

critical areas remain in such issues as health, physical and mental well-being, housing, and credit. Women in diverse areas have begun to take the initiative to provide a better life for themselves and their children. These initiatives and future prospects will be discussed.

40303.05 Women and Leadership: Policies and Experiences in West Africa
Mivanyi, Yuwanna Jenny (Talafof, NIGERIA)

At the present, capacity building is an essential task. Although the goal is global, the means for achieving this end vary across country and region. Given the UN charter on CEDAW it is instructive to ask: (a) How many countries in West Africa have localized laws on the rights of Women; (b) What local experiences have been; (c) The extent to which women have participated in decision making and leadership in their countries. The results of a survey and a broad review of documents can inform concerned governments on future strategies for preparing and developing leadership in women in the West African sub-region.

40304SYM

Developments in the science of visual and audiovisual speech perception: a symposium in honour of Kerry Green
Convener and Chair: Campbell, Ruth (HCS, University College London, LONDON, UNITED KINGDOM)

40304.01 Effective speechreading processes and representations in deaf and hearing populations

Bernstein, Lynne E. (Spoken Lang. Proc. Lab., House Ear Inst., LOS ANGELES, UNITED STATES)
 A strongly held belief is that speechreading is difficult due to segmental phonetic ambiguity. However, some deaf speechreaders achieve high levels of speechreading accuracy, and phonetic perception can be shown to account substantially for individual differences among speechreaders. Evidence obtained with deaf and hearing adults suggests that segmental phonetic information is adequate to achieve good visible speech word recognition, or at least, that phonetic segmental ambiguity is not the sole explanation for speechreading difficulty. Alternative/additional explanations for speechreading difficulty, such as inadequate lexical representations for visible spoken words and failure to reliably segment the visible speech stream when speech is connected, will be discussed.

40304.02 The Role of Seen Speech in Infant Language Development

BURNHAM, Denis (Macarthur Auditory Research Cntr Sydney, CAMPBELLTOWN, AUSTRALIA)
 We now have a good grasp of the role of heard speech in infant language development: a wide range of speech contrasts are discriminated at birth, but then this is gradually attenuated for contrasts not used in the surrounding language. Does this same process, initial universality followed by selective attenuation, apply to seen speech? This is difficult to answer due to the paucity of evidence. Here the results of studies on infants' auditory-visual speech perception in

cross-modal facilitation, matching, and integration are used as a springboard to pose questions about, and suggest a possible developmental course for seen speech in infant language development.

40304.03 The Coordination of Production and Perception in Audio-Visual Speech
VATIKIOTIS-BATESON, Eric (ATR Human Info. Processing Res. Labs., KYOTO, JAPAN)
MUNHALL, Kevin G. (Departments of Psychology & Otolaryngology, Queen's University)

This talk describes our examination of the coordination between audiovisual speech production and perception. Our approach entails three steps. Physiological and kinematic measures associated with visible orofacial behavior are recorded along with the acoustics during production of natural sentences. Realistic talking faces are then animated using control parameters derived from the audiovisual production data. Finally, the animations are used as stimuli in AV perception studies in which experimental conditions are defined by explicit settings of the physiological, motion, and acoustic parameters.

40304.04 Visual Speech and Face Recognition: Common Informational Attributes

Rosenblum, Lawrence D. (Dept. of Psychology, Univ. of California, RIVERSIDE, UNITED STATES)
 Most theories of speech perception, face recognition, and neuropsychology portray the functions of speechreading and face recognition as separate. However, recent findings from our laboratory and others show evidence for a contingency between the functions. Research will be discussed which shows that: 1) idiosyncratic manipulations of facial images can influence visual speech and face perception similarly; 2) familiarity with a face facilitates speechreading; and 3) common kinematic information can be used for both visual speech and face perception. This last finding suggests that contingencies between visual speech and face recognition might be based on the use of common informational attributes.

40305SYM

Science from the standpoint of cognitive psychology

Convener: Lopez Alonso, Alfredo O. (CONICET & University Del Salvador, CAPITAL FEDERAL, ARGENTINA)

40305.01 Science Rationality and Inference: An insight from cognitive psychology
Lopez Alonso, Alfredo O. (CONICET & University Del Salvador, CAPITAL FEDERAL, ARGENTINA)

The purpose is to analyze inferential processes leading science to constitute as an assertive rational system from its irrational counterparts. Rationality is critical for science, however, it reflects a psychological need of thought's organization to achieve balances between conflicting stable categories of understanding and changing flows of inferences attending scientific problems. Dynamics between implicit and explicit inferences is assumed the way to solve rational and irrational unbalances between scientific representations and heuristics. Modality categories are

analyzed as inferential substrates to knowledge justification, implicit and explicit inferences as systemic and complexity processes attending rational needs for order, coherence, logical closure, reversibility.

40305.02 Reality and intentionality in science
Castro, Edgardo J. (University of Buenos Aires, CAPITAL FEDERAL, ARGENTINA)

From a cognitive standpoint, the concept of reality is analyzed in connection with the problem of intentionality in Brentano's philosophy of immanent objectivity. It's stressed the context in which Brantano's concept of intentionality came out: the reinterpretation of Aristotelian semantic of plurivocity of being and the opposition to the Kantian conception of a-priori. Brentano's classification of psychic acts -representations, judgments, and feelings- is considered; especially the distinction between representation and judgment in its epistemological implications. Finally, some critical observations concerning science representations are made in the framework of contemporary theories of intentionality as well as of mind's and thought's philosophy.

40305.03 Metacognition and learning processes underlying science.

Narvaja, Pablo M. (University of Freiburg Doctorand, CAPITAL FEDERAL, ARGENTINA)
Jasoslasky, Maria C. (Universidad del Salvador, Argentina)

The main issue lies on the relationships between science development and knowledge progression together with those of learning and metacognition as recurring processes emerging necessarily. Metacognition is treated as following Flavell's two-dimensional definition, that is: knowledge about the own cognition, and knowledge about the self-control and regulation of cognitive systems, especially those given within the context of science. Epistemology provides validity criteria to differentiate scientific knowledge from non-scientific one. Metatheory regulates critically on intellectual activities of disciplinary fields. Metacognition and metatheory guide thought optimizing processes to reach valid knowledge from epistemological justification standards.

40305.04 Subjective and objective causality in science: A topic for attribution theory?

Richaud de Minzi, Maria C. (CONICET, Univ. Adv. del Plata Entre Rios, CAPITAL FEDERAL, ARGENTINA)

Attribution theory core is how are bridged gaps between reality information and causal meanings taken on it. Intuitive and scientific thought differ formally, but may coincide in decisive procedures. Do scientists work out any life attributive style on scientific events spoiling due objectivity and independence? How far operate irrational attributions on methods and theories distorting science into pseudo-science? At what degree and quality is science objectivity undermined by subjectivity? This paper examines possible attribution models in scientific thought as an approach to the study of irrationality filtering into science just as it does into all decision-making processes of lay people.