

Bivalent verb classes: a quantitative-typological assessment

oral / poster

Theme session: Quantitative linguistic typology

The aim of the study (which is part of an on-going collective project) is to reveal patterns of assigning bivalent verbs to valency classes and to assess the degree of cross-linguistic stability / variation of these classes with the help of quantitative methods. Based on a questionnaire that includes 130 predicative meanings (each is given in a particular context in order to avoid polysemy effects), the data have been (so far) gathered and statistically analyzed for 31 languages. In my talk, I am going to focus on those interim conclusions and hypotheses that can be achieved through comparing verb meanings to each other (the findings based on comparing languages is discussed elsewhere).

In accordance with previous assumptions, in most languages studied there is a clearly identifiable class of transitive verbs that stands apart from all other bivalent classes. The ratio of languages that employ transitive structures can be thus found for each meaning. The resultant distribution of transitivity-proneness is U-shaped, which means that verb meanings tend to cross-linguistically either favour transitivity or favour intransitivity. The data obtained allow us to refine some previous implicational hierarchies related to transitivity (cf. e.g. Tsunoda's work) and to propose new ones. Generally, implicational hierarchies **within** semantic domains (such as e.g. possession or directed motion) appear to be much more robust than cross-domain implications.

The central issue in the study is the way "less transitive" meanings are assigned to individual classes. Not surprisingly, apart from highly transitive verb meanings (in the Hopper and Thompson's sense), there are no other large semantic zones so that bivalent verb meanings belonging to these zones would cross-linguistically tend to have uniform argument realization.

There is a long-standing debate on whether minor valency patterns in individual languages are chiefly motivated by semantic (thematic) role structure or are largely idiosyncratic. In our project the dilemma is explored on quantitative-typological grounds; instead of abstract semantic schemata, we rely upon data from a sample of languages in order to study the degree of motivatedness of individual valency classes. In order to assess the degree of coding similarity between verb meanings we use Hamming-type measures (they can be then plotted in a Neighbor Net dendrogram).

There are semantic groups of meanings that were shown to indeed tend to fall into the same valency class in individual languages, e.g. "reciprocal / comitative verbs" ('agree', 'meet', 'fight' etc.); possession-related verbs; 'ablative verbs' (those meanings that can be construed as "motion from a source"). Even in these groups possible patterns of metaphor can be more important than actual similarity in terms of semantic roles (e.g. low degree of similarity between 'lose' and 'win').

In some areas the resultant groupings are very different from any classification that can be based on what is usually viewed as semantic roles. For example, 'forget', 'envy', 'look at', 'be surprised', 'enjoy', 'like' and 'be afraid' behave very dissimilarly cross-linguistically (although all of these verb meanings can be treated as encompassing an Experiencer and a Stimulus). Thus, either semantic roles generally are not good predictors for valency or, rather, the roles that are typologically relevant for argument coding are different from traditionally understood roles.

A special mathematical tool is proposed that can measure predictability of individual verb's valency class membership in a given language based on corresponding verbs' behaviour in other languages. The (not quite transitive) verb meanings are shown to form a hierarchy from those that tend to employ predictable coding devices (e.g. 'avoid') to those that tend to be more idiosyncratic (e.g. 'win').