lead us astray, as articles are very often omitted with proper nouns and hence with the majority of source constructions for the PA constructions. We therefore look for articles on the head noun.

<table>
<thead>
<tr>
<th>Greek</th>
<th>PA construction</th>
<th>percent</th>
<th>dative construction</th>
<th>percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>article on head noun</td>
<td>94</td>
<td>84.50%</td>
<td>49</td>
<td>54.40%</td>
</tr>
<tr>
<td>no article on head noun</td>
<td>27</td>
<td>15.50%</td>
<td>41</td>
<td>45.60%</td>
</tr>
</tbody>
</table>

Table 1. Presence or absence of article on head of Greek source construction. P-value (Fisher’s exact test) = 4.105e-06

As we see, PA constructions in the great majority of cases have definite source constructions in Greek (and the exceptions are mostly headed by proper nouns or have non-human possessors). With dative constructions, on the other hand, only a little over half of the source constructions are definite. This difference does not indicate any mechanical influence from the Greek, but rather that the choice of OCS construction is sensitive to the information status of the original construction. Adnominal dative referents appear to be less discourse prominent than PA referents. Also, they are less prominent on the animacy hierarchy. PAs overwhelmingly denote humans, whereas the adnominal dative referents are fairly evenly distributed across the entire animacy hierarchy.

<table>
<thead>
<tr>
<th>animacy</th>
<th>PAs</th>
<th>adnominal datives</th>
</tr>
</thead>
<tbody>
<tr>
<td>human</td>
<td>104</td>
<td>23</td>
</tr>
<tr>
<td>human collective</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>animal</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>concrete</td>
<td>1</td>
<td>16</td>
</tr>
<tr>
<td>non-concrete</td>
<td>0</td>
<td>23</td>
</tr>
</tbody>
</table>
Another interesting fact is that an adnominal dative construction is considerably more likely to be headed by a relational noun than a PA construction is, i.e. a noun that provides a role interpretation for its adnominal modifier, such as kinship terms, deverbal nouns, deadjectival nouns, body part nouns and others. The noun son has a slot for the parent, a deverbal noun such as forgiveness will have a slot both for the subject and object of the corresponding verb.

<table>
<thead>
<tr>
<th>head</th>
<th>PA constructions</th>
<th>percent</th>
<th>dative constructions</th>
<th>percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>relational</td>
<td>62</td>
<td>59.60%</td>
<td>51</td>
<td>72.9%</td>
</tr>
<tr>
<td>non-relational</td>
<td>42</td>
<td>40.40%</td>
<td>19</td>
<td>27.10%</td>
</tr>
</tbody>
</table>

Table 3. Head nouns in PA and dative constructions.  
P-value (Fisher’s exact test) = 0.0004231

In this brief analysis, data from the aligned Greek tokens suggest that whereas PAs are highly discourse-prominent, adnominal datives are much less so. When we investigate the OCS data further, these confirm that whereas PAs are used for the most typical of possessors, discourse-prominent human beings, the adnominal dative is a choice for untypical possessors: referents that are low in discourse prominence or animacy or both. Also, adnominal datives are more likely to fill a role provided by a relational noun than a PA is. This may suggest that adnominal dative referents are not prominent enough to serve as anchors for new referents, a central function of the PA construction. The Greek adnominal genitive construction is not sensitive to such factors, but can be used with or without articles to signal something of the same.

6. Conclusions

With its rich multilayered annotation and alignments, the PROIEL corpus is a unique resource to all the five project languages, but in particular to OCS and Gothic, which are only extant in translations, making contrastive studies against the original Greek indispensable. The high-quality automatic token alignments, combined with the fine-grained annotations, serve as a powerful contrastive tool. They can be used to look for identical structures in the OCS and Greek texts, but also, as in our sample study, to use features of the Greek as diagnostics for the distributions and semantics of OCS-specific constructions. The corpus is developed with studies of pragmatics in mind, but information from many levels can be combined into sophisticated queries on a multitude of topics, and should be of interest to most scholars working on early Slavic syntax.

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8 11 of the dative occurrences have no animacy tag since only nouns have been tagged for animacy.
9 The annotation of nouns for relationality is not complete, 26 of the nouns in the dataset have no tag.
References


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Mirjam Fried

A CONSTRUCTION GRAMMAR APPROACH
TO GRAMMATICAL CHANGE

Summary

A major challenge in diachronic analysis concerns the issue of capturing, in a systematic way, the inherently dynamic nature of linguistic structure and the gradience of grammatical change. This paper is an attempt to address the challenge by exploring the viability of Construction Grammar as a tool of diachronic analysis. The multidimensional constructional approach and the attendant theoretical claims are illustrated by one particular grammatical shift in Old Czech: the development of the ‘long’ form active present participle from a semantically transparent (participial) member of the verbal paradigm to an adjective-like modifier. This development is considered in some detail and the analysis revolves around the crucial importance of context, the interpretive ambiguities that arise from concrete usage, and the gradual conventionalization of one interpretive option.

1. Introduction

The basic theoretical premise of the approach offered in this paper is the hypothesis that a change in grammatical organization is the result of an intricate interplay between discrete partial changes which may take place across multiple domains of linguistic patterning, including morpho-semantic structure, syntactic function, communicative function, and lexical meaning. The partial shifts, in turn, are motivated and facilitated by specific usage in concrete communicative contexts. The goal of the paper is to demonstrate that the conceptual underpinnings of Construction Grammar (e.g. Fillmore 1989, Croft 2001, Fried & Östman 2005) as a ‘holistic’ approach to linguistic analysis (albeit originally designed for synchronic purposes) provide the right tools for establishing the diachronic relationships among grammatical patterns and for allowing us to be more precise about representing the emergence of grammatical structure, as a reflection of the reorganization in the speakers’ conventional linguistic knowledge.

The theoretical and representational issues will be illustrated on the basis of a lexico-grammatical change that straddles the derivation/inflection distinction, with consequences for categoriality, syntactic patterning, and textual function. I will analyze the functional shift(s) in a particular ‘long’ participial form in Old Czech (the type chodiecí ‘[one] walking’) and the observed changes will revolve around the interplay between internal morphosemantic structure of the word-form and its grammatical and textual function in larger syntagmatic strings. I will show that through a close analysis of the form’s usage, we can identify specific recurring semantic and pragmatic features that motivated the gradual reorganization of the relevant grammatical pattern as a whole. The main point of the analysis is to emphasize the crucial importance of ‘transitional’ contexts, to which we must look for cognitively and communicatively grounded clues if we wish to truly understand the nature of the changes. This aspect of the present analysis is in contrast to more traditional approaches in which the source of change has generally been sought in the form itself, regardless of the conditions of its usage in larger patterns.
2. The notion of ‘construction’

The conceptual basis of Construction Grammar (CxG) rests on the premise that grammatical patterns are complex signs, in principle not much different from lexical signs: a grammatical pattern is treated as a conventional association between form and function or meaning, i.e. a ‘construction’ in a very technical, theoretically grounded sense. Diachronic change is then viewed as a change in the nature of this association, which may affect either the form or the function/meaning or, most commonly, both. This conception of grammatical structure and its changeability in time does not force us to determine a single trigger of a particular change, whether in the direction form $\rightarrow$ meaning or meaning $\rightarrow$ form. Instead, it allows us to accommodate the observations that continue to emerge from empirically oriented studies, namely, that a particular change can have multiple partial triggers that work simultaneously and reinforce certain paths of change, and that they all contribute to the ultimate, observable reorganization of a grammatical pattern. It is also taken for granted that both the internal mechanics of a change and the end result must be compatible with what we know about human cognition and interactional principles.

The notion of grammatical construction is thus defined in a very specific way, different from the traditional usage, in which the term ‘construction’ means simply a syntagmatic string. For the purposes of this paper, the nature of the technical term is briefly summarized below. A grammatical construction:

- is a symbolic sign, i.e. a conventional association between form and function that is at least partially arbitrary;
- serves as the basic unit of analysis;
- applies to linguistic units of any size or internal complexity (morphological units, words, phrases, clauses);
- is a multidimensional object, in which morphosyntactic, semantic, pragmatic, phonological, etc. features are integrated in a single description;
- represents a formalizable hypothesis about speakers’ linguistic knowledge;
- licenses well-formed linguistic expressions (‘constructs’).

Constructions are also internally structured in that they can be characterized at an external level, i.e. by sets of constraints on how a given unit (construction) fits in larger grammatical patterns, as well as an internal level, which specifies requirements placed on the construction’s constituents.

Finally, it follows from the constructional definition that CxG does not make a sharp distinction between grammar and lexicon: both domains consist of inventories of signs and the types of linguistic signs form a continuum rather than a strict dichotomy. All of these properties will be relevant in the subsequent discussion.

3. Adnominal participial adjectives in OCz

The participial form in question – here called ‘participial adjective’ (PA), in reference to its morphological shape – is amply attested in all kinds of OCz texts and in several

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1 The material comes from Old Czech texts spanning approximately 250 years from the first attestations till the end of the Old Czech period and including a wide variety of genres and text types.
functions and semantic subtypes. Our concern will be adnominal PAs, exemplified in (1) and (2); for easier orientation, the PA is printed in bold and the noun it co-occurs with is underlined:

(1) \[ a \text{ za smrtelneho muže neumierajiciego}_{\text{PA,ACC,SG}} \text{ krále zyščes} \]
\[ \text{‘and instead of a mortal husband, you will find an immortal king’} \]
[spiritual poetry; mid 1300s; LegKat 59a]

(2) \[ když opět s kerecha jdieše, uzřel opět důbla s sebú chodiecieho}_{\text{PA,ACC,SG}} \]
\[ \text{‘as he was again leaving the graveyard, he saw the devil again walk along with him’} \] [popular entertainment; late 1300s/early 1400s; PovOl 250a]

The PA in (1) bears clear signs of an adjective-like status, both semantically and syntactically: it shows a non-literal, i.e. non-compositional, interpretation of the PA form (lit. ‘non-dying’) and the syntax of a commonly attested modification structure (Modifier-Head). In contrast, the PA in (2) is more true to its morphological origin within the verbal paradigm. It preserves the verbal nature of ‘short’ participles both semantically and structurally in that it expresses an event concurrent with the main event and it is syntactically relatively independent of the erstwhile subject of the participle (‘devil’). The question before us is this: can we isolate the factors – contextual or PA-internal – that were instrumental in the overall shift from the verbal function in (2) to the adjectival function in (1)?

The PA is a morphological construction (in the CxG sense); its constituents are morphemes and each morpheme contributes particular semantic content. The morphological structure is quite transparent and can be schematized as in (3); the abbreviation PAP indicates ‘short present active participle’ and CNG stands for the case-number-gender portmanteau suffix that is added to the short participle:

(3) \[ [[[Vroot – pres.stem] – ppl]_{\text{PAP}} – \text{CNG}]_{\text{PA}} \]
\[ \text{‘(the one) V-ing’} \]
\[ \text{e.g.} [[[\text{chod} – ie] – c]_{\text{PAP}} – \text{i}]_{\text{PA}} \]
\[ \text{‘(the one) walking’} \]

The internal structure of this construction shows that the PA preserves its participial, i.e. verbal, origin by marking tense (contemporaneity) and voice (active) as part of the present stem (as opposed to past or passive stem). The verbal root also brings along certain valence properties that have both syntactic and semantic manifestations (expressing complete propositions, expecting the presence of a NP that in finite clauses would be the subject, and maintaining verbal government in marking non-subject arguments). Externally, though, the PA is categorically indeterminate: the CNG suffix is adjectival in form, but evidently variable in function, since the PAs span the spectrum of expressing predications, modification, and reference (as actor-nouns). It is this tension between the internal and external properties that leads to the uncertain functional status of the form as a whole and that naturally creates conceptual opportunities for diachronic shifts. In our case, the shifts lead toward fixing the categorial status of the PA by conventionalizing particular contextually motivated preferences.

In explaining the familiar development (participle \(\rightarrow\) adjective), the usual suspects in traditional accounts have been solely the properties internal to the PA form: the syntax (or valence) of the stem and the semantics of the root. Specifically, loss of the internal syntax (i.e., the non-subject arguments of the root) and loss of the internal semantics (from its
propositional nature expressing an event to marking a property) are generally taken as the conditions for shifting from a participle to an adjective. However, a close look at the actual material over a reasonably long chronological span reveals that the conditioning factors – and the partial changes that might result in the overall categorial shift – reside primarily at the external level of the construction, i.e., in the environment where the form is used. What appears to have a particularly strong effect on the change is the syntactic constituency and word order of the sentence in which the PA appears (the external syntax) and the semantics of the PA subject (external semantics). In this paper I will concentrate on the latter, taking the former for granted due to space limitations.2

We can start by summarizing the prototypical constellation of features that are associated with the verb-like function of the PA morphological construction when used as a secondary predicate:

(4) Syntax:  
- PA is accompanied by non-subject complements  
- non-subject complements take verbal government  
- PA stem marks active voice  

Semantics:  
- PA roots are Vs of action/process  
- tense (contemporaneousness with main event)  
- animate subject

The usage exemplified in (2) is consistent with all the features listed in (4) and can be taken as a clear token representing a morphosemantically transparent member of the verbal paradigm; the PA's meaning is a full proposition, compositionally derivable from the morphological structure of the participial stem in (3) and can be glossed as ‘[one] who Vs at the time of the main event’. The category of the PA remains undetermined (nothing in the context indicates a categorial status that would be clearly different from the verbal character of the stem) and the overall interpretation thus preserves the predicative (‘event-profiling’) function.

4. From context-dependent inferences to a conventional function

4.1. Departures from event-profiling function

The PA's verbal character as summarized in (4) can be taken as a baseline for further discussion. The PAs that fit this description report events that specify the circumstances of the main event; their syntax usually (though not always) reflects the event-profiling function directly. In many contexts, however, a transparent verbal interpretation may suggest itself only if we ignore the communicative context. Consider the following examples:

(5) o přeneščastné staré báby  
jenž skřěchčete jako žáby  
panny i panie zpravují směšné staré báby  
i všech stavů posuzují  
[entertainment; late 1300s; DivVít 1b]

For detailed arguments, including some frequency-based evidence, concerning the syntactic issues, cf. Fried 2008.
(6) mějte mysl k bohu, v dobrotě [...] hledajte jeho, nebo v duši žádající zlého nevende duch milosti

(i) ‘turn your mind toward God, seek him through good life…, for the spirit of mercy will not enter into a soul, if/when it, desires evil things’
(ii) ‘…, for the spirit of mercy will not enter into a soul which is desirous of evil things’ [homily; end of 1300s; MatHom 42a]

(7) hledajte v ulicích jeho zdalčinijícího víery

(i) ‘in its streets, look if you can find a man administering the law and searching for the truth’
(ii) ‘… [such] a man who would insist on the law and search for the truth’

At first glance, the typical properties of the event-profiling PA are present in all three cases: the PA subject is animate, the transitive root has its patient argument expressed, the voice is clearly active. But there are hints of conflicting properties as well. Most striking, and ultimately one of the crucial factors, is the observation that the PA subjects have a relatively low referential status in these particular discourse contexts. In (5), which is an excerpt from an Easter play performed as popular entertainment, the speaker refers to some old women and enumerates their obnoxious habits. It is, of course, possible to read this invective as intended for specific groups within the general audience as the play unfolds (hence assign a relatively high referential strength of the NP, as would be expected from animate agents with specific, identifiable referents), but whether the speaker is targeting a concrete group present at the scene, or old women in the abstract, the hearer is clearly invited to interpret the description as classificatory: to understand the badmouthing as a property that focuses on class membership rather than individual behavior at the moment of speech.

The reading of a type, rather than an individual, may be even stronger in (6), where the generic, classificatory interpretation (ii) is reinforced by the genre of the text: it is a homily and the intended point may very well be that souls that generally have the propensity toward bad thoughts and habits will not be rewarded. Nevertheless, it is still plausible to interpret the admonition at a more concrete, individual level suggested by the PA itself: the spirit of mercy is absent only at the moment of a bad deed or bad intentions (i). This is still different from (7), where the syntax and semantics of the PA phrases themselves easily allow a definite reading reporting the acts of a specific individual (i). But the general context of this excerpt points quite unequivocally to a generic reading: finding the kind of man, any man, who might have the qualities of respecting the law and appreciating the truth. To summarize, the interpretations in (ii) present the referent of the PA subject more likely as entities whose properties or general habits are identified by the PA than casting them as agentive instigators of specific actions that further elaborate on the main event (the predicative, event-reporting readings), although the latter cannot be excluded categorically.

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[3] Although the patient arguments in these three examples are mostly coded in the genitive, we cannot take this as a sign of a nominal rather than verbal government. All these roots belong to verb classes that tended to have genitive objects in OCz, even in finite clauses (Gebauer 2007).

It bears stressing that the line between the two readings in all the ambiguous examples is very fine and moves in both directions. The examples in (5-7) illustrate cases in which the context contributes to the weakening of the predicative function of the PA, but we also find the opposite, where the PA may be understood as maintaining the predicative flavor, even though the context appears to set up a habitual scenario. Such an example is, perhaps, the following, in which the habitualness is conceptualized in terms of iterativeness (vždycky ‘always’). But the iterativeness only concerns a cluster of specific events that is to be repeated as a whole, while the individual events in the cluster can be understood as circumstances concomitant with the main event; they simply describe what states or behaviors are to accompany the event of calling out:

(8) a na tě bude a buď vždycky voláno a křičáno hlasem velikým [...] , rukama vinutýma, očima pláčivýma, lkáním, voláním nepřestanlivým, hlavou rozprostřanou, rozptýlenými vlasy, nepokojným životem, kopajícími PA.INS.PL nohami
‘and you will and ought to be always called with a loud voice, [...] , hands clasped together, teary eyes, wails, incessant cries, with a disheveled head and hair flying, stomach unsettled, legs kicking
[allegorical prose; early 1400s; Tkadl]

The interpretive modulations are of course very subtle and there are cases in which it may be truly impossible to argue conclusively for either reading – example (5) may well be such a case. But the main point is to show that the functional profile of the PA form was indeed in flux in general and in many contexts genuinely open to variable categorization between a predicative and attributive function. This unsettled state manifests the tension between the meaning that the PA forms inherently express (i.e., properties that automatically follow from the verb-based morphosemantic structure) and the context in which it is used. More specifically, we observe a conflict between a clause-like complementation pattern and the inherent semantics of the verb root on the one hand, and the type of subject referent and the context on the other.

4.2. Full transition to a participant-profiling function

The open-ended, transitional contexts discussed above can all lead to a more stative reading of the PA. In particular, the PA suggests a habitual behavior of the subject, thereby shifting the PA function toward profiling primarily an event participant, rather than the event as a whole. The old women (5), the straying souls (6), and the man searching for the truth (7) are presented potentially as having certain behavioral properties that may hold independently of any specific context. The pragmatically conditioned potential for habitual readings indeed can be seen as the starting point toward establishing such an interpretation as the only coherent one. Representative examples of a fully attributive, participant-profiling usage with the habitual meaning are in (9) and (10):

(9) jeden lotr sе znamenává každý člověk kající PA.NOM.SG , druhý sе znamenává člověk nekající PA.NOM.SG
‘one thief [on the Cross] represents every repentant person, the other thief represents an unrepentant person’
[expository religious prose; end of 14th cent.; AnsVít 54b]
In (9), the PA subject is clearly non-referential; the whole PA phrase is used to attribute a symbolic value to the thief, and this function is reflected both syntactically (the PA is a nominal predicate) and semantically: the universal quantifier každý ‘every[one]’ only reinforces the generic, atemporal meaning of the PA. It is also interesting to note that the PA subject is lexically marked by the least informative label for referring to a human participant (člověk ‘man’); this is fully consistent with the classificatory character of the context. In (10), the PA is unequivocally about a salient property of the coin, and the property holds independently of the event of coin-offering; the coins carry the image of an angel whether they are donated on this particular occasion, or not. Here, however, the departure from the prototypical event-reporting properties of the PA also correlates with two semantic features: the subject is inanimate and the PA is based on a stative verb; the fact that the complementation syntax of the PA form is still fully preserved is evidently irrelevant.

With respect to the semantics of the subject, I have shown elsewhere (Fried 2008) that there is a clear relationship between the spread of inanimate referents and the attributive function. Animate subjects are more common in the predicative tokens (almost 60%) than in the modification tokens (about 33%). Animacy also appears to be one of the factors that contribute to the ambiguity of the transitional tokens (the rate of animate subjects, about 43%, is noticeably higher than in the modification tokens).

However, it turns out that it is not just an issue of animacy; note, for example, that all the modification-leaning examples in (5-7) still have animate subjects, while the predicative one in (8) is inanimate. As already suggested, the participant-profiling interpretation tends to correlate with the degree of referentiality, on a sliding scale from referentially specific to non-specific and from more individuated to less individuated (as, e.g., reflected in going from singular to plural NPs). This claim can be briefly illustrated by the list of subject referents with the OCz PA kající ‘repenting’. This form is particularly instructive since the lexical meaning of the verb root requires animate referents for the subject argument, and animate entities, indeed, persist through most of the examples. Yet, the PA shows tokens in all three environments (predicative, attributive, and transitional between the two) and the distribution of the types of animate referents is not random. The correlations are listed below:

<table>
<thead>
<tr>
<th>PA function</th>
<th>NP type (kající __)</th>
</tr>
</thead>
<tbody>
<tr>
<td>event-profiling:</td>
<td>pers. pronoun</td>
</tr>
<tr>
<td>(i.e. participle-like)</td>
<td>panny i baby</td>
</tr>
<tr>
<td></td>
<td>věřici (sg.)</td>
</tr>
<tr>
<td></td>
<td>hříšník</td>
</tr>
<tr>
<td>transitional:</td>
<td>hříšník (sg. &amp; pl.)</td>
</tr>
<tr>
<td></td>
<td>lidé</td>
</tr>
<tr>
<td>participant-profiling</td>
<td>člověk</td>
</tr>
<tr>
<td></td>
<td>pokánník</td>
</tr>
<tr>
<td></td>
<td>život</td>
</tr>
<tr>
<td></td>
<td>rok</td>
</tr>
</tbody>
</table>

(11) počeli obětovati každý zlatý peníze mající na sobě obraz anjelský
‘everyone started offering a gold coin, which had on it a picture of an angel’ [moralist narrative; late 1300s/early 1400s; PovOl 276b]
We can see that the distinctions are more subtle than just an issue of animacy, although the two extreme ends of the scale do represent the difference between animate (human) referent, marked by personal pronouns on the predicative end, and inanimate abstract nouns on the attributive end. The pragmatically grounded referential status clearly plays a role.

Finally, the habitual reading is only a starting point for further erosion of the verbal features. It still casts the subject argument as an agentive participant and the present active morphology of the PA is more or less preserved, only the present tense is reinterpreted as iterativeness (rather than strict contemporaneousness), which then shifts attention to the participant who ‘Vs repeatedly, habitually’, rather than an individual event. But more dramatic shifts are attested as well, involving restructuring of the valence requirement of the verbal root and, in the extreme cases, a complete dissociation between the NP referent and its subject function. One such example is in (12):

(12) ať patříme na tvój kající život a následujeme tebe
‘so that we can look at your life full of repentance and follow your example’
[expository religious prose; early 1400s; VýklŠal 122a]

Not only is the relevant NP inanimate but it does not even denote the source of repentance, in contrast to the fully habitual example in (10), where the coin still is the possessor of the image of an angel. Rather, it marks the result, implying that a strongly, perhaps excessively, habitual actions may draw attention to their resultant state as the communicatively most salient feature. Indeed, conceptualizations of this kind always have a resultative flavor (e.g. žádající ‘desired’ < lit. ‘desiring’; hřešící ‘sinful’ < lit. ‘committing sin’; nadýmající ‘swollen’ < lit. ‘swelling’).

A somewhat different type of semantic shift is illustrated by the introductory example in (1), here repeated as (13):

(13) a za smrtelného muže neumierajiceho krale zvýščeš
‘and instead of a mortal husband, you will find an immortal king’
[spiritual poetry; mid 1300s; LegKat 59a]

Here the habitualness suggests a modal dimension, which is of course completely absent in the morphosemantic structure of the PA’s verbal stem, nor is it contributed by the CNG suffix. The shift in meaning can be glossed as going from ‘(non)V-ing habitually’ to ‘(un)able to V’. Again, the inference that is required in such a shift is not hard to motivate pragmatically: if a person does X repeatedly, we can naturally conclude that that person is capable of doing X. But the result is a fully non-compositional, purely ‘constructional’ meaning that cannot be predicted from the PA’s internal structure.

4.3 Representing change in progress

Let us start by summarizing the partial changes that led from the predicative function established in (4) to the fully attributive meanings. The gradual shifts in Table 1 are typographically represented as follows: the gray typeface indicates that a feature is fading out in a given function, boldface indicates a newly established interpretation, unpredictable from the internal structure.
A Construction Grammar Approach to Grammatical Change

Table 1. Partial changes from predicative to attributive function

<table>
<thead>
<tr>
<th>Syntax:</th>
<th>Predicative</th>
<th>Habitual</th>
<th>Resultative &amp; Modal</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>non-subj. compl.</td>
<td>non-subj. compl.</td>
<td>non-subj. compl.</td>
</tr>
<tr>
<td>verbal govern.</td>
<td>verbal govern.</td>
<td>verbal govern.</td>
<td>verbal govern.</td>
</tr>
<tr>
<td>active voice</td>
<td>active voice</td>
<td>active voice</td>
<td>active voice</td>
</tr>
<tr>
<td>Semantics:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Vs of action</td>
<td>Vs of action &gt; stative</td>
<td>Vs of action or state</td>
</tr>
<tr>
<td></td>
<td>tense (contemp.)</td>
<td>tense &gt; habitual/atemp.</td>
<td>tense &gt; atemporal</td>
</tr>
<tr>
<td>animate subj.</td>
<td>animate subj.</td>
<td>animate subj.</td>
<td>functionally/semantically unrestricted ‘head noun’</td>
</tr>
</tbody>
</table>

When we align the relevant features across the different functions, a more general pattern emerges quite clearly: the erosion of the compositional, transparent morphosemantic structure of the PA as an inflectional word-form in the verbal paradigm starts with the semantics, both internal and external to the PA, while the syntactic manifestations of the shift become conventionalized more slowly.

Table 1, however, only shows the results of the transition and the features affected by it. In order to get a more complete understanding of the nature of the overall shift, we must also consider the contextual factors that facilitated the changes. Those factors can be organized along several dimensions, primarily external to the PA form itself.

(14) Characteristics of the transitional contexts:

a. pragmatic: relatively low referential strength of the animate subject NP  
b. semantic: inanimate subject NPs  
c. textual: generalizations, classifications 
d. structural: adjacency of NP and its subject

As we have seen in section 4.1, not all of these conditions must necessarily co-occur for an attributive interpretation to arise, but it is safe to say that any subset of (14a-d) has a significant potential to trigger a novel interpretation and categorization.

5. Summary and conclusion

The point of this brief contribution was to show that in order to establish a diachronic relationship across grammatical patterns, we need to take into account the cognitive and communicative grounding of grammatical patterning and the factors that contribute to its change. Such a usage-based and multidimensional approach treats diachronic change explicitly as an issue of speakers’ reinterpretation of familiar forms during production and uptake, and is thus concerned with both ‘holistic’ changes and their internal mechanics. The nature of changes can be then explained by appealing to general principles that are plausible on both cognitive and communicative grounds.

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As documented in Fried 2008, there is a noticeable correlation between the attributive reading of the PA and its pre-nominal placement, following the neutral order in other modificational structures, [Modifier-Head]; cf. examples in (1) or (12).
At a more general level, the analysis also speaks to the theoretical question of how to be systematic about capturing the gradualness of complex grammatical change. Construction Grammar appears as a natural candidate for offering the necessary analytic and representational tools for this task, since it allows us to capture the gradualness of change in all its surface complexity. The incorporation of the internal mechanics of grammatical change with the ‘holistic’ dimension is compatible with the incremental, feature-by-feature character of variation and change. Moreover, since constructions are multilayered ‘blueprints’ of functional clusters that can be stretched in actual communication, a constructional analysis gives us a natural way of reconciling potential mismatches between grammatical patterns and the words that fill them, allowing for non-compositionality. The result is a sufficiently fine-grained account of the relationship between partial transitions and a larger diachronic shift. Finally, a constructional analysis pays attention to pragmatic and semantic triggers of variable interpretations, which is to say, it allows us to incorporate contextual clues that motivate a shift.

References


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THE ROLE OF SYNTACTIC TRANSITIVITY IN THE DEVELOPMENT OF SLAVIC SYNTACTIC STRUCTURES

Summary

This paper deals with the development of syntactic transitivity as the basic driving force in major syntactic changes in Slavic, as well as in other Indo-European languages. The transitive system gave prominence to the predicate, the sentence was being centralized around it by the rise of government, which strengthened intra-sentence cohesion. In this process the semantically diffuse nominal exponents of the deep subordinative relations were replaced by verbal structures. The next stage was the creation of compound sentences: a) by the specialization of primarily delimitative connectives into coordinative conjunctions, and b) by the transformation of surface juxtaposition into formal subordination. In the gradual process of creating formal exponents of subordination the main role was played by the grammaticalization of autosemantic words, which might have been followed by reanalysis (boundary shift), then generalization. This meant the growth of formal inter-sentence cohesion.

1. Introduction

The general trends and mechanisms in the historical development of Slavic syntactic structures are relatively well known, but the question of their fundamental causes has rarely been discussed. The aim of this paper is to point out that the major syntactic processes in the history of Slavic languages were the manifestation of a typological change which took place in the family of Indo-European (IE) languages: a drift toward an accusative language type, whose central characteristic is syntactic transitivity. This will be illustrated here by the gradual changes in the formal expression of basic syntactic constituents and in the sentence structure.

2. The development of S-O relations

2.1. The structure of Proto-Indo-European (PIE) sentence

The hypothesis that PIE developed from an active into an accusative type, based on contentive typology (Klimov 1983), was first proposed and explained by Gamkrelidze & Ivanov (1984). However, this gradual change was not finished before the disintegration of the proto-language, it lasted throughout the history of the daughter languages. It led to the creation of systems whose basic characteristic is syntactic transitivity, which was spreading at a different rate in the various syntactic subdomains. This drift, by which the system was being brought into accordance with the type, and the norms into accordance with the system (Andersen 1990), is testified to, for example, by the spread of transitivity in Latin and French (Bauer 2000).

Early PIE (or Pre-Indo-European) had no category of syntactic transitivity, and was based on the semantically induced classification of verbs into active and inactive classes, while the agreement between an actor/topic and a verb was based on their semantic
compatibility, in which the distinctive feature active (+/-) was decisive. Even with the development of flection, the syntactic autonomy of sentence elements remained a basic structural principle of the sentence: a word was self-sufficient to indicate its role and there was no governement of one word by another (Meje 1965: 195). Verbs had absolute meanings and the correlation between syntactic and semantic roles existed. There was no passive voice, as one of the main indicators of syntactic transitivity. This is testified to by Homeric Greek in which syntactic transitivity was just being created (Desnickaja 1984: 81-138). There was a series of absolute verbs, e.g.: ἔχω: a) ‘hold still, or in the same position’, b) ‘hold’; ὀρμάω: a) ‘start, rush’, b) ‘set in motion, impel, move’; καθίζω: a) ‘sit’, b) ‘cause to sit, place’ (Autenrieth 1987). The meaning of these verbs was specified contextually, thus they could be semantically transitive or intransitive.1 The Greek λείπω, for example, simply denoted ‘leaving’: used alone it was interpreted as an one-argument verb (‘to leave’), while with the accusative it was a two-argument, semantically transitive verb (‘to loose’).

In the PIE system with absolute verbs, the accusative was a general adverbial case with diffuse semantics (‘in reference to X’) whose meaning was interpreted only contextually. Depending on the lexical semantics of both the verb and the word in the accusative, it could represent various semantic roles (a patient, a recipient, a beneficiary etc.), as well as adverbial modifiers (of space, time, cause, source, goal, etc.). This can be exemplified by the following use of accusatives in Greek:

(1) ὑφελέω + Acc ‘to be of use or service to X’ (beneficiary)
    ἄφιγω + Acc ‘to run away from X’ (source)
    εὐλογέω + Acc ‘to speak well about X’ (theme)
    φοβέωμαι + Acc ‘to be afraid of X’ (cause)
    ζώννυμι + Acc ‘to gird oneself with X’ (instrument)2

When the new PIE grammatical cases were formed,3 they started being used with the verb classes semantically compatible with them. For example, the dative, compatible with verbs whose lexical semantics included directionality, took the place of the adverbial accusative in such constructions.4 The same process is seen in all IE languages: the “younger” cases have been gradually taking the positions of the adverbial accusative, specifying now different semantic roles. As in the course of every syntactic change, there was a long period of competition between the old and the new means. A characteristic example was

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1 The notion of “semantic transitivity” correlates with the notion of transitivity in cognitive linguistics (Langacker 2004: 149).
3 Morphological reconstruction reveals only two cases in early PIE (or Pre-Indo-European): the nominative and the accusative. The other morphological cases were formed later, first the dative-locative, from which the two cases emerged later. The desinences of certain cases in the daughter languages, the instrumental being an example, does not allow the reconstruction of a single form for the proto-language. Some other cases, like the ablative, might have developed only in the daughter languages. Forms parallel to the Latin ablative were the bases of Germanic adverbs (Lehmann 1996: 226).
given by Meillet (Meje 1965: 196-197): Greek κλόω ‘hear/listen’ could be used absolutely (‘to have a sense of hearing’), but also with the adverbial accusative, the genitive (source) and the dative (goal). This was gradually narrowing the semantic potential of the adverbial accusative, restricting it to the role of patient, which led to the gradual evolvement of syntactic transitivity; this process included important changes in verb morphology as well.5

With the development of syntactic transitivity the accusative started to “attract” other semantic roles, leaving the function of adverbial modifiers to other cases and prepositional phrases, as witnessed in the history of IE languages. Depending on the verb’s lexical semantics, it was spreading to the detriment of the dative and the genitive case. The correlation between semantic and syntactic roles was disappearing. As in the new accusative system an invariant subject form (nominative) now represented various semantic roles (agent, experiencer, possessor, etc.), an invariant object form came to represent different semantic roles as well (patient, source, theme, goal, etc.). From a cognitive perspective, this meant the metaphorical extension from the prototypical transitive construction to the more abstract cognitive domains (physical force dynamics > mental force dynamics, cf. García-Miguél 2007: 764-765), as a manifestation of the growth principle in the language history.

2.2. Development of S-O relations in Slavic
Although the first records of Slavic languages are relatively late, they testify to the same processes as in other IE languages. Due to the facts that the Old Church Slavonic (OCS) verbal and case systems were Slavic in nature, and that the Greek influence was mainly restricted to the frequency of certain case forms (Bauer 1972: 71-72), OCS texts are a valid representation of the late Proto-Slavic (PS) system in this respect.

An analysis of syntactic transitivity in OCS showed that a certain number of verbs was used absolutely, as in other IE languages (Grković-Major 2007: 82-83). The system was in the process of establishing syntactic transitivity and verb valency, which is testified to by the fact that various cases or prepositional phrases are found with the same verb. These examples perfectly correspond with Meillet’s words (Meje 1965: 198) that the use of grammatical cases does not depend on the verb, but only on the meaning that was to be expressed. A typical example is the verb съяшати ‘hear/listen’, e.g.:

(2)

[Gen] съяшати гласен ‘now we all gathered ... to hear David’s harp’

[Dat] съяшати ‘he is listening about the life in wilderness’

[Acc. ‘adverbial’] съяшати ‘when John heard in the prison about the works of Christ’

5 Verbs acquired a series of suffixes by which they were classified into semantic classes. In the non-accusative language type this is marked by the surface form of the actor, as in the ergative languages (D’jakonov 1967: 100), while in the accusative type verbs have incorporated morphological elements which indicate the semantic role of the actor (Guchman 1967: 58-59). For example, the PIE verb affix *i was used to make causatives, indicating that the subject was an agent; the affix *ē < ie. *ē (< *eH₁) denoted “state, situation” (Beekes 1995: 230), indicating that the subject is an experiencer. Cf. PS *cēl-Ē-ti, stative; * cēl-I-ti, causative.
A competition between the old and the new syntactic structures can be observed, as shown also by OCS textual variants in the texts: 
\textit{сaлънaвътъ же икoнa} [Acc] Zogr. : 
\textit{сaлънaвътъ же о икъ} [o + Loc] Mar. ‘when he heard about Jesus’ Lk 7: 3 (Gr. ἀκούσας δὲ περὶ τοῦ Ἰησοῦ). An important methodological question should be pointed out here. If an OCS construction corresponds structurally to the Greek one it could be: a) an indigenous syntactic means, or b) a syntactic calque. In order to define it, it has to be investigated in the comparative perspective of IE languages and in the history of Slavic languages. Such an analysis shows, for example, that aative complement with ‘hear/listen’ was an indigenous Indo-European and Slavic construction.\footnote{The comparative syntax of IE languages proves that dative with ‘listen’ existed in various IE languages (besides Greek, in Germanic, Baltic etc.). On the other hand, such examples are found in the history of Slavic languages (Miklosich 1868-1874: 594, Gebauer 2007: 383-384).}

The spread of syntactic transitivity was directly proportional to the level of verb’s semantic transitivity.\footnote{About possible parameters in defining semantic transitivity see Hopper/Thompson 1980: 251-299.} The accusative was first being grammaticalized as an object case with action verbs having two participants. This is the case with causatives built by the affix *i, which had all the parameters of high transitivity (PS *bêditi, *veličiti, *celiť etc.). As prototypical transitives, they had a prototypical agent\footnote{According to the Theory of obligatory control, the basic structure of causative actions includes the obligatory control of a patient as opposed to other transitive verbs which have “actor control” (van Valin 1999). On the features of a prototypical agent see Ivić 2002: 51-61.} and a prototypical patient, thus having a regular morphosyntactic realization. The same happened with the verbs of emotional states (*bojati se, *styděti se etc.), which were mostly reflexive already in OCS. We can assume that their reflexivization was completed in the late PS. This is because such verbs have no semantic parameters of transitivity: their actor has no control over a state and they express internal processes, exclusively centripetal. Since they indicated effects on actors themselves, they have syntactically been regularly structured as reflexives, a Slavic counterpart of the middle voice in some other IE languages.

The process was rather slower with the verb classes whose semantics could have both centrifugal and centripetal force. This was, for example, the case with the stative verbs denoting perception, volition and cognition,\footnote{This is the class of stative verbs unified by the same morphology, being built with the aforementioned affix *ê < ie. *ē(<*eH₁), cf. footnote 13.} which could be constructed with different cases, like the aforementioned 
\textit{salънати} ‘hear/listen’. \textit{соткът} ‘want’ could be constructed with the dative: 
\textit{пршi въ менe елъкъ} [Dat] аште щоштешн ‘ask from me whatever you want’ Mar. Mr 6: 22 (SS: 764), but also with accusative and genitive, 
\textit{разъкътнi} ‘understand’ also had the dative: 
\textit{не веи разъкъкъте елъкъ} [Dat] ‘not everyone understood the word’ Sav. Mt 19:11 (SS: 573), as well as the accusative, and so on. The situation could be explained by the fact that perception, cognition and volition can be conceived as voluntary or involuntary actions/states. This could be also lexically marked, in pairs of
such verbs, differentiated only by the semantic component intentionality: видѣти /-/: върѣти /+/, къдѣти /-/: знамъ /+/, etc. Being quite low in transitivity, verbs marked with intentionality /-/, just like emotional verbs, could be structured only with an adverbial accusative. On the other hand, the verbs marked with intentionality /+/ did not have a regular morphosyntactic representation. With most of them the accusative was grammaticalized as an object case much later in the history of Slavic languages. One of the tasks of Slavic historical syntax is to examine this process with different verb classes more closely.

The spread of syntactic transitivity has encompassed the history of Slavic languages. For example, an archaic adverbial accusative is testified to in Old Russian, Old Serbian and Old Czech, and in Slavic epic poetry as well e.g.:

(3) ORus. слышавъ же смерть Изяславъ (Potebnja 1941: 296)
   ‘when he heard about Iz'aslav’s death’

OSerb. ако кога чъете крива (Stojanović 1929: 21)
   ‘if you hear about someone being guilty’

Serb.epic Јован мајку у пећину каже (Karadžić 1985: 32)
   ‘Jovan told about his mother in the cave’

OCz. vim ptaky (Gebauer 2007: 319)
   ‘I know about the birds’

The replacement of the adverbial accusative by prepositional phrases and the spread of the direct object accusative were gradual. According to Ivanov (1995: 465-466), the categories of direct object and syntactic transitivity did not exist in Old Russian in the 12th and 13th centuries. The same position is taken by Krys'ko (1997: 380-381), who states that transitivity and the direct object acquired grammatical status only later in the history of Russian.

In the language of older Serbian and Croatian writers as well as in the dialects, archaic syntactic structures are found with verba sentiendi, cognoscendi, declarandi. The spread of the direct object accusative at the expense of the genitive and the dative cases with certain verb classes lasted throughout the historical period of the Serbo-Croatian language (Gortan-Premk 1971: 159).

Parallel processes are noticed in the history of Czech. One of the most prominent changes in its historical syntax was the gradual wider use of the accusative to the detriment of other cases (Gebauer 2007: 331). With many verbs, this is still at work, especially the replacement of the genitive with the accusative (Lamprecht/Šlosar/Bauer 1986: 361).

The history of Slavic languages shows that the grammaticalization of S-O relations, i.e. syntactic transitivity, and the creation of verb valency were gradual changes. In this process the accusative has become the invariant form of the direct object, representing different semantic roles, while the non-typical objects were specified by other cases or prepositional phrases. If a verb has multiple rection, the accusative is always a direct object, leaving other cases and prepositional phrases semantically marked. The differences between Slavic languages in the domain of the formal expression of non-typical objects show that this development was language-specific.

