



LITTLE WORDS

Their History, Phonology, Syntax,
Semantics, Pragmatics, and Acquisition

Ronald P. Leow, Héctor Campos, and Donna Lardiere, Editors

Georgetown University Press
Washington, D.C.

Georgetown University Press, Washington, D.C. www.press.georgetown.edu

© 2009 by Georgetown University Press. All rights reserved. No part of this book may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and recording, or by any information storage and retrieval system, without permission in writing from the publisher.

Library of Congress Cataloging-in-Publication Data

Little words : their history, phonology, syntax, semantics, pragmatics, and acquisition / Ronald P. Leow, Héctor Campos, and Donna Lardiere, editors.

p. cm.—(Georgetown University round table on languages and linguistics series)

Includes bibliographical references and index.

ISBN 978-1-58901-254-7 (alk. paper)

1. Grammar, Comparative and general. 2. Lexicology. I. Leow, Ronald P. (Ronald Philip), 1954– II. Campos, Héctor. III. Lardiere, Donna.

P201.L557 2009

415—dc22

2008029496

⊗ This book is printed on acid-free paper meeting the requirements of the American National Standard for Permanence in Paper for Printed Library Materials.

15 14 13 12 11 10 09 9 8 7 6 5 4 3 2

First printing

Printed in the United States of America

■ From “Two” to “Both”

Historical Changes in the Syntax and Meaning of *Oba* in Slavic

AGNIESZKA ŁAZORCZYK AND ROUMYANA PANCHEVA

University of Southern California

■ WE MAKE THE NOVEL OBSERVATION that Old Church Slavonic (OCS) *oba*, the historical counterpart of the modern Slavic “both,” meant simply “two.” We propose an account of the syntactic reanalysis of *oba* and the accompanying change in its meaning and discuss the broader implications of our findings.

Old Church Slavonic

The grammatical descriptions of OCS (e.g., Huntley 1993; Lunt 2001) as well as dictionaries and glossaries consistently give the meaning of *oba* as “both.”¹ This is probably so for two reasons: *oba* does mean “both” in the modern Slavic languages, and the meanings of “both” and “two” overlap and are difficult to distinguish in definite contexts that allow a distributive interpretation. Thus, whereas the contrast between *The two girls sang together* and **Both girls sang together* shows that *both* is necessarily distributive, predicates that are not obligatorily collective can mask the semantic distinction between *both* and *the two*, for example, *The two girls sang* and *Both girls sang*.

OCS *oba*, however, could not have meant “both.” First, *oba* could be used to form complex numerals, as shown in (1).² Clearly, the only semantic contribution *oba* can have in such cases is its cardinality of 2. It was no different than the other numerals from 1 to 9, which similarly participated in the formation of complex numerals, for example, *četyre na desęte*, “fourteen,” literally “four on ten,” and *sedmь na desęte*, “seventeen,” literally “seven on ten.”

- (1) *siję oba na desęte* posъla isъ. zapovędavъ imъ glę.
these two on ten sent Jesus having-ordered them saying . . .

“These twelve Jesus sent out with the following instructions . . .” (Matt. 10:5)

Second, *oba* could be used with collective predicates, as exemplified in (2), which is also an environment where *both* is prohibited.

- (2) I prilępitъ sę ženę svoei . I będete *oba* vъ rлъtъ edinoę.
and will-cling REFL wife self's and will-be two in body one

“And he will cling to his wife, and the two will become one flesh.” (Matt. 19:5)
cf. *English* And he will cling to his wife, and *both/the two will become one flesh.

Finally, *oba* could be the complement of a partitive preposition, as shown in (3). Again, this is not an environment where *both* is acceptable.

- (3) ky otъ obojo sъtvori voljo otъčq?
which of two did will of-the-father
“Which of the two did what his father wanted?” (Matt. 21:31)
cf. *English* Which of *both/the two (of them) did what his father wanted?

