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Anthropology, Evolutionary and Developmental Psychology, Cognitive Science, Linguistics, Philosophy of Mind
CULTURE AND COGNITION

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DETAILED DESCRIPTION

1. THE COGNITIVE FOUNDATIONS OF CULTURAL VARIABILITY AND STABILITY

Recent advances in cognitive science have radically transformed our thinking about the role of cognition in explaining culture (for a review, see Sperber and Hirschfeld, 1999). Historically the study of the origins, transmission, and variety of human cultural forms considered the fields of human anthropology and the psychology of human learning and cognition to be only loosely related at best. However, the new perspective provided by advances in developmental psychology, cognitive anthropology, evolutionary psychology, and distributed cognition have changed this picture in significant and empirically fruitful ways. Infant psychologists and cognitive developmentalists have documented the existence of prewired dispositions and cognitive systems of core knowledge (such as naïve physics, numerosity, theory of mind, language and communication, or folk biology) that have evolved to adaptively cope with separate

domains of our evolutionary environment. While these domain-specific cognitive systems are not primary adaptations for dealing with cultural phenomena per se (with the possible exception of the linguistic faculty and of human ‘pedagogy’, a specialized cognitive adaptation for the efficient transfer of cognitively ‘opaque’ cultural knowledge in humans, see Csibra and Gergely, 2006), nevertheless, they provide universal cognitive mechanisms and input systems that can be relied on and exploited by a variety of cultural forms and beliefs that show sufficient similarity or partial overlap with the prewired input specifications of these domain-specific systems (such as masks or make-up for the face recognition system, see Sperber and Hirschfeld, 2004).

The summer course will explore the results and theoretical implications of current cross-cultural and comparative research on how universal core knowledge systems and their interaction with different cultural and linguistic environmental inputs can account for the stability as well as the variability of cultural forms and knowledge structures for different domains, such as kinship, race, numerical systems, natural kind and artifact categories, religious and spiritual beliefs, myths and rituals, etc. The course will also cover recent theoretical controversies concerning the role of processes of conceptual change and reorganization in the construction of new knowledge domains as a function of the intricate interaction between prewired core systems, language, and different and culture-specific social environmental inputs (e.g., Carey, 1995; Hirschfeld 1996, Keil, 2003; Astuti et al., 2004; Atran et al., 2001). The course will also explore recent theoretical models for explaining the nature of a variety of cultural belief systems and social practices, such as religious and supernatural beliefs, as examples of cognitively partially opaque knowledge structures that form and proliferate by simultaneously exploiting the content specifications of several systems of primary cognitive adaptations (such as theory of mind, naïve physics, and human pedagogy) (see Bloch, 2005; Boyer, 2001, Dennett, 2006; Kelemen, 2004; Sperber, 1996).

2. COGNITIVE MECHANISMS OF CULTURAL TRANSMISSION: CULTURAL EPIDEMIOLOGY AND HUMAN PEDAGOGY

One of the central questions on which recent research and theorizing on the role of cognitive systems and processes have shed new light concerns the nature of the transmission and stabilization of cultural forms and knowledge within social groups and across generations. Relevance theory (Sperber and Wilson, 1986, 2004) and the theory of cultural epidemiology (Sperber, 1996) are concerned with the nature of how specialized cognitive systems of communication and theory of mind can account for the causally linked processes whereby mental and public representations are generated, interpreted, and exchanged leading to the distribution of cultural knowledge in populations. The theory of human pedagogy (Csibra and Gergely, 2006; Gergely and Csibra, 2005, 2006) explores the nature of a specialized cognitive mechanism of ostensive communication that has evolved to ensure the fast and efficient transmission of culturally relevant but cognitively ‘opaque’ knowledge through a system of relevance-guided ‘teaching’ and fast learning processes. The course will explore these cognitive models of cultural transmission in some detail as well as the role of different cognitive learning mechanisms (such as imitation or emulation) that ensure the intergenerational transmission of cultural knowledge within social groups. It will provide an interdisciplinary overview of some of the puzzles raised by cultural phenomena and the related empirical and theoretical considerations that led to different theoretical proposals concerning the nature and role of imitation vs. other forms of social learning in the transmission and stabilization of cultural forms.

3. TOOL USE AND ARTIFACT UNDERSTANDING IN NON-HUMAN VS. HUMAN CULTURES: TELEOFUNCTIONAL MODE OF CONSTRUAL AND THE ORIGINS AND DEVELOPMENT OF THE ‘DESIGN STANCE’ IN UNDERSTANDING ARTIFACTS IN HUMANS.

Another focus of the course will be the origins and nature of understanding artifacts and their functions in non-human versus human cultures. Current theorizing and research will be reviewed on the much debated questions of emulation and physical affordance understanding in animal tool use (Tomasello & Call, 1997), the development of essentialist and functionalist understanding of artifacts in human infants (Gelman, 2003; Kelemen & Carey, in press), the relationship between theory of mind development and the causal-historical understanding of derived intentionality of artifact functions in humans (Bloom, 1996, Kelemen, 1999), the construal of the ‘design stance’ (Dennett, 1987; Matan & Carey, 2001), the

phenomenon of ‘functional fixedness’ in a cross-cultural perspective (German & Barrett, 2005), and the role of the teleological and the pedagogical stance (Csibra & Gergely, 2006; Gergely et al., 2002; Gergely & Csibra, 2005, 2006) in construing artifact understanding.

4. REFERENCES

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