Qualities of size: towards a typology

Every physical object has three dimensions. However, languages tend to have more than three qualitative lexemes describing size. Traditionally this phenomenon is accounted for by combining parameters: it is considered that several elementary semantic components (the direction of measuring, horizontal vs. vertical orientation of an object, etc.) in different combinations make up the meaning of a lexeme (see Bierwisch, Lang 1989, Lang 1995, Wierzbicka 2007).

Such approach is effective, but it doesn’t explain all the cross-linguistic differences in the behavior of lexemes denoting size and doesn’t make it possible to predict the restrictions imposed on their combinability. Therefore we have created a novel questionnaire based on the principle of “topological classification” (see Talmy 2000 and Rakhilina 2000 on the domain of dimensions). A topological type embraces both form and spatial orientation of a physical object, and takes into account their functional characteristics and the position of the observer (cf. vertical and horizontal surfaces, containers, balls, prolonged objects fixed at their bottom, etc.).

Our research is already completed for six languages of different groups and families: Russian, Serbian, English, French, Mandarin Chinese and Khanty (the Tegi dialect); the research on Japanese, German, Spanish, Latin, Welsh, Estonian and Komi-Zyrian is in progress. Evidence shows that topological classes successfully describe the size domain: they are regularly reproduced as the basis for the core oppositions in this semantic zone, but every language combines them on its own.

Thus, for instance, in Mandarin Chinese the thickness of long objects (like columns, ropes, pipes) is described with lexemes cù and xi (cù tiěsī ‘a thick wire’, xi gùnzi ‘a thin stick’), whereas the thickness of flat objects (like books, boards, a snow layer) is referred to by another pair of antonymic lexemes: hòu – báo (hòu mùbān ‘a thick board’ - báo zhǐ ‘thin paper’). Russian however doesn’t draw a borderline between these two topological types (in so far as adjectives of size are concerned) and puts them into the same class with the only pair of adjectives for their description: tolstij and tonkij (tolstaja provoloka (‘a thick wire’), tolstaja doska (‘a thick board’) – tonkaja palka (‘a thin stick’), tonkaja bumaga (‘thin paper’).

On the other hand, in Serbian long objects fall into two classes: hollow objects with the interior functional surface (for example, a passage) and objects without any functional interior surface (for example, a girl’s braid). The objects of the first type are described with the lexeme uzan (uzani hodnik – ‘a narrow passage’), while the objects of the second type are referred to as tanak (tanka pletenica – ‘a thin braid’). On the contrary, in French only one lexeme – mince – is used to describe both types of objects (un couloir mince - ‘a narrow passage’, une ficelle mince - ‘a thin rope’).

Our material shows that topological types are combined differently not only in different languages, but also in different lexemes within one language. For example, the zones of large and small sizes tend to be asymmetrical: there is usually a simpler classification of topological types in the zone of small size. Thus, Tegi Khanty draws no distinction between vertically oriented rigid objects (trees, walls) and containers (for example, a river or a bowl) usual for European languages (cf. English low vs. shallow, German niedrig vs. seicht, Russian nizkij vs. melkij): in Tegi Khanty both a low tree and a shallow river are described with the adjective lel. The domain of small sizes is also less elaborated in French and Latin.

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References