These examples show clearly that the OCS *oba* must have been simply a numeral “two.” In Codex Marianus there are forty-one cases of the use of *oba* in environments such as (1)–(3), where it clearly did not mean “both.” The remaining thirteen occurrences did not distinguish between a “both” and a “two” interpretation.

In addition to the semantic arguments for treating OCS *oba* as a numeral, there is also evidence from word order pointing to the same conclusion. *Oba* could co-occur with demonstratives (OCS did not have a definite article), and in such cases it followed the demonstrative, as in (4):

- (4) vъ seju oboju zapovědiju . vesъ zakon ъ i proroci visetъ .
in these two commandments all law and prophets hang
“All the Law and the Prophets hang on these two commandments.” (Matt. 12:24)

In English *both* appears before determiners, as in *both these commandments* or in Brisson’s (1998, 18) example *Both the girls went to the gym*.³

In sum, both semantic and syntactic arguments suggest that *oba* was a numeral. Interestingly, it was restricted to definite contexts.⁴ Even when *oba* appeared without a determiner, its nominal phrase was interpreted as definite. Another numeral, *dъva*, also meaning “two,” was used in both definite and indefinite contexts, though it was more typically found in indefinite ones (ninety-seven out of one hundred uses in Codex Marianus).

The Modern Slavic Languages

The situation with *oba* in the modern Slavic languages is markedly different from OCS. *Oba* is found in all the modern languages in the family except Bulgarian and some dialects of Macedonian, and in all the languages that have it, *oba* means “both.” In that function, *oba* unambiguously marks distributive readings.

As a distributive marker, *oba* is no longer found in complex numerals in modern Slavic. This is shown in (5). The only possible numeral in this context is *dva*. (Examples are from a representative language from the west, east, and south branches of the Slavic family, respectively.)

- (5) a. Polish
I usiadłszy, przywołał dwunastu i rzekł im . . .
and having-sat-down called two-on-ten and said them

(8) a. Polish

Który z tych dwóch/*obu wypełnił wolę ojcowską?
*which from these two /*both fulfilled will of-father*

b. Russian

Kto iz etikh dvoikh/*oboikh sdelal to, chto khotel otets?
*who from these two /*both did this what wanted father*

c. Serbian

Koji od njih dvojice/*obojice/*oba je učinio šta
*which from these two /*both is fulfilled what*
 je njegov otac želeo?
is his father wanted.

“Which of these two did what his father wanted?”

As these examples show, in the languages that have preserved *oba*, it no longer functions as the numeral 2. Instead, it is a distributive quantifier corresponding to English “both.”⁵ The question arises how this historical change from a numeral to a distributive quantifier came to be and what factors contributed to it.

An additional question stems from the fact that, in Bulgarian and certain dialects of Macedonian, *oba* was lost as a lexical item. The function of “both” is fulfilled by the phrase “and the two,” as exemplified in (9).

(9) Bulgarian

I dvamata studenti dojdoha (*zaedno)
and the-two students arrived together
 “Both students arrived (*together).”

A distributive-marking syntactic construction is a cross-linguistically available alternative for languages that do not have a lexicalized *both*, for example, Greek, French, Turkish, and, of course, OCS. Moreover, it is available for any numeral, not just “two.” The exact syntactic structure used may differ from language to language, though a definite article and an additive particle, as in (9), are common elements. It is of interest to find out whether there is a principled reason behind the different history between the two groups of Slavic languages—Polish, Russian, Serbian, and others versus Bulgarian and dialects of Macedonian.

The Semantics and Syntax of “Both”

Before we present our analysis of the historical change in the meaning and syntax of *oba*, let us review briefly the accounts of the semantic and syntactic function of *both* as they have been proposed for English.

An important early account can be found in Barwise and Cooper (1981), who propose that *both* is a determiner with the same meaning as “the two.” However, we already know that these two expressions are not equivalent. This is also indicated by examples such as **One of both children sneezed* and *One of the two children sneezed*, which have been used to criticize Barwise and Cooper’s account.