The development of syntactic transitivity caused various systemic changes in the history of Slavic languages, among them: a) the accusative has been losing its adverbial
functions (of place, time, qualification, instrument etc.),\textsuperscript{10} 2) the adverbial functions have been taken over by other cases and prepositional phrases, 3) the free cases have generally narrowed the scope of their syntactic use and today they mostly serve for the representation of the core syntactic roles (Ivić 1963: 87). An illustrative example is the loss of all types of the instrumental whose semantic feature was active $^+/+$ (the instrumental of agent, the instrumental of an animate cause, etc.) in Serbo-Croatian (Ivić 2005). In other words, this includes all types of the instrumental which denoted notions having total or partial control in performing an action.

\section*{2. Development of compound sentences}

\subsection*{2.1. PIE parataxis}

The PIE sentence was characterized by parataxis (Lehmann 1980: 113-144), while semantic subordination was expressed by nominal forms: participles, absolute constructions, double case constructions, verbal nouns, and so on. They were relatively independent sentence elements, denoting circumstances of the action/state. Like the adverbial accusative, they were semantically diffuse and their semantics depended almost completely upon context. The subordinate relations could also be contextually induced from the juxtaposition of simple sentences. For example, in Hittite “verbs which typically take Complement clauses in other languages are systematically found in paratactic constructions” (Luraghi 1990: 76).

Besides juxtaposition, there were also structures with polyfunctional connectives between clauses, as witnessed in Hittite (Luraghi 1990: 47-70). The same connectives found between independent clauses were also linking semantically subordinate clauses to the main clause, and are found for all types of subordinate relations. Thus, the semantic relation between clauses could only be contextually interpreted. Judging by the usage of these connectives, it seems that they primarily had a delimitative function (Lehmann 1974: 54). The described IE structures present a system with \textit{low sentence cohesion}. The historical syntax of IE languages gives evidence to a gradual disintegration of this nominal language type and a drift toward the verbal language type (Bednarczuk 1980). The non-finite forms were replaced by the finite structures, using strategies for constructing simple sentences (Harris/Campbell 1995: 313). This meant the weakening of the autonomy of sentence elements and the creation of sentences centralized around their predicates (Knabe 1955). This was caused by the development of syntactic transitivity, which gave the central role to the predicate, increasing the intra-sentence cohesion. A parallel process was the development of intra-sentence cohesion by grammaticalization of former sentence connectives into conjunctions and the rise of new conjunctions by the grammaticalization of autosemantic words. This led to the creation of compound sentences.

\subsection*{2.2. Development of Slavic compound sentences.}

OCS testifies to a late phase of the disintegration of a nominal language type. Non-finite forms (participles, Dative absolute, Accusative with participle, Dative with infinitive, etc.) still played an important role in the syntactic organization of the sentence, being indigenous Slavic syntactic means.\textsuperscript{11} The Greek language might have influenced the

\footnote{The adverbial accusative in Slavonic languages is preserved only as a bound form with a determiner as in Serb. \textit{Radio sam celu noć}. Cf. Ivić 1955-56: 188.}
revitalization of the nominal means which were on the way to be lost and, naturally, their frequency in the texts, due to their sacral nature.

The disintegration of the nominal system might be illustrated by the example of the Dative absolute. It was syntactically an autonomous, semantically diffuse construction. As argued by Vecerka (1996: 187-188), it was contextually interpreted as having temporal, causal, concessive, conditional or consecutive semantics; rarely, the meaning of the construction was made more explicit by introducing the conjunctions jegda, jako(že), zaňe, ibo, cě. Besides the Dative absolute OCS also had subordinate clauses, and this indicates a systemic competition in the domain of the formal expression of subordination. In the course of several centuries, by the time of the first Slavic vernacular documents, the Dative absolute was lost, being replaced by clauses.

The other nominal forms were disappearing at a slower rate, and one of the tasks of Slavic historical syntax is to shed light on the chronology of these changes. The question is why was the Dative absolute lost first? The answer, again, could be the spread of syntactic transitivity. In the creation of a sentence centralized around a predicate, non-finite forms and constructions either lost their connection with the predicate or became grammatically dependent on it (Ambrazas 1990: 179), depending on whether they were its semantic representations or not. The Dative absolute, being an adverbial modifier, had the loosest connection with it: it expressed a secondary action/state, whose actor was different from the sentence subject. On the other hand, the Accusative with the participle and the Dative with the infinitive, denoting closer circumstances of an action/state given by a predicate, were grammatically bound to it, as its complements. Only in the next stage of removing non-finite forms were they replaced by clauses.

The evolvement of compound sentences in Slavic languages was a gradual change which had two paths: one giving rise to formal coordination, the other one to formal subordination. The basis for both processes was present from PIE onward: the structures with connectives and the juxtaposition.

2.2.1. Structures with connectives > Coordinative syntactic structures
Various kinds of sentences connectives existed in the first Slavic documents, mostly interjective, emphatic or deictic by origin. They are found as polyfunctional particles even in OCS texts. For example, OCS i could have several functions, among them: an emphatic particle, an exclamatory particle, a connective between coordinative sentences, a connective between sentences with a cause-effect semantic relation, a connective between sentences with a condition-result semantic relation (cf. SS 1994).

A formal difference between coordination and subordination did not exist. Besides, other connectives could appear in the same positions. OCS ti could also have a coordinative or an emphatic function, as well as the adversative one, while a, primarily an adversative particle, was also found in the coordinative structures and so on. Not only were these connectives polyfunctional, but their functions even overlapped.

Old Russian documents exhibit the same situation. As illustrated by the rich East Slavic corpus from the 11th to the 14th centuries, it was the period of a syncretism, where words like a, i, ti, to function as interjectives, modal particles or conjunctions (Isačenko

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11 This is proven by the comparative syntax of IE languages, showing obvious parallels between OCS and the Baltic languages in this respect (Grković-Major 2008).
Old Serbian testifies to the similar functions of *i and *a (Grković-Major 2007: 174-187). According to J. Bauer (1960: 35), *i and *a were originally semantically differentiated, due to their former lexical semantics: *i was used between predications which were semantically closely connected, were of the same syntactic rank or simply indicated a sequence of events, while *a served to introduce something new, different, sometimes unexpected. In the late PS they were still connectives, gradually grammaticalized into conjunctions only in the history of Slavic languages. The path of their grammaticalization was not the same: in Old Czech the basic coordinative conjunction became *a, which already in the prehistoric period had almost completely overtaken this function from *i as opposed to its development in Serbo-Croatian, where it became basically an adversative conjunction.

2.2.2. Juxtaposition > Subordination

Since the formation of OCS subordinate sentences was heavily influenced by the Greek original, vernaculars are the main source for the history of Slavic hypotaxis. Nevertheless, it should be noticed that the very fact that Greek had such an impact on OCS hypotactic structures shows that the Slavic system had no formal subordination at the time.

Old Russian testifies well to the simple juxtaposition of sentences. Since these structures were asyndetic, their coordinative or subordinative semantic relation was induced contextually:

(4) a. невеста приведена, князи позваны (coordination)
   ‘the bride is brought | the princes are invited’

b. темно бо бе въ 3 день: два солнца померкоста (cause)
   ‘it was dark the third day | two suns went dark’

c. послѣ к нему дары, искусъ и (purpose)
   ‘send gifts to him | we’ll test him’

d. а ясти же садятся, они омывають руки да ноги (time)
   ‘and they sit down to eat | they wash hands and feet’

e. левъ рыкнет, кто не устрашится (condition)
   ‘a lion roars | who will not get scared’

(Stecenko 1977: 131, 145, 148, 150, 151)

Asyndetic structures are also found in Old Czech, but were not numerous:

(5) a. mnoho slepých prohlédáše, chromých bez чísla uzdravováše (coordination)
   ‘many blind people gane their sight | countless lame people got well’

b. dievka tak raněna bieše, již mluvitи nemožiešе (result)
   ‘the girl was so wounded | she could not talk any more’

c. chtiel by ty me Sobě mietи, musí by jiež život otijetи (condition)
   ‘you would like to have me | you would have to take her life’

(Bauer 1960: 30, 271, 306)

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12 This is supported by the etymology of the two connectives: *(i (< *ei)) is reconstructed as the locative singular of the deictic pronoun *e- (ÈSSJ 8: 167), and according to one of the etymological explanations *a was an interjective particle (ESJS 1: 45).
Old Serbian texts have not yet been analyzed thoroughly in this respect, but just reading them reveals that the simple juxtaposition was rare.

This simple juxtaposition was the source of subordinate syntactic structures, as was already emphasized by J. Bauer: “сложное предложении возникло только путем соединения самостоятельных предложений” (Bauer 1972: 224). This gradual change took place in the history of the Slavic languages, proved by the fact that no type of subordinate clause can be reconstructed for PS.

The first phase of this process was characterized by the polyfunctionality of the words which were on the path of grammaticalization and the overlapping of their functions. For example, in Old Russian with conditional clauses we find аще, аще, еже, bude(t), кoli, jes(t)li, ежели, kogda, kak, тол’ко (Stecenko 1977: 215-232); Old Czech temporal clauses could be constructed with several conjunctions ‘when’: když, kdy, kdyžto, kda, kdaž, kdažto, kedyžto, kdež, kdežto, or ‘while’: donidž, donid, doňavadž, poňadž, poniž (Bauer 1972: 230), while just one type of Old Serbian conditional clause could have ako, аште, аче, jeda, kда, ком, što, да, ли (Pavlović 2009: 301-331). At this stage the semantic relation of the two predications was largely induced from the meaning of the clauses themselves. For example, the Old Czech clauses with аче + indicative expressed a real condition, while those with аче + conditional expressed an irrealis (Bauer 1960: 309). In the next phase the conjunctions were specialized for certain types of clauses, while new conjunctions arose in order to formally specify different subtypes of subordination. This process has been lasting throughout the history of Slavic languages, even until today. It should be added that important roles in creating hypotaxis were played by literacy and language standardization.13

In creating hypotaxis from simple juxtaposition, i.e. formalizing subordination, the main mechanism was grammaticalization, followed in many cases by reanalysis (as boundary shift, cf. Heine: 1993: 118), and then generalization.14

To summarize, there were two ways of creating hypotactic structures. They can be illustrated by the examples from Old Serbian:

(10) grammaticalization:

\[
\text{да ви ни сте рекли | ДА се станемо > } \quad \text{да ви ни сте рекли | ДА се станемо}
\]

‘And you told us: | LET us meet.’

(Grković-Major 2007: 198)

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13 This is, however, a universal process, as shown by Old Swedish legal documents: the oldest sources had a simple, paratactic language, while a century or two later the language already had various hypotactic constructions (Birnbaum 1981: 25-45).

14 It is worthwhile mentioning that the first one to write about this was the main theoretician of the Junggrammatiker school, Paul (1970: 299), giving examples such as German ich sehe das || er ist zufrieden > ich sehe | das er zufrieden ist. Similar explanations were later given by the representatives of Czech historical linguistics (Lamprecht/Šlosar/Bauer 1986: 383), and by the contemporary European and American theoreticians (Heine 1993: 118, Harris/Campbell 1995: 61, among others). As to the history of Slavic, an excellent analysis of the development of Czech compound sentences was given by Bauer (1972: 221-242).
(11) grammaticalization plus reanalysis (boundary shift)

vi zнате EPE | т нек$'porеки > vi zнате | EPE т нек$‘porеки

‘You know THIS: | I will not deny.’

‘You know | THAT I will not deny.’

(Pavlović 2009: 251)

3. Conclusions

The basic driving force in major syntactic changes in Slavic, as well as in other IE languages, was the drift toward an accusative language type, its core characteristic being syntactic transitivity. It led to the restructuring of sentences lacking government. The relatively autonomous status of sentence elements, whose interpretation depended almost exclusively upon context, was lost. The transitive system gave prominence to the predicate, the sentence was being centralized around it by the rise of government, which strengthened intra-sentence cohesion. In this process the semantically diffuse nominal exponents of the deep subordinative relations were replaced by verbal structures. The next stage was the creation of compound sentences: a) by the specialization of delimitative connectives into coordinative conjunctions, and b) by the transformation of surface juxtaposition into formal subordination. In the gradual process of creating formal exponents of subordination the main role was played by the grammaticalization of autosemantic words, which might have been followed by reanalysis (boundary shift), then generalization. This meant the growth of formal inter-sentence cohesion.

In other words, not only were the sentence elements centralized around the predicate by government, but the subordinate predications were centralized around the main one by syntactic subordination.

The drift toward an accusative language type caused a series of other changes as well (the spread of the anaphoric object, the reanalysis of mihi est constructions into the modal ones, etc.). So, not only should the major syntactic changes be seen in the light of syntactic transitivity, but the changes in all syntactic subdomains as well. A task for further diachronic research should be to investigate the aforementioned processes in extenso, as well as the differing pace in the spread of syntactic transitivity in Slavic languages, which might have been induced by language-contact as well.

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CONSTRUCTIONAL ASPECTS OF THE RISE OF EPISTEMIC SENTENCE ADVERBS IN RUSSIAN

Summary

In this article we are going to trace the transition of modal verbs into epistemic adverbs. This development found in nearly all European languages will be analysed on the basis of Russian možet (byt’) which goes back to the third person singular present tense of the modal verb moč’ plus infinitive. In our study we shall focus on the constructional aspects of this language change with the aim to show the close interaction of semantics on the one, and argument structure on the other hand. The first part of the contribution is dedicated to a synchronic account and the second shows the diachronic development of the constructions involved. We will argue that the rise of epistemic sentence adverbs involves a third construction traditionally called complex subject sentence (možet byt’, čto p). It will be shown that the rise of sentence adverbs is a complex process consisting of both gradual and discrete micro-processes.

1. Introduction

In many languages modals have split into two elements: the modal itself and an epistemic adverb. A known example is English maybe which is derived from the modal may plus the copula verb to be. Ramat & Ricca (1998) who analysed sentence adverbs in a wide range of European languages found that epistemic adverbs often emerge either through the fusion of a modal with a second element (= univerbation) or the conversion of a modal:

- a) ‘modal.3SG’ + ‘to be’; e.g. English maybe (← may + be) ‘perhaps’;
- b) ‘modal.3SG’ + ‘to happen’; e.g. Dutch misschien ‘perhaps’;
- c) ‘modal.3SG’ + complementizer; e.g. Serbian/Croatian možda ‘perhaps’;
- d) conversion of a modal; e.g. Romanian poate ‘perhaps’ or ‘can.3Sg’.

In our study we shall deal with the Russian modal moč’ plus infinitive, its adverbial derivates možet byt’ (byt’ možet) and možet, and those contexts which are traditionally called ‘complex subject sentences’. We are dealing with instantiations of a network of related constructions:

1. modal construction: NP\text{Nom} + Modal + VP\text{Inf}

(1) Один такой вживленный протез может служить опорой для трех зубов. ‘One of those implanted dentures can function as support for three teeth.’ [“Дагестанская правда” 2005]\(^1\)

2a. adverbial construction: Modal3SG.PRS + to.be + Clause

(2) Может быть, в глубине души император даже пожалел заключённого […] ‘Perhaps in the deep of his heart the emperor even felt sorry for the prisoner […]’ [Юрий Тынянов 1933]

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\(^1\) Unless indicated otherwise all Modern Russian examples are from the Russian National Corpus (RNC).
2b. adverbial construction: Modal3SG.PRS +Clause

   (3) A может, профессия стала отторгать меня. ‘Perhaps my profession has seized me.’ [Спивакова 2002]

3. ‘complex subject sentence’: Modal3SG.PRS + to.be + comp + Clause

   (4) Очень может быть, что это проблема не физическая, а психическая. ‘It is quite possible that this is not a physical, but a psychological problem.’ [“Звезда”, 2003]

The main focus is on the internal make-up of these constructions and how they are historically related to each other. Our analysis is based on the assumption that the meaning of a construction is closely connected to its morpho-syntactic encoding. For the theoretical background we draw from the study Nuyts (2001) which offers a fine-grained description of the semantics and morpho-syntactic encoding of different constructions used to express to epistemic meanings in the West Germanic languages English, Dutch and German. Apart from that, we shall put forward some hypotheses inspired by the version of construction grammar developed by Fried & Östman (2004) and Fried (2007).

2. Modal constructions

As mentioned above the lexeme móc’ which obligatorily and exclusively governs an infinitival phrase forms a modal construction (henceforth Modcxn). We can assume modal constructions to form a cross-linguistic category identifiable by its specific semantics and its typical morpho-syntactic mode of expression:

   A fully-fledged modal is a polyfunctional, syntactically autonomous expression of modality which shows a certain degree of grammaticalization. ‘Poly-functional’ is understood as covering a domain within the semantic space of modality. A fully-fledged modal functions as an operator on the predicational and/or the propositional level of the clause (Hansen & de Haan 2009, 512).

According to this treatment modals can be distinguished from lexical verbs with modal meanings like for example umet’ ‘to be able’: the former can express more than modal meaning (dynamic, deontic, epistemic), whereas the latter are restricted to a single modal meaning (ability, i.e. dynamic). A second feature of modals is their auxiliary-like syntactic behaviour in relation to the selection of the first argument; in contrast to verbs like umet’ they allow impersonal sentences or passive transformations without change in referential meaning.

(5) Каждый студент может перевести этот текст.
   ‘Any student can translate this text.’

Passive transformation:

   (5a) Этот текст может быть переведен каждым студентом.
   ‘This text can be translated by any student.’

   (5b) Каждый студент умеет перевести этот текст.
   ‘Any student is able to translate this text.’

Passive transformation:

   (5c) * Этот текст умеет быть переведен каждым студентом.
The modal polyfunctionality and the specific syntactic behaviour indicate that the modal *moč* opens two syntactic slots, (NP\textsubscript{Nom} and VP\textsubscript{inf}), but does not assign a semantic role to the NP. Modals share this feature with tense auxiliaries like the analytical future marker *bud*- (for more details on Modcxns in Slavonic see Besters-Dilger et al. in press).

Without giving a detailed account of the overall architecture of the cxns involved, we would like to point out some general features concerning their semantics and valence structure. By dealing with these features we have been inspired by Fried’s and Östman’s (2004) analysis of so-called raisings verbs like *to seem*. The syntactic behaviour of the string *moč* plus infinitive can be accounted for by the unification of the lexical element *moč* with a co-instantiation pattern which is responsible for the fact that a single syntactic unit instantiates two valence elements; i.e. the modal has a surface subject which is not its semantic argument but which is delivered by the second verbal argument – the infinitival verb. In this sense *moč* is a predicate with two elements in their valence and the second element is instantiated by an infinitival verb phrase which has one own semantic and syntactic valence element which is instantiated as the surface subject of the construction. The notation #1 indicates that the argument is not a semantic element of the modal, but is contributed by the verb in the infinitival phrase. A Modcxn contains two chunks of information: the modal statement and the state of affairs. In relation to the grounding of the information, the cxn is unmarked (cf. Nuyts 2001 for West Germanic).

![Figure 1](image)

<table>
<thead>
<tr>
<th>модь + inherit Nom-subject</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Semantics</strong></td>
</tr>
<tr>
<td>1. X CAN do #2 p, because q</td>
</tr>
<tr>
<td>2. The speaker CAN assume, that the state of affairs #2p holds true.</td>
</tr>
<tr>
<td><strong>Pragmatics</strong></td>
</tr>
<tr>
<td>Modality and state of affairs unmarked as to foregrounded information</td>
</tr>
<tr>
<td><strong>Valence</strong></td>
</tr>
<tr>
<td>#1X - NP\textsubscript{0}=null, #2p - VP\textsubscript{inf}</td>
</tr>
</tbody>
</table>

3. Epistemic adverb constructions

Epistemic sentence adverbs (EpSA) form a class of invariable and syntactically dispensable lexemes which express the estimation of the likelihood that a certain state of affairs is true in the context of the possible world under consideration (compare Nuyts 2001, 21 ff and Ramat & Ricca 1998). The main functional difference between epistemic SA and modal constructions is the restriction of the former to purely epistemic meanings; i.e. EpSA are not polyfunctional like Modcxns. Syntactically, the two differ in their valence structure; whereas modal constructions open two syntactic valence slots (and one semantic slot), epistemic SA like all adverbs have only one syntactic slot, in this case the clause. Semantically they scope over the propositional content of the clause. It has to be pointed out, however, that many SA allow for narrower scoping and can scope over single phrases. This ambiguity in scope is reflected in word order: whereas the SA with a propositional scope is most often fronted, SA scoping over single phrases can be inserted in the middle of the clause. From a pragmatic point of view, the modal statement in
relation the state of affairs is treated as backgrounded information. These constructional properties can be captured in the simplified box notation in figure 2:

Figure 2

<table>
<thead>
<tr>
<th>.mobytъ bytъ+ Adverbial cxn</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Semantics</strong></td>
</tr>
<tr>
<td>The speaker CAN assume, that the state of affairs #1p holds true or that the component #2 exists.</td>
</tr>
<tr>
<td><strong>Pragmatics</strong></td>
</tr>
<tr>
<td>Modality backgrounded, state of affairs foregrounded</td>
</tr>
<tr>
<td><strong>Valence</strong></td>
</tr>
<tr>
<td>#1 p clause</td>
</tr>
<tr>
<td>#2 phrase</td>
</tr>
</tbody>
</table>

Možet bytъ is a more or less frozen form which does not carry any inflectional features anymore: neither the past tense moglo bytъ nor the conditional moglo by bytъ are attested in the RNC. It is possible, however, to alter the order of the two elements (bytъ možetъ).

(6) Помолчал, вспоминая, быть может, где был раньше Забелин. ‘He was silent, perhaps remembering where Zabelin used to be.’ [Семен Данилюк. Рублевая зона 2004]

From a structural and semantic point of view, it is worth mentioning that EpSA can not be negated; cf.:

(2a) *Не может быть, в глубине души император даже пожалел заключённого Конаки […]

(3a) *А, не может, профессия стала отторгать меня. [Спивакова 2002]

EpSA only in a limited way allow the nuancing of the epistemic evaluation through additional modifiers. According to the data retrieved from the Russian National Corpus the SA možet bytъ can be modified by the grade adverbs očenъ ‘very’ and vpolne ‘completely’:

(7) Кстати, если бы не тюрьма, вполне может быть, мы и не получили бы изумительного поэта. ‘By the way, if hadn’t been for prison it is quite possible that we wouldn’t have got this great poet.’ [Владимир Бондаренко // “Наш современник”, 2004]

It is interesting to note that the eroded form možet can not be modified at all (no examples attested in the RNC).

(3b) *А очень может, профессия стала отторгать меня. [Спивакова 2002]

Možet bytъ and možet are not the only epistemic sentence adverbs derived from a modal construction. In Standard Russian we also have dolžno bytъ and in non-standard prostorečie dolžno and nado bytъ.

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(8) Но проигрыватель, должно быть, работал не на той скорости. ‘But the record player surely worked with the wrong speed.’ [Възвь времена // “Вокруг света”, 2004]

(9) Она, должно, за шпиона меня признала. ‘Probably, she considered me a spy.’ [Владими Черкасов. Черный ящик 2000]

(10) Сидим, курим, никого не трогаем, да и местных не видать, надо быть, все окончательно в нирвану впали. ‘I am sitting around, smoking and we don’t touch anybody, we can’t see the locals, probably, all of them got lost in Nirvana.’ [Сергей Эйгенсон 2003]

4. The ‘complex subject sentence’ možet byt’, čto p

Having analysed Modcxns and SA, we have to address the question how they are related to the construction Modal3sg.prs + to.be + comp + Clause. It appears that we are dealing with a third syntactic construction which involves the part of speech traditionally labelled ‘predicative’ (i.e. forms coinciding with adverbs and/or short forms of the adjective). Its complex morphological structure notwithstanding možet byt’ behaves like a single syntactic word. We are dealing with one and the same construction type in following examples:

(11) Может быть, что он пришел. ‘It may be that he has arrived.’
     Возможно, что он пришел. ‘It is possible that he has arrived.’
     Очевидно, что он пришел. ‘It is obvious that he has arrived.’
     Хорошо, что он пришел. ‘It’s good that he has arrived.’
     etc.

This construction can be characterized as a specific type of complex sentence consisting of a matrix clause formed by a predicative and a complementizer-headed subordinated clause. Traditionally, it has not been treated as a cn in its own right, but as a subtype of ‘complex sentences with a subordinate subject clause’ (‘složnopodčinennye predloženiya s pridatočnymi подлеžашными’ in Galkina-Fedoruk et al. 1958, §119) or as a subtype of ‘explanatory sentences’ (‘iz’jasnitel’nye predloženiya’ RG 1982, §2801). As to the semantics, this construction carries a specific focal evaluative component: it expresses a speaker-based evaluation of the state of affairs encoded in the subordinate clause. The evaluation is treated as foregrounded, and the state of affairs as backgrounded information (cf. Nuyts 2001 for West Germanic). Therefore, we propose to label it Focal Evaluative Construction (FECxn). It expresses an (inter)subjective evaluation as an additional qualificational dimension in the sense of Nuysts who, however, restricts himself to epistemic modal evaluations. In contrast we extend the notion of intersubjectivity beyond modality to different types of evaluation in general. We, thus, include, axiological predicators containing an evaluation in relation to the dichotomy ‘good’ vs ‘bad’ like xorošo ‘good’, prijatno ‘nice’ and evidential markers which point at the source the speaker received his information from like očevidno ‘obvious’, izvestno ‘known’ etc. Rewording Nuysts’ definition we could say that:
By using a FEcxn the speaker expresses a focussed evaluation of a state of affairs and indicates that this evaluation is not based on his/her individual conclusion, but is shared by a large group of people. This factor of intersubjectivity is relevant if we compare the semantics of FEcxn with the adverbial construction. Whereas the first clearly implies that the speaker shares his assumption with a larger group of people, the latter does not contain any suggestion as to whether the epistemic evaluation is subjective or intersubjective (cf. Nuyts 2001 for West Germanic). In comparison to the SA, možet byt’ if embedded in a FEcxn more frequently carries additional modifiers specifying the epistemic scale of likelihood. Thus, nearly all instances of the string ocěn’ možet byt’ in the RNC belong to this type.

(12) Очень может быть, что Toyota покажет хороший результат, […] ‘It is quite possible that Toyota will show good results.’ [Автогонки-3 (форум) 2005]

(13) Вполне вероятно, что президент затеял эти реформы, […] ‘It is quite likely that the president has made up these reforms.’ [“Еженедельный журнал”, 2003.03.17]

A major difference to EpSA, is the fact that the evaluation encoded in the FEcxn can be freely negated. The verb in the subordinate clause can take indicative or conditional mood:

(14) Не может быть, чтобы его это совсем не угнетало. ‘It is not possible that this wouldn’t oppress him.’ [Анна Берсенева. Полет над разлукой 2003-2005]

(15) Не важно, что кузов выполнен не из брони, а из полиэтилена высокой прочности. ‘It is not important that the trunk is not made of metal, but of high density polyethylene.’ [Николай Качурин // “АВТОПИЛОТ”, 2002.03.15]

The matrix clause frequently consists of a single lexeme, but some predicatives allow not only for intensifiers, but also for dative subjects:

(16) Мне даже радостно, что от моего прощения ему станет немного легче. ‘I am even happy that he will feel somewhat better because of my excuse.’ [Запись LiveJournal 2004]

In these cases, the semantic component ‘general evaluation’ is overridden through the downsizing of the reference to the evaluating person encoded in the dative subject. It is worth pointing out, however, that možet byт’ differs from axiological and evidential predicatives in that it does not allow dative subjects and that it does not inflect for tense. This shows that možet byt’ lacks features of a fully-fledged main clause.

(17) Мне известно было, что они сами в кают-компании издевались над священником. ‘It was known to me that in the cabin group they made fun of the priest.’ [А. С. Новиков-Прибой. Цусима 1932-1935]

(12a) *Мне может быть, что Toyota покажет хороший результат, […]

(12b) *Могло быть, что Toyota покажет хороший результат, […]

Similarly to the corresponding SA, možet byт’ allows for the reverse word order which, however, is quite rare. There are only 17 examples of the string byт’ možet čто in the RNC, most of which date back to the 19th century.
(18) **Быть может, что плод того и другого будет одинакий, но на сию минуту не об этом речь.** ‘It may be the case that some of the fruit will be the same, but that is not the topic now.’ [А. И. Герцен. Былое и думы. Часть первая. Детская и университет 1853-1860]

Although there is a strong tendency towards coalescence of the two elements it is still possible to insert lexical material between them:

(19) **Может такое быть, что окорочка мешают ползать?** ‘Can it be the case that the thighs hamper crawling?’ [Наши дети: Малыши до года (форум) 2004]

Concluding this section, we can propose a semi-formal notation of the instantiation of *možet byt’* in a Focal Evaluation Construction.

**Figure 3**

<table>
<thead>
<tr>
<th>може́т быть’ + FEcxn</th>
</tr>
</thead>
<tbody>
<tr>
<td>Semantics</td>
</tr>
<tr>
<td>The speaker and other people CAN assume, that the state of affairs #1p holds true.</td>
</tr>
<tr>
<td>Pragmatics</td>
</tr>
<tr>
<td>Evaluation foregrounded, state of affairs backgrounded</td>
</tr>
<tr>
<td>Valence</td>
</tr>
<tr>
<td>#1 p subordinate clause</td>
</tr>
</tbody>
</table>

**5. The rise of EpSA**

In the first step of the diachronic analysis, we checked the existing research literature including the historical dictionaries. 3 Second, we made use of the Regensburg Diachronic Corpus of Russian (RRudi) which contains texts ranging from the 11th until the 17th century. 4 The Middle Russian Period was additionally complemented by an edition of the ‘Vesti-Kuranty’ (1651-1652, 1654-1656 and 1658-1660). Apart from that, we used the online library of Moškov and – for the 19th century – the RNC. Although the diachronic data in some aspect remain unclear, especially in relation to chronology, we claim that the transition from the modal *moč’* to the epistemic SA *možet* goes through six stages.

Stage I Control verb cxn [NP Nom] + [mož-] + [VP infinitive]

According to the available data and etymological reconstruction, we can assume that Proto East Slavonic *moči* originally had the meaning ‘to be strong’ (compare the cognates *mošč’* ‘power’ and *mogučij* ‘powerful) and that in the first cases where it took an infinitival complement it was restricted to activity verbs and had the meaning ‘to be able to do

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3 These are: Slovar’ drevnerusskogo jazyka XI-XIV vv. and Slovar’ russkogo jazyka XI-XVII vv; Vaulina 1988, Borkovskij 1979.

4 In its current state RRudi contains the following texts (including texts accessible for internal usage): Flavius Iosephus: Iudejskaja vojna, 11th century, Šestodnev Ioanna Ėkzarcha Bolgarskogo 11th century, Nestor’s chronicle (Lavr.) 11th (14th) century, Slova i priti Kirilla Turovskogo 12th century, Afanasij Nikitin: Choždenie za tri morja 15th century, Povest’ o Frole Skobeve 17th century, Žitje protopopa Avvakuma 17th century.
something’ as illustrated by the following sentence from a birch bark document dating from the 13th century:5

(20) не хочу ли дай а будете моя вода (тк) ‘If you don’t want, I can’t give more anyway.’ [Грамота Тверь 1, 13th century]

During the first reconstructed stage of Early East Slavonic, we are dealing with an infinitival control construction which presumably influenced by Church Slavonic language use later developed into an auxiliary-like raising construction.

Stage II ‘raising’ csn [NP_Nom] + [mož]- + [byti] + [NP/AdjP/PtcpP/PP]
The second stage is already attested in Old Church Slavonic and in early Russian Church Slavonic texts like the Iudejskja vojna (11th century). Here, we find a host-class expansion of the verb moči which becomes compatible with stative verbs and, in particular, with the copular verb byti ‘to be’.

(21) кнѧжение и миръ не можетъ безъ грѣха быти ‘and the world cannot be without sin.’ [Лаврентьевская летопись 12th-14th centuries]
(22) аще кто положить душу свою за другъ свой можетъ мои ученикъ быти. ‘If someone gives his soul for his neighbour, he can be my disciple.’ [Лаврентьевская летопись 12th-14th centuries]

The modal construction allows for readings beyond ability like objective possibility (ex. 21) and permission (22). Here, the subject position can be filled by non-animated nouns as in ex. (21) кнѧжение which is typical of ‘raising’ csns. The copula can syntactically be described as a two-place predicator governing a predicate phrase (noun, adjectival, participal or prepositional phrase). Semantically, it brings along its own semantic roles: the subject is assigned the semantic role theme and the predicative element the role property.

Stage III Modal Existential context [PronounNom] + [možet] + [byti]
A critical context for a further step in the direction of adverbialization is characterized by the reduction of the argument structure on the one hand and the expansion of the potential referents of the subject NP to propositional entities on the other. The first takes place if the second valence slot of byti stays empty which renders the reading of an existential verb as in:

(23) глаголеть пакы шт нихъ инъ. не можетъ никтоже быти и ражати сѣ. ‘another one said: nobody can exist and at the same time being born.’ [Шестоднев 11th/14th century]

The second feature is present if the subject position is filled with a pronoun referring not to a substantial entity but to a state of affairs. The modal is restricted to the 3 Person Singular Neuter:

(24) то тоже будетъ человѣкъ еже и богъ еже не можетъ быти николиже. ‘so man would be like God what will never be.’ [Шестоднев 11th/14th century]

5 For details on the use of moči in birch bark documents see: Hansen 2004.
Semantically this construction renders an intersubjective epistemic reading as typical of the FEcxn (see section 3). The other modal meanings are not possible in this constructional context.

Stage IV FEcxn [možet] + [byt’] + [complementizer + clause] According to our data, moč entered the FEcxn not earlier than in Middle Russian times which perfectly squares with Borkovskij’s claims (1979: 414ff) that predicatives expressing modal meanings first appear with subordinate clauses in the Middle Russian period. We found no examples in RRudi of možet plus byt’ governing a fully furnished complement clause. There are, however, examples from the ‘Vesti-Kuranty’ from the middle of the 17th century. Note that there is no Pronoun in the subject position:

(25) И сь Варшавы вѣсті приходятъ что соима которыя июль къ КГ му числѣ посрочена впередъ отложена бытъ и можетъ бытъ что земское собраніе въ номѣ мѣстѣ бытъ [...] ‘From Warsaw there are news saying that the Sejm which was scheduled for July 23rd will be postponed and that it may be that the parliament session will take place somewhere else [...]’ [Vesti-Kuranty 16, 18. April 1652]

Due to the lack of space we can not give a complete account of the development of the FEcxn as such which has to be left for future research. It must suffice to point out that the FEcxn originated in formal Church Slavonic texts from where it spread into the East Slavonic vernacular. In Old Russian, it was restricted to axiological (e.g. pravedno ‘right’) and evidential predicatives (e.g. javě ‘evident’); in the Middle Russian period the FEcxn became compatible with modal predicatives (ibidem).

Stage V EpSA [možet] + [byt’] + [clause] The next step in the development is the omission of the complementizer čto(by) which renders an ambiguous morpho-syntactic structure: it can either be interpreted as a asyndetic complex sentence (i.e. an FEcxn) or as a simple clause containing a parenthetical. According to the Dictionary of the 11th to the 16th centuries the cxn is first attested already at the beginning of 16th century:

(26) И сьи бо можетъ быти заблудятъ брющуще и хотящи обрѣсти. ‘Searching and longing for God, maybe, they get lost.’ [Геннадиевская библия 1499]

As there is not a single example in the whole RRudi we can assume that it must have been exceptionally rare in the 16th century and became frequent much later (no examples in the Vesti-Kuranty 1651-1652, 1654-1656 and 1658-1660). We found plenty of examples in the 18th century and at the beginning of the 19th:

(27) Можетъ быти, онъ хотелъ сделать то же, что сделалъ послѣ Магомета II. ‘Maybe, he wanted to do the same as Muhammed II did afterwards.’ [Карамзин 1819]

Stage VI EpSA [možet] + [clause] The final stage which is still not accepted in formal speech is reached when the original copula is elided and we get a mono-morphemic element.
These contexts are non-ambiguously analysed as an adverbial cxn.

6. Gradual and non-gradual processes involved

In the final part of our contribution, we shall try to characterize the micro-changes described in the previous section in terms of gradualness vs. discreteness. In our analysis, we shall draw from the terminology proposed by Aarts (2007) who distinguishes two basic types of synchronic gradience: first, subsective gradience involves a single class of linguistic elements and allows for a particular element X from that category to be closer to the prototype of the category than some other element Y. Second, intersective gradience involves two categories and obtains where there exists a set of elements characterised by a subset of A-like properties and a subset of B-like properties. Gradualness is to be understood as the diachronic equivalent of synchronic gradience. The question we would like to address is ‘does the transition of the modal možet into an epistemic sentence adverb involve categorical gradualness?’

From Stage I ‘control cxn’ to Stage II ‘raising cxn’ we are dealing with the gradual bleaching of the modal which becomes compatible with a wider range of verbs. The modal expands its meaning from participant-internal and participant-external possibility to epistemic possibility. This type of host-class expansion is a gradual change and leads to a gradual transition of control cxn into a ‘raising-like’ modal cxn. As we cannot identify clear cut-off points we have to assume structures intersecting between the two categories. The transition from stage II to stage III (labelled ‘modal existential context’) involves two micro-changes on the morpho-syntactic level. On the one hand, we are dealing with a host-class expansion, in this case from NPs denoting substantial entities to pronouns referring to state of affairs. On the other hand, the change in the argument structure involves the loss of one valence slot which is a discrete non-gradual micro-change. At this stage možet and byti are still to be analyzed as two lexical entries. On the semantic level we witness the loss in polyfunctionality: whereas stage II contexts still allow for dynamic or deontic readings the ‘modal existential context’ is restricted to inter-subjective epistemic possibility. Although the data are not absolutely clear, we assume that the EpSA arose via the FEcxn (stage IV) which would imply a transition from an infinitival cxn into a cxn carrying features of a complex sentence: the string možet byt’ governs a complement clause introduced by the subordinator čtoby(by). Apart from that, the argument frames of the elements možet and byt’ seem to merge, resulting in a single semantic and syntactic valence frame. Both micro-processes are non-gradual. It is interesting to note that there is no evidence that these morpho-syntactic processes trigger semantic changes. There is, however, a shift in the information structure leading to the foregrounding of the epistemic evaluation. Bearing in mind that we need more empirical evidence we would claim that the step from stage IV to stage V results in the emergence of a true SA. The elision of the complementizer leads to an ambiguous structure oscillating between an asyndetic complex clause and a single clause with a SA which might be interpreted as a case of intersective gradience und, thus, as a gradual change. On the pragmatic level, the distribution of foregrounded and backgrounded information is reversed. The dropping of the complementizer is accompanied by a slight semantic shift leading to a neutralization in terms of inter-
subjectivity of the epistemic evaluation. When developing from stage V to stage VI the EpSA goes through a process of phonological erosion and the adverb is further backgrounded which is reflected in the complete loss of the capability to take modifiers like negation and intensifiers.

We have tried to show that the semantics of the lexical entry moč’ to a high degree depends on the cxn it is instantiated in. To conclude, we put forward the hypothesis that we are dealing with a cross-linguistic path of change also attested in other languages. It is for example known to exist in English (cf. Visser 1973, 170). Another question to be addressed in future research concerns the question whether this path shares features with the known rise of quotative constructions which according to Harris & Campbell (1995, 170ff) (discussed in Wiemer 2008) likewise involves the transition from a mono-clausal into a bi-clausal structure and the loss of argument slots of the verb of saying.

Abbreviations

Cxn - construction
EpSA – epistem ic sentence adverb
FEcxn – focal evaluative construction
Modcxn – modal construction
RNC – Russian National Corpus
SA – sentence adverb

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B Research


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PRECONDITIONS AND MOTIVATIONS IN THE GRAMMATICALIZATION OF THE NORTH RUSSIAN BE-PERFECT

Summary

This paper investigates the development of the North Russian be-perfect, which consists of a possessive PP subject, *be*, an indeclinable participle, and a nominative object, with a focus on the preconditions and motivations of innovations. The utilization of indeclinable participial predicates and differential object marking strategy in Old North Russian must have served as important conditions for voice shift by causing ambiguity in the originally passive structure. The most crucial innovation was the gradual change of the PP from a locative adjunct to a base-generated agentive subject via a causative/benefactive applicative stage, which was motivated by the phrase's semantic ambiguity and the markedness principle. The grammaticalization of the North Russian perfect is construed as a process of thematic feature reduction.

1. Introduction

While the evolution of the *have*-perfect from the *have*-possessive in Romance/Germanic languages has been explored in detail (e.g., Vincent 1982, Salvi 1987), the derivation of the *be*-perfect from the *be*-possessive construction in other languages has not received due attention. This paper is devoted to a formal analysis of innovations in the development of the North Russian *be*-perfect, exemplified in (1-2), with a focus on the locus and nature of the relevant changes and the conditional relationships between innovations.

