Plenary Talks
Calit2 Auditorium

Tuesday, July 8th - 9:00 AM

On Timing Gestures
Herbert H. Clark, Stanford University

When people perform a gesture—with their hands, face, head, voice, or entire body—they keep track of both its *internal* and its *external* timing. The internal timing of a gesture is the time course of its execution from start to finish; its external timing is its temporal placement in relation to other events in the discourse. To take an example, Susan and Ned were looking at a blueprint of a house when she touched the middle of one room, held the touch for 4.03 sec, and then released it. That was its internal timing. But she initiated the touch on "blank" in the middle of "and this up here these are blank rooms?" and released the touch (2.63 sec later) once Ned had responded "m---hm." This was its external timing, and it reflected what she was doing with her gesture. The argument is that the internal and the external timing of a gesture reflect different intentions, and people pay close attention to both.

Tuesday, July 8th - 4:00 PM

Space and time on our hands: How gesture influences communication and learning
Susan Wagner Cook, University of Iowa

When we talk, our hands move through space, and they do so with exquisite temporal synchrony with the accompanying speech. In this talk, I will discuss how the simultaneous representation of information across speech and gesture influences communication and learning. I will present new evidence that gesture influences the temporal characteristics of the accompanying speech that listeners are exquisitely sensitive to the temporal coordination of visual and auditory information, and that multimodality has lasting effects on speakers and listeners.

Wednesday, July 9th - 9:00 AM

Visible communicative acts in gesture, sign, and the brain
Asli Özyürek, Radboud University and Max Planck Institute

As humans, probably as a unique capacity to our species, we are not only able to manipulate objects around us by means of instrumental actions but also recruit our actions for purposes of communication as in the case of gestures and in sign languages. Such visible communicative acts seem to be the most common and probably fundamental modes of human communication that can be used and recruited not only by hearing but also deaf communities. I will argue that communicative action production and comprehension require two interlinked components that previously have been studied separately and sometimes even considered as opposing. One is a semantic/conceptual system that operates along a continuum of analogue and embodied versus segmented and abstract representations due to the affordances of the communication modality (i.e., using visible bodily articulators). The other is the involvement of communicative intent. In my presentation I will discuss a series of studies that have attempted to distinguish 1) different as well as similar types of representational formats in sign languages and gestures as well as the neural correlates of these representations; and, 2) the role of different ostensive cues (e.g., eye gaze) indexing different types of visible communicative acts. To do so I will draw on observations of gestures and signs used in different cultures and by adults and children in different communicative contexts. I will also discuss neuroimaging studies of communicative acts with different ostensive cues. I will argue that a holistic understanding of visible communicative acts needs to bring together how different types of representations are used, together with an understanding of their link to communicative intent both in terms of behavior and brain.

Thursday July 10th - 9:00 AM

Intertwining bodies to accomplish co-operative sociality

Marjorie Harness Goodwin, UCLA

In this paper I examine how co-operative human sociality is accomplished through the intertwining of interacting bodies, frequently with language embedded within such frameworks. Rather than focusing on the action of a single body, and the ties between a party's hand and the semantic structure of the utterance in the stream of speech, my focus is on how embodied co-operative interaction is intrinsically a multi-party activity –- a coordinated sequential unfolding engagement of parties to the interaction.

Language as a symbolic system is frequently treated as a privileged location for the analysis of human sociality, e.g., Conversation Analysis defined as Talk in Interaction, Linguistic Anthropology, etc. By way of contrast I want to examine forms of embodied iconic and indexical sign use that extend the analysis of how participants organize their interaction beyond language itself. Through embodied forms of iconic and indexical signs participants provide crucial information about the temporal and sequential organization of their joint participation in the current interaction. As unfolding interactive organizations of embodied experience, hugs begin with an invitation, and recipients of such invitations can use their bodies in varied ways to dis-align as well as align to the proposed embrace.

Special ways of using pitch and voice (creaky, breathy, whispered voice) coordinated with touch during the course of activities such as greetings and farewells are examined. The right to touch someone in intimate ways both constitutes and indexes particular types of relationships – parent-child as well as partner relationships – providing a crucial way of performing care and intimacy. I examine the coordinated use of the body, voice, and lexicon across a range of activities and contexts, Data are drawn from the corpus of the Center for Everyday Lives of Families, which includes 50 hours of videotaped interaction for 32 Los Angeles middle class families.

Thursday July 10th - 5:30 PM

Interacting in spatial augmented reality

Andy Wilson, Microsoft

With the advent of new technologies such as the depth camera, many interfaces that once seemed the stuff of science fiction now seem tantalizingly within reach. Yet, there are many ideas about what these "natural user interface" should look like. At Microsoft Research we have explored a number of "spatial augmented reality" prototypes that leverage depth cameras and projection technologies to create unique, immersive interactive experiences across a variety of form-factors. Naturally, gesture-based interactions play an important role, but some interesting challenges in creating usable interfaces remain.

Friday July 11th - 12:40 PM

Why gestures are not (only) a compensatory device - evidence from language learners

Marianne Gullberg, Lund University

It is often (tacitly) assumed that gestures are essentially compensatory in nature and help speakers convey information they have difficulties expressing. This view is especially common in research focused on "less competent" language users such as a child and adult language learners, bilinguals, or atypical populations. These assumptions can also be found in theories about the relationship between speech and gesture. I will challenge this compensatory view of speech-gesture production, especially in language development. By examining disfluencies and bimodal information distribution in child and adult learner data, I show that gestures are co-ordinated with fluent speech, not with disfluencies; that children and adults generally express similar information bimodally; and that when gestures are recruited as problem-solvers, different problems have different gestural solutions. Based on these observations, I argue for the need of a more nuanced view of the speech-gesture relationship in language development.