In response to this problem Ladusaw (1982) proposes that *both* has a distributive component, which makes it impossible inside partitives and incompatible with collective predicates, as in **Both students are a happy couple* and *The two students are a happy couple*. This idea is further developed in Roberts (1987) and Landman (1989), who argue that *both* is equivalent to the distributive universal quantifier *each/every* but with the addition of a cardinality presupposition of 2. Brisson (1998) does not analyze *both* as a quantifier but rather as a modifier to nominal phrases. It is licensed in the presence of a distributive operator and has the semantic function of a maximizer—it picks up the maximal individual denoted by (the rest of) the nominal phrase and disallows exceptions.

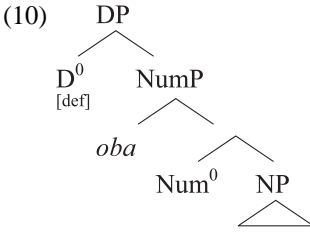
With respect to the syntax of *both*, it has been analyzed by Sportiche (1988), Schwarzschild (1996), and others as an adjunct to determiner phrases (DPs) that can be stranded after the DP moves, for example, *The children have both seen the movie*. An analysis along the lines of Shlonsky (1991) puts *both* in the head of a functional projection that selects the DP as a complement, while still allowing stranding after the DP moves. Doetjes (1997) and Fitzpatrick (2006) do not adopt a stranding analysis of floating *both* but analyze it as a VP-adverbial, composed of an adnominal *both* either adjoined to a null DP or in a functional projection selecting a null DP. Another type of analysis treats *both* as a cross-categorial modifier in the nominal and verbal domain, that is, a DP-adjunct or a VP-adjunct (e.g., Brisson 1998; Bobaljik 2003; Dowty and Brodie 1984).

Last, it should be mentioned that, as many authors have pointed out (e.g., Brisson 1998; Edmondson 1978; Progovac 1999; Schwarzschild 1996; Stockwell, Schachter, and Partee 1973), the word *both* in English also functions as a conjunction-reduction marker, whose presence signals strictly distributive, multiple event readings, for example, *Adam both acts and directs* = *Adam acts and Adam directs*; *The idea is both new and clever* = *The idea is new and the idea is clever*; *Both Peter and Paul read the book* = *Peter read the book and Paul read the book*.

While the floated quantifier *both* may be amenable to a uniform adnominal analysis, in one of its various instantiations as a stranded DP-adjunct (Sportiche 1988), or a stranded Q-head (Shlonsky 1991), or an adjunct/specifier/higher head with a null DP (Doetjes 1997; Fitzpatrick 2006), the function of *both* as a conjunction-reduction marker is not easily given such an analysis. Rather this use of *both* is a strong motivation to treat it as a cross-categorial adjunct and to extend that analysis to the use of *both* with nonconjoined nominals. We can conclude that *both* is uniformly an adjunct, to DPs or to conjunctions of various categories, and that it is associated with (a) distributivity, (b) cardinality of 2 (of individuals or events), and (c), in the case of DP-adjoined *both*, definiteness.

Historical Changes in the Syntax and Semantics of *Oba*

Returning to the previous discussion of Slavic, we can assume the structure as in (10) for OCS, where *oba* is a numeral with a definiteness presupposition, merging in the specifier of the number phrase (NumP). The specifier position is adopted for uniformity with complex numerals, which, we assume, have phrasal syntax. *Oba* lacks quantificational force of its own; it is a cardinality expression. The grammar of *dъva*, the other numeral 2, is the same, except for the fact that D⁰ can be specified [definite] or not.