(1) *U nas takoj byl bol’šoj tramplin sdelano.*
   at us.PPGEN such be.PST.M.SG big springboard.NOM.M.SG made.Part.N.SG
   ‘We had made such a big springboard.’ [Kuz’mina & Nemčenko 1971: 42]

(2) *U menja bylo telenka zarezano.*
   at me.PPGEN be.PST.N.SG calf.ACC.Anim.M.SG slaughtered.Part.N.SG
   ‘I had slaughtered a/the calf.’ [Ibid. 38]

The development process of the *have*-perfect has been described as the grammaticalization of a lexical verb *have* into a functional/grammatical item. This traditional account should be recast in light of the derivational link between possessive and perfect constructions, as proposed by Kayne (1993). The possessive and perfect constructions appear as variants of a single underlying structure, with distinct subcategorizations of the functional predicates *be/have*. On the basis of the strict CP/DP parallelism proposed by Svenonius (2004) and Hiraiwa (2005), the possessive and perfect structures are represented as in (3a-b). In the possessive structure in (3a) the copula embeds a nominal clause, DP, whereas in the perfect structure in (3b) the copula embeds a mixed category, DP containing a vP.¹

(3) a. Possessive. \[ T \[ F \[ be/have \[ DP(PP) \[ D(P) [+/- \text{CASE}] \[ nP \text{Subj} [ n \text{NP}]] ] ]]
   \[ T \[ F \[ be/have \[ DP(PP) \[ D(P) [+/- \text{CASE}] \[ vP \text{Subj} [ v \text{VP}]] ] ]]

¹ In (3), Kayne’s original proposal of the P-to-BE incorporation is replaced by the use of distinct copula types (*be* and *have*) depending on the Case feature in D(P). See Jung (2008) for detailed discussions.
Given the structures in (3a-b), the derivation of the perfect from the possessive cannot be viewed as a change in the nature of *be/have*, since in both structures *be* and *have* appear as functional predicates. How, then, can we define the development of the perfect? What innovations result in the perfect? What motivates the innovations? In this paper I attempt to answer these questions.

2. Morphosyntactic features of the *be*-perfect in modern North Russian

The North Russian perfect clearly originates from the passive construction since it contains an indeclinable past passive participle. However, this construction is morphosyntactically distinct from the passive. In the canonical passive, the theme appears in the nominative, with which the passive participle and the copula agree. The agent appears in the instrumental case.

In contrast, in the North Russian participle construction, the theme is marked with the nominative case, as in (1), or with the accusative, as in (2), depending on the dialect (Kuz’mina & Nemčenko 1971). The passive participle invariably appears as neuter singular.² The copula is covert in the present tense but in other tenses appears either in agreement with the nominative NP or with the participle. Most crucially, the agent appears in a possessive expression (*u* ‘at’ + Genitive). While it is obvious that the nominative NP is an underlying object, the argument status of the *u*+GEN phrase needs further investigation in order for us to understand the underlying structure of this construction.

In Russian, the *u*+GEN PP assumes various semantic and syntactic properties, by which such types as ablative, adessive, possessive, and benefactive/causative can be distinguished (cf. Mrazek & Brym 1962). Among them, only the possessive *u*+GEN functions as a surface subject in terms of syntactic behaviors, such as the binding of the subject-oriented anaphor, as shown in *U Pavla, byl svoji dom* ‘Paul had his own house.’

Ablative and adessive *u*+GEN phrases only appear adjunctive. They neither bind reflexives nor occupy sentence-initial position in the discourse-neutral word order. The benefactive/causative *u*+GEN may be construed as high applicative (à la Pylkkänen 1999). It occupies sentence-initial position but does not behave as a subject. As shown in (4), while occupying sentence-initial position as a sentential topic, it does not bind the reflexive svoj.

(4) *U Pavla, s l omal-sja ego/*svoj kompjuter.*

Paul.PP GEN broke.PST.M.SG-Ref his/*his own computer.NOM.M.SG

‘Paul caused his computer to break (accidentally).’

[adapted from Rivero & Savchenko 2005:283]

As Timberlake (1976) extensively discusses, the *u*+GEN phrase in the North Russian perfect assumes the syntactic properties of a grammatical subject, such as svoj-binding, PRO-control, and coordination with a finite clause with an omitted nominative subject. In this respect, the *u*+GEN phrase in the North Russian perfect contrasts with the high applicative benefactive/causative *u*+GEN phrase in Russian.

Semantically, the *u*+GEN phrase in the perfect construction denotes the agent of the event. This is shown by the use of agent-oriented adverbials such as naročno

² The participle appears in an indeclinable masculine singular form in some dialects.
‘intentionally’ and the complementizer čtoby ‘in order to,’ as in U nego naročno nigde ne byto, čtoby podraznít’ mamu (at him.PP GEN intentionally nowhere NEG be.Part.N.SG COMP make anxious mom) ‘He has not gone anywhere intentionally in order to make mom anxious’ (pers. comm. Zh. Glushan).³

The fact that inanimate nouns may appear in the u+GEN phrase, as in sentence U traktora tut proexano (at tractor.PP GEN here passed-by.Part.N.SG) ‘A tractor has passed by here’ (Kuznecov 1954:96), also shows that the u+GEN phrase has only an agent reading and does not bear a causative or benefactive role. An inanimate noun may be an unvolitional agent but cannot be a causative or benefactive.

Double u+GEN phrases indicate distinct types of u+GEN phrases as well. In (5), the first u+GEN phrase (u menja) is the benefactive of the event, and the second one (u kur) is the agent of the event. This example also shows that the agentive u+GEN is a constituent, distinct and independent from the benefactive applicative u+GEN.

(5) U menja tri jajca svežix bylo tol’ko položeno u kur
    at me.PP GEN three eggs fresh be.PST.N.SG just laid.Part.N.SG at hens.PP GEN
    ‘It happened to me that hens had just laid three fresh eggs.’[Timberlake 1976:552]

The subject properties and agentive semantics of the u+GEN phrase in the North Russian perfect clearly distinguish it from the applicative benefactive u+GEN. The u+GEN phrase in the North Russian perfect is construed as a base-generated external argument. Thus, the North Russian perfect is not a passive but an active construction.

Given these semantic and syntactic features of the u+GEN phrase, I present the structure of the North Russian perfect construction, as in (6), based on the structural parallelism between the possessive and perfect constructions in (3).

(6) U Šrki privedeno nevesta.
    at Šrka.PP GEN brought.Part.N.SG fiancée.NOM.F.SG

In (6), BE embeds a mixed category DP headed by a preposition. The external argument is base-generated in Spec,vP of the DP and is case-marked by the immediately c-commanding P. Further derivation involves the merge of a FocP and the remnant movement of the DP(PP) containing the external argument to the matrix Spec,TP for EPP.⁴

³ Zhanna Glushan is an informant from the Karelian area in North Russia.
⁴ See Belletti (2001, 2004) for the proposal of the low focus phrase in Italian. A low focus projection
3. Three crucial innovations in the development of the North Russian perfect

3.1. Syntactic and semantic evolution of the \(u+\)GEN phrase (the 11\(^{th}\)-16\(^{th}\) centuries)

The initial state of the construction, according to the attestations in the birch bark letters from North Russia, primarily in Novgorod (11\(^{th}\)-14\(^{th}\) c.), is construed as a passive sentence combined with an adjunct adessive/locative \(u+\)GEN phrase. Zaliznjak (2004: 245) contends that in sentence (7), dated to the 11\(^{th}\) century, the \(u+\)GEN phrase \(u\) syčevicь may be interpreted as either locative or agentive. Although I consider that the given phrase is more likely to be locative, it is important that a locative may potentially imply an agent. The semantic ambiguity between locative and agentive readings must have conditioned a reanalysis of the syntactic status of the \(u+\)GEN phrase.

\[(7)\] žiznobude pogublène \(u\) syčevicь
Žiznobud.NOM.M.SG killed.Part.M.SG at Syčevicьes.PP\(_{GEN}\)
‘Žiznobud was killed by the Syčevicьes/at the Syčevicьes’.

\[\text{[Birchbark No. 607/562, late in the 11th c., Zaliznjak 2004:245]}\]

In (8), the \(u+\)GEN phrase appears with a clear agentive meaning. The construction is still an agreeing passive, and the \(u+\)GEN phrase is adjunctive. The underlying structure of the adjunctive \(u+\)GEN is represented in (9).

\[(8)\] octina naša i diděna \(\text{[ot\mbox{\textit{(im)}}\text{ana}}\) u vymolčovь gospodь
fathers’ our belongings.NOM.F.SG taken.Part.F.SG at vymolians.PP\(_{GEN}\)
‘Vymolians have taken away what belonged to our ancestors…’

\[\text{[Birchbark No. 248, 14th c., Ibid. 623]}\]

\[(9)\]

\[\begin{array}{c}
\text{TP} \\
\text{T} \\
\text{.....} \\
\text{VP} \\
\text{V} \\
\text{[ot\mbox{\textit{(im)}}\text{ana}} \\
\text{DP} \\
\text{diděna} \\
\text{PP_{LOCATIVE/AGENTIVE}} \\
\text{\(u\) vymolčovь gospodь}
\end{array}\]

The association of the potential agentive reading of \(u+\)GEN with the subject position must have been mediated by the stage of high applicative benefactive/causative that may refer to a covert agent, as in (10). The structure of (10) would be represented as (11).

\[(10)\] u carja pereloženo na se lěto ratь svoja
at tsar.PP\(_{GEN}\) undertaken.Part.N.SG for this summer troops
own.NOM.F.SG
na moskovskuju ukrajnu poslati
to Moscow hinterland send.INF
‘by the tsar it was undertaken to send his troops to the Moscow hinterland for the summer.’

\[\text{[PDSK II, 16th c. Timberlake 1974:16]}\]

may also be posited for Russian since word order in Russian shows similar sensitivity to information structure (i.e., new information in sentence-final position). See Jung (2008).
Given the surface string of \(<\text{PP}_{\text{GEN}} - \text{indeclinable participle} - \text{NP}_{\text{NOM}}\>\), the applicative PP in Spec,TopicP must have been reanalyzed as located in Spec,TP due to its agentive semantics. It is impossible to pinpoint when the PP began to be regarded as a base-generated external argument occupying Spec,TP, behaving as a grammatical subject. However, the striking parallelism between the finite sentence with a nominative agent and the virtually identical PP agent construction in (12), dated to the 16th century, may be accepted as the first instance of the modern type of the construction, in which the PP occupies Spec,TP. In (13) I give the underlying structure of the second sentence of (12). The structure in (13) is virtually identical to that of the modern construction in (6).

\[12\]  
\begin{align*}
\text{A} \text{tolko mužb } \text{pripaset} \text{ v god } \text{vsjakogo zapa} \\
\text{only husband.NOM.M.SG} \text{ prepare.3.SG in year all reserves Lenten food} \\
\text{A} \text{tolko } \text{u muža } \text{v god } \text{vse pripaseno, } \text{vsjakie zapasy} \\
\text{only at husband.PP}_{\text{GEN}} \text{ in year all prepared.Part.N.SG all reserves} \\
\text{‘And only the husband prepares each year all the reserves and Lenten food...} \\
\text{And only the husband each year prepares everything, all the reserves.’}
\end{align*}

\[13\]  

3.2. The loss of the participle inflection (since the 11th century)  
In the passive, predicate agreement with the nominative subject has been the norm throughout all Russian territory. However, non-agreeing constructions have also been found sporadically in written sources since the beginning of recorded history. According to data from Potelnja (1888/1958), Šaxmatov (1925/1963), Borkovskij & Kuznetsov (1965), Filin (1972), and others, past passive participles that do not agree with nominative noun phrases first appeared in the 11th century and were constantly found in manuscripts from
various regions regardless of genre and style, as exemplified in (14). According to Kuz'mina (1977:164), the use of non-agreeing passive constructions increased during the 13th-15th centuries, followed by its further increase and stabilization during the 16th-17th centuries.

(14) медъ въ veselićja дано бысть бгъть а не на pijanstvo сътворено бысть
honey.NOM(=ACC) given.Part.N.SG god.INST created.Part.N.SG
‘Honey was given by God for enjoyment and was not created for drunkenness.’

[Izbornik, 1076, Filin 1972:493]

The indeclinable participial morphology, such as –no and –to, should be distinguished from default agreement forms that is due to the lack of nominative nouns, as in v gazetax soobščeno o tom, čto on umer (in newspapers.PP GEN informed.Part.N.SG about that COMP he died) ‘In the newspapers it was informed that he died.’ The neuter singular forms in sentence (14), in which nominative nouns exist, should be construed rather as frozen morphology that reflects fixed declensional features. This dialectally unlimited use of frozen participle morphology must have further undergone a functional reanalysis in North Russian, which assigned a new function to the invariant form. This must have permitted the frozen morpheme to be retained with a certain degree of productivity in North Russian, whereas in other dialects it was removed or remains in colloquial speech, only marginally, as an archaism. This view is also cross-linguistically supported; in the Lithuanian evidential construction, the participial predicate invariably appears in –ma/-ta, which etymologically corresponds to the North Russian –no/-to. The –ma/-ta form was historically neuter, but as the neuter gender was lost in this language, it became indeclinable, denoting evidential mood.

3.3. Nominative object reanalysis (in the 16th century)
It is evident that the perfect arose as a result of voice shift when the nominative theme was reanalyzed as the surface object. This was conditioned by the productive use of nominative object strategy in Old North Russian.

Since the earliest historical period of North Russian till the 17th-18th centuries, inanimate objects had been marked with the nominative when the clause lacked a nominative subject.Animate objects were marked with the accusative case (Timberlake 1974). This case-marking scheme conforms to cross-linguistically observed differential object marking patterns. Infinitival modal constructions with dative subjects typically contained nominative objects.

Given the productivity of differential object marking in Old North Russian, as reported by Timberlake (1974), it is very likely that the nominative theme argument of the non-agreeing passive participle was analyzed as a surface object, which could be actualized only by the emergence of the accusative animate object. The first instance of the accusative animate object is given in (15).

(15) nikto že izyde ot domu našego tošć ili skorben po sile vsja потrebная vsjakomu
nobody left from house our sick sad all necessary all
čeloveku boga radi davano и skorbnovo slovom požovano
‘Nobody left from our house sick or sorrowful, inasmuch as all things necessary, for God’s sake, were given to every person and a sad person was treated with a
In (15), the adjective \textit{skorbnovo} that modifies an omitted object assumes an ACC-GEN syncretic form confined to animate nouns, which indicates that the omitted animate object bears the accusative case.

4. Preconditions and motivations

4.1. Preconditions: syntactic ambiguity

Thus far I have identified three innovations crucial in the development of the perfect from the passive in North Russian. Among them, the perfect arose as a direct result of the nominative object reanalysis of the non-agreeing passive construction combined with a benefactive/causative PP.

How, then, are the three innovations related to each other? In the study of syntactic change it is crucial to understand conditional relationships among relevant innovations. Namely, a certain innovation(s) creates ambiguity in the surface string, which preconditions a further reanalysis. The internal grammar changes when a subsequent innovation(s) resolves this ambiguity in a way distinct from the original grammar. All the innovations are constrained by the language system in certain ways.

In this respect, the loss of participle inflection and the existing differential object marking strategy in Old North Russian must have served as important conditions for the voice shift by causing ambiguity in the originally passive structure. The non-agreeing predicate obscured the syntactic function of the nominative theme as the surface passive subject, which facilitated the reanalysis of the nominative NP as the surface object.

However, it should be noted that the indeclinable predicate was not limited to North Russian. As already discussed, non-agreeing past passive participles have often been found in manuscripts from various regions since the 11th century. This fact suggests that the non-agreeing predicate does not constitute a sufficient condition for the voice shift. While predicate agreement has functioned as a hallmark of the subject status of a nominal argument in most instances, the lack of the predicate agreement alone could not have been a sufficient trigger for a speaker to treat the nominative argument as an object.

Neither does predicate agreement seem to have played a decisive role in the derivation of the \textit{u+GEN} phrase as a grammatical. Recall the Russian possessive sentence, such as \textit{U Pavla\textsubscript{i} byl svoj\textsubscript{i} dom} (at Paul.PP\textsubscript{GEN} be.PST.M.SG own house.NOM.M.SG) ‘Paul\textsubscript{i} had his own\textsubscript{i} house,’ in which the \textit{u+GEN} phrase occupies the subject position (Spec,TP), as indicated by its anaphor-binding. In this example, the verb \textit{byt’} agrees with the nominative possessed noun. This shows that predicate agreement may be divorced from the surface subject. Thus, although the lack of predicate agreement perhaps contributed to ambiguity in the syntactic structure of the North Russian construction, it cannot have triggered the change of the syntactic status of the \textit{u+GEN} phrase.

The utilization of the nominative object construction in the given language system cannot have been a direct trigger in this regard either. Differential object marking was established in infinitival, gerundive, and imperative sentences in North Russian since the earliest period (the 11th c.) but did not trigger the reanalysis of the nominative argument combined with the indeclinable participle as the object.

To summarize, the indeclinable participle and the differential object marking strategy
were necessary but not sufficient factors for the voice shift to occur.\(^5\)

4.2. Motivation: agentive semantics and the markedness principle
Why was the string \(<\text{PP}_\text{GEN} – \text{indeclinable participle} – \text{NP}_\text{NOM}>\) subject to an innovative voice shifting reanalysis rather than a conservative reanalysis as the non-agreeing passive? What caused the syntactic reanalysis of the applicative PP as a base-generated subject, as in (16)?

\[
\begin{align*}
\text{(16)} & \quad \text{a. Applicative} & \text{b. External Argument} \\
& \quad \text{App}_{\text{AppP}} & \quad \text{Agent} \\
& \quad \text{App}_{\text{App}'} & \quad \text{vP} \\
& \quad \text{App}_{\text{vP}} & \quad \text{VP} \\
& \quad \text{VP} & \quad (\text{Agent}_1) \\
& \quad \text{vP} & \quad \text{VP} \\
& \quad \text{VP} & \quad \text{Theme (surface object)} \\
& \quad \text{V} & \quad \text{Theme (surface object)}
\end{align*}
\]

I propose that the argument status change of the \(u+\text{GEN}\) phrase must have been motivated by its potential agentive semantics and directed by the markedness principle. In a syntactic change, the direction of a reanalysis is determined by the markedness principle (Stein 1989, Andersen 2001). When an ambiguity occurs in terms of the constituency of elements in the surface string, the construal of the syntactic structure takes place in favor of the unmarked pattern in a given environment.

(16a) contains two distinct thematic roles: agent and benefactive. Although the agent argument in the passive may not be overtly realized, it is always present in the structure (Collins 2005 and references therein). In (16a) the benefactive applicative \(u+\text{GEN}\) phrase may be coindexed with the agent of the event. In contrast, the \(u+\text{GEN}\) subject in the North Russian perfect in (16b) only denotes the agent of the event. This difference comes from the distinct argument status of the \(u+\text{GEN}\) phrase in terms of base-generation: adjunct vs. external argument. Thus, the change of the \(u+\text{GEN}\) from an applicative to a subject is viewed as the process of the simplification of involved thematic features (argument structure). Given that ‘marked’ means the denotation of the existence of a certain feature while ‘unmarked’ indicates the lack of such denotation (Trubetzkoy 1931, Jakobson 1932), the reduction of thematic features in (16) can be defined as an ‘unmarking’ process.

Let us imagine a situation where an Old North Russian speaker heard a sentence, in which an \(u+\text{GEN}\) phrase occupied the initial position without explicit subject properties. The \(u+\text{GEN}\) phrase, by its surface position, could have been identified either as an applicative or as an external argument. If the speaker identifies the \(u+\text{GEN}\) as occupying the same syntactic status as the possessive \(u+\text{GEN}\) (i.e. Spec,TP), s/he would only assign one thematic role (agent) to the phrase in his/her internal grammar. When the speaker produces this type of sentence with the \(u+\text{GEN}\) phrase assuming explicit subject properties, the change is actualized. I argue that the salient agentive semantics must have forced the speaker to favor this option since the most unmarked base position (i.e. involving the least features) for an agent argument is Spec,vP.

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\(^{5}\) The role of nominative object strategy in North Russian as one of the preconditions of the rise of the perfect construction accounts for why the distribution of the construction is limited to North Russian.
5. Grammaticalization as feature reduction

5.1. Grammaticalization of the perfect in light of the North Russian phenomenon
The evolution of the *have*-perfect has traditionally been described as the shift of a construction consisting of *have* and an embedded passive small clause to an active sentence, along with the semantic bleaching of *have* and the shift of *have* to a grammatical item (i.e., an auxiliary).

The grammaticalization of the perfect is recaptured within a minimalist framework by Roberts & Roussou (2003). They argue that direct Merge is more economical than Move, since the latter implies the former. Grammaticalization is construed as the shift from Move to direct Merge, which is possible due to the change of the properties of verbal heads. In the grammaticalization of the *have*-perfect, the verb *have*, which used to merge under a lexical head V and move to T, was reanalyzed as merging under T directly.

The development of the North Russian perfect, as described in previous sections, offers a rather different view of the evolution of the perfect, focusing on the changes in the syntactic and semantic properties of the possessive argument. Under the analysis of the structures of the possessive and the perfect constructions, as briefly introduced in Section 1, it is not the verb that is subject to semantic bleaching. In both possessive and perfect constructions, the verbs *be* and *have* appear as functional predicates. In the development of the North Russian construction, the syntactic and semantic change occurs in the \(u^+\)GEN phrase. A shift from a lexical to a functional item may make sense in relation to the change of the \(u^+\)GEN phrase. The \(u^+\)GEN phrase originates as an adjunct, which is projected for a purely lexical purpose. This lexical adjunct becomes an external argument which is projected by a functional head \(v\).

This analysis applies to the *have*-perfect as well. In a sentence such as *He has a house built*, *he* appears as a benefactive/causer that is projected as an applicative. It may be coindexed with the covert agent of the embedded clause optionally. When this benefactive/causer argument undergoes a semantic change that makes it a pure agent, it is reanalyzed as originating from the embedded clause.

5.2. Grammaticalization recap
Grammaticalization has generally been defined as a type of language change, which shifts a lexical item to a grammatical/functional item, or a grammatical item to another grammatical item. This process is formally captured as a change in the features in a head of a grammaticalized item, hence a head-oriented approach.

In this paper, I have pursued an argument-oriented approach to grammaticalization, which construes the essence of grammaticalization as a reduction of the thematic contents in overt arguments, i.e., simplification of argument structure. In this approach, the loci of reanalysis appear not as grammatical heads but as their arguments. From a speakers’ point of view, reanalysis takes place in terms of the interpretation of an overt argument. In the process of the grammaticalization of an item, change takes place when a speaker relates fewer semantic contents to an overt argument by removing a thematic role(s) that the argument assumed in the speech of older generations. In this respect, the proposed approach to grammaticalization attends to the motivation and actual locus of change, while previous approaches, focusing on the change in grammaticalized heads’ features (Roberts & Roussou 2003, van Gelderen 2004, 2007, 2008), primarily concern the result.
of change.

6. Conclusions

In this paper, I have explored the preconditions and motivations of the grammaticalization of the North Russian be-perfect. The North Russian be-perfect developed from a passive construction combined with an adjunctive u+GEN phrase. The change in the argument status of the u+GEN is the essence of the phenomenon. The utilization of nominative objects and non-agreeing adjectival predicates in Old North Russian provided necessary conditions for the voice shift that resulted in the be-perfect. The removal of the semantic ambiguity of the u+GEN phrase, thus associating fewer features with the phrase, was motivated by its agentive semantics and the markedness principle. The described developmental process of the be-perfect offers an argument-oriented approach to grammaticalization, distinct from existing head-oriented approaches.

References


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OLD CZECH ADJECTIVES
WITH THE MEANING OF PASSIVE POTENTIALS*

Summary

The article presents diachronic language data supporting the analysis of Czech adjectives with the meaning ‘(entity) such that one can VERB it’, i.e. Czech -teln(-ý) adjectives (prokazatelný ‘arguable’) as structures derived by two autonomous suffixes that Old Czech possessed since the Old Slavonic period. The first suffix -tel- also serves for the derivation of subject nominals/agent nominals of the type kaz-a-tel ‘preacher’; the second suffix -n- serves for the derivation of adjectives prů-kaz-n-ý (‘confirmative’), i.e. pro-kaz-a-tel-n-ý ‘arguable’. The main arguments supporting this analysis come from the phonological data interpreted in the Templatic Morphology theory.

1. Introduction

It has been well known that languages show differences in morphemes used to derive word forms naming a property resulting from the possibility or impossibility of becoming a patient of the event denoted by the verbal stem. In English, there is the affix -able (readable), in Italian the affix -bile (leggibile), in Spanish -ble (legible), in German the affix -bar (lesbar) etc. In Slavic languages, this meaning is expressed by different affixes: -telný in Czech (prokazatelný) / -telný in Slovak (nezabudnutelný), -alny in Polish (mieszkalny), -myj in Russian (nedvižimýj) / -m in Bulgarian (nedvižim), -ljiv/-iv in Serbian and Croatian (izlječiv, neizcrpljiv) and Slovenian (ukrotljiv). All the suffixes manifest different properties either with respect to their compatibility with stems of certain qualities or with respect to their interaction with negation etc.

2. Analysis

In this paper I will follow up the study by Caha & Karlík (2005) proposing the analysis of morphosyntactic structure of -teln(-ý) adjectives in Modern Czech. The then objective was to answer a question whether the morpho-syntactic structure of the mentioned adjectives analyzed in the framework of Distributed Morphology (DM) can be linked to their prototypical semantic interpretation as words with the meaning ‘(entity) such that it can be VERB STEM’, i.e. (non-formally): odpusti-teln(-ý) = ‘thing such that it can be forgiven’.2 The proposed analysis is represented by a tree diagram (1)3; for consequent predictions see in Caha & Karlík (2005):

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1 The term “suffix” is pre-theoretical here and does not imply anything about the inner structure of these forms.
2 The meaning of several -teln(-ý) adjectives is idiosyncratic, e.g., potěšitelný ‘thing such that it brings pleasure’.
3 The tree shows only that part of the structure of -teln(-ý) adjectives which we assumed to be responsible for their modal interpretation. It does not present, e.g. the derivation phase represented by merge of the a-categorial root √ and the thematic element, in the simplified way, odpust √ -tel-I, result of
For the present study it is essential that the -teln(-ý) material is analyzed as two independent and separate suffixes -tel- a -n-, features of which create a complex resulting in the morpho-syntactic and semantic properties of these modal adjectives.

The -tel- suffix merges into the structure in the functional head v°. One of its properties is a feature causing the fact that the relevant appearance of v cannot project the position of the [Spec, vP] which prevents vP to be equipped by an external theta role. (The external theta role is – in the DM theory – syntactically inserted into the structure exactly in the [Spec, vP]). The inevitable condition for the -tel- suffix merge is that the VP/ThP which is a complement of v° has (e.g., as a result of merge of an appropriate morpheme in the head Th to the root √) acquired a feature [externally caused event]. Only in that case the -tel- suffix can block something, namely the projection of [Spec, vP]. See the contrast of (2a) with Theme -i- bearing the feature [externally caused event] and (2b) with Theme -a- bearing the feature [internally caused event]:

(2) (a) MODR>R-i-tel-n(-ý) × (b) *MODR>a-tel-n(-ý)

'able to be painted blue'    'able to become blue'

which is that Th(eme)P = VP. This phase of the derivation is important since the theme head is one of the positions where the event structure feature is added. The aspect heads projections are not shown either.
The -n- suffix is attached to the structure in the functional head $a^\circ$. Its important property at the moment is that it prevents the internal argument VP\(^4\) to be assigned a structural case:

\[(3)\]  
řeší rovnici  
'he solves an equation'  
řešitel rovnice  
'solver of an equation'  
řešen *rovnici  
'to be solved an equation'  
řešitelný *rovnici/*rovnice  
'solvable an equation'

To sum: The verbal stem of -teln(-ý) adjectives must be able to assign an external theta-role and must be able to license its internal argument by structural case. The part of the adjectival structure represented by the -teln- complex compositionally includes the features rendered by Burzio’s generalization: It does not introduce the external theta role (-tel-) into the structure and ensures that the internal argument is not assigned the structural Accusative (-n-).

### 3. Support for the proposed analysis

Our proposal brings us to the question whether the -tel- suffix in adjectives is identical with the -tel- suffix in subject nominals/agent nominals:

\[(4)\]  
(a) pozorova-tel(-Ø)  
'observer'  
(b) pozorova-tel-n(-ý/-á/-é)  
'observable'

Even though I am not going to maintain that the structure of subject nominals and adjectives to which the -tel- suffix is attached is identical, if the suffix is identical, it can be expected that the former prove the same syntactical properties as (resulting from the -tel- suffix) the latter. The internal structure of subject nominals should not contain the [Spec, vP]. Relevant data are provided by the contrast in (5) showing that in (5a) the -tel- suffix blocks the external argument; therefore, accessible for interpretation are, unlike with process nominals (5b) – only other arguments:

\[(5)\]  
(a) ošetřovatel babičky\*\[^{A-1/A-2}\]  
'nurse of grandma'  
(b) ošetřování babičky\[^{A-2/A-1}\]  
'grandma nursing'

Blocking of the external argument by the -tel- suffix at the agent nominals seems to be based on a different mechanism than at the -teln(-ý) adjectives, namely on the internalization of the external argument and its incorporation into the internal word structure. This can explain that -teln(-ý) adjectives (6a), as well as the Passive Particles

\[^{4}\] If the aP structure (-řešiteln-) gets by merge with the $n^\circ$ head into a nominal context, the features contained in the $n^\circ$ head are able to assign Genitive which means that expectedly the internal argument V\(^\circ\) (fulfillment of which is blocked by the -n- suffix in $a^\circ$ through the non-assignment of the structural case) can be expressed in this Genitive position: řešitelnost rovnice ('solvability of equation').
(6b) can have an external argument (expectable based on the semantic feature VP / ThP) expressed as an adjunct\(^5\), whereas the agent nominals cannot:

\[
\begin{align*}
(6) & \quad \text{(a) pozorovatel'nyj jen vědci} \quad \times \quad \text{(c) *pozorovatel jen vědci} \\
& \quad \text{‘observable only by scientists’} \quad \times \quad \text{‘observer only by scientists’} \\
& \quad \text{(b) pozorovaný jen vědci} \\
& \quad \text{‘observed only by scientists’}
\end{align*}
\]

4. A Problem

Our analysis assuming that the -tel- suffix is identical both in the -teln(-ý) adjectives and in the agent nominals becomes problematic in the diachronic view. The reason is that in Old Czech the mentioned adjectives occur in a form ruling out the decomposition of the -teln(-ý) complex into two suffixes -tel- a -n- because of the intervening -d- between -te- and -l-. The evidence can be found in the texts since the 14\(^{th}\) and 15\(^{th}\) centuries to Czech National Revival (19\(^{th}\) century). (The source: DIAKORP corpus):

\[
\begin{align*}
(7) & \quad \text{Každý člověk, jenž chce ostati při dlůhém zdraví, způsob sobě krmé požitelné podlé svého přírození a stavu i věku ... (15th century)} \\
& \quad \text{... to též zajisté sobě vždycky dobrí měšťané, ba i svatí naší předkové, první křesťané, za nezrušitelné pravidlo přijali ... (18th century)} \\
& \quad \text{Dává soli osoblivé, sůřičnany, které jsou rozpuštelné (19th century)}
\end{align*}
\]

5. Analyzing the problem

Havránek (1928/29) has shown that the Old Czech never had adjectives with a compositional meaning corresponding to Latin -bilis adjectives. (Such adjectives never occurred in other Slavonic languages either.) The compensation were adjectives allowing modal interpretation same as the -bilis adjectives: either an already existing verb-derived formation was adjectivized, e.g., a passive participle (a\(_1\)), an l-participle (a\(_2\)), a present active participle (a\(_3\)), which does not seem relevant at the moment, or new verb-derived formations of different levels of complexity (employing already existing morphemes) were produced. This very fact is relevant for the present paper: in the descriptive viewpoint, the following material is concerned: -n- attached to a root with event interpretation (b), -dlný attached to an infinitival stem (c), -tedlný attached to an infinitival stem (d), -telný attached to an infinitival stem (e).

The common feature of all the mentioned expressions is that the modal semantics visible at the Latin -bilis adjectives (derived compositionally from their internal structure) was not their compositional meaning, i.e. it was either only one of the meanings carried by the mentioned structures or, more likely, a meaning which could be expected to be derivable, in an appropriate context, from the meaning of the verbal structure. At any rate, it holds that it was more or less context-dependent or context-inferable:

\[
\begin{align*}
(a_1) & \quad \text{napříčtěný (= ‘innumerabilis’), chválený, nepostížený ... (Havránek)}
\end{align*}
\]

---

\(^5\) To account for the fact that the mentioned adjunct must have a [-definit] feature employs semantics; it is not important for the present analysis: soudem stihatelný případ ‘liable to prosecution by court’ × *soudcem Berkou stihatelný případ ‘liable to prosecution by the judge Berka’.\(^{a}\)
5.1. I will start with the adjectives (d) and (e), because according to Havránek their interpretation since the 15th century has been limited exactly to the modal meaning of the -bilis adjectives. It means that the structure represented by our tree diagram (1) has been fixed and their other meanings have become idiosyncratic: sukňě nesštitedlná = ‘skirt not sewn’, přebyvatelna byla duše má = ‘forever existing was my soul’, přisáhl ... datedlna sě nám = ‘he promised being resolved to be at our mercy’.

Now we will examine the relation of -tedln(-ý) adjectives (d) and -teln(-ý) adjectives (e). Havránek presents both of them but he declares them to be a single category, namely the -te(d)lný adjectives. This is significant for our analysis. The thing is that Havránek, with a reference to Zubatý (1912), says that in -tedln(ý) adjectives the -d- is a mere grapheme, adopted by the -teln(-ý) adjectives from -dln(-ý) adjectives of the (c) type which could be semantically interpreted in the same sense as the -teln(-ý) adjectives (see above). Zubatý supports this interpretation by a finding that in the oldest occurence of these adjectives the -d- is not enclosed:

(8) prziebiuatelna, przebywatelna (Zubatý)

It is obvious that this concurs with our analysis presenting the -teln(ý) adjectives as derived by two autonomous morphemes: -n-, which occurs in the Old Czech adjectives like neúsdravný, and -tel-, possibly occuring in the Old Czech agent nominals (spasitel). At the same time it is obvious that similar analysis needs more substantial empirical support than the one provided by Zubatý.

5.2. I expect that such an empirical support can come from phonological observations of the -teln(ý) adjectives and -tel- agent nominals if we view them as potential template categories. Czech template categories were examined by Scheer (e.g. 2004). Put generally, a template expresses a relation between a morpho-syntactic structure and certain features of consonantal and/or only vocalic quantity of that structure, the so-called weight (a short vowel and a syllabic consonant weighs one mora, a long vowel two morae). In Czech, e.g., the template restriction requires the morpho-semantic category of an iterative must weight three morae. That brings templatic vowel prolongation (skoč-i-t > skák-a-t) or, on the contrary, templatic vowel reduction (shortening): (po-)cit-i-t > (po-)cit-o-va-t.

It appears that similar restrictions held true in the Old Czech specifically at the morpho-semantic structures with the -tel-suffix, i.e. for the agent nominals weighing prototypically three morae (examples from VokWeb). (9a) show evidence, (9b) counter-evidence:

6 Since both the -n- suffix and the -tel- suffix have already been attested in Old Church Slavonic it is not necessary to assume a creation of new suffix(es) for derivation of the -teln(-ý) adjectives in Old Czech.
During the development of Czech this template restriction has gradually ceased to exist. A plausible evidence was shown by Dokulil (1967) comparing the *Příruční slovník jazyka českého* (1935 – 1957) and *Pravidla českého pravopisu* (1957): *Příruční slovník* mostly brings template forms while *Pravidla* does not present templates as obligatory:

(9) (a) bran-i-tel brán-i-m, brán-i-l
dav-i-tel dáv-i-m, dáv-i-l
dobyv-a-tel dobýv-á-m, dobýv-a-l
hyř-i-tel hýř-i-m, hýř-i-l
kaz-a-tel káž-u, káz-a-l
navrat-i-tel navrát-i-m, navrát-i-l
spomah-a-tel spomáh-á-m, spomáh-a-l
taz-a-tel táz-u se, táz-a-l
pokuš-i-tel pokouš-i-m, pokouš-e-l
sud-i-tel súd-i-m, súd-i-l
(b) napomin-a-tel napomin-á-m, napomin-a-l
uslúch-a-tel uslúch-á-m, usech-a-l

If the modal -teln(-ý) adjectives contain the same -tel- suffix as do the agent nominals, the same three-mora template restriction can be expected at them. The Old Czech data (from VokWeb) (11a) and Modern Czech data (not found in VokWeb) (11b) confirm the assumption:

(10) hajitel hajitel / hajitel
třibitel třibitel
zkumatel zkumatel

Cf. also direct parallels:

(11) (a) neobsaž-i-tel-ný neobsáh-l
neotvrat-i-tel-ný neotvrát-i-l
ostup-i-tel-ný ostúp-i-l
zasluž-i-tel-ný zaslúž-i-l
obyv-a-tel-ný obýv-a-l
otaz-a-tel-ný otáz-a-l
(b) sluč-i-tel-ný slouč-i-l
nevykup-i-tel-ný nevykoup-i-l

Moreover, during the historical development the template restriction has disappeared not only at agent nominals but also at modal adjectives (13). Nevertheless, in contemporary Czech the template restriction is still preserved at many agent nominals (14):

(13) přebyvatelný // přebyvatedlný
neobhajitelný // neobhájitelný
vskříšitelný // vskřísitelný

(14) neprobadatelný // neprobádatelný × badatel // *badatel bádal
Old Czech Adjective with the Meaning of Passive Potentials

ovladatelný // ovládatelný × ovladatel // *ovládatel ovládal
použivatelný // použitelný × použitavatel // *použitavatel používal

The influence of template restriction may explain the form of the adjectives

(15) snesitelný, neotřesitelný, proveditelný

in which the epenthetic -i- can be enforced by the three-morae template of the -tel-structure: s[nes-O-l] × s[nes-i-tel-]n-ý. There are at least two reasons to consider this explanation speculative: (a) -i- occurs also in -telný- adjectives derived from e-stem structures like

(16) slyšetelný, neudržitelný

where -i- is not motivated by a template, because, when an expected -e- is replaced by the mentioned -i-, the morae-weight does not change: *u[drž-e-tel-]n-ý / u[drž-i-tel-]n-ý; (b) it does not explain why in the mentioned case the template restriction results in epenthesis and not in vowel lengthening (as in infinitive): sněst × snesl (Caha & Scheer, 2008). In other words, it does not explain why Czech has an adjective with the form snesitelný, not sněstelný.

5.3. At this point I can decide whether the sequence of graphemes -tedl(-ý) contains the -tel- and -n- morphemes, or a morpheme or morphemes -tedl-n(-ý). The -tel- morpheme weighs one mora, while the -tedl- morpheme, including a syllabic consonant must weigh two morae. If the sequence of graphemes -tedl- really is a morpheme it can be expected (as a result of the template restriction) that in Old Czech can be found not only three-morae adjectives like [kaz-a-tel]-n-ý (with template shortening: kázal ... × kazatelný, kazatel) but also three-morae adjectives of the type [kz-a-tedl]-n-ý (with template elision of the root vowel). The non-existence of such adjectives is an evidence of the fact that -d- in -tedl-n- was not a template component, ie. it did not exist in a phonological sense. A problem for the shown analysis is the fact that there were no -tedl- agent nominals (17) in the Old Czech, but, on the contrary, the -tedln agent nominals can be found (18) (data from the VokWeb):

(17) spasitel × *spasitedl
(18) měřitelník // měřitedlník

5.4. The structure of -te(d)ln(-ý) adjectives can be explained together with -n(-ý) adjectives, i.e. the structures shown as (b) in 5. since the -n(-ý) adjectives and -te(d)ln(-ý) adjectives share an ‘adjectivization” morpheme -n-. Nevertheless, since the Old Czech period these two types of adjectives differ in an important point, namely in the portion of a structure in the complement position of a°, where the -n- morpheme is inserted. At -teln(-ý) adjectives it a structure containing verbal features vP with v° blocking [Spec, vP], at -n(-ý) adjectives it one of the root modifications, cf. (19a) × (19b).

(19) sje-t (a) sje-tel-ný (b) sjízd-ný
pi-t          pi-tel-ný          pi-t-ný
prod-a-t     proda-tel-ný     prodej-ný
lov-i-t      lov-i-tel-ný      lov-ný
The fact that the first suffix attached to the root of \(-\text{teln}(-\acute{y})\) adjectives bears a verbal feature while at \(-\text{n}(-\acute{y})\) adjectives it is nominal entails – in accordance with Scheer’s (2001) analysis – the vowel quantity in prefixes:

\[
\begin{array}{ll}
\text{(19')} & \text{nevy-slov\_verb\_tel-n\_\acute{y}} \quad \text{nevy-slov\_nomn\_\acute{y}} \\
& \text{pro-kaz\_verb\_tel-n\_\acute{y}} \quad \text{pr\-kaz\_nomn\_\acute{y}}
\end{array}
\]

Proportional difference and resulting differences of semantic features of a structure being inserted into an adjectival context entail that the modal meaning of \(-\text{te(d)}\text{l}(-\acute{y})\) adjectives is compositional whereas at \(-\text{n}(-\acute{y})\) adjectives it is occasional: their modal interpretation is enabled by the fact that (based on our encyclopedic knowledge) we assign the portion of a structure inserted into the adjectival context event interpretation, cf. (20a) \times (20b):

\[
\begin{array}{ll}
\text{(20)} & \text{(a) lov-ný} \quad \text{(b) muž-ný}
\end{array}
\]

Also, the shown difference explains why the \(-\text{teln}(-\acute{y})\) adjectives are aspect-sensitive but \(-\text{n}(-\acute{y})\) adjectives are not, cf. (21a) \times (21b):

\[
\begin{array}{ll}
\text{(21)} & \text{(a) lovitelný – ulovitelný} \quad \text{(b) lový – Ø} \\
& \text{sklopetelný – sklápečný} \quad \text{sklopý – Ø} \\
& \text{ohybatelný – ohnutelný} \quad \text{oherný – Ø}
\end{array}
\]

And, last but not least, in the wording of the traditional word-formation study, derivation of \(-\text{teln}(-\acute{y})\) adjectives is productive while derivation of \(-\text{n}(-\acute{y})\) adjectives with modal meaning is not, cf. (22a) \times (22b):

\[
\begin{array}{ll}
\text{(22)} & \text{vsadit} \quad \text{vsaditelný} \quad \text{Ø} \\
& \text{vnímat} \quad \text{vnímatelný} \quad \text{Ø} \\
& \text{realizovat} \quad \text{realizovatelný} \quad \text{Ø} \\
& \text{dokázat} \quad \text{dokazatelný} \quad \text{Ø}
\end{array}
\]

The data show that \(-\text{n}(-\acute{y})\) adjectives are idiosyncratic, their modal meaning is a component of their lexical semantics (it cannot be derived compositionally), see the contrast of (23a) \times (23b). Even if the \(-\text{n}(-\acute{y})\) adjectives have a modal meaning, the absence of the portion of a verbal structure prevents them from expressing a feature ‘can be a patient in an occurrence derived from context’, see the contrast in (24), also Dokulil & Horálek et al. (1986: 341):

\[
\begin{array}{ll}
\text{(23)} & \text{(a) dojný, sklopný, ponorný (= such that can be milked/tilted/plunged)} \\
& \text{(b) trestný, nudný, poučný (= such that can be punished/bored/instructed)} \\
& \text{úložný, nosný (= such that can be stored, carried)} \\
& \text{sklopný \times sklopetelný}
\end{array}
\]

References


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**PREDICATE AGREEMENT IN RUSSIAN: A CORPUS-BASED APPROACH**

**Summary**

The paper addresses the evolution of predicate agreement in Russian over the last two centuries. Analysis of a large corpus of literary works from the 19th and 20th centuries reveals two diachronic patterns, one involving the gradual generalization of an innovative form while the other type, which is less common, involves undulating variation with no observable historical trend. We analyze the conditions that underlie both types of diachronic behavior and show that although conditions which disfavor certain morphosyntactic variants need not preclude historical change, the course of a diachronic process may be suspended if it is in serious conflict with other morphosyntactic mechanisms.

