

Numerals and word sequences

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According to (Spelke and Tsivkin 2001) numerals are a linguistic and cognitive bridge between two types of “core” knowledge, that is, subitization of small quantities and approximate representation of large quantities. In this paper I go somewhat their way but I also introduce some apriori constraints on what could constitute a bridge. Such constraints are on the ‘design’ of a numeral system and on its use. The starting point is the consideration that numerals like ‘three’ (as well as names of days of the week like ‘Friday’) are non-standard linguistic items. I propose that their peculiarity is primarily neither a syntactic nor a semantic peculiarity. It is instead in their morphology. Mastering numerals and names for days of the week is assigning them a certain non-standard morphology, whereby any numeral is a mandatorily a non-independent part of a longer sequence. It is hypothesized that this non-standard morphology is associated with a non-standard (at least for language) semantics, i.e. map semantics. In a sense, numerals are an artificial language encroached in natural language. The explanatory advantages of the account are discussed and contrasted with Spelke and Tsivkin's ‘bridge’ account of the role of numerals in cognition.