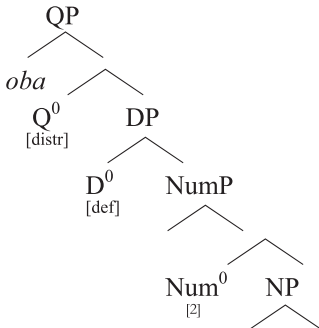


In Polish, Russian, Serbian, and the other languages, apart from Bulgarian and dialects of Macedonian, *oba* was reanalyzed from a numeral, a nonquantificational cardinality expression, to a quantifier associated with distributivity. Syntactically, that meant that *oba* would no longer merge as a specifier of the NumP. But does it merge as an adjunct to the DP, as posited for English, or does it appear in a functional projection selecting the DP as a complement? It needs to be noted that Slavic *oba* cannot be used in conjunction reduction structures. Rather the conjunction *i*, “and,” is used to introduce conjunction reduction in Slavic (cf. Progovac 1999). The example in (11) shows that this construction was already available in OCS.

- (11) boite že sę pače . mogōščaago i dšq i tělo pogubiti v ŭ Ge(enně
 OCS
fear but REFL more being-able and soul and body kill in hell
 “Rather, be afraid of the one who can kill both soul and body in hell.”
 (Matt.10:28b)

Because *oba* is not used with conjunctions, we propose to treat it as a specifier of a quantifier phrase (QP) head in the extended nominal projection, but we acknowledge that the alternative, adjunct-to-DP analysis, is also possible. The head of QP has a null distributive operator, a justified move, as distributive readings are possible without any overt marking. We cannot offer here a complete theory of the grammatical representation of distributivity (see, e.g., Brisson 1998; Schwarzschild 1996). Nor do we have an explanation for why *oba* had to be associated with a distributive interpretation. The syntactic reanalysis of *oba* yielded the present-day situation as represented in (12).

(12) The Modern Grammar of *Oba*



In (12) [def] D is null in all the modern languages, except for the dialects of Macedonian that have *oba*, where it is expressed with an overt definite article.

The fact that *oba* was promoted to a higher projection, freeing up the numeral position within the NumP, is evidenced by the fact that some modern Slavic languages allow the numeral *dva* to co-occur with *oba*. Examples of that are given in (13). Examples like this suggest that modern *oba* is directly merged as a Spec, QP, rather than first being merged as a numeral in Spec, NumP. It agrees with a Num⁰ specified for a cardinality of 2.

(13) a. Polish

Obaj/obydwaj chcieli zapłacić za bilet.
both/both-two wanted to-pay for ticket
 "Both (men) wanted to pay for the ticket."

b. Serbian

Oba/obadva dečaka su želela da plate kartu.
both/both-two boys are wanted to pay ticket
 "Both boys wanted to pay for the ticket."

The position of demonstrative pronouns with respect to *oba* also indicates that *oba* is merged higher than the NumP. As the examples in (14) show, *oba* must precede the demonstrative pronoun.

(14) a. Polish

Obaj ci/*ci obaj chłopcy chcieli zapłacić za bilet.
both these/these both boys wanted to-pay for ticket

b. Russian

Oba eti/??eti oba mal'chika khoteli zaplatit' za bilet.
both these/these both boys wanted to-pay for ticket

c. Serbian

Oba ta/*ta oba dečaka su zelela da plate kartu.
both these/these both boys are wanted to pay ticket
 "Both these boys wanted to-pay for ticket."

This contrasts with the position of the numerals, which must follow the demonstrative pronoun:

(15) a. Polish

*Dwaj ci/ci dwaj chłopcy chcieli zapłacić za bilet.
two these/these two boys wanted to-pay for ticket

b. Serbian

*Dva ta/ta dva dečaka su zelela da plate kartu.
two these/these two boys are wanted to pay ticket
 "These two boys wanted to pay for the ticket."

These examples show clearly that *oba* has undergone a change: the original numeral *oba*, which at first merged in the NumP, was moved higher up. The syntactic change was accompanied by a semantic change into a distributive quantifier.