**1. Introduction**

In Russian, the predicate agrees with the subject in number (as well as gender, though this will be irrelevant in the following discussion):

(1a)  
\[
\text{Stol} \quad \text{stood} \quad \text{in corner} \\
\text{(M)[SG]} \quad \text{[SG.MASC]} \quad \text{[M.PL]} \\
\text{‘The table was in the corner.’}
\]

(1b)  
\[
\text{Stol}-\text{y} \quad \text{stood-PL} \quad \text{in corner} \\
\text{[M][SG]} \quad \text{[M][PL]} \\
\text{‘The tables were in the corner.’}
\]

There are two types of construction however which allow alternative patterns of predicate agreement: conjoined noun phrases as in (2) and quantified expressions, as in (3).

(2a)  
\[
\text{V uglu} \quad \text{stood} \quad \text{table(M)[SG] and arm-chair-(N)[SG]} \\
\text{[SG.MASC]} \quad \text{[M][SG]} \quad \text{[N][SG]} \\
\text{‘There were a table and an arm-chair in the corner.’}
\]

(2b)  
\[
\text{Cholod} \quad \text{dove-PL me to madness} \\
\text{cold(M)[SG] and terror(M)[SG] [PL][GEN]} \\
\text{‘Cold and terror drove me mad.’}
\]

(3a)  
\[
\text{U menja zavtra obeda-et} \quad \text{dine-3SG person[PL][GEN]} \\
\text{by me tomorrow person[PL][GEN]} \quad \text{ten friend-PL[GEN] ten} \\
\text{‘About ten of my friends are coming to my place for dinner tomorrow.’}
\]
Na sredine zaliv-a barachtal-i-s’ dva čelovek-a
on middle bay-SG.GEN splashed-PL.REFL two person-SG.GEN

‘Two people were splashing about in the middle of the bay.’

Singular forms of the predicate in (2a) and (3a) are based on formal (syntactic) agreement. In (2a) singular results from agreement with the first conjunct. In (3a) it results from the agreement with the numeral desyat ‘ten’. Numerals in Russian that are not marked for number trigger a default agreement form of the predicate, which is singular neuter. In (2b) and (3b) the plural is assigned semantically: the subject denotes more than one individual, in which case plural (semantic) predicate agreement is possible.

Up to the 18th century, singular agreement was much more common both with conjoined noun phrases and with quantified expressions: according to Borkovskij (1978: 30-40) in 11th-17th century Russian all inanimate subjects and postverbal animate subjects controlled singular predicates; the plural was common with preverbal animate subjects. By the beginning of the 19th century the situation had become less clear-cut. As our data indicate, by that time plural agreement had become common with both construction types (Table 1).

<table>
<thead>
<tr>
<th></th>
<th>S-P animate</th>
<th></th>
<th>S-P inanimate</th>
<th></th>
<th>P-S animate</th>
<th></th>
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<td>92</td>
<td>83</td>
<td>86</td>
<td>65</td>
<td>82</td>
<td>79</td>
</tr>
</tbody>
</table>

Table 1. Frequency of plural predicate agreement with respect to animacy and word order (subject-predicate or predicate-subject) in the first half of the 19th century

From the beginning of the 19th century until the turn of the millennium (1801-2000) there are remarkable differences between the two types of subject: while conjoined noun phrases tend to generalize plural agreement (Figure 1), quantified expressions show no historical trend and maintain the same proportion of alternative forms in both the early 19th and late 20th century, despite dramatic wavering in-between (Figure 2).

1 The predicate typically agrees with the nearest conjunct, as in (2a), where we can see this from the gender marking on the verb. Agreement with other conjuncts is extremely rare (see Timberlake 2004: 354-355). A choice therefore is only possible when the nearest conjunct is in the singular, and only such conjuncts are considered here (a plural conjunct would obligatory trigger the plural on the predicate). For the purpose of this study we restricted the sample to the most frequent type of conjoined NPs, namely to constructions with two NPs and connective conjunctions i ‘and’, i….i ‘both….. and’.
It is striking that the variation in predicate agreement which led to the generalization of one pattern with conjoined subjects did not lead to a unified agreement rule for quantified expressions. To understand why, we will analyse the factors which contributed to variation in predicate agreement within four successive 50-year time periods between 1801 and 2000. We will show that despite a strong tendency to generalize plural agreement with some subject types, there are factors that significantly hamper this generalization with other types, resulting in different patterns.

2. Data and methodology

The data for this study have been drawn from the database of short term morphosyntactic change developed by the Surrey Morphology Group in 2004-2008 (http://www.surrey.ac.uk/LIS/SMG/STMC). The statistics have been derived from a corpus of Russian literary texts written between 1801 and 2000. A total sample of ten million words have been analysed. The data were divided into smaller samples according to four successive 50-year time periods and split further with respect to individual factors contributing to the variation in predicate agreement. To test the observations based on frequencies of competing forms, two statistical tests were used: a chi-squared test for frequency distribution which allowed us to evaluate whether particular sub-samples differ with respect to distribution of alternative choices, and a chi-squared trend test, which allowed us to determine whether the differences across sub-samples from different time periods indicate a historical trend. Statistical significance is reported at the 5% level, i.e. the null hypothesis of no difference between sub-samples or no historical trend is rejected if p-value ≤ 0.05.
3. Predicate agreement with conjoined noun phrases

As Corbett (1983, 2006) has shown, two major factors that condition variation in predicate agreement with conjoined noun phrases are animacy and precedence (word order). These two factors affect the variation in the following way: animate conjuncts have stronger preference for plural agreement than inanimate ones, and subject-predicate word order favours plural more than predicate-subject word order. When both favourable conditions occur, the percentage of plural agreement will be the highest; if only one of these conditions occurs, the frequency of plural agreement decreases to the same extent; the lowest frequency of plural predicates is found when neither of these two conditions occur (Corbett 1983: 151-153).

To investigate the effect of these two factors from a diachronic perspective we have plotted four trajectories for each possible combination of conditioning factors (Figure 3). Corresponding statistics are summarized in Table 2. The chart shows that in the early 19th century, plural agreement predominated in all sentences with subject-predicate word order, with only a slight significant difference between animate and inanimate conjuncts (99% and 93% of plural predicates respectively). These two types contrast with predicate-subject constructions, which allow for significant variation in agreement. The frequency of plural agreement here is again correlated with animacy, but the margin between the two groups is significantly larger: with inanimate conjuncts we find the lowest percentage of plural agreement (14%), while animate conjoined subjects, if they occur preverbally, take plural agreement in 62% of the sentences. So word order is the crucial factor in this period: sentences with subject-predicate word order almost always favoured plural agreement; significantly behind are sentences with predicate-subject word order, in which frequencies for plural agreement vary dramatically with respect to animacy.

Figure 3. Plural predicate agreement with conjoined noun phrases with respect to animacy and word order.

---

2 This difference however turned out to be statistically significant (p-value for frequency distribution across the two groups is 0.0024), which indicates that animates are still ahead of inanimates and that the hierarchy of conditioning factors holds even despite very high frequencies for plural agreement with both types of controllers.
Table 2. Underlying numbers, percentages and trend tests results for predicate agreement with conjoined noun phrases according to animacy and word order.

In succeeding periods, sentences with preverbal subjects unsurprisingly show no change, preserving the same high frequency of plural agreement. At the same time, dramatic changes occur in sentences with predicate-subject word order, which show a steady increase in plural agreement. As a result, individual subclasses of controllers (noun phrases) converge in the way they control agreement; thus the frequency of plural agreement with postverbal animate subjects increased from 64% in the 1801-1850 time period to 96% in 1951-2000. Chi-squared test performed on this group of sentences revealed a highly significant upward trend, with a p-value less than 0.005. Therefore, in the second half of the 20th century the presence of at least one of the favouring conditions, either subject-predicate word order or animate conjuncts, guaranteed the predominance of plural agreement. Restrictions on plural agreement also weakened with the fourth type of controller, inanimate conjuncts following the predicate (58% in the 1951-2000 against 14% in 1801-1850). Chi-squared test has confirmed the presence of a statistically significant change in predicate agreement in such sentences (p-value < 0.005).

Statistics for the four types of sentences concur that the development of predicate agreement with conjoined noun phrases presents a well-behaved instance of historical change according to an S-shaped curve (Kroch 1989: 199-244; 2001: 699-729). Different slopes indicate different degrees in the advancement of the change.

4. Predicate agreement with QE: variation without change

Such consistency in historical change, as discussed in the previous section, is not universal. Various functional effects may turn out to be strong enough to preclude the spread of the innovative form and the development of an S-shaped curve. Predicate agreement with quantified expressions in Russian over the last two centuries provides an example of just this behaviour: competition of morphosyntactic choices (singular vs. plural predicates) and dramatic fluctuations in the frequency of competing forms across

\[\begin{array}{|c|c|c|c|}
\hline
\text{S-P animate SG} & 2 & 1 & 1 & 1 \\
\text{S-P animate PL} & 192 & 204 & 127 & 247 \\
\text{S-P animate % PL} & 99 & 100 & 99 & 100 \\
\text{S-P inanimate SG} & 21 & 9 & 4 & 5 \\
\text{S-P inanimate PL} & 255 & 133 & 55 & 68 \\
\text{S-P inanimate % PL} & 92 & 94 & 93 & 93 \\
\text{P-S animate SG} & 9 & 12 & 3 & 2 \\
\text{P-S animate PL} & 16 & 42 & 28 & 48 \\
\text{P-S animate % PL} & 64 & 78 & 90 & 96 \\
\text{P-S inanimate SG} & 60 & 78 & 51 & 26 \\
\text{P-S inanimate PL} & 14 & 34 & 17 & 23 \\
\text{P-S inanimate % PL} & 19 & 30 & 25 & 47 \\
\hline
\end{array}\]

Chi-squared trend test

| & Not applicable\(^3\). | & | & |
|---|---|---|---|
| & p=0.999 | & p < 0.0005 | & p < 0.0005 |

\(^3\) Due to extreme rarity of singular predicates with animate subject nouns and subject-predicate word order, the chi-squared test could not be performed with any degree of validity. However, frequencies of plural predicates within the four periods under investigation (99%, 100%, 99% and 100%), as well as underlying numbers, do not suggest any change.
different time periods do not necessarily lead to any overall historical change (Figure 2). The question arises as to why the language shows no tendency to generalize one of the alternatives and to eliminate optionality in predicate agreement with quantified expressions, as opposed to predicate agreement with conjoined noun phrases.

Historical accounts of this phenomenon are very contradictory. While some authors claim that the preference for plural agreement increases over time (e.g., Rozental’ 1978), others (Mullen 1967, Suprun 1969, Patton 1969, Corbett 1983) argue that there is no evidence for the general rise of plural. Where change takes place, it may have a different shape under different conditions. Thus Suprun (1969) claims that plural agreement decreased from 19th to 20th century with all quantified expressions except those with neskol’ko ‘a few’ which show a slight increase. Patton (1969) argues that while the frequency of plural agreement increased over the last two centuries with inanimate nouns, the proportion of singular and plural predicates with animate nouns did not change during that time. In other words, given that animates have a larger percentage of plural agreement than inanimates, the gap between the two types of controllers reduced from the 19th to the 20th century.

The lack of consensus between different studies is striking not only because they propose different tendencies in the development of predicate agreement with quantified expressions, but also because different factors are claimed to play a leading role in this process. To account for the diachronic process observed with quantified expressions we have extracted statistics for four 50-year periods and then split the corpus with respect to conditioning factors so that the effect of each factor could be traced in combination with other factors.

As with conjoined noun phrases, predicate agreement with quantified expressions is conditioned by animacy and precedence. That is, animate subjects and subject-predicate word order favour plural predicates, while predicate-subject word order and inanimates favour singular. Taken in different combination, these conditions result in different frequencies for each of the morphosyntactic choices (Graudina/Ickovič/Katlinskaja 1976: 28-30, Corbett 1983: 151-153, Timberlake 2004: 354). We will analyse these conditions in connection with a third factor, the type of quantifier, which has a crucial effect on the variation in predicate agreement with quantified expressions. It has been demonstrated in a number of studies (e.g., Suprun 1957, Corbett 1983) that the difference in syntactic properties of quantifiers, i.e. between the numerals dva ‘two’, tri ‘three’, četyre ‘four’ on the one hand, and quantifiers pjat’ ‘five’ and above on the other, account for significant differences in predicate agreement with quantified expressions: the first group has a strong preference for plural agreement while the second allows for variation in number agreement.

4.1. Quantified expressions with dva ‘two’, tri ‘three’, četyre ‘four’
The analysis of the sample including quantified expressions with the numerals dva ‘two’, tri ‘three’ and četyre ‘four’ shows that plural agreement predominated with both animate and inanimate subjects, and with both types of word order (subject-predicate and predicate-subject) as early as at the turn of the 19th century. This situation holds over the two centuries (Figure 4).
Figure 4. Plural predicate agreement with quantified expressions with respect to animacy and word order

Table 3. Underlying numbers, percentages, trend test and test for frequency distribution results for predicate agreement with quantified expressions containing low numerals.

As data in Table 3 show, the null hypothesis that there is no historical trend is confirmed by a chi-squared trend test for sub-samples with predicate-subject word order. In sub-samples with subject-predicate word order the percentage of plurals attained a very high level in all four time periods, however the rarity of singular forms in these sub-samples invalidated the use of both chi-square tests. Where the groups diverge (as in 1851-1900 and 1951-2000), we find animacy and/or precedence factors at work even at this late stage of morphosyntactic change: in the presence of at least one factor favouring plural agreement (animate noun and/or subject-predicate word order) plural is very frequent, while the group with no such factor (i.e., with the inanimate preverbal subject) is left behind (Figure 4). In sum, quantified expressions with numerals *dvа*, *tri*, *četyre* show an overall preference for plural predicate agreement across the two centuries with both types of subject and both types of word order. The frequency for plural agreement is very high, and all four groups of controllers are very close to each other in how they affect agreement. The impact of animacy and word order on variation is minimal. However where we do find an impact, we find animacy and precedence at work.

---

4 Results of a chi-squared test are not reliable if the number of instances in one of the sub-groups is very low or equal to zero.
4.2. Quantified expressions with quantifiers *pjat’* ‘five’ and above

The group of quantified expressions consisting of the numerals *pjat’* ‘five’ and above, along with some non-numerical quantifiers (*neskol’ko* ‘a few’ *malo* ‘few’), presents a remarkable contrast to quantified expression with lower numerals. As in the preceding sections, the sample has been split into four sub-samples with respect to animacy (animate and inanimate nouns) and word order (subject-predicate and predicate-subject). Figure 5 show changes in plural agreement in these four sub-samples.

![Figure 5. Plural predicate agreement with quantified expression containing numerals *pjat’* ‘five’ and above, and quantifiers *neskol’ko* ‘a few’ and *malo* ‘few’](image)

This group of quantified expressions, as Figure 5 indicates, is remarkably distinct from quantified expressions with *dva* ‘two’, *tri* ‘three’ and *četyre* ‘four’ in that they allow significant variation in agreement, conditioned by animacy and word order. In contrast to quantified expressions with lower numeral, quantified expressions with *pjat’* ‘five’ and above show dramatic fluctuations in the frequency of singular/plural predicates over the two centuries. The only sub-sample in which we do not find any statistically significant fluctuations is the one with preverbal animate nouns. In this sub-sample we find a very high proportion of plural predicates as early as in the first half of the 19th century, and this situation holds over the two centuries. Three other sub-samples present us with significant variation, confirmed by a chi-squared test for frequency distribution (Table 6): differences in the proportion of plurals across different periods have been found to be statistically significant in the sub-samples, shown by three lower trajectories on Figure 6. Differences across different time periods for a sub-sample containing sentences with preverbal animate subjects (the upper trajectory) were found to be not statistically significant.

<table>
<thead>
<tr>
<th></th>
<th>1801-1850</th>
<th>1851-1900</th>
<th>1901-1950</th>
<th>1951-2000</th>
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<th>Chi-squared test for frequency distribution</th>
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<td>9</td>
<td>p=0.138</td>
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<td>29</td>
<td>27</td>
<td></td>
<td></td>
</tr>
<tr>
<td>% PL</td>
<td>87%</td>
<td>84%</td>
<td>78%</td>
<td>75%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>S-P inanimate</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SG</td>
<td>28</td>
<td>32</td>
<td>29</td>
<td>26</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PL</td>
<td>10</td>
<td>30</td>
<td>6</td>
<td>18</td>
<td></td>
<td></td>
</tr>
<tr>
<td>% PL</td>
<td>26%</td>
<td>43%</td>
<td>17%</td>
<td>41%</td>
<td></td>
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<tr>
<td>P-S animate</td>
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<td></td>
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<tr>
<td>SG</td>
<td>22</td>
<td>30</td>
<td>31</td>
<td>29</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PL</td>
<td>6</td>
<td>0</td>
<td>7</td>
<td>11</td>
<td></td>
<td></td>
</tr>
<tr>
<td>% PL</td>
<td>21%</td>
<td>0%</td>
<td>18%</td>
<td>28%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 6. Underlying numbers, percentages, trend test and test for frequency distribution results for plural predicate agreement with quantified expressions containing numerals *pjat’* ‘five’ and above, and quantifiers *neskol’ko* ‘a few’ and *malo* ‘few’
At the same time the analysis of the four time periods according to the frequency of plural agreement shows that the effect of animacy and precedence in general holds over the whole period under investigation (Figure 5). Their effect varies from one period to another, and may be significantly diminished as the two construction types converge (as for example animate and inanimate postverbal subjects in 1801-1850 and in 1901-1950). In the subsequent period, however, such groups move away from each other exactly in a way as may be predicted on the basis of these two hierarchies: animate subjects and subject-predicate word order show a stronger preference for plural predicates than inanimate subjects and predicate-subject word order (see, for example, animate and inanimate postverbal subjects in 1851-1900 and in 1951-2000). But despite remarkable fluctuations across different time periods and across different groups of controllers, none of these four groups show any obvious diachronic trend over the two centuries (Table 6).

5. Suspended change

In 19th and 20th century Russian, the preference for plural (semantic) agreement with conjoined noun phrases increased radically. This construction type has generalized plural predicate agreement completely in some contexts, and is in the process of generalizing it to others, concurrent with an S-shaped curve. Change with quantified expressions containing dva ‘two’, tri ‘three’, četyre ‘four’ has advanced even further. Against this background, quantified expressions with pjat’ ‘five’ and above, plus the non-numerical quantifiers neskol’ko ‘a few’ and malo ‘few’, show an unusual diachronic pattern: the frequencies for competing forms rise and fall in most of the contexts, with no tendency to generalize one of the agreement patterns. Why does this type of controllers display such unusual diachronic behaviour? In our opinion, the answer is that, while such quantified expressions are semantically plural, their syntactic properties favour singular agreement.

The numerals dva ‘two’, tri ‘three’ and četyre ‘four’ have a number of unusual properties which set them apart as a distinct class. Syntactically, they show a mixture of adjectival properties (gender agreement with ‘two’) and nominal properties (case government); further, their case government behaviour is unique, in that they take the genitive singular of nouns, and either the nominative or genitive plural of adjectives. Morphologically, their nominative(-accusative) forms are not readily interpretable.

\[
\begin{align*}
(4a) \quad & \text{četyr-}e \quad \text{jark-}e \quad \text{sveč-}i \\
& \text{four-} \quad \text{bright-} \quad \text{candle-} \\
& \text{NOM} \quad \text{NOM.PL} \quad \text{GEN.SG} \\
& \text{‘Four bright candles’}.
\end{align*}
\]

On the other hand, the quantifiers pjat’ ‘five’ and above, and the quantifiers neskol’ko ‘a few’ and malo ‘few’, resemble nouns to a large extent. They do not show gender agreement, and they consistently govern the genitive (plural), both of nouns and adjectives.

\[
\begin{align*}
(5) \quad & \text{Pjat’} \quad \text{tuskl-ych} \quad \text{lamp} \\
& \text{five[NOM]} \quad \text{dim[GEN.PL]} \quad \text{bulb[GEN.PL]} \\
& \text{‘Five dim lamps illuminated the yard.’}
\end{align*}
\]
Morphologically, they resemble singular nouns. Thus, the quantifier in these expressions resembles a noun with a genitive complement, and is liable to control agreement in the same way, namely syntactically.5

This difference between adjective-like and noun-like behaviour (Corbett 1993: 25, Halle 1994: 205) influences the spread of plural predicate agreement. In the case of the ‘2-4’, the quantifier is not a canonical agreement controller, in as much as it is itself a potential agreement target (for gender). This allows semantic agreement to step in. But in the constructions with p’yat ‘five’ and above, neskolo’ko ‘a few’ and malo ‘few’, the quantifier tends to behave like an ordinary noun phrase, as in (1) and (2), in which number agreement is controlled solely by the head. Consequently they resist and even, as we have seen, block the diachronic change that would diminish their ability to behave like noun phrases and to control predicate agreement. Prior to the 19th century plural agreement prevailed with preverbal animate subjects, i.e. in the most favourable conditions, but was suspended in other contexts (Table 5). As a result, in the 19th and 20th century we observe remarkable fluctuations with this group of controllers, which however do not produce any overall historical trend. This is not the case with lower numerals, whose more adjective-like properties provided more favourable conditions for the spread of plural agreement.

6. Conclusion

Russian predicate agreement over the last two centuries presents us with two remarkably distinct diachronic patterns. With subjects expressed by conjoined noun phrases and quantified expressions containing lower numerals we find the S-shaped spread of semantic (plural) predicate agreement, based on the meaning of the subject. Consequently mechanism which led one of the elements in such constructions (a conjunct or a numeral) to assign agreement on the predicate gradually deteriorated. This is not the case with quantified expressions containing higher numerals (p’yat ‘five’ and above) and other (non-numerical) quantifiers. The syntactic properties of such quantifiers, namely their ability to control the predicate and to assign singular agreement on it, blocked the spread of semantic agreement. With this latter construction type, we find striking variation in predicate agreement over the last two centuries, with significant fluctuations across individual time periods, without any clear historical trend.

References


5 The fact that agreement is singular may be due to these quantifiers’ being construed as morphological singulars, or to their being construed as unspecified for number, with singular assigned by default.


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Marija Lazar

**PLACEMENT OF THE REFLEXIVE \textit{SJA}
IN RUSSIAN BUSINESS WRITING**

**Summary**

This paper is devoted to the process of grammaticalization of the Russian reflexive pronoun \textit{sja} which developed into a verbal enclitic. Within the scope are business documents of the 12\textsuperscript{th}-15\textsuperscript{th} ct., attention will therefore be drawn to the differentiation of text types which was disregarded in previous studies. Regional differentiation of documents impacted upon the situation as well: it will be shown that grammaticalization proceeded faster in the Novgorod region than in the Polockian region. This process was impacted by the formality level of a document and by the placement of the reflexive pronoun inside a collocation or a formula. Finally, the results will be compared with the theory of word order of Zaliznjak, and correspondence as well as differences will be discussed.

**1. Introduction**

The Russian reflexive \textit{sja} has already been discussed in several aspects: as an accentual or a syntactic unit (cliticon) and as a verbal marker of the genus verbi. Nevertheless, another aspect of the functioning of \textit{sja} will be introduced here – the problem of its usage in different text types of Old Russian. Some observations on relevant linguistic materials have been made but neither a detailed explanation of this phenomenon nor quantitative evaluation was given.

It is necessary to emphasize that the question of the usage of \textit{sja} in Old Russian has two aspects: the placement of \textit{sja} (in contact or distant pre- or postposition) and the usage of \textit{sja} (variation of the verb with a cliticon and without it).

The issue of the placement of the reflexive pronoun \textit{sja} has recently been raised in the discussion about the Novgorod birch bark letters, in their description delivered by Zaliznjak (1995, updated 2004). It is also elaborated in his work “Drevnenovgorodskie ėnklitiki” (2008). In his research Zaliznjak developed an original prosodic theory for Old Russian which will be discussed in the final chapter of the paper. This paper will concentrate on the textological properties of Russian business writing and this material will be compared with texts written in Russian Church Slavonic, as far as this is needed. The material described here dates back to the 11\textsuperscript{th}-15\textsuperscript{th} ct., which is considered to be the time when clitics in Old Russian existed and underwent the float. Indeed, previous research was carried out on texts written in the so-called Russian literary language (‘literaturnyj jazyk’), which was one of the Old Church Slavonic recensions, and rather non-fictional genres such as business letters or other documents were left mostly disregarded (an exception is a study by Gunnarsson 1935).

**\textit{NB:}** The much discussed problem of the standardness of the language in which texts were written in the Old Rus’ in the 12\textsuperscript{th} - 15\textsuperscript{th} century will not be considered in this paper. As mentioned above, non-fictional texts written in one of the Old Russian dialects will be in scope. It should be emphasized that the choice of text type in Mediaeval Rus’ was closely connected with the choice of language style; one should therefore be aware of this presupposition. The theme of the study does not suggest characterizing of the data sources as ones belonging to the local Russian or Church...
Slavonic tradition and for them to be seen as particular exemplars, which is the case in traditional diachronic philology. Each text will be attached to a text type and thus included in the common history of text types, which is supposed to be the appropriate description of linguistic diachrony and is meant to obviate an atomistic approach, which is still a reality in diachronic linguistics.

The article is structured as follows: after discussing some general issues regarding clitics in Old Russian in the first part, some observations on empirical material will be made in the second part. On the one hand, the functional properties of the cliticon 
 in different types of pragmatic texts will be examined, and on the other, attention will be focused on its use in regional variation of the texts, which has not been discussed much as yet. And finally, the results will be summarised and some issues of Zaliznyak's theory of clitics will be discussed.

2. Theoretical background

To start off with, three main ideas about the reflexive in Old Russian, relevant for making further considerations, will be pointed out. First, this is a systemic problem of its functioning within the paradigm of long and short forms which was equally present in the system of the forms of personal pronouns where, on the one hand, number opposition existed (singular vs. plural vs. dual), and on the other hand, casus opposition existed (genitive vs. dative vs. accusative), see Table 1:

<table>
<thead>
<tr>
<th></th>
<th>1\textsuperscript{st} person PPr</th>
<th>2\textsuperscript{nd} person PPr</th>
<th>Reflexive</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>sg</td>
<td>pl</td>
<td>dual</td>
</tr>
<tr>
<td><strong>Genitive</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LF</td>
<td>мене</td>
<td>насъ</td>
<td>наю</td>
</tr>
<tr>
<td><strong>Dative</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LF</td>
<td>мьнъ</td>
<td>ньмъ</td>
<td>ньма</td>
</tr>
<tr>
<td>SF</td>
<td>ми</td>
<td>ны</td>
<td>на</td>
</tr>
<tr>
<td><strong>Accusative</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LF</td>
<td>мене</td>
<td>насъ</td>
<td>тебе</td>
</tr>
<tr>
<td>SF</td>
<td>мя</td>
<td>ны</td>
<td>на</td>
</tr>
</tbody>
</table>

Schütz (1963) and Hofer (1980) discussed the loss of the short forms in the PPrs and the maintaining of the short cliticised form of the reflexive from the systemic point of view, and claimed that its rise in the 14\textsuperscript{th} - 15\textsuperscript{th} ct. was connected with the so-called 2\textsuperscript{nd} South Slavic impact.

\(^1\) The sources for the table: Ivanov 1964: 324, Ivanov et al. 1995: 328. The forms that could be cliticised are highlighted.

\(^2\) The form of the Old Church Slavonic origin that functioned in the Old Russian paradigm (Ivanov 1964: 326-327, Ivanov et al. 1995: 332). This form could be also used in contexts where the genitive/accusative form was normally required (ibid.).
Secondly, as Bernecker (1900: 61-62, 65) had already observed, the clitic sja can occur either in preposition of the accentuated word or in postposition of it. Moreover, it can be separated from its head by a number of words. So it could function as a free or as a cliticised unit in the clause. Therefore, this is a moving clitic and its movement has been explained from the syntactic point of view (initial verbal position in the clause which automatically shifted the enclitic to the second one) (Bernecker 1900: 61-62), and by implementing accentuation laws (rhythmic-syntactic boarder or prosodic unit) (Jacobson 1971/1935: 18; Zaliznjak 1985: 125). The number of exceptions traced in business documents shows that there are some other factors which should be taken into consideration while describing the situation. This issue will be discussed at the very end of the paper.

And thirdly, it was already noted by Gunnarsson (1935: 19-23, 101) and later by Hofer (1980: 65, 68) that the frequency of usage of the cliticised reflexives is not equal in different types of texts.

All in all, the situation certainly requires further review, and this will be elaborated further.

3. Empirical material

3.1. Corpus

The corpus for this study was completed from texts of different text types in order to have contrasting materials for the explanation of the impact of text type on the usage modalities of sja. For text type differentiation, the intention or function-based model of text types of Reichmann/Wegera (1988: XIII) will be used, extended by Meier & Ziegler (2006: 58; Ziegler 2000: 58) for the non-fictional genres. The two important text groups here are business letters and juridical documents, which were dominant in this period of Old Russian business writing. The group of business letters consists of 103 examples from 78 birch bark letters, which cover the whole presupposed period of their writing (1050-1450), 5 examples from 5 Novgorodian letters, and 25 examples from 5 Polockian and Vitebskian letters. The second group consists of 7 examples from 6 birch bark documents from Novgorod, 76 examples from 32 documents from Novgorod and 29 examples from 8 documents from Polock, written mostly in the 13th-15th ct.

Statistical methods will not be used in the evaluation of the data because the number of examples is statistically irrelevant, and because the material is divided into regular and formulaic expressions on the one hand, and into samples of regional traditions from Novgorod and Polock on the other. Thus, in this research, we are going to operate only with absolute numbers.

3.2. Evaluation of data

3.2.1. Business letters

Business letters are short texts addressed to one or more addressees in order to establish a certain relationship (Freydank/Sturm/Harney/S. Fahl/D. Fahl: 1999: XVIII). The main

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3 In Zaliznjak 2008 (193-200) the textological differentiation was not considered, so the data was analysed in one group of letters, acts, and documents.

4 Zaliznjak 2008 operates with a greater number of examples because of describing text crumbles, here we consider only those examples from the texts whose type could be identified.
functional property of business letters is contact-setting and appellative intention (Meier/Ziegler 2006: 116). This group of texts differs from the others in its lowest formality grade which thus allows a large range of variation of clitic placement. Table 2 below shows the distribution of *sja* in regular contexts:

<table>
<thead>
<tr>
<th>Time scale, ct.</th>
<th>Placement of the reflexive, number of examples</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>CPrep</td>
</tr>
<tr>
<td>12</td>
<td>6</td>
</tr>
<tr>
<td>13</td>
<td>4</td>
</tr>
<tr>
<td>14</td>
<td>4</td>
</tr>
<tr>
<td>15</td>
<td>-</td>
</tr>
</tbody>
</table>

The data shows the development from relative equal placement distribution of the reflexive in the 12th ct. to its dominance in the CPost in the 14th-15th ct. It is also remarkable that the number of clitic preposition examples remained stable.

3.2.2. Juridical documents

Juridical texts are addressed to a wide audience in order to establish an institutionalised relationship which lasts over a long period of time or has no time limit. The main functional property of such type of texts is social binding (Meier/Ziegler 2006: 116). Formality grade in this group of texts is notably higher than in the business letter group.

*NB:* This statement is based on the observation of the intertextual and interdiscursive properties of business letters and juridical documents, which are doubtless genetically tied. The business letter is more interdiscursively cross-linked whereas juridical documents are based on manifest intertextuality. Therefore, there is more space for variation in the placement of *sja* in business letters than in juridical documents.

Table 3 below shows the distribution of *sja* in regular contexts:

<table>
<thead>
<tr>
<th>Time scale, ct.</th>
<th>Placement of the reflexive, number of examples</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>CPrep</td>
</tr>
<tr>
<td>12</td>
<td>1</td>
</tr>
<tr>
<td>13</td>
<td>-</td>
</tr>
<tr>
<td>14</td>
<td>-</td>
</tr>
<tr>
<td>15</td>
<td>2</td>
</tr>
</tbody>
</table>

The examples show the development of the reflexive with equal distribution in the 12th ct., the concurrence of the CPost and DPrep in the 13th ct., and the dominance of the CPost during the 14th and 15th ct. The preposition of the reflexive remained stable, there was a change from DPrep to CPrep due to the loss of cliticised forms of the PPron. The DPost does not occur at all.

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6 Cf. Bhatia 2005: 32: “(...) attempts to create hybrid or relatively novel constructs by appropriating or exploiting established conventions or available generic resources”.
7 The most important here are presupposition and metadiscourse (cf. Bhatia 2005: 32).
3.2.3. Formulae

There are some specific formulae which show the state of reflexive position change. As in business letters and juridical documents, the formulaic sets differ and the corpus shows different dominant formulae with reflexives in both text types. Surprisingly, there are some typological resemblances which allow certain generalisations about the trend in diachronic change in business writing. Firstly, both in the business letters and the juridical documents, the formulae are conversives which describe opposite pragmatic acts: in business letters klanjati sja - ‘to thank’, lit. ‘to bow oneself’ vs. moliti sja - ‘to beg’, lit. ‘to pray’; in juridical documents otstupiti sja - ‘to resign from sth.’, lit. ‘to step away’ vs. porjaditi sja - ‘to claim sth.’ And secondly, the position of the reflexive in such constructions undergoes similar change: from the fluctuant position in the 11th-12th ct. it turned to the prevailing CPost at the end of the 14th ct.

NB: Hofer (1980: 68) and Schütz (1963: 226) claim that there was a connection between the loss of the clitic forms of the pronouns and the attachment of sja in the CPost. Indeed, by observation of contexts with the DPost, one can notice that this position of the reflexive was possible due to other pronominal enclitics which, in the 14th ct., began to drop out, compare e.g.:

\(\text{(1) a. } \text{i poklan\(\text{a} \text{t} \text{s}\text{ja } \text{brat}\text{i me} \text{mon}}^8 \)

‘And I bow myself for you, my brother.’

\(\text{b. } \text{a d\text{a}z\text{b } to\text{ve} \text{m} \text{no} \text{ko} \text{ka} \text{b\text{r}}\text{at\text{i e}p\text{ko}l\text{a}}}^9\)

‘And I thank you many times, my brother.’

It should be noticed here that it does not mean the automatic ‘deletion’ of the PPrs but it might have been caused by intertextual reference to the chronologically elder construction.

The results show a different picture in business letters and juridical documents but regardless of that, the final result of this development was the attachment of sja in the CPost of the verb. Table 4 below shows the state in business letters.

<table>
<thead>
<tr>
<th>Time scale, ct.</th>
<th>Placement of the reflexive, number of examples</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>CPrep</td>
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<tr>
<td>11</td>
<td>-</td>
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<tr>
<td>12</td>
<td>1</td>
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<tr>
<td>13</td>
<td>-</td>
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<tr>
<td>14</td>
<td>2</td>
</tr>
<tr>
<td>15</td>
<td>-</td>
</tr>
</tbody>
</table>

As can be observed, the state in the formulae is not equal to that in regular expressions. In the 12th ct. the dominant position is DPost. Later, during the 13th and 14th ct., a massive growth of examples with the CPost can be observed. The preposition of the reflexive remained resistant due to the change of cliticised PPr’s to LF’s, thus the clitic clusters were

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8 NGB VIII, # 605 (1100-1120), www.gramoty.ru, retrieved 02.12.2008 at 15:03. Author’s emphasis.


10 Here 8 examples illustrate the usage of the verb klanjati sja, the other 2 of the verb moliti sja. The DPost prevails here due to the clitic cluster, e.g.: и покланяю ти са “And I thank you.” (NGB XI, #798 (1160-1180), www.gramoty.ru, retrieved 03.12.2008 at 16:52. Author’s emphasis.).
shifted in front of the verb. From the 15th ct. there is only evidence of the enclitics in the CPost.

Table 5 below shows the state in juridical documents:

<table>
<thead>
<tr>
<th>Time scale, ct.</th>
<th>Placement of the reflexive, number of examples</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>CPrep</td>
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<td>12</td>
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<td>13</td>
<td>4</td>
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<td>14</td>
<td>6</td>
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<td>15</td>
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</tr>
</tbody>
</table>

Doubtlessly the data shows a tendency to the CPost from the 12th ct. Interesting development can be observed during the 13th and 14th ct. when the occurrence of cases of the preposition increases.11 The 15th ct. shows only evidence of the enclitics in the CPost.

3.2.4. Comparison of text types

It can be seen that there existed real text type subordination in Old Russian which also impacted the implementation of the sja-constructions. It should be pointed out that there was a formality grade correlation between the usage of clauses with sja and between the text type.

The division of the examples into regular and formulaic expressions has shown that regular expressions developed equally, but not so formulaic expressions. Formulaic expressions in the juridical documents have been relatively stable whereas formulaic expressions in business letters show deviances from CPost up till the 15th ct. This is surely connected with text type intertextual properties as specified above, and interdiscursivity in business letters allows more variations in the formulae than the manifest intertextuality in juridical documents.

The next fact which was of great importance for the position of sja was supposed to be territorial attribution of the text. As Havránek (1928: 119) and Gunnarsson (1935: 62) explicitly pointed out, there was a correlation between these two variables. Gunnarsson describes the situation in the West-Russian dialects (Byelorussian) where the impact of Polish in the 15th-16th ct. was so important that texts from this area showed the usage of sja not found anywhere else in the rest of the Russian territory. In the material researched for this paper, no territorial preferences could be observed. This negative evidence shows that in the case of the usage of sja, the deviations between Old Russian and West Russian developed later, when the contact with Polish persisted over a longer time.

3.2.5. Exceptions

In the material described herein, there are a certain number of examples which are exceptions to the previous standard properties of the construction with sja. Two types of such cases can be traced: constructions with the doubling of sja:

(2) kako ca wspodnie nam svymi xristiani popel'nieše na de-KMCA wspodnie · · · na boga · · · na teba na swo¤ø wspodni 12

---

11 This tendency is obviously connected with the increase of hypotactic constructions which presupposed the placement of sja after the complementizer, e.g.: "resigned from it faithfully" (Polockie gramoty XIII - naçala XVI vv., 35. Author’s emphasis).

‘How would you, our master, care about us, your peasants? We trust, master, in God and in you, our master.’

and constructions with form contamination:

(3) a mi tobi Žgine Ofonose klãanesme (sic!)\(^{13}\)

‘And we bow oneself for you, master Ofonos.’

It is noticeable that such forms appeared in the second half of the 14\(^{th}\) century and their number was increasing during the period of 1350-1450. They show that the system of usage of \(sja\) underwent change at that time and became unstable. The mainstream tendency to attach the reflexive in verbal CPost can also be through such spelling contaminations with flexion morphemes, as shown by the examples.

4. Discussion

Having regarded materials from different sources, it is necessary to compare the results with the outstanding theory of clitics elaborated by Zaliznjak. Zaliznjak operates with the term “rhythmic-syntactic boarder” (‘ритмико-синтаксический барьер’), which should explain the deviances from Wackernagel’s law and from the ranking of clitics (with its differentiation in weak and strong enclitics) (cf. Zaliznjak 2008: 23-66). It should be pointed out here that there is no definition which clearly states what is understood by the notion of “rhythmic-syntactic boarder”. Apparently, it is a way of dividing a clause into word groups\(^{14}\) where the syntactic and semantic factors play a role.

In his results Zaliznjak (2008: 168) claims that:

(…)

“The basic mechanism which allowed enclitics the shift to the right from their principal “Wackernagel’s” place – the end of the 1\(^{st}\) prosodic unit in the clause, was the rhythmic-syntactic boarder. (…) Otherwise the rightmost boarder appears exactly in front of the predicate, and thus \(sja\) occurs precisely in that position which became solely possible for it.”

It is necessary to remark that the problem of the evolution of the position of \(sja\) is understood here as a problem of shift of the RSB to the right. The given explanation of this shift appears very vague and non-verifiable: the RSB was inserted in order to emphasise a part of a clause and later, the process of its grammaticalization took place (Zaliznjak 2008: 170). The proof statement about the emphasis cannot be made.

Nevertheless, Zaliznjak (2008: 84, 170-171, 218-220) takes into consideration quite an important issue, namely the differentiation remarkable in texts written in Old Russian (non-fictional texts) and in texts written in Russian Church Slavonic (literary texts): the

\(^{13}\) NGB VI, # 406 (1360-1380), www.gramoty.ru, retrieved 06.11.2008 at 12:03. Author’s emphasis.

number of examples with the preposition of *sja* contrasts in these two groups of texts, where the non-literary texts show higher rates of usage of the clitic in the preposition.

