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Past Colloquia: 2012

Emanuele Castano, Professor and Chair of the Department of Psychology at The New School for Social Research. 13 December 2012, 4-5pm. 618 Crawford Hall. Title: Humanity and Its Denial in Intergroup Relations.

Abstract:

The denial of humanity has long been recognized by social scientists as a critical precursor of discrimination and violence. This denial is particularly evident in intergroup violence, where assisted by stereotyping and essentializing processes, the denial of humanity of the other has historically been linked with genocidal practices. Until recently, however, these conjectures were not supported by systematic empirical research, with experimental evidence lacking almost entirely. In this talk I review this literature, present a series of experiments (conducted both in the laboratory with historical or fictitious scenarios or in ongoing, high-conflict contexts) which tested the dehumanization-violence link. I concluded by linking the process of dehumanization to empathy and its curtailing.

Renata Geld. 6 November 2012, 4-5pm. 618 Crawford Hall. Title: Mental imagery and linguistic meaning construal in the blind.

Abstract:

The nature of linguistic meaning in adult, cognitively mature blind individuals seems to be a largely unexplored area. However, there is a considerable body of research on cognitive development and language acquisition in blind infants. Relevant studies range from those by nativist researchers who claimed that the lack of vision will not significantly affect the process of language acquisition to empiricists who attempted to prove that deficient sensory experience of the blind was bound to have a negative effect on their cognitive development and language acquisition. In addition, there have been studies related to verbalism, which was defined as “the use of abstract concepts not apprehended by concrete experiences” (Cutforth 1951: 48). The blind were believed to demonstrate verbalism when they use visual terms/expressions such as “see”, “look”, “keep an eye on things”, and so on. Even though various studies that followed Cutsworth’s work suggest that blind children’s words are not meaningless (see Pérez-Pereira & Conti-Ramsden 1999), they still seem to ignore the role of experience in the process of language development.

Still, some authors have reported very interesting findings related to the specific word meanings. For example, in their longitudinal study of Kelli, Landau and Gleitman (1985) conducted interviews with Kelli (aged 36 months) and found out that *look* meant ‘contact with the hands’, whereas for the sighted (but blindfolded) children it meant ‘turn one’s nose toward’. It was also clear that, for Kelli, *touch* meant ‘contact’ whereas *look* meant ‘exploring’ and ‘apprehending’.

The nature of these studies suggests that most researchers seem to approach the process of constructing linguistic meaning from an objectivist point of view – the view that words/constructions have clear-cut, clearly defined and relatively stable meanings (see Geld and Šimunić 2009). In fact, the very notion of verbalism seems to be based on the objectivist view of reality. Contrary to the above mentioned studies, this research proposal is based on the assumption that linguistic meaning is subjective and dynamic. It views language as an experiential phenomenon, lexicon and grammar as conceptual tools, and linguistic meaning equated with mental imagery. Within such a theoretical framework, it is possible to research the language of the blind by investigating specific aspects of the blinds’ mental imagery and meaning construal that are based on a variety of sensory experience, and related to the specific nature of their impairment, as well as distinct cultural and environmental circumstances.

Preliminary studies (Geld and Stanojević 2006, 2008; Geld and Šimunić 2009; Geld and Čutić, work in progress) have shown that the extraordinary experience of the blind is likely to affect the way certain cognitive processes are coded in language. The results suggest that the attention of the congenitally blind is characterized by a shift in scalar adjustment from the schematic to the specific, and their perspective seems to indicate a different vantage point (“in-the-scene” vs. bird’s eye-view). Furthermore, qualitative analyses point to what we might call a gradient chain of categories, where elements vary in salience depending on the perspective from which the scene is observed/imagined.

What is more, perspective and situatedness do not refer solely to a physical point from which something is viewed, but imply specific shifts in the vantage point characterized by sophisticated adjustments the blind make in their contact with the world. The vantage point changes with every sense-related shift of attention, resulting in unique mental imagery and meaning construal. Finally, we believe to have found some evidence that the congenitally blind and the adventitiously blind, as well as the adventitiously blind and the sighted, differ in how they attend to topological/spatial components in composite wholes (e.g., particles in PV constructions).

Todd Oakley. 16 October 2012, 4-5pm. 618 Crawford Hall. Title: An Autist Speaks: Joint Attentional Concordance and Discordance in Conversation with 'S'.

