Interactive Unfolding Networks: A proposed experimental design

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Abstract
We demonstrate a novel linguistic elicitation method, provisionally termed Interactive Unfolding Networks (IUNs). IUNs are a development of the spatial grid network experimental paradigm invented by Willem Levelt in the 80’s (Levelt, 1989) and later employed by several others (Swerts & Collier, 1992; Grønnum, 2006). As with its predecessors, the consultant is instructed—with little or no other detail—to describe networks of simple shapes so that they can later be reconstructed from the description. The networks are simple enough to be exhaustively formalizable (e.g., in first-order predicate logic). In contrast to similar experiments with stimuli on paper, however, IUNs evolve interactively on a computer screen, controlled by the consultant's mouse clicks. Since these are logged, the experimenter has full knowledge of, among other things, the path chosen through the network, and over new and given information at any time, including how and when this is reflected in the linguistic output.

We expect IUNs to yield data useful for research into several areas, including psycholinguistics (e.g, temporal and cognitive aspects of speech planning and linearization, or situational, individual, and typological variation in choice of frame-of-reference); phonetics (e.g, phonetic and prosodics correlates of information structure); and artificial intelligence (lexical inference, or simulated language learning).

References