Vague quantifiers in Estonian: evidence from a picture choice task

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Vague quantifiers, such as *few* and *some*, are words that refer to an underspecified amount of things. They do not directly map onto an exact numeric system, but are argued to map onto a separate, approximate numeric system (Coventry et al., 2010). The mapping can be influenced by various factors, such as linguistic frequency of the expression (Newstead & Collis, 1987), the spatial arrangement of the objects in relation to background objects (Coventry et al., 2010; Newstead & Coventry, 2000), and the number of objects vs. the number of background objects (Coventry et al., 2005). There also seems to be a cross-linguistic variation in perception of vague quantifiers (Stateva et al. 2019).

In this paper, we focus on two Estonian quantifiers: *paar* 'couple' and *mõned* 'some'. Both quantifiers are used to express a small, countable amount of something, as in *Poisil on paar õuna* 'The boy has a couple of apples' or *Poisil on mõned õunad* 'The boy has some apples'. *Paar* has a strong connotation of mapping onto two objects, and similarly to English pair and German *Paar*, the Estonian *paar* also refers to entities that are composed of two parts (e.g., *paar kääre* 'a pair of scissors'). However, *paar* and *mõned* can also be used seemingly interchangeably, as in *õues on paar kraadi sooja* 'there are a couple of plus degrees outside' vs. *õues on mõned kraadid sooja* 'there are some plus degrees outside'. This study aims to pinpoint which parts of the numeric scale *paar* and *mõned* occupy, and under which conditions. We used a picture choice paradigm to investigate the scope of *paar* and *mõned*. Participants were simultaneously shown two pictures, with a sentence such as *Poisil on paar õuna* 'The boy has a couple of apples'. Their task was to match the sentence with one of the two pictures. There were 3 different conditions in the task: 2 vs. 3, 3 vs. 5, and 5 vs. 7 target objects. We expected to see *paar* consistently matched with the picture that depicts fewer objects and *mõned* with the picture that depicts the larger number of objects.

Preliminary results (39 participants) show that Estonian speakers consistently choose *paar* to represent the smaller and *mõned* the larger amount. There was a highly significant effect of the quantifier in the first (2 vs. 3 objects) and second (3 vs. 5 objects) condition ($p < 0.0001$). However, this effect disappears when a critical number of objects is reached, where both *paar* and *mõned* are judged to only be suitable to describe the smaller number of objects – in the third condition (5 vs. 7 objects) the effect barely reached statistical significance ($p = 0.047$). Despite the possibility to use *paar* and *mõned* interchangeably, we found a clear distinction between *paar* and *mõned* in the first and second condition. This is in accord with the view that small amount quantifiers tend to be better distinguished than large amount quantifiers (Pezzelle et al. 2018).

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