

From “Two” to “Both”: Historical Changes in the Syntax and Meaning of *Oba* in Slavic

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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.

1. Old Church Slavonic

The grammatical descriptions of OCS¹ (e.g., Huntley 1993, Lunt 2001) as well as dictionaries and glossaries consistently give the meaning of *oba* as “both.” This is probably so for two reasons: (i) *oba* does mean “both” in the modern Slavic languages, and (ii) the meanings of “both” and “two” overlap, and they 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*, e.g. *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, e.g., *četyre na desęte* “fourteen,” literally “four on ten” and *sedmъ 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...” (Matthew 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 rļtъ edinę.
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” (Matthew 19:5b)
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 licensed.

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

The examples above show clearly that the OCS *oba* must have been simply a numeral “two.” In Codex Marianus there are 41 cases of the use of *oba* in environments such as (1)-(3), where it clearly did not mean “both.” The remaining 13 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) въ сеју oboju zapovědiju . vesъ zakonъ i proroci višetъ .
in these two commandments all law and prophets hang
 “All the Law and the Prophets hang on these two commandments.” (Mathew 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 arguments⁴ suggest that *oba* was a numeral. Interestingly, it was restricted to definite contexts. Even when *oba* appeared without a determiner, its nominal phrase was interpreted as definite. Another numeral, *dьva*, also meaning “two,” was used in both definite and indefinite contexts, though it was more typically found in indefinite ones (97 out of 100 uses in Codex Marianus).

2. 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. I usiadłszy, przywołał dwunastu i rzekł im... Polish
and having-sat-down called two-on-ten and said them
 b. I sev, on pozval dvenadtsat’ i skazal im... Russian
and having-sat-down he called two-on-ten and said them
 c. Seo je i pozvao dvanaestoricu i rekao im... Serbian
sat is and call two-on-ten and said them
 “And having sat down, he called the twelve and said to them...”

In the modern languages, *oba* cannot be used with collective predicates, as exemplified in (6) and (7). Again, in this respect, modern *oba* differs from its OCS predecessor.

- (6) a. Polish
 połączy się z żoną swoją, i będą ci dwoje/*oboje jednym ciałem
*will-join REFL with wife self's and will-be these two/*both one body*
- b. Russian
 soedenitsa so svoej ženoi, i dvoe/*oba stanut odnoi plot'iu.
*will-join-REFL with self's wife and two /*both will-become one flesh*
- c. Serbian
 sjediniti se sa ženom svojom i biće njih dvoje/*oboje jedno telo
*will-join REFL with wife self's and will-be these two /*both one body*
 “(For this reason a man will leave his father and mother and be united to his wife,) and
 the two will become one flesh.”
- (7) a. Obie kobiety przyszły (*razem). Polish
both women came together
- b. Obe zhenshchiny prishli (*vmeste). Russian
both women came together
- c. Obe žene su došle (*zajedno). Serbian
both women are came together
 “(*Both) women came together.”

Lastly, just like *both*, *oba* cannot be a complement of a partitive preposition, as exemplified in (8). Again, recall that in this syntactic context OCS *oba* was acceptable.

- (8) a. Który z tych dwóch/*obu wypełnił wolę ojcowską? Polish
*which from these two /*both fulfilled will of-father*
- b. Kto iz etikh dvoikh/*oboikh sdelal to, chto khotel otets? Russian
*who from these two /*both did this what wanted father*
- c. Koji od njih dvojice/*obojuce/*oba je učinio šta je njegov otac želeo? Serbian
*which from these two /*both is fulfilled what is his father wanted.*
 “Which of these two did what his father wanted?”

As the examples above show, in the languages that have preserved *oba*, it no longer functions as a numeral “two.” Instead, it is a distributive quantifier corresponding to English “both.”⁵ The question arises of 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) I dvamata studenti dojdoha (*zaedno) Bulgarian
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*, e.g., 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 vs. Bulgarian and dialects of Macedonian.

3. 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 Copper (1981), who propose that *both* is a determiner with the same meaning as “the two.” However, we already know that the two are not equivalent. This is also indicated by examples such as **One of both children sneezed* vs. *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* vs. *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 maximize--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 DPs, which can be stranded behind after the DP moves, e.g., *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 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, i.e., DP-adjunct or VP-adjunct (e.g., Dowty and Brodie 1984, Brisson 1998, Bobaljik 2003).

