

Publication-based Talks

Inferring Conceptual Structure from Cross-Language Data

Friday 1:40 p.m. Stanbro Room

Semantic categories vary across languages, but this variation is constrained: many logically possible semantic categories are not attested, and similar categories often appear in unrelated languages. This pattern suggests a universal conceptual basis to the variation, such that different languages provide different snapshots of the same conceptual terrain. A semantic map is a means of capturing this idea. Formally, a semantic map is a graph in which vertices represent different semantic uses or functions, and edges connect closely related uses. It is assumed that the graph structure is universal, and that language-specific categories always pick out connected subgraphs of the universal graph. A semantic map thus compactly represents what patterns of variation one may and may not expect to find in a given semantic domain, in terms of presumptively universal conceptual structure (e.g. Haspelmath, 2003; Croft, 2003; Cysouw et al., 2010).

Terry Regier, Naveen Khetarpal, Asifa Majid

Spatial Demonstratives, Perceptual Space, and Linguistic Diversity

Friday 10:10 a.m. Plaza

Communication involves a combination of speech and gestures, which afford joint attention between speaker and interlocutor (Tomasello, 1999, 2003; Kita, 2003). Characterizing the mapping between language and the vision and action systems is therefore essential in order to understand both normal and disordered communication. In a series of five experiments we target this mapping with respect to one the most central components of natural language semantics - spatial demonstratives.

Kenny Coventry, Colin Hamilton, Debra Griffiths

Core phonology: Evidence from grammatical universals

Friday 1:40 p.m. Stanbro Room

The human capacity for language is one of the most contentious topics in cognitive science. While some researchers attribute language to domain-general mechanisms, others postulate a specialized language system. When it comes to the phonological component, however, even proponents of domain-specificity concede that specialization is unlikely (Fitch et al., 2005). Phonological competence, in this view, is the product of experience, auditory perception, and motor control. And indeed, phonological systems are intimately grounded in phonetics. While the domain-general perspective can account for this fact, it offers no explanation for several key features of language. It fails to explain why all languages—signed and spoken—have a phonological system, why phonological systems emerge spontaneously, in the absence of a model (Sandler et al., in press), and why the cultural invention of reading and writing invariably recapitulates phonological principles. Such observations are readily explained by viewing phonology as a core knowledge system (Berent, in press).

Iris Berent

Searching Our Cognitive Social Networks: How We Remember Who We Know

Friday 10:10 a.m. Stanbro Room

Recalling people we know is a key cognitive function, influencing studies of contagious disease, how we see our relative position in the world, and who we invite to our weddings. Whereas social memory has often been studied independently from other memory research, we focus here on possible parallels with search in other domains—in particular the thesis that search of social memory is governed by similar rules and processes as those that guide search in semantic memory and may involve executive processes. Such a connection would involve two claims: First, search in social memory dynamically transitions between local and global search strategies (similar to search of associative memory; Raaijmakers & Shiffrin, 1981). Second, as proposed for a domain general executive search process, dynamic transitions from local to global search criteria should recruit the general control of attention.

Thomas Hills, Thorsten Pachur

Bodily Relativity: The body-specificity of language and thought
Friday 10:10 a.m. Plaza

Do people with different kinds of bodies think differently? According to the body-specificity hypothesis (Casasanto 2009), they should. In this paper, I review evidence that right- and left-handers, who perform actions in systematically different ways, use correspondingly different areas of the brain for imagining actions and representing the meanings of action verbs. Beyond the concrete domain of action, the way people use their hands influences the way they represent abstract ideas with positive and negative emotional valence like “goodness”, “honesty”, and “intelligence”, and how they communicate about them in spontaneous speech and gesture. Changing how people use their right and left hands can cause them to think differently, suggesting that handedness is not merely correlated with cognitive differences. Body-specific patterns of motor experience shape the way people think, communicate, and make decisions.

Daniel Casasanto