

**Approximative Inversion revisited**  
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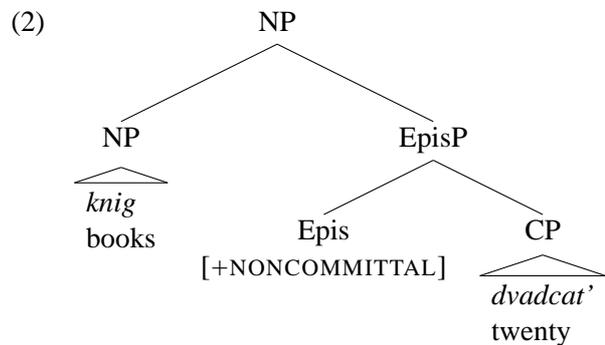
In Russian, numeral expressions can be made approximate through Approximative Inversion, whereby the noun and the number appear to invert (cf. (1a) and (1b)). Approximative Inversion has typically been analyzed as head movement (e.g. Pereltsvaig 2006, Yadroff and Billings 1998), where a head containing the noun raises to the left of the numeral. This, however, leads to incorrect semantics. Here I develop a semantic analysis which leads me to propose that Approximative Inversion involves post-nominal generation of the numeral in a relative structure, where it is associated with a feature marking speaker uncertainty.

A close examination of the semantics of Approximative Inversion reveals that it is a combination of what previous researchers have proposed: it expresses the speaker's public uncertainty about the numeral expressed and can result in an approximative interpretation of the numeral. This resulting approximative reading can be explained as follows. Since the speaker has expressed this uncertainty, the listener is encouraged to entertain alternatives to the numeral expressed (cf. alternative semantics, Rooth 1992). The numeral is a scalar and contributes scale information (see (4)) which the listener is pragmatically pressured to use when computing alternatives. According to the scale information, the closer numerals are minimally different from the expressed numeral and *ceteris paribus* are the more likely alternatives. This scale information can thereby lead the set of alternatives to resemble approximation, where the set of alternatives consists of numbers that are similar enough to the numeral expressed. Therefore, speaker uncertainty can invoke an approximative reading (cf. (5a) and (5b)). These semantics, however, are not straightforwardly compatible with existing syntactic analyses of Approximative Inversion.

Pereltsvaig (2006) proposes that Approximative Inversion results from head movement of the noun to the left of the numeral. The purpose of this movement is to check a NONCOMMITTAL feature, which is meant to express the speaker's non-commitment to the cardinality expressed. However, checking this feature on the noun would express the speaker's non-commitment to the noun, not the numeral. Yadroff & Billings (1998) propose moving Meas, a head which contains the phonological form of the noun and represents its measure, to check a -DEF feature. They claim that moving Meas to check this feature indicates an indefinite measure of the number of objects. This solution, however, fails in that it conflates independent senses of indefiniteness (ill-defined versus non-unique), it wrongly predicts that all measure terms associated with indefinite nouns should proceed them, and it marks the -DEF feature on a category that represents measure and not pure cardinality such that it is not clear how the uncertainty would target the numeral part of a denotation of Meas to the exclusion of unit information. Furthermore, it does this in a way that is compositionally inconsistent with the syntax, combining Meas with the numeral semantically but with N syntactically. Utilizing head movement to mark features on the noun itself or some measure of the noun may have some success deriving the correct word order, but it does not allow a straightforward semantic analysis.

The semantics of AI suggests a different syntactic structure. I propose that Approximative Inversion, instead of relying on head movement, involves a numeral generated in a post-nominal position where it is associated with an epistemic feature marking the speaker's uncertainty, as shown in (2). The correct semantics can then be derived as described above, with the epistemically-marked numeral encouraging the listener to entertain alternatives, which may result in an approximative reading. This relative clause analysis may be able to account for many of the syntactic distribution facts, as well as noun case, by base-generating the noun within the relative clause (Kayne (1994), and Bianchi (1999) for inverse case attraction). Furthermore, a relative clause analysis helps draw parallels with other alternative-inducing constructions (see Cinque (2005), where restrictive modifiers have a relative clause source), as well as with other approximative structures (see (6), which also involves approximate post-nominal modifiers and may have an overt Epis).

- (1) a. Ivan pročital dvadcat' knig.  
Ivan read twenty books  
'Ivan read twenty books.'  
b. Ivan pročital knig dvadcat'.  
Ivan read books twenty  
'Ivan read about twenty books.'



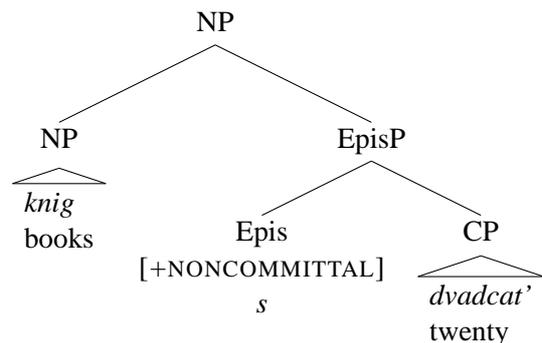
(3)  $[[+NONCOMMITTAL]] = [\lambda x.x, \text{ defined if } uncertain(s_c)(x)]$

(4) 20 situated on a scale:



- (5) a. Approximative Inversion: *knig 20* → {18, 19, 20, 21, 22}  
b. Pure approximation: *priblizitel'no 20 knig* → {18, 19, 20, 21, 22}

- (6) a. osetrof s sorok (Billings 1995:12) (7)  
sturgeons S forty  
'about forty sturgeons'  
b. mal'čik s pal'čik  
boy S thumb  
'boy about the size of a thumb'



## References:

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