The Motivation for the Changes

Oba had a marked status in the system of numerals in OCS. It had a counterpart, *dъva*, with the same meaning (cardinality of 2), the difference being only that *oba* could be used in a subset of the syntactic environments in which *dъva* could be used (recall that although *dъva* occurred most often in indefinite DPs, it could also be found in definite DPs). Furthermore, *oba* was the only numeral with a definiteness requirement. All other numerals were like *dъva*, neutral with respect to (in)definiteness of the DP in which they appeared. Thus *oba* simultaneously stood apart in the system of numerals and was in competition with a numeral that was an unexceptional member of the system. As such, *oba* was a likely candidate for reanalysis or loss. Both of these developments occurred in the history of Slavic.

Oba was lost in Bulgarian and in the dialects of Macedonian in contact with Bulgarian and Greek. This path of development likely occurred due to the emergence of the definite article.⁶ With an overt article present, a definite DP could be marked unambiguously even with the numeral *dъva*, something which was not possible earlier, since the use of bare (article-less) *dъva* could not distinguish between definite and indefinite DPs. In other words, whereas previously *oba* was competing with a lexical item *dъva* for use in syntactic structures such as [definite]-specified DP as in (10), and it had the advantage of unambiguously signaling a definite DP, now it no longer had that advantage. This ultimately led to the disappearance of *oba* in the relevant language.

Oba was reanalyzed in the rest of the Slavic languages. None of these languages have developed a definite article, so *oba* remained the only way to unambiguously mark a DP as definite. This presumably precluded the outright loss of *oba*. A reanalysis of *oba* as a distributive quantifier was not inevitable; after all, OCS managed to do without such a quantifier. But the change fulfilled a double function—it apparently met a need, common cross-linguistically, for a distributive dual quantifier and also resolved the marked status of *oba* in the grammar.

If languages have a need for a distributive dual quantifier, then why did Bulgarian and dialects of Macedonian not develop one, reanalyzing the otherwise not needed *oba*? The answer must lie in the fact that a syntactic alternative was available to the lexical item strategy. The use of *i*, “and,” as a distributive marker was already present in South Slavic, as seen in (11) in the conjunction reduction strategy. With a definite article present, all the individual pieces of the meaning of *both* were at hand.

- (16) and + the + two
 (DISTRIBUTIVITY marker, as seen also [DEFINITENESS] [DUALITY]
 in conjunction reduction structures)

The *and the n* strategy is cross-linguistically attested, and it is a general one, as it could be used with any numeral, not just 2. So, in the presence of a syntactic construction expressing exactly the same meaning, and with a wider applicability (i.e.,

not restricted to cardinality of 2), a distributive dual quantifier, a lexical item, was not developed. This state of affairs may also have been reinforced through influence from Greek, which lacked a lexical item meaning "both" but had the syntactic means of expressing this meaning through the *and the n* construction.

Implications for Other Indo-European Languages

The fact that OCS *oba* was originally a numeral and that it became a marker of distributivity later, in the process of historical change, is of consequence not only to Slavic but also to the larger Indo-European (IE) language family. The lexical item *oba* derives from the Proto-Indo-European (PIE) word **ambho:*, with its other descendants being *both* (English), *beide* (German, Dutch), *ambos* (Spanish), and so on. Given that in other languages the cognates of *oba* are commonly understood to be distributive, the OCS facts suggest two paths of development from **ambho:* to *both*, *beide*, *oba*, *ambos*, and so forth.

- (17) a. distributive **ambho:* → distributivity lost in OCS, distributivity regained & kept in other IE languages in Modern Slavic
 b. nondistributive **ambho:* → parallel developments in the meaning of *both*, *beide*, *oba*, *ambos*, and so on.

