Cardinal well-formedness values as anchors in linguistic experiments

Linguists have always used introspective judgements as a basis for their work, but in their raw form judgements are noisy and offer little more detail than a good/bad distinction (e.g. Schütze 1996). Linguists are thus increasingly using experimental methods to obtain clear and robust data on which to build their hypotheses. In this talk we wish to present a methodological tool which can be applied to all sorts of introspective data collection: cardinal well-formedness values. All linguists will be familiar with Daniel Jones' cardinal vowels. In order to allow phoneticists to discuss the position of vowels in the vocal cavity, eight positions are defined. While these are inherently random, all phoneticists know them, which allows them to locate other vowels relative to them.

Cardinal well-formedness values have a similar character; they establish a standard scale of perceived introspective well-formedness with five anchor points, labelled A to E. Each point is an arbitrary standard value, which can serve as a reference point. For each cardinal well-formedness value we have developed three example sentences, and it is these which anchor the values, not a metalinguistic description. The cardinal well-formedness values can thus act as a comparison set, forming a grounded scale of well-formedness.

These have various advantages, both for experimental studies gathering judgements but also for informal judgements. In experiments, the set of 15 exemplars is simply included in the fillers. This ensures that the structures to be judged span the whole accessible range of perceived well-formedness. Second, the set provides something like a set of 'absolute' well-formedness values. Our cardinal well-formedness values provide an intersubjective scale which allows us to interpret the results of experimental studies not only by their relative positions of conditions but also by their ratings in quasi-absolute form on the scale A-E. Third, the use of these fifteen items in every experiment allows results to be compared across studies. If a certain condition receives a rating around B in one study, another condition at B from a different study must be about the same. Fourth, the cardinal values provide an objective plausibility test. We can inspect an experimental informant's ratings of the cardinal values and decide whether this person has understood the nature of the task. A person who does not rate A and B better than D and E is not delivering reliable data.

These anchored cardinal values can improve the accuracy of informal judgements too, by providing local comparison points. It is well known that our estimates of a value on a familiar scale (temperature, length, etc) are more accurate than those without a familiar scale (e.g. Laming 1997). This is easy to illustrate: we have no trouble deciding whether the air temperature is 10°C or 20°C outside, but would have difficulty deciding whether a bowl of water is 60°C or 70°C, as we have no local anchor points for this choice. The existence of close local reference points can thus sharpen our intuitions of well-formedness too.

A similar set of cardinal well-formedness values in German has been developed and successfully applied in experimental linguistics (Featherston 2009). Our series of experiments now provides the corresponding set of English cardinal well-formedness values. In our talk we will first introduce the problem of vagueness and noise in introspective judgements, and show how a known scale can help. We will then describe how we sampled, selected, and tested example structures as exponents of the five cardinal well-formedness values. We will finish with some examples of the use of the exemplars in experimental studies and show how they are of significant value even for individual judgements.