

On the order of demonstrative, numeral, adjective and noun

Cinque (2005) proposes an account of the different frequencies of orders of demonstrative, numeral and adjective with respect to each other and with respect to the noun among the languages of the world in terms of movements starting with a universal underlying order of Dem-Num-Adj-N, based on what is a possible movement and what types of movements are "marked" in his theoretical framework. This paper presents data based on a different sample, consisting of 404 languages, and proposes an alternative account of the different frequencies, based on a set of surface principles, without appealing to movement or a universal underlying order.

Cinque does not present actual number of languages but characterizes the number of languages of each type informally in terms of expressions like "very many", "many", "few", "very few", and unattested, and his theory characterizes each type in terms of whether the type is unmarked, involves one marked option, two marked options, or is disallowed. The data presented here provide a number of empirical problems for his claims. First, four of the types that his theory disallows (Num-N-Dem-A, Dem-A-Num-N, Num-Dem-A-N, and N-Num-Dem-A) are attested in the present sample. Second, the third most frequent type (after the two most frequent types Dem-Num-Adj-N and its mirror image N-Adj-Num-Dem), namely Num-N-A-Dem, is a type that involves two marked options on Cinque's theory and should therefore be fairly rare on his theory. I argue that, apart from the two most frequent types and the unattested types, his theory does little better than chance in predicting the relative frequency of the other types.

The alternative account I propose involves the following six principles:

1. Iconicity Principle 1: The adjective tends to occur closer to the noun than the demonstrative when they occur on the same side of the noun.
2. Iconicity Principle 2: The adjective tends to occur closer to the noun than the numeral when they occur on the same side of the noun.
3. Iconicity Principle 3: The numeral tends to occur closer to the noun than the demonstrative when they occur on the same side of the noun.
4. Asymmetry Principle: The Iconicity Principles apply more strongly to prenominal modifiers than they do to postnominal modifiers; exceptions to the Iconicity Principles will occur only with postnominal modifiers.
5. Greenberg's Universal 18: When the descriptive adjective precedes the noun, the demonstrative and the numeral, with overwhelmingly more than chance frequency, do likewise.
6. Intra-Categorical Harmony: The demonstrative, numeral, and adjective tend to all occur on the same side of the noun.

I show that the relative frequency of the different types in my sample is predicted very well by how many of these six principles the language conforms to: (1) the two most frequent types satisfy all six principles; (2) the five next most frequent satisfy exactly five principles; and (3) only two types satisfying fewer than four principles are attested.

Cinque, Guglielmo. 2005. Deriving Greenberg's Universal 20 and its exceptions. *Linguistic Inquiry* 36: 315-333,