In order to decide which of the two pathways represents the actual development of **ambho:*, we must naturally look beyond Slavic. More concretely, we need to look for the use of the cognates of *oba* in the numeral function in other IE languages, including the ancient ones. While careful investigation into non-Slavic IE languages is beyond the scope of this work, some preliminary evidence in favor of (17-b) can be found in Modern German and Dutch. In both these languages, as it turns out, the meaning of *beide* alternates between the distributive "both" reading and a numeral 2 reading. The latter reading is found whenever *beide* is preceded by a definite article (D. Büring, B. Schwarz [pc]):

(18) German

Welcher von ?(die) beiden hat gewonnen?

which of (the) both has won

"Which of the two won?"

(19) Einer von ?(die) beiden wird gewinnen.

one of (the) both will win

"One of the two will win."

(20) Die beiden Männer haben diese zwei Frauen geheiratet.

the both men have these two women married

"The two men married the two women." (collective reading possible)

cf.

(21) Beide Männer haben diese zwei Frauen geheiratet.

both men have these two women married

"Both men married the two women."

(distributive reading only)

These German examples in conjunction with the OCS data indicate that the ancestor of *oba* and *beide*, that is, **ambho:* was in fact not a distributive quantifier but meant something like “the two” and that the distributive function of *both*, *beide*, modern *oba*, and so on was a later, parallel development in the individual languages. In other words, our finding that OCS did not have a distributive dual quantifier may in fact be a more general finding about some of the early IE languages. If this is indeed so, it will suggest that a change from “two” to “both” is a natural development for grammars.

Summary

The OCS word *oba*, a relative of *both*, *beide*, and so forth, was a numeral with a definiteness presupposition, not a distributive quantifier. That numeral has been either re-analyzed or lost in all modern Slavic languages. In those languages where it has been preserved, it acquired a distributive quantifier function. In languages where it was lost, it was replaced by a periphrastic construction with a more general functionality.

These findings are of importance for more than just the history of *oba* in Slavic. They show the primacy of grammar, in the structures it generates and the system of relationships it determines, over lexical items (*oba* was lost when the syntactic means of expressing its meaning became available). They also show that marked elements are susceptible to change (*oba* did not replace *дѣва*, but rather *дѣва* replaced *oba* in its definite use, making *oba* redundant and therefore subject to reanalysis).

The history of Slavic “both” also suggests that the meaning of the PIE word **ambho:*, from which *oba*, *both*, and other corresponding words in different IE languages are derived, may not have had a distributive component and that the distributive-marking function of such words observed in the modern IE languages was a later development.

NOTES

This work was supported by a National Science Foundation grant on “The Historical Syntax of Medieval South Slavic” (BCS 0418581) to Roumyana Pancheva. We would like to thank the following people for helpful comments, suggestions, and language data: Daniel Buring, Tania Ionin, Jelena Krivokapic, Ljiljana Progovac, Don Ringe, Joseph Salmons, Barry Schein, and Bernard Schwarz. Any remaining errors are naturally ours.

1. OCS is the oldest recorded Slavic language. Although it belongs to the South Slavic branch of the family, it is thought to be sufficiently similar to, and thus a good representative of, Common Slavic, the common predecessor of all the Slavic languages (e.g., Lunt 2001, 1; Schenker 1995, 71, 185–86).
2. The data are from Codex Marianus, an eleventh century AD text of the four Gospels. We used the annotated text of the Codex in Pancheva et al. (2007), which in turn is based on the electronic edition of Codex Marianus in Jouko Lindstedt’s *Corpus Cyrillo-Methodianum Helsingiense: An Electronic Corpus of Old Church Slavonic Texts*.
3. The alternate order appears to be possible only in very restricted cases, perhaps dialectal, such as *the both of us*.
4. Morphosyntax does not distinguish between determiners and numerals. They all inflect like adjectives, agreeing in number, gender, and case with the head noun. Thus demonstrative *тѣ* “this” had the same inflectional affixes in the dual as did *oba*.
5. The term “quantifier” is used rather descriptively here. English adnominal *both* has been argued to be either a quantificational determiner with a generalized quantifier meaning or, alternatively, a modifier that eliminates exceptions to the maximality interpretation of plural definites.