Abstract:

Persons with high functioning autism (either Kanner's or Asperger's varieties) are widely purported to show deficits in prosodic and pragmatic aspects of speech, yet there are wide ranging explanations for such infelicities, from deficits in mind-reading to deficits in central coherence to morphosyntactic delays. Autism is a perceptual disorder; it is an attentional disorder; it is a theory-of-mind disorder; it is a language-acquisition disorder. Each of these explanations captures important facets of ASD but at the same time provides too narrow an aperture from which to view it. A joint attentional perspective widens the aperture to include perceptual and social factors under a unifying ontogenetic account of ASD and can be profitably integrated with other approaches to meaning construction, particularly the mental spaces model.

In this presentation, I will present initial pilot data from conversations with a young adult, currently 20 years old, fitting the profile of a high functioning Kanner's autist: the ability to use and understand language but with noticeable deficits in all areas of language use: prosodic over- and under-modulation, idiosyncratic deployment of morphological, syntactic, and semantic units, manifold pragmatic dysfluencies in understanding and producing conventional communicative intentions and co-speech gestures. I will present some preliminary highlights from this single speaker as he interacts with the researcher in a joint activity of watching videos: the first a non-narrative music video selected by the researcher, the second a narrative video clip selected by the participant.

Mark Turner (<http://markturner.org/>). **9 October 2012, 4-5pm. 618 Crawford Hall. Title: All the news that's fit to watch: A new computational linguistics, or how to study a billion words and two hundred thousand hours of TV.**

Abstract:

Human communication is multimodal, involving language, co-speech gesture, interpersonal interaction, audiovisual components, affordances of the environment, media, and technology. Traditional text corpora have only just begun to include examples of multimodal communication. In this talk, we will look at theoretical and empirical aspects of computer-assisted research on a massive multimodal corpus of human language and communication.

Anthony Jack. 11 September 2012, 4-5pm. 618 Crawford Hall. Title: From Philosophical paradox to the structure of cognition: the neural origin of the problem of consciousness.

Abstract:

The philosophical problem of consciousness has provoked a number of responses. Many philosophers think it shows that consciousness lies beyond scientific study, while many scientists are optimistic that the biological basis of consciousness will soon be found. Yet others think the problem itself is an illusion. My work explores a fourth option – that the problem of consciousness arises from, and reflects, a fundamental schism in our cognitive structure. I will review work in experimental philosophy, behavioral psychology and cognitive neuroscience which supports this view. Surprisingly, it appears that productive research programs in cognitive science can be informed by contemplating philosophical paradoxes.

Simon Harrison. 24 April 2012, 3-4pm. 618 Crawford Hall. Title: Negation, Gestures, and Force Schemas. Simon Harrison is an Alexander von Humboldt fellow conducting postdoctoral research at RWTH Aachen University. His work is situated in the field of cognitive linguistics with a focus on gesture studies. He is interested in the forms and organizational properties of gestures associated with negation and how they relate to grammar and cognition. He is also working with communication data from noisy factories and exploring possible applications for gesture research. and secretary general for the International Society for Gesture Studies.

Abstract:

Coverbal gestures often exhibit shapes and movement patterns that evoke image schemas described in the cognitive linguistics literature (Cienki 2005, Mittelberg 2010). Individual gestures that speakers use consistently may be studied to access the salient image schema that structures cognition in contexts where they are used (Ladewig 2011). In my research I have examined the relationship

between a gesture that speakers often produce in contexts of negation and the image schemas that Johnson associates with force (Johnson 1987: 45-48). The study I will present is based on a micro-analysis of 16 utterances in which a verbal negation co-occurs with a gesture produced by raising the hands shaped flat and held vertically so that the palms face away from the body (the 'Vertical Palm' gesture; Kendon 2004: 249-262). This gesture is a 'recurrent gesture' meaning it has a stable formational core (in this case hand shape and palm orientation) but when used in different contexts may vary in other features such as movement and location (Ladewig 2011; also Kendon 2004, Muller 2004). Using the procedure and terminology of Bressemer's (2008) form-based notation system, I coded each gesture to verify the formational core and identify variations in location and movement features. Then studying the co-occurring verbal elements and identifying the type of negative speech act being used, I interpreted the form variations in relation to nuances in the overall function and meaning of each utterance. In this talk, I will argue that the variations in Vertical Palm gesture are motivated by different underlying action motifs. Each action motif involves the palm coming into contact with the outside world, but differs in the force dynamics of how the palm then interacts with that world, such as by either stopping or pushing. I will show that each action motif highlights different aspects of the experiential gestalt for forceful interactions identified by Johnson (1987), and I will tentatively relate the variations in Vertical Palm gesture to different force schemas. For example, a Vertical Palm gesture with zero movement is based primarily on contact then blockage, while movements along axes away from the body are based primarily on contact then compulsion. By focussing on the gestures that speakers perform when they negate, this study sheds light on the structure of conceptual associations between manual interactions with the world and the linguistic act of negating.

