Nothing Never Happens

Seeing the Cognitive Aspects of Patterns of Behavior Captured on Video

When a horse gallops does it ever have all four feet off the ground at once?

Tools for scientific seeing

• Microscope
• Telescope
• Still camera
• Motion picture camera
• Audio recording
• Video recording
• Digital Video recording

• Microbes
• Planets, stars, galaxies
• A moment
• A linked sequence of moments, dynamics
• Sounds/Speech
• Activity (instantly viewable)
• Activity (+?)

Eadweard Muybridge

The natural history of an interview

• Object of analysis: a film of a married couple in a psychiatric interview
• Analyses: linguistic, non-verbal behavioral, cultural, psychiatric
• Attempts to find the patterns in each type of behavior and in the relations among them
• Product: a 1500 page manuscript! It was never published.
• Is there ever a moment in interaction in which nothing happens?
• “Nothing never happens.”
Audio recordings and discourse analysis

- Malinowski recorded Trobriand Island Magic texts by writing them down in his notebooks. This is the only sort of language he could record word-for-word using that technology.
- Philosopher Dorothy Lee studied those texts and concluded that Trobrianders do not understand the concept of causality.

My audio recordings and different inferences

- What words are actually uttered in natural discourse?
- Word order and logical relations (they do conceive of cause-effect relations and they can reason logically)
- Tempo and rhythm
- Stress contours
- Rhetorical devices:
  - Repetition,
  - Alliteration, enumeration

Audio recording makes possible

- Phonology
- Pragmatics
- Discourse analysis
  - (openings, closings, adjacency pairs, conditional relevance, multi-speaker utterances…)
- Protocol Analysis (think aloud problem solving)
- Cultural Models analysis

Video recording makes possible

- Cultural models
- Discourse analysis
- Co-speech gesture
- Deixis
- Reference
- Pronunciation
- Conceptual spaces
- Common-ground intersubjectivity
- Dynamics
- Conceptual spaces
- Representation
- Environmentally Coupled gesture
- Environmentally
- Thought

Unit of Analysis

(Square cut gem of interaction)

Referential actions embedded in context
Some new vocabulary

- Demonstrative reference
  - Specifying or singling out the person or thing referred to.
- Deictic expressions
  - This, that, here, there
- Sense and significance
  - Meaning in context (not definitional meaning)
- Visual conduct
  - Activity that is available to visual access

Constituting objects in interaction

- Phenomenal objects again
- A slightly different set of discursive practices
- Goodwin: coding, highlighting, construction of graphical representations
- H&H: coordinating bodily action with verbal devices in activity at hand
- Talk and action segment one another
- The deixis is in the mutual elaboration of bodily action and talk.
- Arena and setting (Lave et al) again

Gesture/Speech Timing?

- Research on co-speech gesture in controlled settings has led to the claim that when a word and a gesture refer to the same thing, they will be timed to occur at the same moment.
- In the article titled, “Embodied reference,” Hindmarsh and Heath claim that this is not correct. They make a different claim about the timing of speech and gesture references. What do they say? How do they support their claim?
The coordination of deictic gestures with verbal devices

- From narrative studies comes the claim that deictic gestures are “exactly” coordinated with their verbal devices.
- But in the real world, the “relative positioning of gesture and demonstrative is subject to a range of local contingencies…”
- “…the expression indicates, or foreshadows, when the embodied resources are available for the other to discriminate the relevant feature of the local environment.”

Referential gesture “masks” its own operation

- “the gesture helps serve to render a feature of the world visible, and yet, it is not oriented to by the other in its own right.”
- Translation: I’m using the gesture to search for the object, but I’m not noticing the gesture itself.

Activity

Provides meaning

Activity ——————— Meaningful action

constitutes

Activity is “context shaped and context renewing”

- The organization of sequences
- Each turn is an opportunity to display one’s understanding of relevant actions and objects.
- “seeing and being seen to be seeing is achieved in and through the sequential organization of ongoing activity.”
Remote collaboration

Why this vision matters

• Schutz, Maintaining reciprocity of perspective.
• the very production and intelligibility of social actions and activities is embedded in and simultaneously constitutes material features of the local milieu.

So what?

• Computer-based systems for physically distributed collaborative work have met with limited success.
• They WILL be in our future, but interactions often feel frustrating.
• How do people use the resources of in-person interaction with a shared world to constitute objects of interest and accomplish reference to those objects?
So what?

- These are not just mundane observations about the mundane world.
- They are observations of the mundane world that carry profound implications.
- What we see through the cognitoscope requires us to rethink many of the basic assumptions of cognitive science.