

## Prepositional Numerals

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Most of the research on numerals has concentrated on the properties of straightforward examples like *seven* or *three hundred seventy nine*. Less attention has been paid to the ways in which such numerals can be modulated by expressions like *exactly*, *less than* or *around*, even though this is a surprisingly rich area.

In this paper we want to look at one part of this area. There are languages in which the expressive power of the numeral system can be expanded by the use of prepositions, leading to what we will call prepositional numerals. Here are some examples from Dutch:

rond de twaalf ‘around twelve’, boven de honderd ‘over a hundred’, tussen de tien en vijftien ‘between ten and fifteen’, tegen de duizend ‘up to a thousand’

We will demonstrate that these expressions are grammatical hybrids. Internally they are prepositional phrases. The preposition takes the numeral (plus the definite article *de*) as a complement, it can be modified (*ver boven de honderd* ‘way over a hundred’) and be complex (*in de richting van de honderd* lit. in the direction of the hundred). Furthermore, the semantics that these prepositions have in their numeral use is based on their spatial meaning. However, externally, these expressions can behave like numerals, occurring prenominally (*boven de honderd mensen* ‘over a hundred people’), sometimes following a determiner (*de boven de honderd mensen* lit. the over the hundred people) and allowing the kind of operations and interpretations that are typical of numerals.

What makes these prepositional numerals interesting is that they exhibit an unexpected interaction between two parts of speech, and, corresponding to that, two major conceptual domains, space and number. That the language of quantity is metaphorically structured in terms of the vertical dimension is well-known, but what we see in Dutch and other languages goes beyond this.

As a case-study illustrating the cross-linguistic relevance of this interaction we will show that in many languages a spatial expression corresponding to ‘round’ develops an approximation use, like in Hungarian *a ház körül* ‘around the house’ (from *kör* ‘circle’) and *körülbelül 30 euro* ‘around 30 euros’.