UNIVERSITA' DELLA CALABRIA

Dipartimento di Scienze dell'Educazione

GIORNATA AIP
SEZIONE DI PSICOLOGIA DELLO SVILUPPO E DELL'EDUCAZIONE

PERSPECTIVES IN DEVELOPMENTAL COGNITIVE NEUROSCIENCE

UNIVERSITY OF CALABRIA (ITALY)
04 FEBRUARY 2010
9,00 – 13,30 SALA STAMPA
14,30 – 18,00 SALA A

CENTRO CONGRESSI AULA MAGNA "BENIAMINO ANDREATTA"

Introduction:
Angela Costabile Department Educational Science University of Calabria (Italy)
Chairman:
Teresa Farroni Psychology Department University of Padova (Italy)
Speakers:
Tricia Striano
Tobias Grossmann
Eugenio Parise

Tricia Striano
Department of Psichology Hunter College (New York)
Title: What infants have To say about autism

Abstract: Not too long ago, human infants were considered to be deaf, blind, and passive. With the advent of new paradigms to test their social and cognitive capacities, infants told us that this conclusion was wrong. Before they can crawl, point to toys, or pronounce their first words, young infants achieve some of the most complex of human social-cognitive skills. In recent years, we listened to what several thousand infants had to tell us about their ability to detect and process people, objects, and social events. In this talk, I will review some of our findings. The study of infancy does more than highlight a range of early competencies and milestones. Infants tell us about the measures that we need to take to detect developmental disorders such as autism. Preverbal infants inform us how to intervene when communication skills are limited and how to create better techniques to facilitate learning. Some of our recent discoveries led us to develop and implement more sensitive measures to assess how the young brain processes information. We found that the typically developing infant brain selectively processes social cues such as eye contact and tone of voice and uses these cues to learn. Infants gave us this information without offering words, movements, or facial expressions. These findings provide the groundwork for the vital discovery of even more innovative methods. Inspired by infants, I will discuss how new methods can aid in early detection and intervention of autism.

Tobias Grossmann
Centre for Brain and Cognitive Development – Birkbech College University of London (UK)
Title: The originis of The social brain in Infancy

Abstract: In this talk, I will examine how the human infant brain becomes specialized in dealing with our social world. What are the core brain mechanisms that are required to build a social baby? By drawing on empirical examples from my own work, I will argue that there are at least three such mechanisms that develop during infancy. Namely, there are mechanisms that: (a) allow for the detection and categorization of social objects/agents, (b) help to understand and decode the signals that social agents communicate to the infant (dyadic interaction), and (c) enable interpersonal communication about things or events (triadic interaction). Moreover, it is of critical importance to understand how the development of these brain processes varies across individuals. I will present some recent work that looks at how genes impact social brain mechanisms and thereby give rise to individual differences in social responding.

Eugenio Parise
Cognitive Development Center – Central European University, Budapest (Ungary)

Title: Ostensive cues and Object Processing in Early Infancy

Abstract: Ostensive Cues are communicative signals with two main features: (1) there is a clear informative intention from the communicator to the audience; (2) there is a communicative intention

from the communicator to the addressee. Examples of ostensive cues in infancy are mutual eye contact, infant directed speech, contingency and the infant own name. In three studies I will focus on mutual eye contact and infant own name in 5-month-old infants. First, using Near Infrared Spectroscopy (NIRS), I will show that these two signals activate the prefrontal cortex in young infants. Second, using Event Related Potentials (ERPs), I will demonstrate that ostensive cues can focus infants' attention on visually presented objects. These data can contribute to shed light on early development of human communication and its neurological underpinnings.