The evidence from the different text types (two of them are written in Old Russian and two in Russian Church Slavonic) observed above shows that the amount of clitics in a certain position rather depends on the text type and on the intertextual properties of the text that are characteristic for a particular text type.

5. Final considerations

To conclude, the main points of this paper will be summarised. There is a correlation between text type and the usage of clauses with *sja*: there were a number of formulae in which the word order of the recent stages was kept due to the intertextual properties of the text type (in juridical documents). In formulaic expressions of business letters the word order was freer, so the formulae were set out to the clitic float, which characterized regular expressions in both text types.

It should be emphasized that the usage of the reflexive as a moving element in a phrase had reduced quite fast. Already in the 16th ct. it seems to have been used mostly in the CPost after the verb, this tendency could be traced already from the 14th ct. As can be seen, the full circle of development was completed within 6 centuries, from the rise of active usage of the reflexive in variable positions to the strictly defined attachment of the reflexive in a contact post-verbal position.

The evidence for regional deviance between Novgorod and Polock was negative which can go back to the dialect community that Slavonic languages constituted until the 15th ct.

A possible explanation for this development is the increasing written praxis which impacted the role of manifest intertextuality as a principle of text compilation. In these terms, the variation of word order was reduced and became more and more repetitive.

6. Closing remarks

Also, the process of the attachment of *sja* in the CPost was obviously terminated by the 15th ct.; there is sporadic evidence of the other placement of *sja* in later Russian business writing. E.g., following is an extract from a business letter dated 26.05.1673, written in the Souzdal region by Sten’ka Voronov, an administrator of an estate, to his master Ivan Vasilevič Belin, where the distant preposition of *sja* was used:

(4) пожалуй милостиви гдєрь Иван Васильевичь | порадеи как мочно а я тебь гдєрь | за твое жалованье вѣчнои работник | и что ся15 станет впредь дѣлат дат мнь | вѣдомость по семь тебь гдєрь | рабски челом бью до лица земли16

‘Please, pitiful master Ivan Vasilevič, help me as you can. And I will work for you, master, for your grace forever. And about what will happen let me know afterwards. I beg you, your nethermost slave.’

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15 Sic! Author’s emphasis.
These sorts of contexts are often put down to a misspelling of an inexperienced scriptor, which Voronov of course was (compare other spelling mistakes in this short paragraph and his style full of dialect words and spoken collocations). But in this particular context, I would be cautious with such judgement. There is a formula which is quite often used in business letters exactly in this form (lit. ‘what will be happening in the future’). This only reconfirms, as was already noted, the stability of formulae against the changing grammar. But this sort of context clearly shows the grade of resistance which the formulae can preserve over 2 centuries, since the point in time when the process of active change had ended. Such level of resistance of a construction can only be achieved by steadily referring to older contexts, hence intertextual relations play an important role in diacronic development.

**Abbreviations**

CPrep contact preposition  
CPPost contact postposition  
DPrep distant preposition  
DPPost distant postposition  
LF long form  
PPr personal pronoun  
RSB rhythmic-syntactic boarder  
SF short form

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DEVELOPMENTS IN PREDICATIVE POSSESSION
IN THE HISTORY OF SLAVIC

Summary

Evidence from early Slavic texts supports the existence of three constructions for predicative possession in Late Proto-Slavic (LPS): the verb *iměti*, a dative possessor and an *u* + genitive construction. *Iměti* expanded in West and South Slavic; *u* + genitive expanded in Russian; but the dative possessor has not undergone a comparable expansion in modern Slavic languages. Language contact facilitated the expansion of just one of the LPS constructions in each of the modern Slavic languages (with the exception of East Slavic). This is exemplified by a brief case study of Old Czech. In Old Czech, *mít* was promoted as the basic expression of predicative expression by influence from neighboring German. Thus contact has contributed to the elimination of some constructions for predicative possession in the history of Slavic, with the result that most modern Slavic languages now have fewer than the Proto-Slavic three.

1. Introduction

Predicative possession can be defined as possession on the level of the clause, where the possessor is a clausal argument (and the verb is often a possessive verb, e.g. ‘have’). It is different from both adnominal possession, where the possessor is a modifier of the possessum; and external possession, where an adnominal possessor is coded as an indirect object or other clausal argument. In English, for example, predicative possession is expressed with the verb *have*, e.g. *Jane has a book*. This is in contrast to adnominal possession with a possessive modifier, e.g. *Jane’s book*.

Late Proto-Slavic (LPS) had three separate constructions for expressing predicative possession, including (1) a ‘have’ verb, (2) an *u* + genitive construction, and (3) a dative construction. Both of the latter predicative possession constructions (PPCs), (2) and (3), are existential types of possession (Stassen 2005) with the predicate consisting of an inflected (or null) form of the verb ‘be’, which agrees with the possessum, not the possessor. The possessor is instead in an oblique case.

As the LPS dialects developed into the distinct Slavic languages, each chose one (occasionally two) of the three original LPS constructions as its primary means of expressing predicative possession. West and South Slavic languages chose the Late Proto-Slavic verb *iměti*, such as Czech *mít*, Polish *mieć*, etc., Russian chose the *u* + genitive PPC,¹ and no modern Slavic language uses the dative PPC as a primary means of expressing predicative possession.

In a European areal perspective, here represented by Slavic, a language’s possession type is an indicator of the structure of its syntax more broadly. For example, *u* + genitive in Russian is by far not the only construction with an oblique subject and, in fact, many other constructions in Russian have oblique, or non-canonical subjects, in particular the

¹ Russian makes marginal use of a ‘have’ verb *imet* in primarily abstract forms of possession, e.g. *imet’ pravo* ‘have the right’, or in specific syntactic contexts, e.g. with imperatives *imej v vidu* ‘have/keep in mind’ (cf. Timberlake 2004: 311-312).
majority of modal constructions and experiencer verbs. Czech shows the opposite trend; not only does it use the personal, agentive verb mit ‘have’ (similar to English and German usage), but it also has largely canonical syntactic arguments for modal verbs, in contrast to Russian. Thus, a language’s means of expressing predicative possession has implications reaching far beyond one lexical item or one construction; rather, predicative possession can be used as an indicator of syntactic organization on a broader scale. This has been discussed by scholars such as Isačenko (1974), who developed the classification of ‘have’ and ‘be’ languages, with Czech and German in the ‘have’ group, and Russian and Finnish in the ‘be’ group.

In §2, I provide examples from multiple early Slavic dialects for each of the PPCs, thus establishing the existence of the three constructions in LPS. In §3, I analyze diachronic developments in predicative possession in Old Czech, forming a case study that offers an explanation for the divergent changes from the LPS system of predicative possession to the systems present in the modern Slavic languages.

2. Three Constructions for Predicative Possession in Early Slavic

Early Slavic texts from the three main areas of Slavdom were used to gather examples of the three PPCs in LPS: the Old Church Slavic Codex Marianus (CM) for South Slavic (exx. (1), (4), (8)), the Old Czech Dresden Bible (ČDB) for West Slavic (exx. (2), (5), (9)), and the Introduction of the Laurentian manuscript of the Povest’ vremennych let ‘Russian Primary Chronicle’ (PVL) for Early East Slavic (exx. (3), (6), (10)).

2.1. ‘Have’ verb

An overt ‘have’ verb is the most common method for expressing predicative possession in modern Slavic languages, and it is also not hard to find in early Slavic texts. Thus, it seems to have been a well-developed construction by the time of Late Proto-Slavic. Examples of ‘have’ are in (1)-(3).

(1) они же рѣща не имамъ сьде ваши пяти хлѣбъ
they-NOM part say-AOR.3PL neg have-PRS-1PL here more 5-GEN bread-GEN.PL
и рѣща дѣвокъ (CM, Luke 9:13)
and fish-GEN.DU 2-GEN.DU
‘And they said, We have no more but five loaves and two fishes…’

(2) otcie gmame abrahama (ČDB, Luke 3:11)
father-DAT.SG have-PRS.1PL Abraham-ACC.SG
‘We have Abraham to our father’

(3) Польянъ бо своихъ сѣть обычаи имуть (PVL)
Polyanian-NOM.PL for their-GEN father-GEN.PL custom-ACC.SG have-PRS.3PL
‘For the Polyanians have the customs of their fathers.’

In one area of early Slavdom, however, the Slavic verb imêti ‘have’ is not so easy to find. This is in the birchbark letters of Novgorod. Zaliznjak (2004: 252) counts just three

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2 English Bible translations are from the King James Bible.
instances of *iměti* in the entire birchbark corpus and adds that its usage is stylistically marked or ‘bookish’ for Old Novgorodian.

2.2. U + genitive possessor

In modern Slavic languages, the *u* + genitive construction for expressing predicative possession is represented primarily by Russian. But in early Slavic texts we can find examples of *u* + genitive in constructions for predicative possession from multiple areas of Slavdom. Examples from OCS, Old Czech, and Old Russian are in (4)-(6).

(4) *awte bõdetì oč etera čâvka rò ovec ň...*
   `if be-FUT.3SG at certain-GEN.SG person-GEN.SG 100 sheep-GEN.PL`
   ‘if a man have an hundred sheep…’

(5) *Nenye v nas wiece nezli piet bochenciew a dwie ribie…* (ČDB, Luke 9:13)
   `NEG-be-PRS-1SG at us-GEN more than 5-GEN loaf-GEN.PL and two-FEM fish-NOM.DU`
   ‘And they said, We have no more but five loaves and two fishes…’

(6) *i braka u nich ne bъvаше (PVL)*
   `and marriage-GEN.SG at them-GEN not be-IMPF.3SG`
   ‘And they did not have marriage’

Where the Old Novgorodian birchbark letters almost completely lack the ‘have’ verb *iměti*, they abound with *u* + genitive constructions for predicative possession, e.g. (7):

(7) *…tș ste dâla vârâbre vîckere tâwe vî goeða ot domâčka a oč žiroslavâ soût...* (Zaliznjak 2004, 397)
   `at Žiroslav-GEN.SG be-PRS.3PL`
   ‘So, your money from Domaček, intended for the monastery of Holy Barbara, is in the town; Žiroslav has [it (the money)].’

2.3. Dative possessor

The dative PPC was also used in early Slavic dialects. Examples from OCS, Old Czech, and Early East Slavic are in (8)-(10).

(8) *ine bê imâ chaâda , poneje bê and NEG be-AOR.1SG them-DAT.DU child-GEN.SG because be-AOR.1SG elisavetę nepâdë (CM, Luke 1:7)*
   `Elizabeth-NOM.SG infertile`
   ‘And they had no child, because that Elisabeth was barren.’

(9) *A nie-beSSe <gyma> Syn, proto ze bieSSe and NEG-be-AOR.1SG them-DAT.DU son-NOM.SG because be-AOR.1SG alzbieta bezdyetkynye (ČDB, Luke 1:7)*

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3 Mirčev (1971) brought this example to my attention from the OCS Codex Assemanianus, Matthew 18:12; cf. Codex Marianus: ‘*awte bõdetì eterù hl8vkù .r8. ovec š*’ with a dative possessor.

4 Zalizniak’s Modern Russian translation: ‘*… Вот, деньги твоя от Домачка, [предназначенные] для [монастыря] святой Варвары, в городе; а лежит у Жирослава.’
Elizabeth-NOM.SG infertile
‘And they had no child, because that Elisabeth was barren’

(10) како есть обычаи имь (PVL)
what_kind be-PRS.3SG custom-NOM.SG them-DAT
‘What kind of customs they have.’

Thus, all three PPCs were used in multiple areas of early Slavdom (the Novgorod birchbark letters also contain examples of the dative construction for predicative possession). In the next section, the diachronic developments for one of these languages, Old Czech, is examined more closely.

3. A brief case study on the development of predicative possession in Old Czech

In contrast to Russian, developments in predicative possession in the history of Czech have not received much scholarly attention. This may, in part, be related to the preconception of naturalness of the European areal type of language, or Standard Average European (cf. Whorf 1956, Haspelmath 1998), which includes expressing predicative possession with the verb ‘have’, even though ‘have’ verbs are cross-linguistically less common than existential types of predicative possession (Stassen 2005). Czech has, in fact, changed its methods of expressing predicative possession in a number of important ways.

The primary texts used in this study are Bible translations. The first Czech Bible translation was the Dráždanská Bible ‘Dresden Bible’ (hereafter ČDB) translated from the Latin Vulgate in the 14th century (ČDB). In the late 16th century, the Kralická Bible was translated from the original Greek New Testament (Merell 1956, 85). By comparing verses with PPCs in both Bibles, it becomes clear that in a matter of roughly two centuries predicative possession evolved from something close to the Late Proto-Slavic system to a system almost identical to Modern Czech.

The source language of the Bible translation, whether Latin or Greek, certainly influenced the Czech translations. The available PPCs in New Testament (NT) Greek, Latin, and Slavic, were quite similar, likely due to a combination of genetic and historical factors (i.e. all languages are Indo-European). In particular, all three languages (NT Greek, Latin, and LPS) used a ‘have’ verb and a dative PPC, though the Slavic u + genitive construction (see §2.2 above) did not have a counterpart in either NT Greek or Latin. Table 1 gives the percentages of matching constructions between the two Czech translations and their source languages; 88% of the PPCs from the Book of Luke in the ČDB correspond to the same PPC type as those in the Latin Vulgate, while in the Kralická Bible, 71% match the original Greek PPCs.

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6 The Olomoucká Bible from 1417 is used for citing examples because its orthography is much closer to Modern Czech. Occasional differences in the content of the two Bibles do not affect my analysis.
7 The source languages themselves are virtually identical in the area of predicative possession.
Developments in Predicative Possession in the History of Slavic

Table 1. PPCs in Book of Luke for Latin → ČDB and NT Greek → Czech Kralická Bible

<table>
<thead>
<tr>
<th>LATIN VULGATE → ČDB</th>
<th>GREEK NEW TESTAMENT → CZECH KRALICKÁ</th>
</tr>
</thead>
<tbody>
<tr>
<td>Latin habeo</td>
<td>Greek ἔχω</td>
</tr>
<tr>
<td>72 habeo → mit</td>
<td>62 ἔχω → mit</td>
</tr>
<tr>
<td>6 habeo → other construction in Czech (Also: 9 other constructions in Latin → mit in Czech)</td>
<td></td>
</tr>
<tr>
<td>Latin est + dative</td>
<td>Greek ἐίναι + dative</td>
</tr>
<tr>
<td>12 est + dat. → jest + dat. (1 ambiguous)</td>
<td></td>
</tr>
<tr>
<td>2 est + dat. → possessive pronouns</td>
<td></td>
</tr>
<tr>
<td>1 est + dat. → other (Also: 2 other construction → jest + dat. in Czech, one of which is ambiguous)</td>
<td></td>
</tr>
<tr>
<td>Overall Latin → ČDB matching PPCs: 88% (84/95)</td>
<td></td>
</tr>
</tbody>
</table>

Mít systematically replaces the Greek dative PPCs in the Kralická Bible translation, whereas the earlier ČDB translation was far more likely to follow the Latin syntax, using a dative PPC when it appeared in the Latin Vulgate. By the time the Kralická Bible was translated, Old Czech had almost fully lost the potential to express predicative possession with anything but the verb mít. Examples in Table 2 from Luke 1:14 and 10:39 exhibit this trend.

Table 2. Dative PPCs in ČDB, but not Kralická Bible translation

<table>
<thead>
<tr>
<th>English King James</th>
<th>Czech Kralická Bible</th>
<th>Greek New Testament</th>
<th>Latin Vulgate</th>
<th>ČDB</th>
</tr>
</thead>
<tbody>
<tr>
<td>1:14 And thou shalt have joy and gladness;</td>
<td>And čehož budeš míti radost a veselé,</td>
<td>καὶ έσται χαρά σοι καὶ ἠγαλλίασις</td>
<td>et erit gaudium tibi, et exsultatio,</td>
<td>a bude tobě radost a utěšení</td>
</tr>
<tr>
<td>10:39 And she had a sister called Mary.</td>
<td>A ta měla sestru, jménem Mariji,</td>
<td>καὶ θηβε λένεν ἁδελφή</td>
<td>et huic erat soror nomine Maria,</td>
<td>a tej bieše sestra, jménem Maria,</td>
</tr>
</tbody>
</table>

Since it is known that the early Czech literary language was heavily based on Latin (that is, most texts – religious and secular – were translated from or based on Latin originals), one could argue that the changes between the earlier and later inventories of PPCs in the Czech translations were not a result of changes in Czech itself, but rather in changes in Czech’s reliance on Latin as a model for its literary language. This argument, however, falters in light of the fact that the PPCs in the early ČDB do not match the Latin Vulgate 100% of the time. That is, the Czech was not translated slavishly from the Latin original without regard to the independent structure of the Czech language. It is instructive to

8 An additional u + genitive example appears in both the ČDB and Kralická Bible (see Table 4, Luke 10:7), corresponding to a non-PPC construction in Latin and Greek. The example is, however, not unambiguously a PPC.
examine precisely the cases where the ČDB translation diverges from the Latin original to hone in on the range of the Czech dative PPC as distinct from Latin. Table 3 shows examples of the expression of kinship relations in the Latin and ČDB. Examples with kinship relations have been chosen for comparison because they constitute a large percentage of the dative PPC examples, likely an indication of the construction’s association with inalienable possession more broadly. However, the Old Czech corpus used for this study does not provide a wide enough range of examples to support this assumption. In some examples in Table 3 the Czech translation matches the Latin source, in other cases it diverges.

Table 3. Comparison of PPCs for kinship relations in Latin and ČDB

<table>
<thead>
<tr>
<th>English King James</th>
<th>Latin Vulgate</th>
<th>ČDB</th>
</tr>
</thead>
<tbody>
<tr>
<td>1:5</td>
<td>There was [...] a certain priest named Zacharias, of the course of Abia: and his wife was of the daughters of Aaron, and her name was Elisabeth.</td>
<td>Fuit [...] sacerdos quidam nomine Zacharias de vice Abia, et uxor illius de filiabus Aaron, et nomen ejus Elisabeth.</td>
</tr>
<tr>
<td>1:7</td>
<td>And they had no child, because that Elisabeth was barren, and they both were now well stricken in years.</td>
<td>Et non erat illis filius, eo quod esset Elisabeth sterilis, et ambo processissent in diebus suis.</td>
</tr>
<tr>
<td>8:42</td>
<td>For he had one only daughter, about twelve years of age, and she lay a dying. But as he went the people thronged him.</td>
<td>quia unica filia et fere annorum duodecim, et hæc moriebatur. Et contigit, dum iret, a turba comprimebatur</td>
</tr>
<tr>
<td>9:38</td>
<td>...Master, I beseech thee, look upon my son: for he is mine only child.</td>
<td>...Magister, obsecro te, respice in filium meum quia unicus est mihi</td>
</tr>
<tr>
<td>15:11</td>
<td>And he said, A certain man had two sons:</td>
<td>Ait autem : Homo quidam habuit duos filios :</td>
</tr>
<tr>
<td>20:28</td>
<td>Saying, Master, Moses wrote unto us, If any man’s brother die, having a wife, and he die without children, that his brother should take his wife, and raise up seed unto his brother.</td>
<td>dicentes : Magister, Moyxes scriptis nobis : Si frater alicujus mortuas fuerit habens uxorem, et hic sine liberis fuerit, ut accipiat eam frater ejus uxorem, et suscitet semen fratris su.</td>
</tr>
</tbody>
</table>

The examples in Table 3 can be broken into four types: 1) Latin and Czech use a dative PPC (Luke 1:7, 9:38); 2) Latin and Czech use a ‘have’ verb (15:11, 20:28); 3) Latin uses attributive possession, but Czech uses a dative PPC (1:5); and 4) Latin uses a dative PPC, but Czech uses a ‘have’ verb (8:42).

The dative PPC functions in one of two ways in these kinship examples: either to relay generic, factual information about the possessor, or to increase the prominence of the possessor by promoting it to the nominative case. Luke 1:7 relays an important fact about Zacharias and Elisabeth that provides part of the foundation relevant to the unfolding narrative: that they have no son/child. Often, the act of asserting the fact gives prominence to the fact by promoting the possessor to the nominative case, thus downgrading the role of the possessor to an oblique case – the dative.
When the dative PPC functions to increase the prominence of the possesum by promoting it to the nominative case, the possesum can become the focal element of the utterance, as in Luke 9:38. In the Latin and Czech examples, the dative PPC is used instead of a ‘have’ verb to downplay the importance of the father’s “possession,” instead emphasizing the importance of the son’s existence. No less important in this example is the son’s relation to the surrounding context. In this passage the father is making a plea to Jesus to save his son and uses the statement of fact – that he has just this one son – as the basis of his plea. This context will surface again in discussion of a non-Biblical text below.

In Luke 15:11 and 20:28 both the Latin and ČDB use ‘have’. In 15:11 the ‘certain man had two sons’ focuses first on the man as the father of the sons, and sets him up as the anchor of the ensuing narrative. Luke 20:28 is part of a hypothetical death and marriage scenario where the wife is never the focus of the narrative, but merely appears in order to clarify which brother “possesses” her. The fact of her existence is not alone important and therefore it is not brought into focus in this passage.

Having established these general similarities in the usage of dative and ‘have’ PPCs in Old Czech and Latin, the question arises: what sets Old Czech apart from Latin?

In two of the examples in Table 3, the expression of predicative possession in the Latin and Czech versions differs. Luke 1:5 falls into sub-type (3): Latin uses attributive possession (with the phrase uxor illius ‘wife of him’), but Czech uses a dative PPC. The purpose of the utterance is to establish the existence of, or introduce, the wife of Zacharias – Elisabeth. She fulfills the function of being part of a list of relevant facts about Zacharias, e.g. he is a priest, he is of the order of Abia; however, the dative PPC also functions to briefly shift attention to Elisabeth, focusing on her as a relevant actor in the narrative.

Luke 8:42 falls into sub-type (4): Latin uses a dative PPC, but Czech uses a ‘have’ verb. Here, the fact of the ill daughter’s existence is important, but not as salient at this point in the narrative as the activities of the father. Thus, the daughter is important in relation to her father, but since the narrative proceeds about him, it is clear that she is not the focus. This example highlights where there is divergent behavior between Latin and Czech usage of the PPCs. Czech has stricter conditions for using the dative PPC that includes reporting standalone facts and/or highlighting the possessum. The Czech translation defaults to the mit construction when these conditions are not met.

Of the two existential PPCs in Slavic – u + genitive and dative – the dative was clearly preferred in early Czech. But in the ČDB translation of Luke 9:13 the dative PPC in Latin is replaced by the u + genitive PPC (see Table 4).

Table 4. Evidence for u + genitive PPC in ČDB

<table>
<thead>
<tr>
<th>English King James</th>
<th>Latin Vulgate</th>
<th>ČDB</th>
</tr>
</thead>
<tbody>
<tr>
<td>9:13 But he said unto them, Give ye them to eat. And they said, We have no more but five loaves and two fishes; except we should go and buy meat for all this people.</td>
<td>Ait autem ad illos : Vos date illis manducare. At illi dixerunt : Non sunt nobis plus quam quinque panes et duo pisces : nisi forte nos eamus, et emamus in omnem hanc turbam escas.</td>
<td>I vecě k nim: „Vy jim dajte jíísti.” Těhdy oni pověděli: „Nenie u nás vieže nežli pět bohencův a dvě rybě, jedině ač hychom šli a kýpili pokrma tomuto všemu zástupu.”</td>
</tr>
</tbody>
</table>
Julia McAnallen

10:7  *And in the same house remain, eating and drinking such things as they give: for the labourer is worthy of his hire. Go not from house to house.*  

In eadem autem domo manete, edentes et bibentes quae apud illos sunt : dignus est enim operarius mercede sua. Nolite transire de domo in domum.

A v témž domu ostaňte jedúce a pijící to, což u nich jest, nebo jest důstojen dělník své mzdy. Nerodťte se tělati z domu do domu.

<table>
<thead>
<tr>
<th>10:7</th>
<th><em>And in the same house remain, eating and drinking such things as they give: for the labourer is worthy of his hire. Go not from house to house.</em></th>
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<td><em>A v témž domu ostaňte jedúce a pijící to, což u nich jest, nebo jest důstojen dělník své mzdy. Nerodťte se tělati z domu do domu.</em></td>
</tr>
</tbody>
</table>

The replacement of the Latin dative PPC in Luke 9:13 by a Czech *u + genitive* PPC is telling. The possessum in this example, five loaves of bread and two fish, is both physical (non-human and non-animate) and temporary. Furthermore, it appears to fall outside the regular context for the dative PPC in Old Czech, in that it does not report a fact about the people in question (‘us’), nor is this an utterance that wishes to bring the bread and fish to any particular prominence. More important here is that Old Czech appears to be drawing on an old Slavic construction for predicative possession that is still marginally available in Czech of that period. The *u + genitive* is expressing a form of possession that shades to a locative meaning, such as “among us” in English. Luke 9:13 is still, without a doubt, predicative possession, but it is a functionally different type of utterance than those that appear in dative PPCs for this period of Old Czech. Luke 10:7 (in Table 4) contains a second example of an *u + genitive* PPC in the ČDB. While it has a stronger locative reading than Luke 9:13 – even appearing as *u + genitive* in the *Kralická Bible* – Luke 10:7 is nevertheless an example of predicative possession.

As a complement to examples of PPCs from the Bible, I examine tokens of PPCs from the 14th century epic poem *Život Svaté Kateřiny* (*ŽSK*) ‘The Life of Saint Katherine’. *ŽSK* is a composite of different legends from Latin sources, but was not strictly translated from a single Latin source. The author gave it a distinctly Czech flavor (Lehár et al. 1998), making it one of the better choices for investigating the early Czech language. Based on its linguistic features, the composition of the original text is dated to the second half of the 14th century (*ŽSK*). Though not as common as *mít* ‘have’, dative PPCs nevertheless appear in *ŽSK*. A selection of examples with dative and *mít* PPCs with kinship relations are given in (11)-(14). As was shown above with Biblical examples, kinship relations often occur in the dative PPC, which are not dissimilar from *ŽSK* examples (11) and (12).

(11)  
[V tom městi [90] bydlil i s svú dáču milú; [91] tu milováše všú silú [93] jakžto s právem bylo z čína, [94] for him-DAT was-IMPF daughter-NOM one-NOM in Alexandria, in that town, Kostis lived in honor with his queen and with their beloved daughter; he loved her deeply, rightly and properly, for he had just one daughter.]

(12)  
[V tom času sťa obnova [146] syna Maxencova [147] ciesařem pro ty dědiny, [148] for him-DAT was-IMPF son-NOM one-NOM at this time something new transpired, they elected Maxencius’ son emperor, for he [Maxencius] had just one son.]

Both (11) and (12) assert a fact about the existence of a child and the dative PPC brings the this child, the possessum, into focus. The parallel construction in both examples: *neb mu bieš*... ‘for he had…’, emphasizes the causality of asserting this fact of having a daughter or son. Each child is the only daughter or son of the respective kings and their
isolated existence is presented as the purpose for the previous discourse – being loved in the case of Kateřina and being appointed emperor in the case of the Maxencius’ son.

Examples with the daughter as the possessum in mít construction are in (13)-(14):

(13) [72] Kostis nejmějšie děti [73] více než dceru jedinú, [74] tu bieše nazval Kateřinu. (ŽSK, 121)

‘Kostis had no children, except for one daughter, who was named Kateřina.’


‘And sent delegates to all kingdoms near and far, to see if an emperor or king had a beautiful daughter in his lineage, who would be worthy of his son, in order to give her to him.’

The contexts of (13) and (14) justify the choice of the verb ‘have’ for predicative possession. In (13), the daughter’s existence is less relevant in the text than her existence in relation to her father, or as offspring of her father, therefore the mít construction is used instead of the dative PPC. In (14), a hypothetical daughter’s existence is only important as part of the process of finding a wife for Maxencius’ son.

The ŽSK examples confirm what was shown by the examples of predicative possession in the ČDB. That is, mid to late 14th century literary Czech had an inventory of two regularly used and functionally different PPCs: the verb mít and a dative PPC.

Up to this point, I have not raised the question of why the dative PPC was lost between the 14th and 16th centuries in Old Czech. It may seem to be the case that the construction was already on its way out and the passing of two more centuries was ample time for it to disappear completely. However, considering Latin’s influence on the early Czech literary language, why would the dative PPC not have been preserved in at least the core functions that matched the functions in Latin? The answer lies in a force more powerful than Latin operating on the level of vernacular and bureaucratic language; this force, of course, being German. German influence, which started from the “bottom” at the level of the vernacular, infiltrated written and other formal registers of Czech over time. In spite of Latin’s significant influence on Czech’s early literary language, German is the contact language that inspired lasting changes in Czech written and spoken registers. Long-term contact with German motivated the almost complete eradication of the dative PPC in favor of mít, as it is a well-known fact that Germanic languages are strong ‘have’ languages.

Unlike links between Latin and Old Czech, which can be traced to specific textual sources, links between Czech and German are less straightforward, since much of the language contact occurred outside of recorded history (Svejkovský 1984). However, evidence of German presence and prominence in early Prague and Bohemia can be found in a number of sources. Maur (1996), Boháč (1987), Demetz (1997), report that German speakers have been settling in Czech and Moravian lands for roughly a millennium. A significant influx of German-speaking populations started in the 12th century and peaked in the 13th and 14th centuries. Wolverton (2001, 123) adds that “many churchmen, both secular and monastic, were immigrants of German origin” in at least the earliest centuries of the second millennium. By the 12th century, there were already special laws and privileges in place for Germans living in Prague, Germans were allowed to choose their
own *plebanus* ‘parish’, and, furthermore, “Germans were exempted from the universal military service that otherwise fell to all the duke’s subjects – itself a sign of their exceptional status within the majority population…” (Wolverton 2001: 273). The Germans described here lived in communities alongside ethnic Czechs (and often other ethnicities), and so the interactions between the Czechs and Germans was likely quite intense in at least Prague, and surely in other areas of Bohemia (and likely in parts of Moravia as well).

Though the 14th century Old Czech texts referenced here provide only trace evidence of the existence of the system of the three PPCs of LPS, the fact that this tail end of the system was captured in early Czech writing at all is quite remarkable. By the late 14th century, the usage of *mit* in Old Czech is so overwhelming that it is easy to dismiss the dative PPC as peripheral and anomalous, thus insignificant. However, as I have shown above, when these constructions are isolated, compared, and categorized, it becomes evident that they had a clear function and presence in early Czech writing.

Three key conclusions can be drawn from this case study. First, the dative PPC of LPS existed in Old Czech, which is proven by 14th century secular and religious textual evidence. Second, the dative PPC in Old Czech was not merely a calque of the dative PPC in Latin, despite the strong influence of Latin as the primary secular and religious written language in early Czech lands. Third, the increase in frequency of the verb *mit* at the expense of the dative PPC and *u* + genitive constructions in early Czech can be attributed to intense contact with German, since large populations of German speakers resided in Czech lands and had considerable bureaucratic and cultural influence from an early date.

4. Summary & Conclusions

Each modern Slavic language preserves some aspects of the Late Proto-Slavic system of predicative possession that was established in §2. For example, at the northeastern end of Slavdom, the LPS *u* + genitive construction fully developed in Russian, while in the northwest, the ‘have’ verb *mit* fully developed in Czech. It appears to be no coincidence that each language preserves precisely the part of the system that most closely parallels its non-Slavic neighbors, pointing to the fact that language contact played an important role in these different developments within Slavic. As has been shown for Old Czech, *mit* has developed to largely parallel the usage in neighboring Germanic. Though there is not space in this paper to explore the related issue of predicative possession in Russian, it is reasonable to postulate that the modern Russian *u* + genitive PPC expanded as a result of a Finnic substrate, since Finnic has a parallel construction for predicative possession using its adessive case. Thus, in this area of Slavic grammar, language contact facilitated the expansion of grammatical constructions that were already present in Slavic, but contact did not give rise to any construction entirely foreign to Slavic grammar at the time of Late Proto-Slavic.
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The paper analyzes the syntax of perfective auxiliaries in Polish, which may assume two syntactic positions: they may follow the clause-initial word as Wackernagel clitics, or they can be affixed onto the participle. The traditional assumption made in the literature is that the variation is due to a diachronic reinterpretation of their morphological status, and that the affixed form is an innovation. This paper investigates the distribution of Polish auxiliaries in a broader Slavic perspective and argues that the observed variation does not exemplify a language change, but rather it involves two independent syntactic processes: one of them is related to auxiliary affixation; the other one, inherited from Old Church Slavonic, is a case of second position cliticization that marks the Illocutionary Force of a clause.

1. Introduction

This article examines two syntactic patterns of the auxiliary distribution in Polish using a diachronic perspective. It has the following organization. Section 1 presents the structure of compound past tenses in Polish and briefly overviews some previous analyses of its variation. Section 2 analyzes cliticization patterns in Old Church Slavonic (OCS), paying special attention to the distribution of operator clitics, which uniformly targeted Wackernagel position. Section 3 examines how the distribution of operator clitics is reflected in contemporary Slavic languages, noting that these clitics impose special requirements on the syntactic status and the grammatical category of their host. Section 4 briefly overviews auxiliary cliticization in Old Polish and compares it to the OCS pattern. Section 5 investigates operator cliticization in Polish, using the focus particle źe as an example, and it also shows that auxiliary encliticization on the clause-initial element is an instance of this process.

2. The structure of compound past tenses in Polish

In Old Polish the periphrastic perfect tense was headed by the l-participle as the main verb, which was accompanied by the auxiliary verb 'to be'. The auxiliary could be a clitic or a tonic element, as shown in (1a) and (1b), respectively. Since the 16th century the clitic has gradually been reanalyzed as an affix on the l-participle, as exemplified in (1c).

I would like to thank the DSSL workshop audience for comments, especially Gilbert Rappaport and Mila Vulchanova, and an anonymous reviewer for helpful input. I am also grateful to Roumyana Pancheva for her remarks on the Old Church Slavonic data. The paper is an abridged version of the research previously presented at the Generative Linguistics in Poland-6 conference in Warsaw in April 2008. It was funded by the Netherlands Organization for Scientific Research (NWO) under the Rubicon grant 446-05-008.
An extensive body of literature has demonstrated that the process of the auxiliary reduction from a clitic into an affix has not been completed (see Rittel 1975; Kowalska 1976, Mikoś & Moravcsik 1986, Rappaport 1988, Borsley & Rivero 1994, Franks & Bański 1999, Bański 2000a, and others). There are a number of phonological and syntactic tests showing this, but for reasons of space limitations, I mention only one of them. It relates to the stress rule, which is quite regular in Polish and falls on the penultimate syllable. As presented in (2) for the verb *pyta* ‘ask’, in standard Polish the rule applies only in the singular forms, while the plural forms receive stress on the antepenultimate syllable. This indicates that the plural forms of the auxiliaries are still interpreted as clitics and do not participate in the stress assignment. Thus, the change is more advanced among the singular forms, which are analyzed as affixes on the *l*-participle.

(2)

<table>
<thead>
<tr>
<th></th>
<th>SG</th>
<th>PL</th>
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<tbody>
<tr>
<td>1</td>
<td>pyTAI-<code>em</code></td>
<td>pyTAI-śmy</td>
</tr>
<tr>
<td>2</td>
<td>pyTAI-<code>eś</code></td>
<td>pyTAI-ście</td>
</tr>
<tr>
<td>3</td>
<td>pyTAI_VIR</td>
<td>pyTAI_VIR</td>
</tr>
<tr>
<td></td>
<td>pyTAI_NON_VIR</td>
<td>pyTAI_NON_VIR</td>
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The evolution described above relates to the *morphological* status of the auxiliary. It has been claimed in the literature that it is accompanied by a *syntactic* change concerning the position of the auxiliary in the clause structure. The auxiliary may appear either as a clitic following the initial word or analytically as an affix on the *l*-participle lower in the structure (cf. 3) The former option has been described as a continuation of the Wackernagel clitic placement in OCS (cf. Kowalska 1976).

(3)  a. *Kiedy przyjechał-ašmy?*

     *when arrivePART_VIR.PL.+AUX.1PL*

     ‘When did we arrive?’
b. KIEdy-śmy przyjechali?/*KieDY-śmy przyjechali?
when+ AUX.1PL arrive PART.VIR.PL
‘When did we arrive, after all?’

The stress pattern indicates that the auxiliary following the wh-word in (3b) is a clitic, rather than an affix, because it may not alter the penultimate stress pattern of the wh-word. This fact will become important later in this paper.

As in the case of the reinterpretation of the auxiliary clitic as an affix, this change has been argued to be far from completion. According to Franks & Bański (1999), it involves a diachronic process of “Grammar Competition”, in the sense of Kroch (1989). Grammar Competition consists in the co-existence of a number of competing analyses of the same linguistic structure among native speakers. Language change of this structure is completed when one of the analyses wins over the other. Franks & Bański suggest that in Polish there is a competition between two analyses of the auxiliary: as an enclitic on the clause-initial word or as an affix on the l-participle. What is puzzling, though, is the fact that although the process of the reanalysis has been taking place for many centuries, it does not seem that the affixation variant will completely prevail the clitic variant.

Bański (2000a: 195) proposes that the slow rate of the process is due to the fact that the competition between grammars involves three options, rather than the usual doublet of exclusive morphological variants. The third option is the present tense copula ‘be’, formed with an old strong form of the verb ‘be’ jest and person-number affixes, which are the same as the affixes on the l-participle, but different from the ones found on finite verbs, even though the copula is finite as well. Thus, the morpheme affixed to copula in (4a) as well as the one affixed to the l-participle in (4b) contains the initial consonant -ś-. This morpheme does not occur on the finite verb in the present tense jedziemy in (4c).

be+ AUX.1PL very tired
‘We are very tired.’

b. Kupili-śmy ciekawą książkę.
buy PART.VIR.PL+ AUX.1PL interesting book
‘We bought an interesting book.’

c. Jedzi-emy na wycieczkę.
go+ AUX.1PL on trip
‘We are going on a trip.’

In this paper, I will take an alternative view and will argue that the diachronic change concerns only the morphological reanalysis of the auxiliary as an affix on the l-participle. On the basis of corpus data from OCS and related structures in other Slavic languages I will show that there is no diachronic syntactic change involving a shift from the second position cliticization to auxiliary affixation. There is no competition between the clitic auxiliary forms that encliticize on the non-verbal clause-initial elements and the auxiliaries that are affixed to the participle in Modern Polish, because that the two variants represent independent syntactic processes, which correspond to two syntactic patterns of cliticization in OCS and some contemporary Slavic languages.
3. Cliticization patterns in Old Church Slavonic

The traditional view is that in OCS clitics “stand after the first full word of a clause” (Lunt 1974: 65). However, detailed corpus studies cast a doubt on this generalization (see Radanović-Kocić (1988: 151ff), Dimitrova-Vulchanova & Vulchanov (in press), Pancheva (2005). For the purpose of this paper I will focus on three basic patterns. Pronominal clitics are normally postverbal. Dative pronominal clitics (especially the ethical dative) may target the second position, but accusative clitics may occur there only if the initial word is a verb.1

(5) a. Oca moega въ тёхъ dostoitъ mi byti.
   father GEN my GEN in these be-appropriate INF me DAT be INF
   ‘I had to be in my Father's house?’ (Pancheva et al 2007)
b. Aшte desnaё tvoё рёка sъblažnaetъ tё.
   if right NOM.F.SG your NOM.F.SG hand NOM.F.SG sin PRES.3SG you ACC
   ‘If your right hand causes you to sin.’ (Radanović-Kocić 1988: 154)

Three clitics li (a question/focus particle), že (a focus particle), and bo (a complementizer) are the only ones that always appear in Wackernagel position in OCS. In Migdalski (2007) I observed that they form a natural class semantics-wise and express Illocutionary Force. I refer to them as operator clitics.

(6) a. Aшte li oko tvoe lёkavo бъдетъ.
   if Q eye your evil be PRES.SG.N
   ‘If your eye should be evil.’ (OCS, Radanović-Kocić 1988: 151)
b. Aшte li že ni i novoj рazderetъ.
   if Q FOC not also new tear FUT
   ‘Or else the new one will tear.’ (OCS, Pancheva et al 2007)

In the third option clitics may appear in Wackernagel position depending on the semantics of their host. For instance, Večerka (1989: 35-36) and Willis (2000) show that the conditional auxiliary clitic by/bi is always right adjacent to the complementizer a, which introduces conditional clauses (cf. 7). Conversely, by/bi need not be adjacent to the complementizer da, which introduces indicative and purpose clauses, as demonstrated in (8a), where bi is separated from da by negation.

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1 The ethical dative clitic has a pragmatic function of attracting the hearer’s attention and expressing closeness between the interlocutors. It is limited to the 1st and 2nd person pronouns. Because of its pragmatic function it is taken to be an operator clitic (see the distinction made immediately below and example (10)).

2 An anonymous reviewer points out that the accusative form tё was not a clitic in classical OCS, and it became a clitic only later, with the development of the strong form tebe. This fact does not undermine the analysis pursued here. Moreover, Roumyana Pancheva informs me that while 1st and 2nd person clitics emerged later, anaphoric pronouns (used for the third person) were clitics from the very beginning. It seems that the issue requires a detailed investigation.
The Diachronic Syntax of Perfective Auxiliaries in Polish

4. Cliticization patterns in contemporary Slavic

Traditionally, a distinction is made between Slavic languages with verb-adjacent clitics, represented by Bulgarian and Macedonian, and those with Wackernagel clitics, which include Serbo-Croatian, Slovene, Czech, and Slovak. This section will make a categorial division of clitics into operator versus non-operator clitics, which holds across all Slavic languages irrespectively of the positions occupied by other clitics.

