From feeling to cognition in Estonian
– a study on tundma ‘to feel’

MARIANN PROOS
(University of Tartu / Radboud University Nijmegen)

The present study focuses on the Estonian tactile perception verb tundma ‘to feel’ and its polysemy. Whereas tactile perception verbs have not typically been found to be highly polysemous across languages, relative to verbs of vision and hearing (e.g. Sweetser, 1990; Evans & Wilkins, 2000; Storch & Aikhenvald, 2013a), the Estonian verb exhibits a rich polysemy. Results of two different linguistic tasks will be presented. The first task deals with the nature of the polysemy of tundma in Estonian, and the second task focuses on the cognition meanings of tundma ‘to feel’ and their conceptual properties.

Sweetser (1990) argued that there is a universal pattern of certain perception domains extending to certain abstract domains (e.g. vision → cognition). However, various studies have since demonstrated that there is much variation in languages across the world. Nonetheless, the extension from perception to cognition itself does seem to be close to universal (Ibarretxe-Antunano, 2008). Evans & Wilkins (2000) showed that in Australian languages, hearing rather than vision is the source for the extension from perception to cognition. The same pattern was found in some Papuan and Austronesian languages by Storch & Aikhenvald (2013b). Viberg (2005, 2015) has shown that in Swedish, the tactile perception verb käänna ‘to feel’ is the source of the extension for the perception to cognition.

Although much has been written on the relationship between perception and cognition, the previous work has been mostly descriptive. The present study aims to show whether the knowledge expressed by a perception verb, in this case the Estonian verb tundma ‘to feel’, can be shown to exhibit characteristics conceptually motivated by the physical act of perception itself.

The first experiment conducted was a sorting task with 25 senses of tundma ‘to feel’. 66 participants sorted 25 sentences (one sentence per sense) into groups according to the meaning of tundma in the sentence. It is generally presumed that sorting stimuli into groups reflects the conceptual distinctions made in the mind of the language users (e.g. Gibbs, Jr & Matlock, 2001; Sandra & Rice, 1995). Thus, a sorting task gives insights to how the polysemy structure of a verb is represented in the language user’s mind. The results show that the senses related to cognition formed a group that was distinct from the other senses. This suggests that these meanings form a conceptually coherent group within the structure of the polysemy.

The second task focused the type of knowledge that is expressed with tundma ‘to feel’. In addition to tundma ‘to feel’, knowledge can be expressed with a number of more abstract Estonian verbs like teadma ‘to know’ or aru saama ‘understand’. Examples 1 and 2 showcase two different sentences that would both be translated to English as “Kai knows Estonian plants”.

(1) Kai tunneb Eesti taimi.
Kai feel.3SG Estonia.GEN plant.PL.PART
Kai knows Estonian plants
In Estonian, the first sentence expresses a deeper, more thorough knowledge of the plants than the second sentence. This is a tendency with the other cognition meanings of *tundma* ‘to feel’ as well. The second task aimed to find out whether the *tundma*-knowledge is perceived as being more “bodily” due to the polysemy of the verb, i.e. whether the *tundma*-knowledge is motivated by the physical perception. To this end, 70 participants completed a modified version of a Conceptual Feature Rating task (Troche, Crutch, & Reilly, 2014, 2017). Participants rated sentences on the cognitive dimensions of sensation, emotion, social interaction, time, mental activity, and action. Six cognition-related senses of *tundma* ‘to feel’ were each represented by 6 sentences. All of the sentences were paired with an equal abstract-verb sentence (e.g. 1 and 2 above). All participants thus rated 72 sentences altogether, the presentation order of the sentences was randomised. A significant difference was expected between the feel-sentences and the know-sentences within one dimension. For example, it was hypothesized that the feel-knowledge would be rated higher on the dimension of emotion than the know-knowledge.

Preliminary results show no significant difference between the two types of knowledge-sentences. There are a number of possible reasons for this. For example, it might be that randomising the order of sentences resulted in participants paying more attention to the broader context expressed by the sentence and a difference would have been visible in the case of a pairwise comparison of the sentences. A significant difference in the rating was only found across the senses, e.g. sentences expressing the sense “knowing someone thoroughly” were rated significantly higher on the dimension of emotion than sentences expressing the sense “knowing something thoroughly”.


