

The Department of English presents

# ANALOGY, METAPHOR, & THE NEW SCIENCE

Cognitive Science and Early Modern Epistemology



Contemporary cognitive science offers insights into metaphor, analogy, and human thought that have the potential to radically change our view of the early modern scientific revolution. If, as Lakoff and Johnson have argued, all human thought is built up metaphorically from the basic kinesthetic experiences of living in a body, no scientific system could dispense completely with analogy. Analogy didn't disappear from the realm of cognition in the seventeenth century as Foucault and others have argued, but became more important, albeit in altered form.

An older system of correspondences based on the perception of shared qualities (like heat, cold, and density) gave way to a use of analogy to convey the structural relationships among things that were qualitatively different (like tiny invisible atoms making up what appears to be a solid surface). In addition, cognitive studies of "naïve," or "intuitive" science and of the nature of conceptual change allow us to understand the ways in which the transition to the new science drove a wedge between scientists and non-scientists that had never existed before.

Cognitive science helps us to understand the implications of the scientific revolution for ordinary (non-scientific) thought and language in new ways, as everyday experience of the natural world was severed from scientific explanations of it and ordinary people could no longer trust their experience of the world to reveal the truth about its nature. Finally, a recognition of the difference between qualitative and structural analogies can help us understand the change in poetic language from the sixteenth to the seventeenth centuries. A famous example from John Donne—the "stiff, twin compasses,"— illustrates this change.

**7:00 PM, Thursday, 25 June**  
3014 St. Jerome's University

**MARY THOMAS CRANE**  
Boston College

Mary Crane is Professor of English and Chair of the English Department at Boston College. She is the author of *Framing Authority: Sayings, Self, and Society in Sixteenth-Century England* (Princeton, 1993) and *Shakespeare's Brain: Reading with Cognitive Theory* (Princeton, 2000). She is currently working on literature, epistemology, and the new science in late sixteenth century England.