As was mentioned in section 2, operator clitics were the only ones that uniformly occurred in the second position in OCS. In contemporary Slavic languages they share a few properties concerning their position in the structure and the syntactic and categorial status of their host.

As far as their position is concerned, they tend to target Wackernagel position even if non-operator clitics are verb-adjacent. Moreover, they do not need to cluster with pronominal and auxiliary clitics. This pattern is exemplified in (9) for Bulgarian, in which the operator clitic li follows the clause-initial adverbial včera and is separated from the pronominal clitic ja and the auxiliary clitic e.

\begin{align*}
\text{(9)} & \quad \text{včera} \quad \text{li} \quad \text{Penka} \quad \text{ja} \quad \text{e} \quad \text{dala} \quad \text{knigata} \quad \text{na} \quad \text{Petko}?
\end{align*}

\begin{align*}
\text{yesterday} & \quad \text{Q} \quad \text{Penka} \quad \text{her} \quad \text{be} \quad \text{AUX} \quad \text{give} \quad \text{book-the} \quad \text{to} \quad \text{Petko}?
\end{align*}

‘Was it yesterday that Penka gave the book to Petko?’ (Bg, Tomić 1996: 833)

Interestingly, li and other operator clitics occur after the first word holds even in languages that do not have any pronominal or auxiliary clitics, for instance in Russian. In languages with Wackernagel clitics, such as Serbo-Croatian, they target the second position like all the other clitics, but it is still possible to show that they occupy a different position in the structure. Namely, Bošković (2001: 60-61) observes that whereas pronominal clitics may appear only above VP adverbs (such as the clitic joj preceding the VP adverb pravilno ‘correctly’ in (10a), ethical datives may occur above sentential adverbs, as in (10b), where the adverb pravilno may receive the sentential reading ‘in a correct way’. Since sentential adverbs are located higher in the structure than VP-adverbs, this means that the ethical dative ti is higher in the structure than the argumental dative joj.

\begin{align*}
\text{(10a)} & \quad \text{joj} \quad \text{pravilno} \quad \text{ja} \quad \text{dala} \quad \text{knigata} \quad \text{na} \quad \text{Petko}?
\end{align*}

\begin{align*}
\text{ethical datives} & \quad \text{Joj} \quad \text{correctly} \quad \text{give} \quad \text{book-the} \quad \text{to} \quad \text{Petko}?
\end{align*}

\begin{align*}
\text{(10b)} & \quad \text{ti} \quad \text{pravilno} \quad \text{ja} \quad \text{dala} \quad \text{knigata} \quad \text{na} \quad \text{Petko}?
\end{align*}

\begin{align*}
\text{sentential adverbs} & \quad \text{Ti} \quad \text{correctly} \quad \text{give} \quad \text{book-the} \quad \text{to} \quad \text{Petko}?
\end{align*}
(10) a. Oni su pravilno odgovorili.
   *They did the right thing in answering her.’
   (S-C, Bošković 2001: 39-40)

b. Oni su ti pravilno odgovorili Mileni.
   ‘They gave Milena a correct answer.’         (S-C, Bošković 2001: 60)

In addition, operator clitics impose special restrictions on the syntactic status of element
that precedes them. This is indicated in (11), which shows a contrast in the distribution of the
auxiliary clitic je and the operator clitic li in Serbo-Croatian. Je may appear after both
the clause initial phrase and a word, but li may only follow a single word.

(11) a. Čiju (li) ženu (*li) Petar voli?
   whose Q wife  Q Petar loves
   ‘Whose wife does Petar love?’              (S-C, Bošković 2001: 27)

b. Čiju (je) ženu (je) Petar volio?
   whose be AUX.3SG wife be AUX.3SG Peter love PART.M.SG
   ‘Whose wife did Peter love?’

Bošković (2001: 31ff) explains the restriction by claiming that the head hosting li in
Serbo-Croatian is defective in the sense of not being able to support a specifier. The same
pattern is observed in some other languages, for example in Russian.

Finally, operator clitics may impose constraints on the grammatical category of the
host they attach to. For instance, Toman (1996) points out that in Czech li may only
encliticize on finite verbs. Hosting of li by any other grammatical categories is impossible
(cf. (12)).

   have2PL+Q doubts call2PL at information
   ‘If you have doubts, call the information.’

b. *Pochyby-li máte.../*Dnes-li máte pochyby...
   doubts Q have2PL today Q have2PL doubts         (Cz, Toman 1996: 508)

Summarizing, this section has shown that operator clitics have special requirement
concerning their position and the syntactic status of their host. The subsequent section will
demonstrate that operator cliticization in Polish is subject to the same requirements.

5. Cliticization patterns in Old Polish

As in the case of OCS, the traditional assumption is that Old Polish uniformly exhibited
second position cliticization. This is a claim made, for example, by Andersen (1987: 28),
but all the examples given to support this seem to involve focus or topicalization, on a par
with second position auxiliary encliticization in Modern Polish (cf. (3b)). Moreover,
following Rittel’s (1975) corpus calculations, Andersen presents statistics showing
deviations from Wackernagel’s rule, but they do not demonstrate radical changes across the
centuries. Conversely, Kowalska (1976: 36) states that in her corpus auxiliary enclitics
obligatorily occurred in the second position in Old Polish only if the initial word was the l-participle. Otherwise they could appear lower in the structure. Thus, it seems that they matched the pattern on pronominal cliticization in OCS.

(13) a. *Egyptowi podali-śmy ręce.*
    EgyptDAT givePART.PL+1PL hands
    ‘We gave our hands to Egypt.’  (Polish, 1592)

b.  *Y zdrowie swoie polożyli-ście dla mnie.*
    and health your givePART.PL+2PL for me
    ‘And you gave your health for me.’  (Polish, 1582, Kowalska 1976: 43)

Kowalska also points out that the auxiliary clitics tended to appear in Wackernagel position if the first word was a conjunction, a complementizer, pronoun, wh-word or a particle. Observe that the initial words in the examples in (14a) seem to have a focused interpretation, whereas the auxiliary in (14b) follows the focus particle źe.

(14) a. *A teraz-ś mi tę robotę náznażyl.*
    and now+AUX.2SG meDAT thiswork assignPART.M.SG
    ‘And now you have assigned this work to me.’  (Polish, 1645)

b.  *Juź-ście go dośtyż namężyli.*
    already+FOC+AUX.2PL REFL him ACC enough tirePART.PL
    ‘You have tired him enough already.’  (Polish, 1522; Kowalska 1976: 43)

It is obviously necessary to carry out a more detailed corpus investigation, but if these preliminary observations are correct, it seems that cases of second position cliticization in Old Polish involved focus or topicalization, and that they correspond to the OCS pattern.

6. Operator clitics in Modern Polish

In section 2 I listed three operator clitics *li, bo, and źe*, which uniformly target the second position in OCS. *Bo* exists as a complementizer in Modern Polish, but it is no longer a clitic, whereas *li* is obsolete. This section will concentrate on *źe*, which as will be shown, imposes similar requirements on the categorial and semantic status of its host to other operator clitics in Slavic.

Just as *li* in some South Slavic languages, *źe* is inserted to place an additional focus on the preceding element, such as *do Katowic* ‘to Katowice’ in (15). It does not enter the prosodic word of the host, as it does not change its regular penultimate stress pattern.

(15) *doKatOwie-źe-ś pojechal?*
    to KatowiceGEN+FOC+AUX.2SG goPART.M.SG
    ‘You went to Katowice?!’

Likewise, on a par with other operator clitics, *źe* is selective about the syntactic status of their host. According to Bański (2000b), *źe* only attaches to XP elements, such as the fronted VPs in (16). Here it also acts as a host for the auxiliary clitics, which may only attach to heads.
(16)  a. [Przyszli tu] że-ście już?
    come\_PART.VIR.PL here \_FOC\_+\_AUX.2PL already
    ‘Have you come here yet?’
    b. *[Przyszli tu]-ście już (Bański 2000b: 24)

Example (12) showed that * in Czech tolerates only verbal hosts. In Polish że may not
attach to non-verbal elements, either. It may only adjoin to a verbal form, either an
auxiliary or a lexical verb.

(17)  a. *Do Katowic-że pojechał-ę?
    to Katowice\_GEN\_+\_FOC go\_PART.M.SG\_+\_AUX.2SG
    ‘You went to Katowice?!’
    b. *Kiedy-że tam poszedł-ę?
    when\_+\_FOC\_+\_AUX.2SG there go\_PART.M.SG
    ‘When did you go there?!’

To summarize, the examples above demonstrate that że exhibits the same properties as
operator clitics. It also performs the same syntactic function of a focus licensor. Note that
in many cases it is not necessary to insert że to license focus. Bański (2000a: 96) observes
that że is often inserted for PF reasons, when the last syllable of the clitic host does not
end in a vowel or is not sonorous enough. Thus, a more common strategy of focus
marking is auxiliary encliticization after the clause-initial word (as in (3b)), which
resembles Wackernagel cliticization in OCS and Old Polish.

Recall from examples (7) and (8) that the position of the auxiliary by/bi in OCS was
related to the semantic content of its host: the auxiliary had to appear in Wackernagel
position when it followed a non-indicative complementizer. Exactly the same distribution
is found in Modern Polish. Mikoń and Moravčík (1986) and Borsley and Rivero (1994)
otice that the conditional auxiliary by is obligatorily attracted by a class of clause-initial
conjunctions and complementizers, such as gdy+by ‘if’, jak+by ‘as if’, o+by ‘I
wish’/‘may’, and że+by ‘so that’, and as a result appears in the second position in
embedded clauses. These clauses render various types of modal meanings, such as
condition and potentiality in (18) or optative mood in (19). If the auxiliary remains affixed
on the participle instead of being adjoined to the complementizer, the sentences are
ungrammatical (cf. 18b and 19b).

(18)  a. Gdy-ży mial czas, poszedł-ży do kina.
    if\_+\_COND\_+\_AUX.1SG have\_PART.M.SG time go\_PART.M.SG\_+\_COND\_+\_AUX.1SG to cinema
    ‘If I had time, I would go to the cinema.’

(19)  a. Że-ży tylko tego nie robił!
    that\_+\_COND\_+\_AUX.2SG only this NEG do\_PART.M.SG
    ‘May you never do that!’
    b. *Że tylko tego nie robił-ży!
    (cf. Bański 2000a: 113)

The same requirement holds for the auxiliary by in subjunctive clauses introduced by
volition verbs such as prosić ‘ask’ or chcieć ‘want’. The auxiliary must be right-adjacent
to the complementizer że and may not be affixed to the participle.
    Basia want PART.F.SG that+COND+AUX.2SG her ACC in hour
    wake PART.M.SG
    ‘Basia asked/wanted you to wake her up in an hour.’

    (cf. Dogil 1987: 40)

If the verb in the matrix clause does not require a complement in the subjunctive mood, the auxiliary need not be adjoined to the complementizer and can be affixed on the l-participle. However, then only the indicative meaning is possible (cf. 21a).

(21) a. Powiedział, że to zrobić-by-śmy.
    say PART.M.SG that it do PART.M.PL+COND+AUX.1PL
    ‘He said we would do it.’

b. Powiedział, że-by-śmy to zrobićli.
    say PART.M.SG that+COND+AUX.1PL it do PART.M.PL
    ‘He told/asked us to do it.’      (cf. Aguado/Dogil 1989: 105; Bański 2000a: 84)

All the examples which require encliticization of by onto the complementizer in the embedded clauses express some kind of Force-related meaning: condition in (18), optative mood in (19), or command in (20). Given this, I will assume that the auxiliary is attracted by a Force-related feature located in a functional head in the left periphery of the clause. This head is possibly the highest one, as the auxiliary always ends up in the second position, adjacent to the complementizer. I also propose that the auxiliaries raise to this position to formally mark that the sentence deviates from declarative and to “clause type” is at as focused (cf. (3b)), conditional (cf. (18)), optative (cf. (19)), etc. This is also the way the Verb Second effect in Germanic languages is sometimes explained, as in Brandner (2004), who claims that V2 licenses the Force value of a clause. I suggest, though, that the marking via operator cliticization is more restricted in Polish (and Slavic), and that it only serves to mark a clause as non-declarative.

An important empirical generalization in this paper is that no matter the position of other clitics, the clitics that mark a non-declarative Force must occur immediately after the initial constituent. This generalization enables us to explain why they need to target this position. Namely, they may specify Force only if they scope over the proposition of the whole sentence. Therefore, they target the highest head in the structure, from which they c-command the entire clause. Pronominal clitics are not related to the sentence proposition; hence, they do not need to scope over the clause. Consequently, they originally (in OCS) occupied verb-adjacent positions, possibly in order to check their case features in the extended VP projection. They started to occur in Wackernagel position only later, first by forming clusters with operator clitics, and subsequently, also independently (see Radanović-Kocić (1988) for a discussion of diachronic data from Serbian).

7. Conclusion

This paper has argued that auxiliary affixation and the auxiliary enclitization in Modern Polish correspond to two different syntactic processes, which make use of a morphologically identical form of the auxiliary, but which are syntactically independent of each other. Thus, on the one hand the auxiliary enclitizes onto the elements that have
been moved to the clause initial position for reasons of focus or topicalization. It may also move to a functional head located in the left periphery of the clause in which a special grammatical function, such as subjunctive mood or focus is encoded. On the other hand, when the auxiliary is right-adjacent to the -participle, most speakers treat it as an affix in the singular, and as an enclitic in the plural. Some speakers have already reinterpreted the auxiliary as an affix throughout the whole paradigm. However, all of them are able to perform auxiliary encliticization in order to express focus or modality. Hence, it seems that the only process of language change that is taking place at the moment consists in the extension of the auxiliary affixation to the whole paradigm of the “-participle+auxiliary” complexes. It is independent of the auxiliary enclitization on clause-initial elements.

The analysis presented in this paper is supported by empirical facts concerning the distribution of clitics in other Slavic languages. It has been shown that in OCS Wackernagel cliticization was restricted to operator clitics, whereas generalized second position cliticization emerged in some languages later. Irrespective of the modifications of the cliticization patterns, operator clitics display similar restrictions across Slavic. The auxiliary encliticization in Polish is an instance of operator cliticization, as it is constrained in a similar way.

References


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Achim Rabus

DIE RELATIVISATOREN IM RUTHENISCHEN*

Summary
In the paper at hand, the relativization strategies in the Ruthenian, i.e. Belarusian-Ukrainian, literary language are investigated. The quantitative distribution of relativizers is analyzed diachronically, focussing on the 17th and 18th centuries. The corpus is constituted by a selection of Ruthenian texts that are electronically accessible, which facilitates a quantitative full-text search. The main results of the analysis can be formulated as follows: in the 17th century, the relativizer kotoryj is clearly preferred in most registers and genres; the language situation seems to be static in this respect. In the 18th century, however, the situation abruptly changes: several different relative elements are attested, such as iže, kotryj, or jakyj.

Die ruthenische Schriftsprache oder prosta mova (PM) ist diejenige slavische Varietät, die von den Ruthenen, also den die heute als Weißrussland und Westukraine zu bezeichnenden Gebiete bewohnenden Menschen, vom 16.-18. Jahrhundert vorwiegend schriftlich gebräuchlich wurde1. Die PM ist die erste polyvalente slavische Schriftsprache auf dem Gebiet der Slavia Orthodoxa, die nicht auf dem Kirchenslavischen, sondern auf der Volkssprache basiert. Daher verspricht eine Untersuchung der Entwicklung ausgewählter syntaktischer Charakteristika dieser Varietät Ergebnisse, die sich von der ansonsten üblichen, stark gräzisierten Schriftsprache Kirchenslavisch deutlich unterscheiden.

Die vorliegende Studie setzt sich mit der Entwicklung der Relativisatoren im Ruthenischen auseinander. Es sollen die quantitativen Entwicklungen der Relativisatoren im diachronen Verlauf dargestellt werden.

Grundlagen
Im Altkirchenslavischen, damit vermutlich auch im Urslavischen, werden prinzipiell „die Relativa von zwei unterschiedlichen Wortbildungsbasen gebildet, einer j-haltigen und einer k-haltigen“ (Večerka 2002:178). Von der j-haltigen Basis sind die flektierten Relativpronomina iže und jakъ gebildet, von der k-haltigen Basis das flektierte Relativpronomen kotoryj und kyi. Iže sowie kotoryj und kyi, letztere ursprünglich Indefinit-/Interrogativpronomina, gelten als Relativa totaler Identität2, jakъ hingegen als ein solches qualitativer Identität3. Zusätzlich zu diesen flektierten Formen können u.a. in diesem Fall un-

* Für vielerlei hilfreiche Anmerkungen danke ich Thomas Daiber, Peter Kosta, Adriano Murelli und Radoslav Večerka.

1 Vgl. zur PM beispielsweise Moser 2005.
2 „Als totale Identität wird ein syntaktisches Verhältnis bezeichnet, bei der [...] das Relativum an sich, vollständig, in jeder Hinsicht mit dem Nomen im übergeordneten Satz in Beziehung steht und somit als dessen vollkommener referentieller Vertreter erscheint“, Večerka 2002:175, Sperrung original.
3 „Als qualitative Identität wird eine Beziehung bezeichnet, bei der das Relativum nicht auf das Antezedens als solches, sondern nur begrenzt, und zwar in Bezug auf dessen Qualität verweist“, Večerka 2002:176, Sperrung original.
flektiert eingesetzte Formen wie čěto verwendet werden (Večerka 2002:175), die im Folgenden als Relativpartikeln bezeichnet werden sollen⁴.


Für die Übergangsperiode vom Altostslavischen zur uns interessierenden Periode der PM sieht Mel’ńčuk einen deutlichen Wandel hinsichtlich der in den Texten verwendeten Relativa, die er auf einen Bruch mit der schriftsprachlichen Tradition und die Annäherung an den vernacular zurückführt (Mel’ńčuk 1962:103). Die Verwendung von iže nimmt rapide ab; es wird nun vor allem in hochsprachlich-kirchenslavischen Texten eingesetzt. Allerdings tritt iže vereinzelt auch in dezidiert vernakulären Texten dieser Zeit auf, was Mel’ńčuk zum Schluss kommen lässt, dass iže zumindest in einigen Dialekten des Ukrainischen zu dieser Zeit in Gebrauch war.

Das Relativum kotoryj ist wohl bereits im Spätslavischen vorhanden, wovon vereinzelte Vorkommen in altkirchenslavischen Kanontexten zeugen⁵. Im weiteren Verlauf der Entwicklung nimmt seine Frequenz zu, was ebenfalls mit der generellen Substitution j-haltiger Relativa durch k-haltige in Verbindung gebracht werden kann.


**Das Korpus**

Ein diachrones Korpus des Ruthenischen im engeren Wortsinn existiert bislang nicht. Doch bieten sich auf den ersten Blick verschiedene Möglichkeiten an, mittels elektronisch zugänglicher Texte ein Korpus-Surrogat zu gestalten.


Allerdings passte der Betreiber der Website bisweilen die Orthographie der Texte teleologisch auf das heutige Ukrainische an. So wurde nur in manchen Texten das š bei behalten, allerdings meist mit dem serbischen Graphem <Ђ> wiedergegeben. Wie aus

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6 http://www.utoronto.ca/elul/Main-Ukr.html (24.11.08).
7 http://tractor.bham.ac.uk/tractor/catalogue.html#Ukrainian (24.11.08).
8 http://www.uni-regensburg.de/Fakultaeten/phil_Fak_IV/Slavistik/RPC/index.html (24.11.08).
9 http://litopys.org.ua/ (24.11.08).
10 Die auf der Seite zu findenden Angaben weisen regelmäßige monatliche Zugriffszahlen von etwa 60.000 aus.
einer Anmerkung zu einer der Texteditionen hervorgeht\textsuperscript{11}, ist dies – und auch die die Ersetzung von \textgreek{a} durch \textgreek{a} und die Vereinfachung der Setzung diakritischer Zeichen – technischen Gründen geschuldet. In verschiedenen weiteren Texten, vorwiegend solchen jüngerer Datums, wurde jedoch die Orthographie stark angepasst. So wurde das \textgreek{b} durch \textgreek{b} wiedergeben, die Endung der 3.Sg.präs. konsequent mit -ть, ebenso die Labialisierung der maskulinen Form des -l-Perfekts im Singular durch -в wiedergegeben.

Daher ist es nicht möglich, anhand dieser Texte Oberflächenphänomene wie beispielsweise die Entwicklung der Orthographie zu untersuchen, die eine philologisch präzise Textgrundlage erfordern. Studien von Tiefenphänomenen wie der Syntax lassen sich jedoch nichtdestoweniger auch auf einer solchen Korpusbasis durchführen.


**Korpusauswertung und Problematik des Korpus**

Die ausgewählten Texte wurden allesamt nach den in Frage kommenden Relativisatoren который, который, иже, який und що in allen prinzipiell möglichen orthographischen Varianten durchsucht. Dabei wurde trunkiert, d.h. nur beispielsweise „которий“ eingegeben, da dadurch alle Flexionsformen erfasst werden können\textsuperscript{12}. Weiterhin wurde konsequent die syntaktische Umgebung betrachtet, da es aufgrund der fehlenden Annotation nicht möglich war, speziell nach Tokens zu suchen, die tatsächlich die Funktion von Relativisatoren

\textsuperscript{11} http://litopys.org.ua/porad/por.htm (15.01.09).
\textsuperscript{12} Auch Trunkierungen im Hinblick auf den Wortanfang sind möglich, beispielsweise die Suche nach „же“ (mit Leerzeichen nach der Form), das neben иже auch стоже findet.
Die Relativisatoren im Ruthenischen


Ergebnisse der quantitativen Untersuchung

Die quantitative Untersuchung der im Korpus enthaltenen Texte brachte folgende Ergebnisse zutage:

Ein verhältnismäßig umfangreiches, etwa 15.000 Tokens umfassendes Denkmal stellt die Perestoroha, ein anonymes Anti-Unions-Traktat aus dem Jahre 160513, dar. Die Relativierungs-Strategien in diesem Denkmal gestalten sich folgendermaßen (bei deklinablen Relativa hier und im Weiteren jeweils mit allen Formen):

<table>
<thead>
<tr>
<th></th>
<th>который</th>
<th>котрый</th>
<th>иже</th>
<th>який</th>
<th>что</th>
</tr>
</thead>
<tbody>
<tr>
<td>absolut</td>
<td>148</td>
<td>6</td>
<td>2</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>relativ</td>
<td>91,4%</td>
<td>3,7%</td>
<td>1,2%</td>
<td>0,6%</td>
<td>3,1%</td>
</tr>
</tbody>
</table>

Tabelle 1: Distribution der Relativa in der Perestoroha

Das quantitative Übergewicht der который-Relativierungs-Strategie ist ganz offensichtlich. Die Alternative котрый, dessen Verwendung das folgende Beispiel demonstrieren soll, kommt deutlich seltener vor:

(1) Такова есть едность вашего флоренского собору розбойнического, на котором не едиallest живота своего благословением папским доконав […]14
So ist die Einheit eures räuberischen Florentinischen Konzils, auf dem nicht nur einer sein Leben durch die Segnung des Papstes beendete.

Zwischen который und котрый ist im analysierten Text kein Unterschied hinsichtlich ihrer Bedeutungsnuancen festzustellen. In beiden Fällen handelt es sich um totale Identität.

Die Verwendung von иже ist ausschließlich in einem kirchenslavischen Zitat belegt:

(2) Злих зле погубити, а виноград иным дълателем предати, иже воздадят ему плоди во времена своя.
Die Bösewichte übel zugrunde richten und den Weinberg anderen Weingärtbern übergeben, die ihm Früchte zur rechten Zeit geben.

13  http://litopys.org.ua/old17/old17_01.htm (26.11.08).
14  Seiten- und zeilengenaues Zitieren ist hier und im Folgenden aufgrund der Struktur von Internetseiten nicht möglich. Über eine Volltextsuche auf der entsprechenden Internetseite lassen sich jedoch die jeweiligen Zitate leicht finden.
Dass das Relativum иже ausschließlich in diesem Zitat mit Bezug auf Matth. 21, 41 vorkommt, sonst aber nirgendwo im ruthenischen Text, weist deutlich darauf hin, dass иже als dem kirchenslavischen und nicht dem volkssprachlichen Register zugehörig verstanden wurde, dass also das Relativisatoren-System des idealtypischen Ruthenischen ohne иже als Relativisator auskommt. Damit wird die Aussage Mel’nyčuks von der generellen Abnahme von ище im Ruthenischen bestätigt.

Якый kommt als Relativisator lediglich ein Mal vor:

(3) […] наступували на столиці митрополитове і єпископове неискуснії, не такії, якії ісперва бували.

[...] erschienen in der Hauptstadt unkundige Metropoliten und Bischöfe, nicht solche, wie sie vorher waren.

Die Komponente der qualitativen Identität ist bei der hier beobachtbaren Verwendung von якії offensichtlich. Якый kann hier also nicht als Synonym der absoluten Relativa который oder котрый gelten.

Was die seltenen Vorkommen von що in der Funktion als Relativpartikel angeht, findet sich zweimal das Demonstrativpronomen тії als Antezedens, so dass die Kombination тії, що entsteht. Diesem steht lediglich einmal тії, которые gegenüber, wobei die gesamte Belegzahl für die Konstruktion Demonstrativpronomen als Antezedens und Relativum zu niedrig ist, um irgendwelche allgemeinen Aussagen über Präferenzen im Ruthenischen zu treffen.

Jenseits dieser Verbindungen mit Demonstrativpronomen findet sich що als Relativum höchst selten, wenn, dann in inhaltlich und stilistisch drastischen Aussagen:

(4) признали о двоженстві […], о обнованню з злодіями, що йому воли до кухні його вожовали […].

Sie bekannten sich der Bigamie […], des Umgangs mit Bösewichten, die ihm Ochsen in seine Küche führten […].

Ausgehend von diesem Befund wäre darüber zu spekulieren, ob die Verwendung von що, sofern das Antezedens kein Demonstrativpronomen ist, einen stilistisch markierten Charakter hat und bevorzugt an exponierter und expressiver Stelle eingesetzt wird.

Die Palinodija des Zacharija Kopystens’kyj, ein polemisches Traktat zur Verteidigung der Orthodoxie aus dem Jahre 1621, zeigt folgende Distribution der Relativisatoren:

15 Mel’nyčuk sieht zwar auch in verschiedenen ruthenischen Dialekten ein gleichsam natürliches Vorkommen von ище, das daher nicht ausschließlich dem hochsprachlich-kirchenslavischen Register zugehörig ist, doch kann eine solche Verwendung aus unseren Korpusmaterialien heraus nicht gestützt werden.
16 Vgl. auch Fußnote 29.
18 http://litopys.org.ua/old17/old17_03.htm (26.11.08).
Die Dominanz des Relativpronomens который ist auch hier ganz offensichtlich, die anderen Formen kommen nur ausnahmsweise in relater Funktion vor, ansonsten erscheint який überwiegend als Indefinit-, що als Interrogativpronomen.

Der unmarkierte Fall der Relativierungs-Strategie in diesem Text ist also

(5) Біда і тим, котрії, правди не знаючи, мучать і утискують.

Weh denen, die, da sie die Wahrheit nicht kennen, quälen und bedrängen.

Hier sieht man die häufig vorkommende direkte Relativierung des Demonstrativpronomens тим mittels который. Die nur vereinzelt auftretenden Fälle der Relativierung mit anderen Mitteln gestalten sich folgendermaßen:

(6) Дав за себе і за Петра, а в особі його за церков своєю, чини Ісус Христос, будемо давати і ви, тобто ви свобода нехай вам зостаєв, яка зостає четвертіїй нашої грецом.

Jesus Christus gab für sich und Petrus und in seiner Person für seine Kirche einen Zins; auch wir werden ihn geben, möge uns nur die Freiheit des Glaubens bleiben, so wie sie unseren Brüdern, den Griechen, bleibt.

Die im Sinne Večerkas qualitative Komponente der Relativierung durch якая ist auch hier offensichtlich: Die Freiheit des Glaubens soll solchermaßen gestaltet sein, wie die der griechischen Brüder im Geiste.


Dies stützt die Hypothese, dass die Verwendung der Partikel що einer expressiven Gestaltungssicht Kopystens’kyjs geschuldet sei, der die schändlichen Taten des unierten Gegners zu schmähen beabsichtigte, weiterhin auch dem Demonstrativpronomens той. Das demonstrativ niedrige Register ist hier offensichtlich.

Im Gegensatz zur Perestoroha, bei der ein leichtes Überwiegen der Partikel що in der Kombination Demonstrativpronomens–Relativum feststellbar war, zeigt sich in Kopystens’kyjs Text ausschließlich die Verbindung mit который, wie im mehrmals vorkommenden тії, которые. Somit ist keine autorenübergreifende Tendenz bei diesen Konstruktionen feststellbar.

Grundsätzlich ähnelt aber das Bild in Kopystens’kyjs Text dem in der Perestoroha deutlich, so dass die Hypothese nicht ungerechtfertigt erscheint, dass hierdurch die bevorzugten Relativierungs-Strategien im Ruthenischen der ersten Hälfte des 17. Jahrhunderts repräsentiert sind.

Die Untersuchung anderer Textsorten wie der Epigramme von Smotryc’kyj aus dem ersten Drittel des 17. Jahrhunderts zeigt ein ähnliches Bild wie die polemischen und sonstigen Prosatexte der PM, was die eben aufgestellte Hypothese unterstützt.


Die Distribution der Relativisatoren sieht bei Galjatovs’kyj folgendermaßen aus:

<table>
<thead>
<tr>
<th>Relativ</th>
<th>который</th>
<th>котрый</th>
<th>иже</th>
<th>який</th>
<th>що</th>
</tr>
</thead>
<tbody>
<tr>
<td>absolut</td>
<td>124</td>
<td>4</td>
<td>9</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td>relativ</td>
<td>84,4%</td>
<td>2,7%</td>
<td>6,1%</td>
<td>2,7%</td>
<td>4,1%</td>
</tr>
</tbody>
</table>

Tabelle 3: Distribution der Relativa bei Galjatovs’kyj

Damit unterscheidet sie sich kaum von denjenigen in den früheren ruthenischen Texten. Иже tritt zwar häufiger als in den vorhergehenden Texten der PM auf, doch stammen ausnahmslos alle Belege aus kirchenslavischen Schriftzitaten wie beispielsweise

(7) Уподобися царствіє небесноє человіку царю, иже сотвори брак сыну своєму.

Denn das Himmelreich ähnelte einem Menschenkönig, der für seinen Sohn eine Hochzeit machte.

Was die Verwendung von який betrifft, so wird es auch hier ausschließlich mit qualitativer Bedeutung verwendet, z.B.:

(8) Бо если ти на казанню не такої віри будеш учити, якую церков заваховує, і если інших учинков будеш научати, не тих, котрії церков кажет захвати, місто нагороди вічної одержи от Бога караньє вічноє [...]

Denn wenn du bei der Predigt nicht einen solchen Glauben lehrst, wie ihn die Kirche bewahrt, und wenn du andere Handlungen lehrst, nicht die, die die Kirche zu bewahren heißt, wirst du anstelle der ewigen Belohnung von Gott ewige Strafe erhalten [...].

Gut ist hier anhand der Demonstrativa такої und тих zu sehen, dass beim ersten Relativum якую die qualitative Komponente zentral ist, also betont wird, welche der Glaubensinhalte zu lehren seien, wohingegen beim zweiten Relativum котрії der Schwerpunkt auf der reinen, also totalen Relativierungs-Komponente liegt.

Die Verwendung von що bei Galjatovs’kyj tritt ausnahmslos in der Verbindung тоє, що auf.

Offensichtlich ist, dass zu dieser Zeit, also gegen Ende des 17. Jahrhunderts, die beiden in den ruthenischen Gebieten verwendeten Schriftsprachen Kirchenslavisch und PM noch sehr deutlich geschieden wurden, dass also keine Hybrid-Texte auftreten. Dies manifestiert sich auch anhand der Relativisatoren. So zeigt der rigide kirchenslavisch normierte22 Text der *Synopsis* von 1680 folgende Relativisatoren-Distribution:

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20 http://litopys.org.ua/old17/old17_04.htm (27.11.08).
21 Matth. 22, 2.
Die Relativisatoren im Ruthenischen

Von Hybridisierungen oder graduellen Übergängen ist hier nichts zu sehen, anhand der hier präsentierten quantitativen Verhältnisse wird überaus deutlich, dass die Relativierung mit иже ein notwendiges und offenbar registerkonstituierendes Moment kirchenslawischer Texte ist. Bemerkenswert ist, dass in der sprachlichen Situation der Jugo-

Zapadnaja Rus’, die nicht als Diglossie-, sondern als Bilingualismus-Situation zu bezeich-

nen ist (Uspenskij 2002:472), das prinzipiell auch für kirchenslawische Texte zulässige

который innerhalb dieser Texte konsequent vermieden und exklusiv der vernakulären PM

vorbehalten wurde. Hierdurch wurde die Registertrennung verstärkt.

Somit lässt sich ein relativ homogenes Bild für die Relativierungs-Strategien im Ver-

lauf der PM konstatieren: Der traditionell-ostslavische Relativisator который überwiegt,

ja dominiert über die Textsorten hinweg und im diachronen Verlauf.

Bemerkenswert ist weiterhin, dass vom Verlust der qualitativen Komponente des Prono-

mens який und seiner parallelen und semantisch indifferenten Verwendung mit который, wie sie von Mel’nyčuk für das Ruthenische postuliert und in der heutigen ukraini-

schen Schriftsprache attestiert ist (vgl. z.B. Křížková 1970:12), im 17. Jahrhundert noch

nicht die Rede sein kann; zumindest wurde dieser nicht in der damaligen Schriftsprache

reflektiert.

In Bezug auf die Relativisatoren in der Blütezeit des Ruthenischen lassen sich kei-

nerlei kontaktinduzierte Veränderungen erkennen, wie sie beispielsweise für die Aus-

drucksmittel zur Modalität zu konstatieren sind, die allesamt aus dem Polnischen entlehnt

waren (vgl. Besters-Dilger 2005). Anstelle dessen wurden die autochthonen, vernakul-

lären, aber dennoch vorwiegend dem Schriftregister angemessenen Mittel weitertradiert.

* * *

Ab dem 18. Jahrhundert veränderte sich die sprachliche Situation in den ruthenischen

Gebieten, und zwar insgesamt zu Ungunsten der PM (vgl. auch Rabus 2008:41). Zu fragen

ist nun, wie sich die nach der allgemeinen soziolinguistischen Degradierung der PM

(Strumins’kyj 1984:44) ab dem Beginn des 18. Jahrhunderts veränderte Sprachsituation in

den Texten, namentlich im Hinblick auf die Relativisatoren, bemerkbar macht.

Ein verhältnismäßig umfangreicher ruthenischer Text aus dem 18. Jahrhundert ist

Milost’ Božija23, ein Theaterstück, das vom Sieg des Hetmans Chmel’nyčkyj über die

Polen handelt und im Jahre 1728 an Kiever Schulen aufgeführt wurde24. Hier ist ein im

Vergleich zu den Texten des 17. Jahrhunderts deutlich gewandeltes Bild zu erkennen:

<table>
<thead>
<tr>
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<th>который</th>
<th>иже</th>
<th>який</th>
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</tr>
<tr>
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<td>100%</td>
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<td>0%</td>
</tr>
</tbody>
</table>

Tabelle 4: Distribution der Relativa in der Synopsis

<table>
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<td>64,3%</td>
<td>3,6%</td>
<td>0%</td>
</tr>
</tbody>
</table>

Tabelle 5: Distribution der Relativa im Theaterstück Milost’ Božija

23 http://izbornyk.org.ua/old18/old18_27.htm (27.11.08).

24 Zur Frage der Vergleichbarkeit poetischer und prosaischer ruthenischer Texte und der zu beachtenden

Es ist also in der Sprache des untersuchten Theaterstücks ein, wenn nicht ausgeglichener, so doch tendenziell gleichberechtigteres Verhältnis zwischen dem prototypischen ruthenischen Relativisator который und dem kirchenslawischen Relativisator иже festzustellen. Який spielt indes auch weiterhin kaum eine Rolle. Insgesamt ist aber auch hier die Zahl der Gesamtbelege bei weitem nicht ausreichend, um wirklich aussagekräftige quantitative Ergebnisse zu erzielen.

Die Hybridisierung der bislang deutlich getrennten Register Kirchenslawisch und Ruthenisch mit einer Tendenz zum Kirchenslawischen, die aus der quantitativen Distribution der Relativisatoren deutlich wird, zeigt sich auch anhand des allgemeinen Textcharakters. So finden sich zwar einige dezidiert vernakuläre Strukturwörter wie die Subjunktion гди „wenn“, andererseits aber auch viele offensichtliche Demonstrationskirchenslawismen (vgl. zu diesem Terminus Bunčič 2006:157f.) wie Aoristformen oder eine gehäufte Anzahl von Partizipien. Folgendes Beispiel möge die spezifische Sprache des Textes illustrieren:

(9) Не той славен, который много лічить стада/ Но иже многих врагов своїх шлет до ада.

Das Beispiel zeigt augenfällig die hybride Sprache des Textes, indem который und иже direkt hintereinander mit Bezug auf das identische Antezedens erscheinen. Durch die Präposition до anstelle von къ и до ада wird deutlich, dass es sich aber trotz der unterschiedlichen, teilweise kirchenslawischen Relativisatoren um einen strukturell ruthenischen Text handelt.

Auch im Theaterstück Voskresenie mertvych von Heorhij Konys’kyj aus dem Jahre 1746 findet sich eine ähnliche Distribution, nämlich vier Vorkommnisse von который и acht von иже.

Doch ist das Genre der Theaterstücke nicht zwingend mit diesem hybriden Register verbunden: Das Komičes’koje dijstvije von Mytrofan Dovhalevs’kyj aus dem Jahre 1736 zeigt mit 27 attestierten Fällen eine ganz deutliche Bevorzugung des kirchenslawischen иже. Который kommt lediglich zweimal, in den Metatexten der Regieanweisungen, vor. Die Textsorte Theaterstück kann also sprachlich – im Hinblick auf die Relativisatoren – unterschiedlich ausgestaltet werden.

Dennoch besteht die Tendenz, dass im 18. Jahrhundert die Setzung der Relativisatoren in bestimmtem Umfang von der Textsorte abhängig ist. So findet sich in den dezidiert folkloristisch-vernakulären poetischen Kleinwerken der ersten Hälfte des 18. Jahrhunderts, die unter dem Titel Burleskna poezija subsumiert sind, eine im Vergleich zu den genannten Theaterstücken grundlegend verschiedene Distribution der Relativisatoren:

Die Relativisatoren im Ruthenischen

165

Табліца 6: Розподіл релефів в музичному творі

<table>
<thead>
<tr>
<th></th>
<th>котрий</th>
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</thead>
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<td>2</td>
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<tr>
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<td>0%</td>
<td>25%</td>
</tr>
</tbody>
</table>

Табліца 7: Розподіл релефів в автобіографії Туракновського

<table>
<thead>
<tr>
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<th>котрий</th>
<th>котрий</th>
<th>іже</th>
<th>який</th>
<th>що</th>
</tr>
</thead>
<tbody>
<tr>
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<td>0</td>
<td>0</td>
<td>25</td>
<td>0</td>
</tr>
<tr>
<td>релатив</td>
<td>7,4%</td>
<td>0%</td>
<td>0%</td>
<td>92,6%</td>
<td>0%</td>
</tr>
</tbody>
</table>

Es zeigt sich in gewisser Weise ein Rückgriff auf die Tradition der PM des 17. Jahrhunderts, indem das Relativum котрий, allerdings in seiner spezifisch ukrainisch-dialektalen Form, bevorzugt wird. Ähnliches gilt ganz deutlich auch für ein medizinisches Traktat, das Лéкарства опишан’нише, das neben 165 Belegen von котрий lediglich einen Beleg von що zeigt, darüber hinaus keinerlei weitere Vorkommnisse von Relativisatoren.


<table>
<thead>
<tr>
<th></th>
<th>котрий</th>
<th>котрий</th>
<th>іже</th>
<th>який</th>
<th>що</th>
</tr>
</thead>
<tbody>
<tr>
<td>абсолютно</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>25</td>
<td>0</td>
</tr>
<tr>
<td>релатив</td>
<td>7,4%</td>
<td>0%</td>
<td>0%</td>
<td>92,6%</td>
<td>0%</td>
</tr>
</tbody>
</table>

Hier ist die ganz offensichtliche Dominanz von який als universelles Relativum auzumachen. Die qualitative Komponente, die bei den bislang betrachteten Texten ausnahmslos vorhanden war, ist nun weitgehend verschwunden, wie folgendes Beispiel zeigt:

(10) I приведоша мя пред того атамана, який много мене присмотревал у очи […]

Und sie führten mich vor diesen Ataman, der mir scharf in die Augen sah [...].

Hier spielen keinerlei qualitative Konnotationen eine Rolle, es handelt sich hier um eine totale Relativierung[29]. Weder котрий noch іже tauchen in dieser Funktion auf; es wurde also hier Redundanz in den Mitteln zur Relativierung abgebaut. Parallel erscheint який im vorliegenden Text allerdings häufig als Indefinitpronomen.

In mancherlei Hinsicht kann die Sprache dieses Textes als kirchenslavisiert und russifiziert gelten. Umso bemerkenswerter ist es, dass hier die eindeutig un-russische Relativierungs-Strategie mit який dominiert.