David Berreby. 4 April 2012, 5-6pm. 618 Crawford Hall. Title: *I take the good old fashioned ground that the whale is a fish: The Effects of Identity Commitment on Cognition.* Berreby is the author of "Us and Them: The Science of Identity." He writes the "Mind Matters" blog for Bigthink.com and has written about human behavior and other science topics for The New Yorker, The New York Times Magazine, Nature, The New Republic, Smithsonian and many other publications.

Paul D. Marasco. 11 April 2012, 4-5. 618 Crawford Hall. Title: *Linking prosthetic limbs to the body and brain through sensory feedback: Cognitive approaches and their neural substrates.* Dr. Marasco is the Director of Amputee Research in the Department of Medicine and Rehabilitation at the Louis Stokes Department of Veteran Affairs, the Principal Investigator at the Advanced Platform Technology Center (APT) and an adjunct professor in the CWRU Department of Biomedical Engineering.

Abstract: A major shortcoming of prosthetic limbs is that they are insensate tools that provide no feedback to the user. In our research, we investigate ways to provide physiologically relevant sensory feedback for prosthetic limbs through nerves that once served the missing arm and hand. This talk will be divided into two parts. First, we will describe the use of cognitive approaches to embody prosthetic limbs. We used a robotic tactile interface to create an artificial sense of touch through a direct neural-machine-interface and a perceptual illusion (the rubber hand illusion) to tap into mechanisms of visual-tactile-integration. Results from both subjective (self-reported) and objective (physiological) measures of embodiment (questionnaires, psychophysical temporal order judgments and residual limb temperature measurements) indicated that returning physiologically appropriate cutaneous feedback from a prosthetic limb drove a perceptual shift towards embodiment of the device for these amputees. Second, we will explore mechanistic approaches to understand the sense of limb movement (kinesthesia). We used a perceptual illusion of limb movement (the kinesthetic or 70Hz illusion) as a probe to understand the organizational properties and functional characteristics of proprioception. These experiments used electrophysiological brain mapping and neural recording find avenues for providing kinesthetic feedback for prosthetic limbs. Results indicated frequency response thresholds of a specific sensory channel that were tuned to the illusionary input and suggest that what we may have uncovered is possible evidence for the neural substrate of the cognitive kinesthetic illusion itself.

T. J. McCallum. 12 April 2012, 4-5pm. 618 Crawford Hall. T. J. McCallum is an associate professor of psychology at Case Western Reserve University. His main interest is stress and coping with problems in late life, particularly among elders caring for family members with Alzheimer's Disease. He applies a biopsychosocial framework to investigate aspects of the stress process in caregiving families.

Kimberly Emmons. 28 March 2012, 4-5pm. 618 Crawford Hall. Title: Gender, Cognition & Justice in the Discourse of Depression. Kimberly Emmons is an associate professor of English at Case Western Reserve University. Her research focuses on medical rhetoric, especially contemporary linguistic and rhetorical constructions of (mental) health and illness.

Abstract: This talk explores the ways that the language surrounding the mental illness depression affects individuals' sense of their own health (or illness). In response to the feminization of depression, we will use discourse analysis as an analytical tool that can interrupt gender bias and the medicalization of emotion in contemporary US society. This event is the second in the Social Justice &

Cognition Colloquia series. The series will address how human cognition can inform our understanding of campus-wide, local & global social issues at CWRU. The series will address the formation of prejudices, in-group & out-group identities, intergroup interaction, how biases are communicated via media and how people cope with/manage prejudice. Among the issues we will discuss are: political & religious rhetoric, racism, sexism & gender identity.

Dr. Shakeel A. Chowdhry. 15 Feb, 6:00 p.m. in the White Building, room 411. Title: The Interface of Psychology and Neurosurgery. Dr. Chowdhry is Chief Resident of Neurological Surgery at CWRU and was recently named the 2012-2013 Skull Base and Cerebrovascular Fellow at the Barrow Neurological Institute, working with Dr. Robert F. Spetzler. *Lecture arranged by the Cognitive Science Student Organization (CSSO).*

Abstract: As modern medicine develops in the 21st century, the artificial definitions of traditional disciplines are blurred as scientists and physicians work towards the common goals of advancing our understanding of the human body and evolving more effective treatments for human disease. This is evident in the relationship between neuropsychology and neurosurgery, where advances in each field have led to a better understanding of disease processes and improved treatment and outcomes in numerous neurosurgical subspecialties including pain, functional, vascular, and tumor/oncologic. Arguably, the field of epilepsy may be the most indebted to this interdisciplinary approach. We will explore some of these relationships and present an introductory view into the world of neurosurgery from the surgeon's perspective.



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