6. We assume here that the definite article was introduced before the reanalysis of *oba*. The completed development of the article is dated rather early, in the twelfth to thirteenth centuries (Duridanov et al. 1993, 555), whereas the OCS texts are from the eleventh century, so this is not an implausible assumption.

REFERENCES

- Barwise, Jon, and Robin Cooper. 1981. Generalized quantifiers and natural language. *Linguistics and Philosophy* 4:159–219.
- Bobaljik, Jonathan. 2003. Floating quantifiers: Handle with care (revision of 1998 Glot article). In *The second Glot international state-of-the-article book*, ed. Lisa Cheng and Rint Sybesma, 107–48. Berlin: Mouton de Gruyter.
- Brisson, Christine. 1998. *Distributivity, maximality and floating quantifiers*. PhD diss., Rutgers University.
- Doetjes, Jenny. 1997. Quantifiers and selection: On the distribution of quantifying expressions in French, Dutch, and English. HIL diss., The Hague.
- Dowty, David, and Belinda Brodie. 1984. The semantics of floated quantifiers in a transformational grammar. In *Proceedings of WCCFL III*, ed. Susannah MacKay, Mark Cobler, and Michael Wescoat, 75–90. Stanford, CA: Stanford Linguistic Association.
- Duridanov, Ivan, et al. 1993. *Gramatika na starobulgarskija ezik*. [Grammar of Old Bulgarian]. Sofia: Izdatelstvo na Balgarskata akademija na naukite.
- Edmondson, Jerold A. 1978. On how to get both in categorial grammar. *Studies in Language* 2 (3): 295–312.
- Fitzpatrick, Justin. 2006. The syntactic and semantic roots of floating quantification. PhD thesis, Massachusetts Institute of Technology.
- Huntley, David. 1993. Old Church Slavonic. In *The Slavonic languages*, ed. Bernard Comrie and Greville Corbett, 125–87. London: Routledge.
- Ladusaw, William. 1982. Semantic constraints on the English partitive construction. *Proceedings of WCCFL I*, ed. Susannah MacKay, Mark Cobler, and Michael Wescoat, 231–42. Stanford, CA: Stanford Linguistic Association..
- Landman, Fred. 1989. Groups, I. *Linguistics and Philosophy* 12:559–605.
- Lunt, Horace. 2001. *Old Church Slavonic grammar*. 7th rev. ed. Berlin: Mouton de Gruyter.
- Pancheva, Roumyana, Agnieszka Łazarczyk, Jelena Krivokapic, and Yulia Minkova. 2007. *Codex Marianus*. In *USC parsed corpus of Old South Slavic* (an electronic resource).
- Progovac, Ljiljana. 1999. Events and economy of coordination. *Syntax: A Journal of Theoretical, Experimental and Interdisciplinary Research* 2 (2): 141–59.
- Roberts, Craig. 1987. *Modal subordination, anaphora and distributivity*. PhD diss., University of Massachusetts, Amherst.
- Schenker, Alexander M. 1995. *The dawn of Slavic: An introduction to Slavic philology*. New Haven, CT: Yale University Press.
- Schwarzschild, Roger. 1996. *Pluralities*. Dordrecht: Kluwer Academic.
- Shlonsky, Ur. 1991. Quantifiers as functional heads: A study of quantifier float in Hebrew. *Lingua* 84:159–80.
- Sportiche, Dominique. 1988. A theory of floating quantifiers and its corollaries for constituent structure. *Linguistic Inquiry* 19 (3): 425–49.
- Stockwell, Robert, Paul Schachter, and Barbara Partee. 1973. *The major structures of English*. New York: Holt, Rinehart and Wilson.