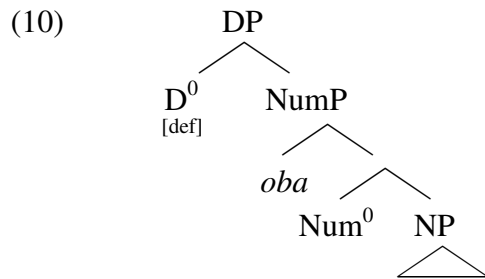
Lastly, it should be mentioned that, as many authors have pointed out (e.g., Stockwell, Schachter and Partee 1973; Edmondson 1978; Schwarzschild 1996; Brisson 1998, Progovac 1999), the word *both* in English also functions as a conjunction-reduction marker, whose presence signals strictly distributive, multiple event readings, e.g., *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 (Schlonsky 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 non-conjoined nominals. We can conclude that *both* is uniformly an adjunct, to DPs or to conjunctions of various category, and that it is

associated with (i) distributivity, (ii) cardinality of 2 (of individuals or events), and (iii), in the case of DP-adjoined *both* definiteness.

4. Historical Changes in the Syntax and Semantics of *Oba*

Coming back to 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. 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 *dьva*, the other numeral “two”, is the same, except for the fact that D^0 can be specified [definite] or not.

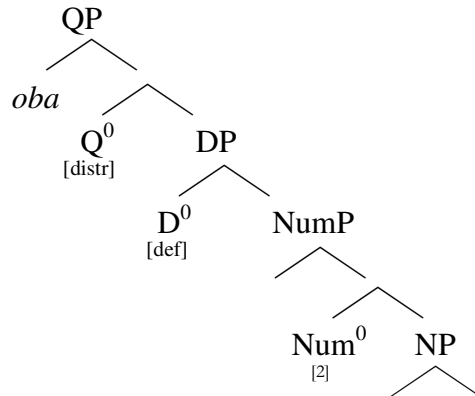


In Polish, Russian, Serbian and the other languages apart from Bulgarian and dialects of Macedonian, *oba* was reanalyzed from a numeral, a non-quantificational cardinality expression, to a quantifier associated with distributivity. Syntactically, that meant that *oba* would no longer merge as a specifier of the Number Phrase. But does it merge as an adjunct to 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). Example in (11) shows that this construction was already available in OCS.

- (11) boite že se pače . mogoščaago i dšq i tělo pogubiti vь 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.” (Matthew 10:28b)

Because *oba* is not used with conjunctions, we propose to treat it as a specifier of a 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., Schwarzschild 1996, Brisson 1998, a.o.). 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 in the fact that some modern Slavic languages allow the numeral *dva* to co-occur with *oba*. Examples of that are given in (13) below. 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. Obaj/obydwaj chcieli zapłacić za bilet. Polish
both/both-two wanted to-pay for ticket
 “Both (men) wanted to pay for the ticket.”
- b. Oba/obadva dečaka su želela da plate kartu. Serbian
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 Number Phrase. As the examples in (14) show, *oba* must precede the demonstrative pronoun.

- (14) a. Obaj ci/*ci obaj chłopy chcieli zapłacić za bilet. Polish
both these/these both boys wanted to-pay for ticket
- b. Oba eti/??eti oba mal’čika khoteli zaplatit’ za bilet. Russian
both these/these both boys wanted to-pay for ticket
- c. Oba ta/*ta oba dečaka su želela da plate kartu. Serbian
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. *Dwaj ci/ci dwaj chłopy chcieli zapłacić za bilet. Polish
two these/these two boys wanted to-pay for ticket

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 “two.” 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.

6. 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), etc. 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*, etc:

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

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 “two” reading. The latter reading is found whenever *beide* is preceded by a definite article (D. Büring, B.Schwarz (pc)):

- (18) Welcher von ?(die) beiden hat gewonnen? German
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)

The above German examples in conjunction with the OCS data indicate that the ancestor of *oba*

and *beide*, i.e., *ambho*: was in fact not a distributive quantifier, but meant something like “the two,” and that the distributive function of *both*, *beide*, modern *oba*, etc. 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 Indo-European languages. If this is indeed so, it will suggest that a change from “two” to “both” is a natural development for grammars.

7. Summary

The OCS word *oba*, a relative of *both*, *beide*, etc, was a numeral with a definiteness presupposition, not a distributive quantifier. That numeral has been either reanalyzed 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.

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Endnotes:

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, 185-186).

² The data are from Codex Marianus, an 11th c. A.D. text of the four Gospels. We used the annotated text of the Codex in Pancheva R., A. Łazorczyk, J. Krivokapic and Y. Minkova (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, possibly dialectal, like *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 (like e.g., *every*),

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, 12-13th C (Duridanov et al. 1993, p. 555), whereas the OCS texts are from 11th C, so this is not an implausible assumption.

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