

## Count language in: how linguistic knowledge shapes numerical development

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How children develop numerical knowledge has been an ongoing area of study for decades, with the infamous Give-a-Number Task (Wynn 1992), and the knower-level framework that stems from it, having just passed its 30<sup>th</sup> birthday. This methodology has proven to be robust and replicable, and, more importantly, unveiled an acquisition pattern that universally holds across languages, cultures, and countries worldwide (Marchand et al. 2022, Wege et al. 2022). In this process, children slowly discover the exact meanings of cardinals *one* through *four* in a tiered fashion before they become fully competent counters and overcome the limitations of innate nonverbal systems of number (e.g., Le Corre & Carey 2007), thereby catching the attention of cognitive scientists, developmental psychologists and, yes, linguists.

What does this have to do with language? Both general and language-specific linguistic knowledge have been argued to play an important role in the development of cardinal understanding (e.g., Carey 2009). One reason to believe language-specific factors are at play is that the start and duration of numeral acquisition stages differs across languages, even though the general pattern in acquisition is universal. For example, Almoammer et al. (2013) show that learners of languages with dual marking are quicker to acquire the meaning of *two* than languages with 'only' a singular-plural distinction, suggesting that specific linguistic cues or properties may help or hinder the acquisition process. But grammatical number marking is just one example: the count list, quantifiers, or underlying learning principles are also all aspects of language that are under investigation for being possibly relevant in numerical development (cf. Meyer 2019).

This talk aims to shed light on this discussion, by expanding our attention from cardinals (*one, two, three*) to ordinals (*first, second, third*) in different languages (e.g., Dutch, English and Russian) and learner populations (TD, DLD and bilinguals). Using existing, novel, and preliminary data from a combination of Give-a-Number tasks and a cross-situational word learning paradigm, I will argue that children use morphosyntactic structure to acquire ordinal meaning, and that smart mistakes like *twoth* and *eated* are as related as they are different (cf. Meyer 2019, De Vries et al. 2021). In addition to showing how rules and storage effect ordinal acquisition, I hope to raise some questions about what it means to learn or know something, and will peek ahead to how upcoming studies on

ordinal acquisition in Czech populations should help us better understand linguistic and numerical development.

## References

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