Aus gleicher Zeit findet sich ein weiterer autobiographischer (Reise-)Bericht, die Stranstvovanija von Васіл’ Григорович-Барського[30]. Dieser zeichnet sich durch das völlige Fehlen von який als Relativisator, allgemein deutlich sichtbare Kirchenslavizität – beispielsweise das Personalpronomen аз oder das häufige Auftreten von Aoristformen – und damit einhergehend die weit überwiegende Verwendung der Relativierungs-Strategie

[29] An dieser Stelle ist eine Bemerkung zu den Korrelaten angebracht: Im Allgemeinen reflektieren die Korrelate die Art der Relativierung im Sinne Вечерка: Sofern es sich um totale Identität – mithin normalerweise um kot- oder ізе-Relativisatoren oder die Partikel що – handelt, erscheinen als Korrelate Demonstrativpronomen wie той (vgl. z.B. (5), (9)). Sofern es sich jedoch um qualitative Identität handelt, erscheinen Formen wie такії, die sich auf die Qualität beziehen (vgl. z.B. (3), (8)). Die Verwendung von того in Verbindung mit який in (10) widerspricht dem nicht, sondern bestätigt, dass die in diesem Text die qualitative Komponente von який verloren gegangen ist, so dass hier eine totale Identität vorliegt.
mit иже neben einigen Okkurrenzen von который aus. Somit ist auch hier innerhalb einer Gattung überaus deutliche sprachliche Variation zu konstatieren. Die Korrelation von Genre und sprachlicher Realisierung ist also bis auf die oben erwähnten vernakulären Genres nicht stark ausgeprägt.

Auch im 18. Jahrhundert lässt sich die quantitative Distribution der Relativisatoren nicht durch Sprachkontakt erklären, zumindest nicht durch horizontalen, der aufgrund des verstärkten Einflusses des Russischen zumindest in der Ostukraine die Dominanz von который noch verstärkt hätte. Lediglich der zunehmende Druck auf den vernacular seitens des Kirchenlavrischen ließe sich als diesbezüglich relevant klassifizieren.

**Interpretation und Fazit**

Ausgehend von den erzielten quantitativen Ergebnissen lassen sich zwei recht deutlich zu unterscheidende Epochen ausmachen, die grob durch die Wende vom 17. zum 18. Jahrhundert voneinander abgegrenzt werden.


Schlüsse auf Sprachwandel im vernacular, also den ruthenischen Dialekten, lassen sich somit nur in beschränktem Maße ziehen. Aus der weit bevorzugten Relativierung mit який in der Autobiographie von Turčynovs’kyj geht zwar hervor, dass die qualitative Komponente dieses Relativums in einem Teil der ruthenischen Dialekte verloren ging, so dass es als totales Relativum eingesetzt werden konnte. Allerdings kann daraus nicht erkannt werden, ob dies erst zur Zeit von Turčynovs’kyj geschah oder bereits früher. Es ist eher anzunehmen, dass die Veränderung schon früher geschah, allerdings in der Norm der PM який als nicht-qualitatives Relativpronomen nicht zulässig war. Durch diese Norm konnte also offenbar während der Hochzeit der PM im 17. Jahrhundert який zwar au-
Die Relativisatoren im Ruthenischen

167


Über weitere Determinanten der Relativierungs-Strategien neben der Zeit und der damit einhergehenden differierenden sozio linguistischen Schriftsprachensituation lassen sich nur Hypothesen anstellen. So wurde bereits auf die mögliche Rolle der Textsorte hinge wiesen. Während im 17. Jahrhundert die Norm offenbar который ohne jeglichen Einfluss der Textsorte bedingte – in allen analysierten Texten, die teilweise unterschiedlichen Textsorten angehören, tritt die identische Strategie auf –, erscheinen im Ruthenischen des 18. Jahrhunderts verschiedene Tendenzen, die es gerechtfertigt erscheinen lassen, einen gewissen Einfluss der Textsorte anzunehmen. So zeigen die burlesken Texte mit который und шо eindeutig vernakuläre Züge, die der Gattungstradition geschuldet sind. Andererseits finden sich jedoch auch innerhalb ein und desselben Genres höchst verschieden Strategien, man denke nur an das Genre der autobiographischen (Reise-)Beschreibung. Also ist eine allgemeine Korrelation von Textsorte und Relativierungs-Strategie ausgeschlossen.

Insgesamt bleibt als zentrales Fazit der quantitativen Untersuchung die abrupte Veränderung der Relativisatoren-Distribution um das 18. Jahrhundert. Die Veränderung des sozio linguistischen Status des Ruthenischen manifestiert sich – so suggerieren die untersuchten Quellen – überdeutlich auch in der Verwendung der Relativisatoren.

Zu betonen ist nochmals, dass die Ergebnisse dieser Studie auf einem äußerst rudimentären Korpus-Surrogat mit entsprechenden gravierenden Problemen basieren. Daher können die Ergebnisse nicht verallgemeinert und müssen als Tendenzen begriffen werden.

Es wäre äußerst wünschenswert, wenn die neueren ruthenistischen Publikationen (z.B. Uževyč 2005), die bisher nur in klassischer Papierform zugänglich sind, auch elektronisch zugänglich gemacht werden könnten, idealerweise in annotierter Form. Somit wären korpuslinguistische Studien auf einer soliden Basis möglich. Dies würde uns sehr weiterhelfen bei der Erforschung der faszinierenden ersten vernakulären ostslavischen Li-

31 Die hier erzielten Ergebnisse bestätigen den Befund bei Murelli 2009, der nicht deckungs gleiche Relativierungs-Strategien für Standard und Nonstandard als sprachübergreifende Konstante festhält.
Die Relativisatoren im Ruthenischen

teratsursprache, der ruthenischen Schriftsprache prosta mova – nicht nur bei der Erforschung der Relativisatoren.

Literatur


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Gilbert C. Rappaport

THE GRAMMATICALIZATION OF THE CATEGORY
MASCULINE PERSONAL IN WEST SLAVIC

Summary

This paper proposes an explanation for the origin of the grammatical category Masculine Personal (MP) in several West Slavic languages. MP is the result of two distinct morphological changes in plural nominal paradigms: the replacement of the historical Accusative desinence by the Genitive and the replacement of the historical Nominative by the Accusative. These changes proceeded independently in opposite directions along a well-known Animacy Hierarchy. The grammaticalization of MP resulted from the relative chronology of these two changes. Where the two changes overlapped in time, encompassing different nouns (‘high animacy’ versus ‘low animacy’ nouns), nouns were at first partitioned into three classes. When the two changes met at the same point on the hierarchy, the result was (roughly) a binary partition: nouns denoting male persons differed from others in two ways. A covert abductive inference (Andersen 1973) grammaticalizing MP led to a simplification of the grammar, halting the expansion of the two changes.

1. Contemporary Standard Polish has a grammatical category called the Masculine Personal (hereafter, MP; sometimes called ‘Virile’ in English; in Polish, męskoosobowa forma) which is morphologically relevant in, and limited to, the plural number. In the typical case, the category characterizes nouns with the following properties:¹

   (1) a. masculine gender
   b. masculine declension class
   c. denotation of at least one male human being.

The category of MP is instantiated in Polish morphology in a number of ways, which we now enumerate.

   MP determines the ‘spell-out’ (phonological shape, exponence) of the Nominative Plural ending in three areas of the morphology.

   a) Hard stem nouns with the properties listed in (1) take the desinences {ov’e} or {i} (in the latter case, with a preceding palatalization), as opposed to the default {y} for hard stems without the properties of MP; contrast:

   (2) chłop ‘boy’, chłop’i ‘boy.MP’ vs. snop ‘sheaf’, snopy ‘sheaf.PL’
   grafik ‘graphic designer’, graficy ‘graphic designer.MP’ vs.
   grafik ‘graph’, graficy ‘graph.PL’,
   posel ‘deputy’, posłowie ‘deputy.MP’ vs. orzel ‘eagle’, orły ‘eagle.PL’

   There is no such morphological expression of personal reference in the plural among soft stem masculine nouns (3a) or among feminine nouns (3b):

   (3) a. nauczyciele ‘teacher.PL’ = konie ‘horse.PL’
   b. lektorki ‘female lecturer.PL’ = książki ‘book.PL’

b) The form of the Nominative Plural desinence of an agreeing modifier is sensitive to the MP category of the noun it modifies, whether the modifier is in attributive or predicate

¹ This may not be the most elegant or accurate formulation, but we cannot pursue this issue without major digressions. It is adequate for the purposes of this paper.
position; in the following examples, the noun rycerz ‘knight’ does not itself express MP because it is a (morphologically) soft stem, but its attributive and predicate modifiers do:

(4) a. Ci mężni rycerze vs. Te stare talerze
   this.MP brave.MP knight.PL vs. this.PL old.PL plate.PL
   ‘These brave knights’ vs. ‘These old plates’
   b. Rycerze są młodzi vs. Talerze są brudne
   knight.PL are young.MP vs. plates.PL are dirty.PL
   ‘(The) knights are young’ vs. ‘(The) plates are dirty’

c) MP affects the form of the third-person (plural) anaphoric pronoun:

(4) a. rycerze ... oni ‘knight.PL …. they.MP’ vs.
   b. talerze ... one ‘plate.PL …they.PL’

MP conditions not only the Nominative Plural case form, but the Accusative Plural case form as well, triggering a syncretism of the latter case with the Genitive Plural, instead of the Nominative found for all other nouns. This Gen-Acc (syncreticism) is found in three areas of the morphology analogous to the Nominative facts just surveyed:

d) Nouns characterized by MP exhibit the Gen-Acc, regardless of stem type (hard or soft); in the glosses in the examples, we indicate the morphological form of the Accusative as either as ‘ACC=GEN’ or ‘ACC=NOM’; contrast (5a,b)

(5) a. Widzę sąsiadów i nauczycieli.
   see.1.SG male-neighbor.ACC=GEN.PL and teacher.ACC=GEN.PL
   ‘(I) see neighbors and teachers.’
   b. Widzę siostry, konie, i stoły.
   see.1.SG sister.ACC=NOM.PL, horse.NOM.PL, and table.ACC=NOM.PL
   ‘(I) see sisters, horses, and tables.’

The same syncretism in the singular of the masculine declension class is associated more broadly with Animacy, even if the noun has a feminine referent:

(6) a. Widzę sąsiadę, konia, babysztyłą.
   see.1.SG neighbor.ACC=GEN.SG, horse.ACC=GEN.SG, old-hag.GEN.SG
   ‘I see a neighbor, (male) teacher, horse, old hag.’
   b. Widzę sąsiadkę, stół-Ø.
   see.1.SG female-neighbor.ACC.SG, table.ACC=NOM.SG
   ‘I see a female neighbor, table.’

The Gen-Acc is also observed for e) modifiers of MP nouns, and f) anaphoric pronouns in the third person:

(7) a. Widzę halaśliwych sąsiadów.
   see.1.SG noisy.ACC=GEN.PL male-neighbor.ACC=GEN.PL
   ‘I see these noisy neighbors.’
   b. Widzę halaśliwą sąsiadkę.
   see.1.SG noisy.ACC=NOM female-neighbor.ACC=NOM
   ‘I see these noisy (female) neighbors (and) horses.’
The Grammaticalization of the Category Masculine Personal ...

(8) a. rycerze ... Widzę ich.
knights.PL see.1.SG them.ACC=GEN.PL
‘knights ... I see them.MP.’
b. talerze ... Widzę je.
plates.PL see.1.SG them.ACC=NOM.PL
‘plates ... I see them.PL.’

g) Verbal predicates in the past tense express (distinguish) the MP property of the subject noun phrase with which it agrees:

(9) a. Cztery rycerze walczyli.
this.MP brave.MP knight.PL fought.MP
‘These brave knights were fighting.’
b. Te stare talerze były brudne.
this.PL old.PL plate.PL were.PL dirty.PL
‘These old plates were dirty.’

Since the predicate is agreeing with the Nominative case subject and MP is expressed in the past tense verbal predicate (historically a nominal form, a participle) in the same way as in the noun (i) preceding by a palatalization), this reification of the category can be considered part and parcel of the expression of the category in the Nominative Plural form.

Finally, there are three manifestations of MP in the Polish numeral system.
h) There are ‘dedicated’ forms of the numerals 2-4 (dwaj, trzej, czterej) and ‘both’ (obaj) reflecting the MP property of the quantified noun. One could consider these suppletive forms of agreeing modifiers, and thus properly falling into category (b) above.

(10) a. Dwaj mężczyźni rycerze walczyli.
two.MP brave.MP knight.PL fought.MP
‘Two brave knights were fighting.’
b. Dwa stare talerze były brudne.
two.PL old.PL plate.PL were.PL dirty.PL
‘Two old plates were dirty.’

i) There is a contrast in the Accusative of object noun phrases quantified by a so-called ‘higher cardinal numeral’ (roughly, 5 and higher) between Polish (11a) and, say, Russian (11b). Polish exhibits the Gen-Acc on the numeral if the quantified noun is MP (otherwise, the Nom-Acc is observed). While Russian exhibits the Gen-Acc in the plural for all animate nouns and their modifiers, the numeral itself is in the Nom-Acc:

(11) a. Widzę pięciu studentów, pięć studentek. (Polish)
see.1.SG five.GEN male-student.GEN.PL, five.NOM female-student.GEN.PL
b. Вижу пять студентов, пять студенток. (Russian)
see.1.SG five.NOM male-student.GEN.PL, five female-student.GEN.PL
‘I see five students.’
This could be viewed as analogous to (f) above if we assume that the head of the quantified noun phrase in Polish is the noun itself, so that the numeral is simply agreeing with it.  

j) Polish also exhibits an apparent use of the Gen-Acc for the entire subject noun phrase quantified by a cardinal numeral (2 and higher) if the quantified noun satisfies the conditions for MP. In this case the predicate takes the standard neuter singular form selected in the absence of a Nominative case subject; for example:

\[(12)\]
\[
a. \quad Dwóch \; męgnych \; rycerzy \; walcyło. \\
\text{two.GEN brave.GEN.PL knight.GEN.PL fought.NEUT.SG} \\
\text{‘Two brave knights were fighting.’} \\
b. \quad Dwa \; stare \; talerze \; były \; brudne. \\
\text{two.MASC.PL old.NOM.PL plate.NOM.PL were.PL dirty.NOM.PL} \\
\text{‘Two old plates were dirty.’} \\
\]

We have argued elsewhere (see the citations in note 2) that the use of the Genitive case in, say, (12a) is analogous to that in (11a) and that both are an extension of the Gen-Acc rule to numerals during the course of the history of Polish. While the details are not important to the current discussion, our result was that, for example, lower numbers (2-4) as in (12) are associated with an abstract paucal case, which is syncretic with the Accusative (taking the form of the Genitive for MP and that of the Nominative otherwise).  

To summarize, we have identified ten areas of the morphology of Contemporary Standard Polish which are sensitive to the category of MP associated with a particular noun. These ten areas can be reduced to two general morphological properties of this category. It is a straightforward matter to see (a-c) and (g) as related aspects of morphological expression, associated as they are with the Nominative Plural form. The first area, (a), is morphological sensu strict in affecting the expression of a category on the very lexical item associated with that category. The remaining three areas are morphosyntactic, resulting from the syntactic copying of a feature from the lexical item in which it originates to other constituents of the sentence standing in some form of agreement relation with that lexical item (Concord, Predicate Agreement, or anaphoric). On the other hand, (d), (e), (f), and (h) are all related in resulting from a morphological rule replacing a syntactic Accusative with the form of the Genitive, and (i) and (j) represent extensions of this rule. Again, we see the category of MP expressed in both morphological and morphosyntactic processes.

2. The MP category is also found in Slovak, which neighbors Polish to the southeast, and in Upper Sorbian, which is separated from Polish to the west today by German speakers.  

---

2 This is a non-standard analysis which I have argued for in Rappaport 2003 and Rappaport 2006.

3 The higher numerals (5 and above) are associated with an abstract Quantificational case, which is syncretic with the Genitive for nouns and adjectives, but with the Accusative (and therefore is sensitive to MP) for the numeral itself; for example, Widzę pięć studentów ‘I see five.QUANT=GEN male-students.QUANT=GEN.PL’, but Widzę pięć studentek ‘I see five.QUANT=NOM female-students.QUANT=GEN.PL’.

4 It may also be present in Lower Sorbian; accounts vary. At best, MP is more limited in Lower Sorbian than in Upper Sorbian and may even have developed under the influence of the latter language.
On the other hand, not all of the Polish dialects exhibit the category to the extent that the literary language does. Interestingly, those that do are found primarily in two large areas close to the Slovak and Sorbian areas (see the clear areas surrounded by thick lines in the west and south in Diagram 1, Dejna 1973, map 70).

The small clear islands between the larger areas of interest indicate that MP dialects formerly covered a larger, probably contiguous area comprising most of West Slavic (excluding the Czech lands), and only there. MP is thus undoubtedly a shared innovation in these dialects, and in the corresponding literary languages.

While representing, then, a largely West Slavic phenomenon, the category MP has penetrated the grammar to the greatest degree in standard Polish and the Polish dialects identified in Diagram 1. There are several distinctions made in Polish which Slovak and Upper Sorbian do not make; for example, Slovak does not distinguish MP in the past tense verb form or pronoun. There are also distinctions that are not obligatory in the latter languages; for example, higher numeral forms in Upper Sorbian express MP only optionally. And the category MP is applied less consistently in Slovak and Upper Sorbian than in Polish. For example, the Nom. Pl. ending in Slovak is found for some animals (codified for three to four words), but it is more widespread in informal speech.\(^5\)

We ask, then, how this category arose, why it did so where it did, and how did developed. We do so with the recognition that while standard Polish (and some Polish dialects) perhaps reflects the category in its greatest penetration in the grammar, it is in fact a phenomenon that is observed to varying degrees in a contiguous part of the West Slavic area, with its epicenter in the southwestern Polish dialects.

\(^5\) It is important for our purposes to distinguish MP as a grammatical category from a possible lexical category. For example, the normative principle in Russian limits collective nouns (as opposed to cardinals) to denote a group of male human beings: пятеро студентов, *студенток, *карандашей ‘five.COLL (male) students, *(female) students, *pencils’; this is unrelated to our discussion, as it is a lexical property of Russian collective nouns, not a grammatical category triggering morphological consequences. The same can be said of Bosnian/Croatian/Serbian numerals of the type двојца ‘two’, etc. that are similarly limited in reference to masculine persons.
3. One of the two defining properties of MP is the appearance of the Gen-Acc in the plural. As is well-known, the dawn of written texts in Slavic displayed the beginning of the spread of the morphological Genitive case in the syntactic function of the Accusative, which was to be spread from high-animacy nouns in the direction of inanimates, first in the singular number, and then in the plural. As one source puts it, “it is probable that the earliest [Slavic-GR] texts used the gen.-acc. only for substantives indicating a healthy, free, male person; the sick, the crippled, the enslaved, and the supernatural did not count. Surviving manuscripts record a continuing expansion to include all animate masculine singulars” (Lunt 2001: 56). The expansion of the Gen-Acc in the singular stopped after all animals had been encompassed, thus associating this formal marker with its present-day content: animacy. The Gen-Acc associated with an animate referent in the Singular is found in all contemporary Slavic languages with a robust nominal case system. Where the Gen-Acc extended furthest in the plural, as in Russian, it proceeded from animate masculine nouns to encompass female persons and then animals, with some indication that male animals exhibited the Gen-Acc before female animals.

Why should there be such a pattern regulating the spread of the Gen-Acc? As background, we note that in work on a completely unrelated issue (the morphological expression of ergativity in the aboriginal languages of Australia), an Animacy Hierarchy was proposed which ranks referents as follows (shown in the order of attenuated animacy): first and second person pronouns > third person pronouns > human proper nouns > human common nouns > animate nouns > inanimate nouns (Silverstein 1976). Taking into account certain finer gradations observed in the spread of the Gen-Acc in Slavic, we propose the following version of this ranking, limiting ourselves to nouns:

(14) Animacy Hierarchy
- Privileged male persons; e.g.,
  - High status individuals (e.g., deities, nobility)
  - Proper names
  - Kinship terms
- Non-privileged male persons
- Female persons
- Male animals
- Female animals
- Inanimates

We take this hierarchy as a ranking of referential prominence or potential agentivity and note that this ranking seems to be relevant to widely disparate linguistic processes. The logic by which the Animacy Hierarchy applies to the spread of the Gen-Acc is as follows. A canonical transitive construction would have the more agent-like participant in subject position; therefore, the more agent-like the object is, contradicting our expectations, the more important it is to identify the latter as the actual intended object. Of course the Animacy Hierarchy is only one factor in the course of the historical process. Morphological, syntactic, and referential properties play a role as well.

Studies of historical texts have shown that the expansion of the Gen-Acc (we will call it \(\text{Gen} \rightarrow \text{Acc}\)) proceeded in the Plural independently of its expansion in the Singular. The development in the Plural began over a century later, when the Gen\(\rightarrow\)Acc in the Singular was essentially complete; moreover, unlike in the singular, Gen\(\rightarrow\)Acc in the Plural spread...
to different degrees in the various Slavic languages. At one extreme it is not observed at all in South Slavic or Czech, outside the pronouns; at the other extreme, in Russian it encompassed all animate nouns (as in the Singular) of all declension classes (more broadly, then, than in the singular). In Polish, Gen→Acc encompassed pronouns and male persons, but nothing more.

The Gen-Acc in the Plural, then, is shared by languages with MP (e.g., Polish) and those without it (e.g., Russian). Half of the explanation for the rise of MP in those languages which exhibit it is to explain the difference in the extent to which Gen→Acc spread. In other words, why did this change stop where it did?

4. The second defining property of MP is the distinct desinence of the Nominative Plural. The historical origin of this desinence is clear. In late Common Slavic, the Nominative and Accusative forms of the Plural were differentiated only among masculine nouns, and of these, only a few less-productive declension classes failed to make the distinction. Conversely, all neuter and feminine nouns did NOT distinguish the two case forms. For example, Old Church Slavic distinguished раби ‘slave.NOM.PL’ and рабы ‘slave.ACC.PL’, and кони ‘horse.NOM.PL’ versus конъ ‘horse.ACC.PL’. As a part of the general tendency to eliminate declension class distinctions in the plural, this contrast was eliminated among masculine nouns just as it was absent in neuter and feminine nouns. The contrast was eliminated by expanding the Accusative case form to replace the Nominative. We will designate the new Nominative Plural form as Acc-Nom, and the expansion of this form as Acc→Nom.

Interestingly, this development proceeded along the Animacy Hierarchy, but in the direction opposite to that of Gen→Acc, from low-prominence nouns to high-prominence ones. Thus, it began with inanimates and moved to nouns of increasing animacy. In Russian, for example, this change encompassed all nouns; in Polish, however, this change stopped before encompassing male persons. To summarize the two historical changes:

(15)

<table>
<thead>
<tr>
<th></th>
<th>Gen→Acc</th>
<th>Acc→Nom</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Russian</td>
<td>Polish</td>
</tr>
<tr>
<td>Privileged male persons</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-privileged male persons</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female persons</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male animals</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female animals</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inanimates</td>
<td></td>
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</tbody>
</table>

The second half of our question, how did MP arise in Polish, is this: why did the Acc→Nom change stop where it did. Note that the question in Russian has a trivial answer: Gen→Acc stopped in the plural where it had stopped in the singular, echoing and more deeply embedding the category of Animacy in the grammar by marking it in the Plural (regardless of declension class) as well as in the Singular (in only one declension class). Acc→Nom, on the other hand, encompassed the entire nominal paradigm in the Plural, again, a natural stopping point. In Polish, on the other hand, both changes stopped at the same place, partitioning nouns into Male persons and everything else, while reaching that point from different directions. Why?
5. To answer this question, we turn to the relative chronology of the two changes we have discussed.

First, as background we note that the Gen-Acc in the singular was the norm in both Russian and Polish for (male) persons by the fifteenth century, it was the exclusive form for persons by the sixteenth century, and it was the norm for animals in the seventeenth century.\(^6\) The expansion of the Gen-Acc in the Plural was rather similar in the two languages as well, although there were some some differences. In Russian Gen→Acc in the Plural: \((koty \ \text{‘cat.ACC.PL’} \rightarrow kotov \ \text{‘cat.ACC=GEN.PL’})\) lagged that in the Singular by about a century, but proceeded along the same hierarchy in the same direction. It began to appear for male persons in the early sixteenth century. It was the norm for all persons by end of seventeenth century as direct object, while remaining optional as the object of a preposition. Animals were encompassed by the end of seventeenth and beginning of the eighteenth century. The expansion of the change stopped after encompassing all animate nouns. In Polish, Gen-Acc was introduced for male persons in the sixteenth century, first after numerals, and then without numerals. It became the norm for (masculine) persons in the seventeenth century (Klemensiewicz et. al. 1955: 282). Thus, Gen→Acc in Polish trailed that in Russian by perhaps a hundred years and didn’t proceed as far.

The cardinal difference between the two languages, however, lies elsewhere: in the expansion of the Acc-Nom in the Plural among masculine nouns \((\text{grobi ‘grave.NOM.PL’} \rightarrow \text{groby, now homophonous with groby ‘grave.ACC.PL’})\). In both Russian and Polish, Acc→Nom proceeded along the Animacy Hierarchy, beginning with low-animacy nouns and moving toward high-animacy nouns; that is, Acc→Nom proceeded along the same hierarchy that Gen→Acc did, but in the opposite direction. In Russian, Acc→Nom was introduced for inanimates in early fourteenth century and had essentially encompassed all masculine nouns (introducing the same Nominative:Accusative syncretism found in the other genders) by the early sixteenth century. The important point is that in Russian the Acc-Nom was essentially complete before the Gen-Acc was introduced in the Plural; if there was overlap (most likely in the sixteenth century), it was slight, and the two changes would not have interacted since they affect nouns at opposite ends of the hierarchy. In contrast, the same development in Polish advanced somewhat later, by some 150 years. It became the norm for inanimates by the fifteenth century, was introduced to animals in the sixteenth century, and was the norm for animals in the seventeenth century. While the old Nominative form may be found used for animals as late as the nineteenth century, it is essentially limited to personal nouns by the eighteenth century (Klemensiewicz et. al. 1955: 277).\(^7\) As a result of this delay, Nom→Acc overlapped in time with Gen→Acc in Polish, while it did not in Russian.

\(^6\) On both Russian and Polish, Huntley 1980: 198; on Polish, see Klemensiewicz 1955: 271. The literature on the morphological changes discussed in this paper is quite extensive; references to the secondary literature should be taken as illustrative rather than definitive. There are, unsurprisingly, minor differences among various scholars which do not affect our analysis here in any fundamental way.

\(^7\) In Polish, Acc→Nom apparently began among typonyms. For example, a settlement identified with the bishopric was originally called Biskupicy, the old Nominative Plural form of Biskupik. The Accusative (Biskupice) was substituted for the Nominative of such names as early as the fourteenth century.
The effect of this overlap (in the southwestern Polish and neighboring non-Polish dialects) was profound. As the two changes proceeded along the Animacy Hierarchy in opposite directions, they partitioned nouns into three classes. For example, imagine that the Gen→Acc rule has encompassed all and only male persons and the Acc→Nom rule has encompassed all and only inanimates. The Plural paradigm of the masculine noun, then, exhibits two overlapping gender-like distinctions: Male personal (exhibiting the Gen-Acc) and Animate (NOT exhibiting Acc-Nom). The result is a ternary partition because there is also the odd group of nouns consisting of female persons and animals. That is:

\[
\begin{array}{|c|c|c|}
\hline
\text{Gen-Acc} & \text{Acc-Nom} \\
\hline
\text{Male persons} & \checkmark & * \\
\text{Female persons and animals} & * & * \\
\text{Inanimates} & * & \checkmark \\
\hline
\end{array}
\]

Nothing exhibits both the Gen-Acc and Acc-Nom, since these forms are introduced at opposite ends of the hierarchy. Such a situation has no parallel in Slavic, with a three-way partition of nouns with a single number of a single paradigm, but it was apparently attested as a transitional stage in Polish. Because the two changes occurred in sequence in Russian, the analogous situation was not found in that language.

But the situation we have just sketched for Polish was transitional. The Acc→Nom rule continued to expand. When it met the Gen→Acc rule, the grammar suddenly became much simplified: nouns are then partitioned into two classes, not three: higher-prominence nouns exhibit only the Gen-Acc, and lower-prominence nouns exhibit only the Acc-Nom. Not only is this a prima facie simplification of the grammar, but it would serve as a natural motivation for the rules to cease their expansion. For them to continue would only re-introduce the complication. It is an apparently empirical, contingent fact that the two rules met each other at the point that they did, distinguishing male persons from others. We have no explanation for that and there needn’t be one: they had to meet somewhere.

We have, of course, presented an oversimplified picture. First of all, the animacy hierarchy is only one criterion for ranking the expansion. There are others, including morphological characteristics (declension class), word class (noun, adjective, ...) and syntax (word-internal, concord, subject-predicate agreement). Second, even if we could precisely define all such hierarchies (and of course we cannot), the change would proceed not as a point along a linear hierarchy, but as a segment of that line. That is, the hierarchy is a stochastic statement: it states the probability that a noun will undergo a given change. In our case, the ‘more animate’ the noun, the more likely it is to undergo the Gen→Acc rule and the less likely it is to undergo the Acc→Nom rule. This is not to say that individual words cannot violate the hierarchy: a given high-prominence word might be found without the Gen-Acc next to a low-prominence word with it, for example. Consequently, when the speech community collectively makes the (unconscious) decision to establish MP as a grammatical category, defined as the Gen-Acc without the Acc-Nom, there is naturally ‘leakage’ on both sides. Such forms can either remain as individual exceptions to the new category (presumably to be regularized over time) or be assigned a new function.

Examples of such leakage abound. The spread of the Gen-Acc in Polish overshot in the Plural into female persons and animals in sixteenth and seventeenth centuries, receding
in the eighteenth and nineteenth centuries. In parallel fashion, the Gen-Acc is occasionally observed in Russian for inanimates until early eighteenth century (Grannes 1984). The Nominative Plural suffix –owie in Polish, extended beyond its origin among u-stem nouns (both animate and inanimate) to its present function as a marked allomorph of MP, was found for animals and even inanimates in the sixteenth and even seventeenth centuries before receding (Klemensiewicz 1955: 276). The spread of the Acc-Nom in Polish overshot into MP territory in the eighteenth century Klemensiewicz 1955: 277). Rather than the rule receding, the spurious forms were assigned a new stylistic value: pejorative (Rappaport 2009).

Finally, the functional interaction of the two changes we have discussed is a curious one. It is traditionally assumed that one (but not the only) motivation for Gen→Acc in the Singular is that with the fall of syllable-final consonants during the Common Slavic period, the Nominative and Accusative case forms in the ojio stems were identical, permitting an unacceptable level of ambiguity about grammatical relations (within a free word order grammar). From this point of view, the Gen→Acc and Acc→Nom changes in the plural discussed here seem to be at cross-purposes: the latter creates an ambiguity, while the task of the former is to resolve this ambiguity. But as we look at the actual chronological sequence, we note that there is no paradox. In Russian, Gen→Acc in the Plural proceeds to its ‘destination’, encompassing animate nouns, as in the singular (although across all declension classes). This makes it possible for the Acc→Nom change to proceed in the Plural through animate nouns without engendering an ambiguity: since Gen→Acc reached the animates first, the new Accusative, now syncretic with the Genitive, is no longer homophonous with the new Nominative. In Polish, Acc→Nom stops before extending to the nouns already encompassed by Gen→Acc, so that, again, no ambiguity between the Nominative and Accusative cases results. In other words, in neither language does Acc→Nom ever apply to a word (or class of words) before the Gen→Acc.

6. To conclude, the rise of the Masculine Personal as a grammatical category in West Slavic, centered in southwest Polish dialects, is an example of a covert grammaticalization that was permitted by the difference in relative chronology of two morphological changes that proceeded independently, each for its own reasons, within the Plural nominal paradigms in Russian and Polish. The spread of the Gen→Acc rule in Polish lagged that in Russian somewhat, but this was not significant. The difference between the two languages lay in the fact that Acc→Nom, also found in both languages, occurred earlier in Polish than in Russian by about 150 years. Thus, Acc→Nom in Russian began only after Gen→Acc had completed its run in the plural to parallel the singular (defining the limit of its extension). In Polish, the earlier time of Acc→Nom meant that it overlapped with Gen→Acc. By overlapping, the two rules combined to create a tripartite partition of the nouns they applied to. We can hardly say that that was too complicated for a steady state of the grammar, but it is clear that when the two changes met at approximately the line separating male persons from others, the language underwent a covert grammaticalization of a new category at that point, defined by the two properties: one which began with those
nouns and one which had encompassed everything BUT those nouns. We summarize this development in the plural as follows (the solid line is both Russian and Polish; the dotted line is Russian alone)

(17)

<table>
<thead>
<tr>
<th>Animacy Hierarchy</th>
<th>Gen→Acc</th>
<th>Acc→Nom</th>
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<tbody>
<tr>
<td>Male persons</td>
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<td>Female persons</td>
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<tr>
<td>Animals</td>
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<tr>
<td>Inanimates</td>
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We have assumed that the category of MP resulted from the covert grammaticalization of a category which is approximated by a somewhat messy set of data. As the two morphological changes advanced and met approximately at the point where each distinguished male persons from all other referents, there were exceptions on both sides: nouns denoting male persons exhibiting the Acc-Nom or nouns without male personal reference exhibiting the Gen-Acc. The mechanism of covert grammaticalization that we refer to seems completely analogous to that of abductive change developed in detail by Henning Andersen (1973). In this model, the language learner hypothesizes what grammar could give rise to the data he or she is confronted with. On the one hand, the task is complicated by the fact that the grammar is underdetermined by the data. On the other hand, the task is simplified by the fact that the speaker can apply adaptive rules to essentially ‘patch’ a hypothesized grammar by adjusting forms when the output of the grammar diverges from observed forms. Adaptive rules, by their nature ad hoc, eventually wither away, so that the new underlying grammar is revealed in the form of its unfiltered output. A language has changed, Andersen emphasized, not when the data has changed but when the grammar underlying the data has changed. Given the power of the device of adaptive rules, many grammars (properly ‘patched’) are consistent with the same set of linguistic forms. It is only when we observe a change in the set of forms that we can conclude which underlying grammar had been assumed. In the case at hand, it is only when the dust settles, as the ‘leakage’ forms either disappear from the language or take on new, marked functions, that we see that a new grammar underlying the data had emerged in the collective mind of the speech community a century or more earlier.

References


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ENTWICKLUNGSVORAUSSETZUNGEN UND TRIEBKRÄFTE DER
SLAVISCHEN SYNTAX

Summary

The development of syntactic structure does not proceed as a short-term substitution of an expression A by an expression B. It is a long-term process, and older and newer syntagmemes often co-exist. The difference between pre-historic phase and the stage of the oldest written (literary) texts is based on the structural difference of spoken utterances and written utterances. Thus the research in historical and diachronic syntax can be enriched by very important data from modern dialects of Slavic languages. As a driving force in the development of Slavic syntax the following principles bring to bear: a) tendency toward formally firmer organization of the syntactic structure of utterances, b) absorbing of form and meaning and grammaticalization of originally lexical expressions. – Since synchronically oriented syntacticians are opposed to the use of the term “sentence” (up to now common in diachronic linguistics) for designating archetypally autonomous, as if fragmentary, incomplete grammatically unconnected expressions, the present author suggests the term “relatively autonomous syntactic unit”.


eigentlich ziehen muss (Karcevskij 1931, Daneš 1957), ist den Forschern im Bereich der alten Texte nicht möglich.


Nicht fest formiert waren im Uralischen die syntaktischen Einheiten höheren Grades als die einfachen Sätze, d. h. die Typen der zusammengesetzten Sätze (Bauer 1960, 1972). Tatsächliche Konjunktionen als grammatische Signale der Syntaxbeziehung zwischen den Sätzen, die im breiteren Kontext untereinander grenzten, entwickelten sich erst in der historischen Phase der slavischen Sprachen aus den ehemaligen Interjektionen, Partikeln und Relativa (Bauer 1967, Kopečný 1980). A. A. nach gab es vorhistorisch die Relativsätze (Kurzová 1981) und wohl auch parataktisch durch i, a, bo verbundenen Satzkomplexe, wobei jedoch i, a in den ältesten Denkmälern ihre interjektionale Herkunft noch verraten und bo die Verwandtschaft mit verschiedenen Partikeln (Kopečný 1980). Es ist dies also ein weiteres anschauliches Beispiel für die Entwicklung vom Lexikalischen zum Grammatischen.

Unterschiedliche semantische und funktionale Relationen zwischen den im Sprachfluss benachbarten Sätzen, die man in den modernen slavischen Sprachen für durch Bindemittel syntaktisch fest verbundene Satzgefüge hält, ergaben sich im Uralischen aus einer bloßen semantischen Konfrontation ihrer propositionalen Sachverhalte bei ihrer einfachen textlichen Juxtaposition (oder unbestimmter kopulativer Verbindung).

Es konnte z. B. die Bedingungsrelation durch die Reihenfolge von zwei Sätzen ausgesagt werden, von denen der eine nicht-deklarativ oder nicht-indikativisch war. Es war u. a.:
Radoslav Večerka

a) ein Imperativsatz, z. B. Čiň certu dobře, peklem se ti odsloži’, Tu dem Teufel wohl, er wird es dir mit der Hölle vergelten’ im Sinne ‚Wirst du dem Teufel wohl tun, wird er es dir mit der Hölle vergelten‘; (so auch heute im Tschechischen noch möglich);
b) eine Ergänzungsfrage, z. B. Kъto vidíť, možěť pomôč (< *Kъto vidíť? Možěť pomôč) wörtlich ‚Wer sieht? (Er) kann helfen‘ im Sinne ‚Sieht jemand, kann er helfen‘;
c) eine Entscheidungsfrage, z. B. Choťeš li, možěš mě icěliti (< *Choťeš li? Možěš mě icěliti) im Sinne ‚Willst du, kannst du mich heilen‘; dieses li, anfänglich die Fragepartikel (etymologisch eigentlich eine interjektionale Stimmungspartikel lalischen Ursprungs) ist auf dem größeren Teil des slavischen Sprachgebiets zu einer tatsächlichen hypothetischen Konjunktion – allein oder als ihr Bestandteil – geworden;
d) ein Satz mit dem Prädikat im Konditional (mit anfänglicher Optativbedeutung), z. B. *Bi / By ty bylъ synъ Božijъ, ne bi / by imentary bratrъ mojъ (< *Bi / By ty bylъ synъ Božijъ! Ne bi / by imentary bratrъ mojъ) etymologisch ‚Wenn du doch Sohn Gottes wärest! Mein Bruder stürbe nicht‘ im Sinne ‚Wärest du Sohn Gottes, stürbe mein Bruder nicht‘. Im Altkirchenslawischen ist der Konditional mit a verbunden, vgl. a bi / bylъ < …, im Tschechischen mit kdy-, vgl. kdybys byl …

Im Bereich der Wortarten befanden sich in statu nascendi nicht nur die Konjunktionen, sondern auch die Präpositionen (s. unten) und die Numeralia (Suprun 1969).


7. Unterschiedliche Relikterscheinungen des primitiveren syntaktischen Aufbaus bewahren allerdings noch die älteren slavischen Schriftsprachen. Manche von ihnen finden sich darüber hinaus noch immer in den modernen Mundarten, sogar in gesprochenen Aussagen auch nichmundartlicher Art. Es ist darum methodologisch und arbeitstechnisch relevant und eigentlich unentbehrlich, gerade auch die zeitgenössischen
Entwicklungsvoraussetzungen und Triebkräfte der slavischen Syntax

nichtliterarischen und überhaupt nichtgedruckten Texte für die Untersuchung der diachronischen Syntax auszunützen und ausführlich in Erwägung zu ziehen.


Die anteponierten selbständigen Satzglieder die desgleichen die syntaktische Kompaktheit und formale Verbundenheit der Aussage lockern und die die Segmentierung der Äußerung in klare, rationale und grammatisch in sich abgeschlossene syntaktische Einheiten verhüllen, waren im Uralischen offensichtlich noch mehr frequentiert als in den alten slavischen Schriftsprachen, obwohl sie in diesen – in begrenztem Maß – auch noch heute verwendet werden. Im Tschechischen hat man noch heute zwei Typen der selbständigen Satzglieder in Anteposition vor dem Satz, der den auf das selbständige Nomen hinweisenden pronominalen Block in einem der Kasus obliqui enthält. Zum einen steht das vorangestellte Substantiv im (altärmlichen) Nominativ, dem so genannten nominativus pendens, z. B. Peněže (Nom.), těch (Gen.) já mám dost. Zum anderen wird das vorangestellte Substantiv im Kasus an den pronominalen Block im eigentlichen Satz anhängt, z. B. Peněž (Gen.), těch (Gen.) já mám dost. Die freien, in die syntaktische Struktur des Satzes nicht restlos integrierten Worteinheiten waren im Uralischen wahrscheinlich ganz üblich und merkmallos, geschweige denn von einem noch archaischen Subtyp ohne den pronominalen Block im Satz, der noch in den heutigen
Mundarten weiterhin fortlebt, vgl. aus den ostmährischen Dialekten Haszman, po zelenu byl oblečený, wörtlich ‚Der Wassermann, in Grün war (er) gekleidet’. Die selbständigen Satzglieder wurden in den Schriftsprachen allmählich verdrängt, d. h. z. T. eliminiert, z. T. sind sie nur mit merkmalhaft kolloquialer Konnotation erhalten.

Ein ähnliches Schicksal in der Entwicklung der slavischen Schriftsprachen hatten ferner die alten Konstruktionen mit selbständigem Infinitiv in Anteposition, die sonst noch ungehindert in den Dialekten leben, z. B. aus den mittelmährischen (hanakischen) Mundarten mlíka napit, to se napije, wörtlich ‚Milch (zu) trinken, so wird er sich satt trinken‘; žet, si žejó, wörtlich ‚(Zu) leben, sie leben sich‘ im Sinne ‚Sie haben ein gutes Leben‘ (Šipková 1993). Auch die Verwendung derartiger Wendungen wurde in den Schriftsprachen stark begrenzt, um ihre syntaktisch formale Unbestimmtheit zu vermeiden.

