Inspiring, developing, and connecting women.

2009 GENDER IN THE WORKPLACE RESEARCH INITIATIVE.

Project Rebirth

Laura Boydston, Taylor Johnston, Carey Miller, Professor Beverly Sauer

OVERVIEW OF PROBLEM/ ISSUE

Our research team was granted access to the video archives of Project Rebirth. Led by Founder and Director Jim Whitaker and Project Rebirth Board Chairman Brian Rafferty (CAS '79), Project Rebirth chronicles the strength of the human spirit coping with disaster: specifically the aftermath of September 11, 2001 at the World Trade Center. Our work analyzed these unique digital archives at Columbia University through the use of their VITAL interface. We sought to understand how individuals communicate while experiencing grief and loss. Using qualitative methods of analysis, we researched whether or not there are gender differences in these circumstances. Our preliminary survey led us to the specific research question: *When individuals reflect upon a crisis, how do their gestures represent authentic emotion or cognition? For the producer? For the audience?* Essentially, do actions speak louder than words?

RESEARCH DESIGN

Our project had three phases: literature review, gesture cataloguing and qualitative analysis. We began by conducting an in-depth literature review. From work that has already been done in gesture and communication we learned:

> 1. Communication is a multimodal phenomenon. Both gesture and language contribute to the message delivered and the message received. (McNeill, 1992)
> 2. Gestural viewpoint plays an important role in the interpretation of meaning in gesture i.e. as a speaker or as an audience member. (Sauer, 2002)
> 3. Gestural meanings are not naturally evident, but subconsciously interpreted. (Tannen, 1996)
> 4. Service economies are predicated upon relationships between professionals and clients. Communication is integral to workplace outcomes. (Miller & Kaoesten, 2008)

Phase two of our project was examining the Project Rebirth archives. The archives contain semi-structured interviews with nine subjects who were first responders, victims, relatives, friends and second-hand observers of 9/11/2001. The interviews take place annually on 9/11 over a period of eight years. We catalogued individual gestures on the VITAL interface (http://vital.ccnmtl.columbia.edu). This method enabled us to find patterns in gestures. Using what we learned in the literature review, we distinguished gestures of meaning from nervous habits and we specifically looked for the following features of gesture: foreshadowing, spatial representation and viewpoints of the gesturer. We limited our data sets to those subjects whose videos showed the largest gestures. We documented and classified observed gestures and archived the clips. The third phase of our work was qualitative analysis. We reviewed the clips and chose one male subject and one female subject. Selection criteria included similarity of experience and differing genders. These criteria were chosen to understand the role, if any, of gender. The goal of this preliminary study is to provide a framework for a comprehensive research study on what will be ten years of video data in the Project Rebirth archives.

FINDINGS

We found that gestures enable a speaker to represent space more accurately than language alone. The three-dimensional nature of gesture provides the capability of representing both space and viewpoint. Gesture enables speakers to show different viewpoints toward the subject they are describing. Our subjects used both mimetic and analytic gestures, as well as different viewpoints – character and observer. Mimetic gestures feature the speaker doing the action, such as a speaker talking about running and moving her arms back and forth. An analytic gesture of the same action would be using two fingers to show running. Our female subject frequently used mimetic gestures. In a more graphic gesture, she held her open palm to her throat when describing her mother hanging herself.

Character viewpoint is when a speaker gestures as if she is the character in the story being told. Observer viewpoint is when a speaker gestures as if she is an onlooker in the story being told. Our male subject used character viewpoint when telling a story of his mother's embarrassing behavior; he held his open palms to cover his face to gesture the embarrassment he felt at the time. In another example, the female subject uses observer viewpoint when speaking of her family. She simultaneously draws a circle with her finger in the space in front of her. She does not place herself in the story, but rather describes where the family was either psychologically or physically collected in a circle in a space stored in her memory.

Analysis of the video clips revealed occasions of speech-gesture mismatch. The female subject describes that she felt different because she was adopted. However, when making this assertion she uses a circular motion as if describing her family. The male subject describes survivors living in N.J. and CT as being outside the 9/11 experience in the collective consciousness; however, he uses circular motions when articulating this concept. He includes them in the experience.

There were also episodes in which the subjects would produce anticipatory gestures, foreshadowing what they were going to discuss. The female subject did this frequently. When she described her mother she repeatedly uses the gesture of her open palm to her throat. The audience learns this gesture represents her mother's suicide by hanging. Our data shows that our subjects use circles to describe concepts of inclusivity such as close relationships, e.g. 'inner circle', "keeping in the loop'. It feels natural that circle gestures feel more inviting and intimate as well. When a speaker uses intimate gestures, like circles, it helps to convey credibility and authenticity.

This qualitative study does not allow us to draw significant gender conclusions with regard to gesture; however, with our sample we found that the male and female subjects mapped space differently, used mimetic and analytic gestures differently and approached viewpoint differently. Our Level 1 conclusions include finding that the female subject seemed more authentic because she more frequently gestured in the first person, often used circle gestures and had fewer incidents of speech-gesture mismatch. The male subject's box gesture in the immediate space in front of him, suggests that he has compartmentalized his cognition and emotion about 9/11. His more frequent speech-gesture mismatch confused observers regarding what he meant to convey versus what he actually conveyed.

We recommend Future Project Rebirth research include gathering data equally on where subjects don't gesture and how they comprehend the immediate space around them. Additional work would benefit from more comprehensive categorization of gestures for a quantitative analysis of the video archive.

CONCLUSIONS & IMPLICATIONS
Gestures have meaning. They convey information that is not expressed in speech. Effective speakers' gestures match the content of their language. When there is a mismatch between gesture and speech the audience can be confused about the message or believe the speaker to be disingenuous. Gestures happen unconsciously. They frequently foreshadow the concept that will be verbalized. Minor differences in content produce different gestures. For example when speaking of market activity - the decline from 2000-2002 is represented by a speaker as a smooth motion downward. The last month's declines are represented as choppy motions downward, ensuring the intervening upticks are represented.

As speakers we need to be aware that what may be considered an insignificant hand motion to us is conveying information to the audience. For example, box gestures signify barriers and can alienate an audience while circle gestures are inclusive and draw an audience in. As audience members we need to be aware that the concept a speaker conveys may not be in her speech - rather in her gestures. Gestures provide nuance to language and give the audience a clearer understanding of what the speaker believes even if she didn't intend to convey it.

This study, though preliminary, has important implications for workplace discourse. Communication is integral to workplace outcomes. Recent economic activities have lead many companies to layoff staff. Recently, I observed a CEO explaining that whether or not the company would have layoffs or bonuses is unclear. This extremely precise speaker used gestures that commonly indicate "I don't know" or "maybe." These gestures reinforced the language of the speaker. The correlation between speech and gesture conveyed a sense of honesty between management and staff even when the message was not definitive.

Further research on the Project Rebirth archive has implications for risk communication, public health policy and public response to both natural and man-made disasters. The analysis will help leaders become more sensitive to the ways that individuals not only talk about, but experience, risk and loss.