8. Die lineare Irreversibilität der mündlichen Sprache, die mit der „Zeitnot“ des Redens verbunden ist, hatte oft zur Folge, dass die Aussage ohne gänzlich klare Aussageperspektive gestartet und auf der primär elementaren Reihenfolge Thema – Rhema aufgebaut wurde, als ob der Sprecher das wichtigste (das Rhema also) so schnell wie möglich aussprechen wollte. Der Rest der Aussage wurde danach ergänzt, z. T. sogar als syntaktisch autonome Satzglieder (vgl oben P. 7), z. T. als nicht beendete Aussagen, Aposiopesen u. ä. m.


Die mangelnde Perspektive der gesamten Aussage im Augenblick von deren Eröffnung dokumentieren in den ostmährischen Dialekten sicher belegte Sätze wie Kúpilo sa jalůvka oder Bylo nával hrozný u á. m. Sie sind lediglich in Sätzen mit der Anfangstellung des l-Partizips möglich und ihre neutrale Form, die mit dem Femininum Jalůvka im ersten zitierten Satz und mit dem Maskulinum nával im zweiten Satz nicht die zu erwartende Kongruenz aufweist, scheint anzudeuten, dass dem Sprecher bei Eröffnung des Satzes noch nicht ganz klar war, was genau folgen sollte. Sonst sind die kongruenten Konstruktionen durchaus üblich bei der Nachstellung des verbalen Prädikats, also Jalůvka sa kúpila; Nával byl hrozný, und sehr wohl möglich auch bei der Anteposition, also Kúpila sa jalůvka; Býl nával hrozný.

Es ist nicht auszuschließen, dass der inkongruente Subtyp auch im Urslawischen möglich war. Für die Schriftsprachen war er jedoch offensichtlich wegen seiner „agrammatischen“ Form von allem Anfang an unannehmbar. Aus den ältesten literarischen Denkmälern sind mir nämlich ähnliche Belege nicht bekannt.

Es ist ferner damit zu rechnen, dass im Urslawischen wegen dessen lockerer formalsyntaktischer Organisation der Satzstruktur die Kongruenz ad sensum gegenüber der ad...
formam in erhöhter Frequenz bevorzugt wurde. Sie ist zwar „im Abstand“, über die Grenze des betreffenden Satzes hinaus, in alten (wie auch in modernen) Schriftsprachen möglich, vgl. aus dem Aksl. Mt 15,32 milosrđajjo o narodě (Sg.)...i otspustiti ichť (Pl.) ne chošto ne edňšo (Pl.) (übereinstimmend mit der griech. Vorlage), war jedoch früher auch in syntagmatisch knapperem Kontakt (im prädikativen, aber nicht im attributiven Syntagma) möglich, vgl. aus dem Aksl. Supr 285.25 umnožišę (Pl.) sę družina (Sg.) (sogar gegen die singulare Kongruenz in der griech. Vorlage); J 12,29 narodźe stoję -i-slyšave (Sg.) gla(gol)jacho (Pl.) (sogar gegen die singulare Kongruenz in der griech. Vorlage). Heute ist diese Ausdrucksweise noch in den Mundarten ziemlich verbreitet, z. B. aus den ostmährischen Dialekten První řada (Sg.) nastúpili (Pl.) do tih vagonů, druha řada (Sg.) moseli (Pl.) stád haptág, wörtlich ‚Die erste Reihe stiegen in die Wagen ein, die zweite Reihe mussten Halt acht stehen‘.


In der indirekten Rede wurde der zu reproduzierende Ausspruch zu einer vom einleitenden Satz syntaktisch abhängigen Aussage: mit einer sich erst formierenden Konjunktion und mit Verschiebung der grammatischen Person und des grammatischen Modus, z. B. Euch 38b 8-9 molitę sę b(og)u. da bi zabylę ego (also nicht etwa Molitę sę bogu: Zabądź mię).

Außerdem liegt aber in den ältesten slavischen Schriftsprachen die so genannte abhängige direkte Rede / halbdirekte Rede / unechte direkte Rede / oratio semirecta vor. Sie hat ein wiewohl noch nicht voll formiertes Bindemittel, in den deklarativen Sätzen im Altkirchenslavischen das so genannte jako recitativum, wie die indirekte Rede, aber keine Verschiebung der grammatischen Person, wie die direkte Rede, z. B. Mc 5,35 pridošę ... glagoljŠte ško društi tvoe umrětę; čsto dvižeši učitelę Zogr (also weder glagoljošte, jako društi jego umrě; čsto dvižeši učitelę, noch glagoljošte: „Društi tvoe umrě; čsto dvižeši učitelę?“). Ähnlich war es auch in anderen alten slavischen Sprachen, vgl. z. B.
alttschech. Řábel řekl jest (Ježíšovi), že tobě dám všecka ta královstvie (Hus), also weder že jemu dá, noch Řekl jest: „Tobě dám.“


Entwicklungsvoraussetzungen und Triebkräfte der slavischen Syntax


Ganz anschaulich kann das Zurücktreten des mit dem Subjekt kongruenten prädikativen Supplements durch die Partizipialwendungen, die heutigen so genannten Transgressive, illustriert werden. Noch im Aksl. bewahrten die Partizipien als etymologisch verbale Adjektive fast restlos die Kongruenz mit dem Subjekt (Večerka 1996, S. 176–213), z. B. (Pl. m.) Ps 70, 10-11 ṣvěštāṣyę vśkupę. gl(agol)šte Sin; (Sg. f.) Supr. 132.16–17 ṣv pionom sōtį jeta bystrı; ähnlich auch im Altschechischen und Altpolnischen. In den modernen slavischen Sprachen sind die ehemaligen kongruenten Partizipialformen formal adverbialisiert, vgl. z. B. serbokroat. nesući, poln. niosąc, russ. nesja usw. für alle Genera sowohl im Singular als auch im Plural, ausgenommen das Tschechische mit den von Dobrovský seinerzeit historisch eingeführten Formen nesa (Sg. m.), nesouc (Sg. f.), nesouce (Pl.). Warum die im größeren territorialen und temporalen Rahmen des Indogermanischen wirkenden Entwicklungstendenzen im kleineren Rahmen der slavischen Sprachen gerade bei den Partizipien einen so fruchtbaren Boden gefunden haben, kann man nur vermuten.

Diese Entwicklung verlief jedoch nicht so einfach und geradlinig, wie es wohl auf den ersten Blick aussehen könnte. Die Partizipien verfügten nämlich zum Unterschied von tatsächlichen Adjektiven als paradigmatische Verbformen über das gesamte Valenzpotential ihrer Verben, so dass sie sich als syntaktischer Fokus der betreffenden Wendungen genauso wie das tatsächliche verbale Prädikat verhielten (und z. T. noch immer verhalten). Da sie somit die prädikatartige Ausdrucksweise fingieren, werden sie in der Fachliteratur als „zweitrangige Prädikate“ bezeichnet (z. B. Hrabě 1957). Zahlreiche Merkmale ihrer prädikativen Kraft sind aus den älteren slavischen Sprachen bekannt (Večerka, I. c.), wiewohl sie in den modernen Schriftsprachen nicht mehr vorliegen, denn in diesen wurden sie inzwischen zum Zweck der konstruktionsmäßigen Regelung und semantischen Eindeutigkeit derartiger Wendungen beseitigt. Man findet sie nur noch in den Mundarten als den so genannten nominativus absolutus, vgl z. B. poln. Orząc w slotę, plug się opepa ziemią, wörtlich „Ackern im Unwetter, wird der Pflug mit Erde beschmiert“ (Karłowicz 1981); tschech. (ostmährisch) Přínda dom, nebylo tam nikoho, wörtlich „Ankommend nach Haus, gab es dort niemanden“; serbokroat. Došavši ja k svojemu starom prijatelju, on se vrlo obrada; Doševši ja k svojemu starom prijatelju, on se vrlo obrada (Zima 1887), wörtlich „Ankommend nach Haus, erfreute sich sehr“; russ. Jed′či dorogoju i govorit jemu čort wörtlich „Fahrend durch die Fahrstrasse und sagt ihm der Teufel“. In den russischen Mundarten können die transgressivformigen Partizipien sogar die Funktion des selbständigen Prädikats mit perfekto-präsentischer Bedeutung ausüben, z. B. korova uže
**Radoslav Večerka**

190

**Radoslav Večerka**


Im Slavischen waren der kongruente als auch der inkongruente Possessiv synonym, was ihre Verwendung in alten slavischen Sprachen ganz eindeutig bestätigt. Für das Altschlesische führt schon J. Gebauer bei den erweiterten („mehrwortigen“) Attributen,
wie král Václav, eine einwandfreie Verwendung deren Glieder sowohl im adnominalen Genitiv als auch in der Adjektivform an: dvůr krále Václava, dvůr krále Václavů, dvůr králov Václava, dvůr králov Václavův. Ähnliche Belege finden sich auch in Denkmälern anderer älteren slawischen Sprachen. Desgleichen ist bei den nichterweiterten („einfwortigen“) Attributen die Synonymie des kongruenten und des nichtkongruenten Possessivs z. B. durch ihre wechselseitige Austauschbarkeit in Varianten der altkirchenslawischen Evangelientexte bestätigt, vgl. Mt 10,42 vům učeniku Mar As, učeníc žör (učeniku Šav).


12. Zusammenfassend kann man sagen:

a) Die Syntaxentwicklung verläuft langfristig. Ungleiche Entwicklungsgeschwindigkeit derselben syntaktischen Prozesse kann bei historischem Vergleich unterschiedlicher slawischer Sprachen festgestellt werden: Manche weisen bereits den neueren Zustand auf, andere wiederum behalten noch die ältere Entwicklungsstufe.

b) Für die Untersuchung der diachronen Syntax stellen auch die Erkenntnisse aus modernen Mundarten der slawischen Sprachen eine wichtige Quelle dar.

c) Als Triebkräfte der Syntaxentwicklung erweisen sich vornehmlich:

α) Der stets fortschreitende Weg vom Lexikalischen zum Grammatischen.

β) Die Tendenz zur formal festeren Organisierung und Regelung des syntaktischen Aufbaus der Kommunikation, bzw. zu ihrer Intellektualisierung und Rationalisierung.

γ) Die Kollision von Form und Bedeutung.

Ein terminologischer Zusatz:

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STANDARD AND SPECIAL NEGATORS IN THE SLAVONIC LANGUAGES:
SYNCHRONY AND DIACHRONY

Summary

The term Standard Negation (hereafter SN) refers to the negation of simple indicative sentences with an overt verb predicate as in Mary doesn’t sing (Dahl 1979, Miestamo 2005). Sentences such as (i) Mary is not a nurse (hereafter a non-verbal sentence) and (ii) There are no wild cats (hereafter existential sentence) are excluded from the domain of SN because in many languages they are negated by a strategy different from SN. The negators used in such clauses are referred to as special negators. The focus of this paper is the development of such special negators in the Slavonic languages and their interaction with standard negation. Comparative data from 13 major modern Slavonic languages are collected based on grammatical descriptions as well as elicitation.

1. Introduction

In this paper 13 major Slavonic languages are examined with regard to negation strategies used in sentences (i) Mary is not a nurse/happy, (ii) There are no dark wizards and (iii) Mary does not sing. Typically, sentences such as (i) and (ii) are excluded from studies on standard negation (cf. Dahl 1979, Miestamo 2005) with the motivation that their negation strategy/strategies may differ from standard negation. The purpose of this study is to describe the existing synchronic variation in the Slavonic family and then use it as a basis for outlining the evolution of the negators used in (i) and (ii) whenever they differ from the standard negator used in (iii). In connection with the diachronic part of the study, the model presented in Croft (1991) is discussed and expanded based on the Slavonic data.

The paper is organized as follows. In section 2, I present the terminology and methodology used in this study. The synchronic variation of the negation strategies used in clause types illustrated by (i), (ii) and (iii) above is presented in section 3. Hypotheses about the diachronic development of the special negators as well as a discussion of Croft’s 1991 Cycle are found in section 4. Summary and conclusions are presented in section 5.

2. Terms and methodology used in this study

2.1. Terms

For theoretical introductions to the concepts presented below, see Givón (1979), Hengeveld (1992), Stassen (1997). The following terms are used in this study.

Standard negation (SN) refers to the negation strategy used in main declarative sentences where the predicate is a full lexical verb as in (iii) above. SN is used interchangeably with the term verbal negation.

Existential sentence refers to sentences which state the plain existence of an object and typically show one or more of the following characteristics: non-referential subject, typically marked by a non-prototypical subject marking; word order that differs from dominant word orders in language X; special agreement or no agreement between subject and predicate (whenever agreement is relevant); a predicate (item) with a special morphology. Thus (ii) above is considered an existential sentence because of dummy
subject and its indefinite non-referential notional subject. A sentence such as (iv) *Dark wizards do not exist* is a regular intransitive sentence. *Locative-presentative* constructions often share features with existential constructions but in addition to stating existence, they also specify the location of the predicated entity as in (v) *There are giant spiders in the forbidden forest.*

Non-verbal negation refers to the negation strategy used in clauses with a nominal or adjectival predicate such as (i) above.

Existential negation refers to the negation strategy used in existential sentences such as (ii) above.

Locative negation refers to the negation strategy used in sentences with a locative predicate and a definite subject as in (vi) *The cat is not on the couch/her*. Locative, existential and non-verbal negators are sometimes collectively referred to as special negators.

Negation of possession/possessive negation is used to refer to sentences which express predicative possession such as (vii) *Mary does not have a car. All other kinds of possessive constructions are ignored here.*

Negative-Existential cycle refers to the diachronic cycle for the evolution of negation suggested by Croft (1991).

2.2. Methodology

The data used for this study were collected based on a translation questionnaire which can be found here (http://www.ling.su.se/staff/ljuba/negation_questionnaire.pdf). The data sources have been grammars, dialect atlases as well as elicitation.

3. Synchronic variation

Slavonic languages may carve up the domain of negation in several different ways. Not surprisingly, the greatest number of domain differentiation is observed in the present tense. The languages investigated here are grouped together in two broad groups depending on the number of strategies/domain distinctions for negation sentences illustrated by (i), (ii) and (iii) above. The identified groups are tentatively called types and labeled by a digit which reflects the number of negation strategies used in that group. Thus we observe type 3 and type 2; type two has three subtypes 2.3, 2.2 and 2.1.

Type 3 covers languages such as Serbian/Croatian. In these languages, there is a clear three-way distinction in the domain of negation: verbal, non-verbal and existential negation are expressed by separate strategies in the present tense. The three way distinction is shown by data from Serbian below, where the standard negator is a pre-verbal particle *ne*, non-verbal sentences are negated by a special negative form the copula and existential sentences are negated by a special lexical item *nema ‘not have.*3.SG.PRES’.

(1) Serbian (South Slavonic) (Sonja Petrović Lundberg, p.c.)

a. *Meri pev-a*  
   Mary sing-3.SG.PRES

b. *Meri ne pev-a*  
   Mary NEG sing-3.SG.PRES

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‘Mary sings’    ‘Mary does not sing’
c. Tom je srećan  d. Tom nije srećan
Tom be.3.SG.PRES happy  Tom not.be.3.SG.PRES happy
‘Tom is happy’  ‘Tom is not happy’
e. Ima divlj-ih mačak-a
have.3.SG.PRES wild-GEN.PL.M cat-GEN.PL.M
‘There are wild cats’
f. Nema divlj-ih mačak-a
not-have.3.SG.PRES wild-GEN.PL.M cat-GEN.PL.M
‘There aren’t any wild cats’
g. Ne beja-še divlj-ih mačak-a
NEG be.IMPF-3.SG wild-GEN.PL.M cat-GEN.PL.M
‘There were no wild cats’

Locative predicates may be negated either by the non-verbal or the existential negator depending on focus. In contexts of contrastive negation, where the locative predicate is under focus, the non-verbal negator is used. For the expression of absolute absence, the existential negator is used (see also Clancy 2000 for a similar conclusion).

(2) Serbian (South Slavonic) (Sonja Petrović Lundberg)

a. Tom je u Detroit-u  b. Nema Tom-a
Tom be.3.SG.PRES in Detroit-LOC not.have.3.SG.PRES Tom-SG.GEN
‘Tom is in Detroit’  ‘Tom is not here’
c. Tom nije u Detroit-u, on je u London-u
Tom is.not in Detroit-LOC he is in London-LOC
‘Tom is not in Detroit, he is in London’

Moving on to the languages with a two-way distinction in the domain of negation, we can observe that either existential or non-verbal negation is singled out by a separate strategy. The languages where negation of existence is distinguished from verbal and non-verbal negation include the entire East Slavonic group plus Bulgarian, Macedonian, Polish and Kashubian. This is illustrated by Byelorussian in (3).

(3) Byelorussian (East Slavonic) (Marian Sloboda, p.c.)

a. Maryja spjava-e  b. Maryja ne spjava-e
Mary sing-3.SG.PRES Mary NEG sing-3.SG.PRES
‘Mary sings’  ‘Mary does not sing’
c. Maryja ščastliva-ja  d. Maryja ne ščastliva-ja
Mary happy-SG.F Mary NEG happy-SG.F
‘Mary is happy’  ‘Mary is not happy’
e. (U sadz-e) dzik-ija kat-y (ests’)
(in garden-LOC) wild-PL.NOM cat-PL.NOM (there are)
‘There are some wild cats (in the garden)’  ‘There are wild cats’
The existential negator *njama* in Byelorussian is used under same conditions as cited above for Serbian, e.g. it is used to express absolute absence; under contrastive negation, the verbal negator has to be used. In fact, as shown by the comparative table in the Appendix, this generalization is valid for all languages with a negative existential construction. Other noteworthy facts about the languages with a special existential negator are as follows. One, a special negative existential construction may be in place even when there is no evidence of a grammaticalized existential construction in the affirmative cf. Polish in (4).

(4) Polish (West Slavonic) (Marcin Kilarski, p.c.)

a. *(W Afi ryc-e)* žyj-q dzik-ie kot-y
   (in Africa-LOC) live-3.PL wild-PL NOM cat-PL NOM
   lit. ‘Wild cats live in Africa’/‘There are wild cats in Africa’

b. *(W Afryc-e)* nie ma dzik-ich kot-ów
   (in garden-LOC) NEG have.PRES wild-PL GEN cat-PL GEN
   ‘There are no wild cats (in Africa)’

In (4a.), affirmative existence is expressed by a regular intransitive construction. In (4b.), however, a special construction has to be used, namely, a negated form of the verb *mieć* ‘have’; predicate *nie ma* cannot agree with the plural subject, unlike (4a.) where it has to; finally, the subject is encoded as an object in that it receives the genitive case marking.

Two, the distinction between existential, on the one hand, vs. standard and non-verbal negation, on the other, is observed in the present tense only in all languages listed under type 2.3, except for Bulgarian and Macedonian where this distinction is valid in the past tenses as well.

(5) Bulgarian (South Slavonic) (own data)

a. *Ima-she* div-i kotk-i
   have-3.SG.IMPT wild-PL cat-PL
   ‘There were some wild cats [outside]’

b. *Njama-she* div-i kotk-i
   not.have-3.SG.IMPT wild-PL cat-PL
   ‘There were no wild cats [outside]’

As mentioned above, there are also languages where non-verbal negation is singled out and existential negation can be expressed either by the standard negator or by the non-verbal negator. These languages were split into two groups, one that includes Slovene and Slovak (type 2.2), and another that includes Czech, Upper and Lower Sorbian (type 2.1).

(6) Slovak (West Slavonic), (Short 1993: 577, in passim, Markus Giger, Jozef Muller, p.c.)

a. *Mysl-im*
   think-1.SG.PRES
   ‘I think’

b. *Ne-mysl-im*
   NEG-think-1.SG.PRES
   ‘I do not think’

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2 In the purely existential version of the sentence, that is without a locative complement, a different word order is also possible *Dziki katoj njama*. 
c. Mária je štastn-á. Mária nie je štastn-á.
   ‘Maria is happy’
   ‘Maria is not happy’

d. Maria be.3.SG.PRES happy-SG.F
   Maria NV.NEG be.3.SG.PRES happy-SG.F

e. V záhrad-e sú div-é mačk-y
   ‘There are some wild cats in the garden’
   (in garden-LOC) be.3.PL.PRES wild-PL.NOM cat-PL.NOM

f. V záhrad-e nie sú div-é mačk-y
   ‘There are no wild cats in the garden’
   (in garden-LOC) NV-NEG be.3.PL.PRES wild-PL.NOM cat-PL.NOM

It should be noted that in Slovak, there is also a special negative existential niet(o) but it is very restricted and hardly ever in use.

As mentioned above, it was considered necessary to put the Sorbian varieties together with Czech in a separate group because the separate strategy for non-verbal negation in these languages can be said to be weaker than Slovak and Slovene. For instance, in Upper Sorbian, the negation of the present tense forms of the verb ‘be’ is described as special because a segment –j- is inserted between the standard negation prefix nje and the affirmative form of ‘be’ sym, si, je etc. However, if the form in question begins with an j-, as je ‘be.3.SG.PRES’, then it becomes njeje when negated and the difference between non-verbal and verbal negation is practically wiped out. In all of these languages, affirmative existence is expressed by a regular intransitive construction. In the Sorbian varieties, there is also a translation calque from the German existential Es gibt ‘there is’, literally ‘it gives’. The translation calque is incorporated into the Sorbian intransitive construction; the only oddity it shows is that agreement with the subject is optional. Negation of existence is expressed by the standard negator nje- regardless of which construction is being negated cf. (7i) and (7k) below.

(7) Upper Sorbian (West Slavonic), (Stone 1993: 666, in passim, Edouard Werner, p.c.)

a. Pij-u
   ‘I drink’
   Drink-1.SG.PRES

c. Ja sym zbožown-a
   ‘I am happy’
   I be.1.SG.PRES happy-SG.F

e. Maria je tu
   ‘Maria is here’
   Maria be.3.SG.PRES here

g. Dźiw-je kočk-i existu-ja
   ‘Wild cats exist’
   wild-PL.NOM cat-PL.NOM exist-3.PL

b. Nje-pij-u
   ‘I do not drink’
   NEG-drink-1.SG.PRES

d. Ja njejsym zbožown-a
   ‘I am not happy’
   I not.be.1.SG.PRES happy-SG.F

f. Maria njeje tu
   ‘Maria is not here’
   Maria not.be.3.SG.PRES here

h. Dźiw-je kočk-i nje-existu-ja
   ‘Wild cats do not exist’
   wild-PL.NOM cat-PL.NOM NEG-exist-3.PL
To summarize, modern Slavonic languages show two kinds of special negators: an existential and a non-verbal one. Serbian/Croatian have both; the East Slavonic languages together with Bulgarian, Macedonian, Polish and Kashubian show an existential negator. A non-verbal negator is observed in Slovene, Slovak, Czech, Upper and Lower Sorbian. The existential negator is formally always clearly distinguished from from SN. The non-verbal negator, on the other hand, may show different degrees of formal “strength”: In Slovene and Slovak it occurs with all forms of the verb ‘be’ and can be said to be rather strong; in Czech it is restricted to one single form, není ‘not be 3rd SG PRES’ while in the Sorbian varieties the special negated forms of ‘be’ are distinguished from other negated verb forms by one segment only, -j- infixed between the prefixed SN nje- and the form of the verb ‘be’. It should also be noted that the geographical distribution of the special negators is not random. Rather it shows clear areal patterns that cut across traditional group boundaries. As shown on Map 2, the non-verbal negators occur in a coherent area that covers western South Slavonic and some of the West Slavonic languages. On the other hand, the special existential negator expressed by a fused form of the standard negator plus ima ‘have.3.SG.PRES’ is observed in all of the Southern languages plus Polish, Kashubian, Byelorussian and Ukrainian, cf. Map 1.

4. Evolution of the special negators

4.1. Reflections on possible diachronic paths of development

Most special negators in the Modern Slavonic languages are rather transparent fusions between the standard negator ne and either ima ‘have.3.SG.PRES’ or e ‘be.3.SG.PRES’. The only less transparent forms are Czech není and Russian net. The fact most fusions are still rather easy to describe as such indicates that the special negators must be relatively recent creations. The earliest occurrences of njama ‘not have’ are observed in Bulgarian documents from the 12 century (1971: 733). Given the use of this word and its forms in the other languages where it’s found, it is conceivable that it probably appeared in neighboring varieties from the 12th century onwards. Data from the modern Slavonic languages are used to outline a hypothesis for the evolution of njama as an existential negator. It is suggested that the development of njama as an existential negator started with its use as a locative negator; the initial stages involve also the consolidation of a negative existential construction. They can be illustrated by data from Byelorussian and Polish.

(8) Byelorussian (East Slavonic) (Marian Sloboda, p.c.)

a. Mariya ne ma-e mashin-y  
   Maria NEG have-3.SG.PRES car-GEN

b. Mary-i njama dom-a  
   Maria-GEN NOT.HAVE home-LOC

‘Maria does not have a car’  ‘Maria is not at home’

In (8a.) the habeo-verb is regularly negated and takes relevant verb morphology. In (8b.) the standard negator is completely fused with the habeo verb and the resulting form njama is without any morphological marking and shows no agreement with the subject (cf. also
The subsequent stages of njama/nema as an existential negator can be illustrated by data from Serbian and Bulgarian. In Serbian the verb nemati ‘not have’ is a full fledged lexical verb; the existential negator nema has to be used in non-focused contexts in the present tense. Similarly to Serbian, the notion ‘not have’ is fully lexicalized in Bulgarian where the verb njama has a full paradigm; the existential negator njama is used in both present and past tense contexts, in the latter, with pertinent past tense markers. The consolidation of njama as an existential negator appears to be contingent on the degree of lexicalization of the notion ‘not have’. The stronger the word for ‘not have’, the more established the existential negator appears to be. Thus the process whereby SN is fused with the habeo-verb can be said to result in both lexicalization and grammaticalization. Lexicalization because a new lexical item is “born”; grammaticalization because a specific form splits from its paradigm, loses pertinent morphology and expands its contexts of use into a more abstract domain. The plausibility of the negated possessive construction giving rise to a negative existential is confirmed by independent studies on other language families. For instance McGregor (In Progress) demonstrates the evolution of a negative existential in the Nyulnyulan language family (Western Australia) from a negated non-verbal possessive construction.

The following can be said about Russian net. Generally, information about the process whereby net evolved as a form and as a sentence predicate is hard to find. In Zaliznjak (1995/2004) occurrences of some form of net are observed in 15 out of the 910 analyzed birch barks. The earliest occurrences of a special negative predicate are from 1100 (as ně only) and 1225 as nietou. The first coalesced form is found on a birch bark date from 1230. Occurrences of the negative predicate in barks dated from 1300 onwards are for the most part coalesced forms which appear in various spellings nětu, nietou, netouts, nět. There also a couple of occurrences of ně only as a negative predicate. According to Poljakova (1996: 116) the form nět appears in documents from the 1700 in its modern functions with the sense ‘not have, not exist’ and as also as a negative substitute for a verbal predicate. The following syntactic features are noteworthy for net in Novgorod Russian: the notional subject of net often appears marked by nominative case instead of the expected genitive. In birch barks dated earlier than 1380, net precedes its notional subject; in most documents dated later than 1380, net follows its notional subject and is generally clause final. Vasmer (1987: 67) presents several older forms for net: nětu, still heard in dialects, Old Russian nětu, nět and finally nětut. According to Vasmer, the forms nětu and nět represent an univerbation of the phrase *ne je tu, literally ‘not is here’. Further on, in the same dictionary entry, this author states that the element –t in the form nětut represents the dative singular of the personal pronoun ti ‘2.SG’, the so called dativus ethicus or dative of interest. So the literal meaning of the original phrase may have been ‘not is here for you’. If this etymology and its interpretation are correct, then here we may have an example of a locative construction with a dative of interest that evolves into a possessive construction. Stassen (2009: 101-8) places such constructions

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3 For instance as in de ona Katerina xolsty krala ili nět togo on sila ne vėdaest.
4 Stassen (2009: 101) offers the following definition of this particular use of the dative: “an optional element in the dative case, whose presence generally indicates that the person referred to is highly involved or interested in the event, for example because he or she is the experiencer of the event”. This use of the dative is widespread in the Slavonic languages, the example here is from Bulgarian Lili mi izplete žiletka ‘Lili knitted me a cardigan’.
among the non-standard sources for possessive constructions; yet such developments appear to be attested in a variety of different languages so such a path of development in Russian is quite plausible.

The non-verbal negators in the Slavonic languages appear to result from the coalescence of SN with present tense forms of the verb ‘be’. Such fused forms are also observed for the whole present tense paradigm of ‘be’ in Old Church Slavonic (OCS) e.g. něšťь ‘not.be.1.SG.PRES’, něši ‘not.be.2.SG.PRES’ etc. except for ne sotь ‘NEG be.3.PL.PRES’ (Večerka 1989: I: 40). The coalesced OCS forms used to replace the forms of the affirmative copula in negated copula sentences. Special negated present tense forms of the copula are assumed to have existed in Proto-Slavic as well. The non-verbal negators in Slovene, Serbian/Croatian and Upper and Lower Sorbian appear to be too transparent and thus unlikely to be directly inherited from the older forms. However, their creation (or rather re-creation) is most probably due to partial inheritance reinforced by contact (see above on geographical distribution.). The non-verbal negators in Czech and Slovak are least transparent which is taken to mean that they are diachronically older. According to Holub and Lyer (1968: 333), the current Czech form není comes from Old Czech nenie where nie < *ne-je. The form nie is said to have been reinforced by the new SN ne- thus resulting in nenie. If this etymology is correct, then we observe a rather common process whereby a negation construction is made more expressive by an item, the initial result being an emphatic item. That item subsequently loses its marked value and becomes a regular negator. More data are necessary for a more complete outline of evolution of není as well as its current use and status in modern Czech.

The form nie in Slovak is likewise considered to be directly related to the Proto-Slavic form *ne-estь (Stanislav 1973: 537). Stanislav (1973: 536-40) states that it was first used as a sole negative predicate in negated non-verbal sentences. However, such examples can be found even in modern Slovak, especially in poetry and fiction. According to this author, there is ample evidence that nie started to be re-interpreted as a negative particle and thus began to co-occur with the positive copula (which it used to simply replace) as early as the 16th century. This is be illustrated by a folk song taken from a manuscript from that time. Thus in (9) below nie follows the affirmative copula in the first verse and replaces it in the second.

(9) Slovak (West Slavonic), (Stanislav 1973: 538)

Oženiu som sa, ešte je rok nie
Married be.1.SG.PRES REFLEX yet be.3.SG.PRES year NEG.COP
‘I am to be married, the year is not yet’

Žena mi zľahl-a, kňaza dom-a nie
Bride 1.SG.DAT be seriously ill (lit. lay down)-F.SG priest home-LOC NEC.COP
‘My bride is seriously ill, the priest is not at home’

Eventually, the only possible construction came to be the one where nie co-occurred with the affirmative copula. Counts from the Slovak National Corpus show that nie is still used predominantly as a special copula negator (59.94%). This use is followed in frequency by the use of nie as an emphatic clausal negator (17.48%) and finally as a constituent negator for nouns (5.08%), prepositional phrases (4.93%), pronouns (4.93%), adjectives (4.78%),
and finally and very rarely with verbs (1.04%). Thus if the copula counts can be taken as indicative of the process that may have taken place, then we can outline the following diachronic development: (I) SN + je > nie; (II) the form nie replaces the affirmative copula je for a while. (III) the form nie starts to be used together with the affirmative copula. This may be partially related to the fact that the copula becomes more obligatory in non-verbal sentences. (IV) nie starts to be interpreted as a general non-verbal negator. It is used as an emphatic negator at clause boundaries as well as a constituent negator.

4.2. The Negative-Existential cycle

The Negative-Existential cycle (Croft 1991) is especially relevant here as it describes the creation of special existential negators and their gradual inclusion into domains of standard negation. Based on cross-linguistic evidence, Croft postulates six language types which he subsequently uses to propose a diachronic hypothesis about the evolution of SN from existential negators. The types outlined in the cycle are as follows: type A where the SN is used to negate both verbal and existential sentences; type A~B where there is a special existential negator but it is limited to particular contexts, e.g. a specific TAM category, for instance, the present tense; type B where there is a special existential negator, used in all relevant contexts; type B~C where the special existential negator is also used to negate verbs in certain contexts/categories; type C where the negative existential negator is still special in that it replaces the affirmative existential under negation; however, the existential negator is regularly used to negate verbs; finally type C~A where the negative existential negator has started to be used with the affirmative existential to yield emphatic/pragmatically marked constructions. Gradually this additional pragmatic content is lost and a SN that is used with all construction types evolves, that is we are back at type A.

It should be noted that Croft uses the term existential negator a lot more loosely and at times interchangeably with copula negators. This is not entirely felicitous since we have seen that languages may have more than one special negator, and a special copula negator is not necessarily identical to the existential negator. It is problematic to apply the model on the Slavonic data since this important distinction is missing. Technically, only the languages with an existential negator are covered by the cycle. These languages are the entire Eastern group, Bulgarian, Macedonian, Polish and Kashubian. Serbian/Croatian are only partially covered by the model since their special non-verbal negators are ignored there. Most of the languages just mentioned fall under Croft’s type A–B since their existential negators are restricted to the present tense. Bulgarian and Macedonian fall under type B–C since their existential negator is also used as SN to negate verb predicates in the future tense.

5 Because of space restrictions, the frequency counts can only be presented in a footnote. Thus the figures cited here come from frequency counts on the morphologically disambiguated part of the corpus which consists of about half a million words. The total hits for nie is frequency collocations for nie are as follows: nie [byt] 401 (59.94%), nie as an emphatic clausal negator 117 (17.48%), nie noun 34 (5.08%), nie prepositional phrase 33 (4.93%), nie pronoun 33 (4.93%), nie adjective 32 (4.78%), nie je to 12 (1.79%), nie verb 7 (1.04%).
(10) Bulgarian (South Slavonic), (own data)

a. Shte xod-ja na kino
   FUT go-1.SG.PRES to movies
   ‘I will go to the movies’

b. Njama da xod-ja na kino
   not.have to go-1.SG.PRES to movies
   ‘I will not go to the movies’

At first glance it looks like Bulgarian and Macedonian provide a good example of the existential negator expanding its territory. However, the facts from OCS reveal something different. In OCS, there were three different constructions used to express futurity. One of them involved the verb iměti ‘have’ plus an infinitive as in ne imatъ ostati sude kamenъ na kameni ‘there will not be left here one stone on another’. In fact, the have-future construction in OCS appears to be much more frequently used under negation than in its affirmative variant, cf. Duridanov (1991: 418), Đorđić (1975: 200-1). Consequently, the construction we see today in modern Bulgarian (see (10b.) above) results from the negated future construction in OCS and not from an expanded use of the existential negator. In fact, the domain expansion that has taken place is for the verb iměti ‘have’ in that this verb has come to cover most expressions of existence. But the Negative-Existential cycle is not confirmed for these languages.

The cycle may be, at least partially confirmed, however, if we modify it somewhat. First, it should be expanded to distinguish between existential and non-verbal negators. Second, one should specify the kinds of verbs that are merged with the standard negator and look the outcomes. As discussed above, the non-verbal negator nie in Slovak can be shown to expand its domain from copula to being used as a constituent negator and also an emphatic clausal negator. In modern Russian, net is used much more often as a sentence modifier and emphatic particle than a predicative existential negator. The counts in four major genres (fiction, non-fiction, formal speech and informal speech) in the Russian National Corpus show very similar proportions for net tagged as a sentence particle and net tagged as a predicate—in three of them the use of net as a sentence particle revolves around 60% and even close to 70% in informal speech. If this is taken as indicative for domain expansion of net, then we have a partial confirmation of the Negative-Existential cycle. The fused forms ‘SN-be’ appear to have been used in locative, and in the Slovak case, also attributive constructions. Thus the consolidation of fused forms of ‘SN-be’ may be also a consequence of frequency of use in are used in a greater variety of contexts, cf. also (Ivanov 1989: 164-176). It should also be noted that in both Slovak and Russian, there is a gap in the diachronic path in that stage B where the special negator is fully established in all categories is simply missing the cycle appears with a gap: A~B>[gap] > B~C. More detailed comparative studies on other language families are necessary in order to confirm whether these generalizations are specific to the Slavonic data or apply more broadly.

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6 Both biti ‘be’ and iměti ‘have’ were used in existential constructions in OCS, with different functional load and syntax cf. for instance Ivanov (1989: 164-9). Detailed discussion of this issue lies outside of the scope of the current paper.

7 The form net is tagged either as a predicate or a sentence particle in the Russian National Corpus. The frequencies for these tags are as follows: net as a predicate in fiction shows in 41% of its occurrences in this genre, in non-fiction 58,09%, in formal speech 39,13%, in informal speech 31, 47%; net as a sentence particle in fiction shows in 58,37% of its occurrences in this genre, in non-fiction 41, 78%, in formal speech 60,78% and in informal speech 69,23%.
Finally, before closing the discussion on the Negative-Existential cycle, we should note that it can be expanded in yet another respect. Specifically, it should allow for lexicalizations of negation to enter the cycle directly. In many languages, including Slavonic, we often observe a handful of verbs, other than the copula and the existential verb, that are negated in a special way. Such verbs tend to mean ‘want’, like’, ‘know’, ‘can’, ‘be able to’ and a few other senses. In the current study, frequency counts from the Slovak National Corpus show that the negated counterparts of the verb senses listed above are at least as frequent as their positive counterparts. In the Slavonic languages, such lexicalizations of negation are shown on Map 3. In some languages, they remain lexicalized instances of a negative sense; in others they expand to the domain of standard negation. For instance in Serbian/Croatian, the lexicalized forms of the sense ‘not want’ as for instance neću, ne + ču (< hoču ‘want.1.SG.PRES’) etc. have become the standard negators for the future. Croft (1991: 14-15) makes a brief remark in this regard but the whole issue of lexicalization of negation has to become more visible and explicit in a diachronic model of the evolution of negation cf. also (van der Auwera 2009).

5. Summary and conclusions

In this paper I have outlined the standard and special negators in the modern Slavonic languages. The standard negators are more or less uniform throughout the family. There is variation in the standard negators for the future in the Southern group. The special negators are of two kinds: existential and non-verbal. They tend to be restricted to the present tense except in Bulgarian and Macedonian where the existential negator is used in the past as well. Serbian/Croatian make a three way distinction between verbal, non-verbal and existential negation. The remaining Slavonic languages make a two-way distinction between either verbal and existential or verbal and non-verbal negation. It can be argued that Czech, Upper and Lower Sorbian are drifting towards one single negation strategy. The special negators in the Slavonic languages result from the coalescence of the SN with a form(s) of the copula or the verb ‘have’. Negated habeo-verbs can be shown to take over the domain of negation of locative-existential constructions. This is considered motivated by the semantics and function of these constructions. When we use them, we often assert the absence of something, rather than denying its existence. The current dataset also presents evidence of the evolution of non-verbal negators as a combined result of inherited features whose renewal or consolidation is reinforced by close contact.

References


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8 A full paradigm for all 3 persons in singular and plural exists: nečeš ‘not want.2SG’, nečemo ‘not want.1.PL’ etc. The choice of form for the negation of action in the future shows agreement with the subject in person and number e.g. Ja neče pevati, ti neče pevati, etc. ‘I/you won’t sing’ (Dejan Matić, p.c.).
McGregor, W. Work in progress. Two verbless negative constructions in Nyulnyul (Nyulnyulan, Kimberley, Western Australia).
Nitsoleva, R. 1990. “Existential Sentences with the Verbs Esse and Habere in Bulgarian in Comparison with Other Slavic Languages, Šаpostavitelno ezikoznanie 15, 4-5, 236-242.

**APPENDIX:** Focus as a factor for choosing a standard or a negative existential construction

<table>
<thead>
<tr>
<th>Language</th>
<th>Contrastive negation</th>
<th>Absolute absence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Byelorussian</td>
<td>Maryja ne u Londane, a u Detroice</td>
<td>Maryi njama doma</td>
</tr>
<tr>
<td>Russian</td>
<td>On ne byl v Moskve, a sledil za sobytijami iz daleka</td>
<td>Brata utrom ne bylo/net doma</td>
</tr>
<tr>
<td>Ukrainian</td>
<td>Marija je ne w Londoni, a w Detroiti.</td>
<td>Komariv nemaje</td>
</tr>
<tr>
<td>Bulgarian</td>
<td>Marija ne e v London, ami v Detroit</td>
<td>Tom go njama</td>
</tr>
<tr>
<td>Language</td>
<td>Examples</td>
<td></td>
</tr>
<tr>
<td>--------------</td>
<td>--------------------------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>Macedonian</td>
<td>Tom ne e v London, on e v Detroit</td>
<td></td>
</tr>
<tr>
<td>Serbian/Croatian</td>
<td>Meri nije u Londonu, ona je u Detroitu/u Detroitu je</td>
<td></td>
</tr>
<tr>
<td>Slovene</td>
<td>Marija ni v Londonu, ampak v Detroitu</td>
<td></td>
</tr>
<tr>
<td>Polish</td>
<td>Tomek nie był w domu wczoraj. (negation of ‘w domu’ (but he was somewhere else))</td>
<td></td>
</tr>
<tr>
<td>Kashubian</td>
<td>Mariji ni ma w Londinie, ona je w Détrojce</td>
<td></td>
</tr>
<tr>
<td>Czech</td>
<td>Marie neni v Londyně, je v Detroitu.</td>
<td></td>
</tr>
<tr>
<td>Slovak</td>
<td>Mária nie je v Londýne, je v Detroite.</td>
<td></td>
</tr>
<tr>
<td>Upper Sorbian</td>
<td>Marja njeje w Londonje, wona je w Detrojće</td>
<td></td>
</tr>
<tr>
<td>Lower Sorbian</td>
<td>Marja njejo w Londonje, wóna jo w Detrojše</td>
<td></td>
</tr>
</tbody>
</table>

Map 1: Negators used in existential sentences
Map 2: Negators used in non-verbal sentences

Map 3: Lexicalizations of negation

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