

Essentialism in Cognition and Culture

Lou Moses & Dare Baldwin

In February an international, interdisciplinary conference on Essentialism in Cognition and Culture was held at the University of Oregon. Essentialism is the belief that members of certain categories share important underlying properties that determine category identity and are responsible for other important characteristics of the category. Essentialist thinking affects how we view the *natural* world (e.g., how we categorize biological species). It also appears to shape the way we think about the *socia*/world (e.g., how we think about gender, race, mental illness, and personality). The goal of the conference was to bring together scholars from psychology, philosophy, and anthropology to discuss recent theorizing and research on essentialism. The central questions addressed at the conference included the following. To what extent does an implicit belief in essences characterize people's thinking about natural and social categories? Do essentialist beliefs underlie young children's concepts or are early concepts instead formed on the basis of more primitive perceptual features? What role does language

play in shaping and fostering essentialist reasoning? In what ways do essentialist beliefs about social categories such as race, ethnicity, and gender contribute to stereotyping and prejudice? To what extent do essentialist notions underlie judgments about personality, psychopathology, and continuity in personal identity across time? And is psychological essentialism a universal characteristic of human reasoning, prevalent across quite diverse cultures?

The opening talk was given by **Susan Gelman**. She presented a wealth of data suggesting that young children's thinking about a variety of phenomena is indeed characterized by an essentialist bias. In the following talk **Michael Strevens** questioned the need for positing that children or adults believe that essences underlie natural categories. Instead he offered a minimalist view according to which a belief in causal laws is responsible for most of the phenomena that are commonly attributed to essentialist thinking. **Dave Hamilton's** talk focused on the perception of social groups. He drew an important distinction between essentialism and perceived entitativity (the cohesiveness with which a group acts) and showed how these two conceptual notions have different empirical consequences. **Nick Haslam's** talk focused on how essentialist thinking affects lay perceptions of psychiatric disorders (such as

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Developing Individuality in the Human Brain: A Tribute to Michael Posner

By Ulrich Mayr



Is **Mike Posner** really going to retire? Such may be inferred from a conference entitled "Developing Individuality in the Human Brain: A Tribute to Michael Posner", which took place May 2-3 in the Gerlinger Alumni Lounge and was co-sponsored by the Institute of Cognitive and Decision Sciences, College of Arts and Sciences, Office of Research and the American Psychological Association. The conference celebrated Mike Posner's work and influence on the field of cognitive, affective and developmental neuroscience, a field that would not exist in this form without Mike's groundbreaking work and continuing contributions.

The scientific presentations were associated roughly with the three most important phases in Mike's long career: chronometric explorations of the mind (**Tom Carr, Ray Klein**), the brain-imaging revolution (**Stan Dehaene, John Duncan, Marc Raichle**) and how the brain develops the mind (**B.J. Casey, Martha Farah, and Helen Neville**). Everyone I talked to agreed: The quality of the work presented was outstanding and the intellectual excitement Mike

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Essentialism Conf.

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depression and schizophrenia), as well as perceptions of social groups (such as gay men). **Francisco Gil-White** presented cross-cultural data suggesting that the Torguud of Mongolia have essentialist beliefs about ethnic groups. He also offered an evolutionary argument for the existence of essentialist beliefs emphasizing the centrality of intra-category mating and descent-based membership to essentialist attributions. **Rob Wilson** presented a framework for categorizing a variety of views on psychological essentialism according to two independent nativist dimensions (the extent to which processes within the individual are important in development and the extent to which environmental factors are important). **Michael Chandler** focused on essentialist vs. narrativist conceptions of self continuity. He presented data linking problematic conceptions of self continuity to adolescent suicide, and showing cultural differences in self conceptions between “mainstream” Canadian youth (largely essentialist) and First Nations Canadian youth (largely narrativist). **Susan Carey** reported data from the Vevo of Madagascar suggesting that, while essentialist thinking about the biological world is quite possibly universal, such thinking is not a product of some innate modular process. Rather, she argued, essentialist notions are constructed through human theory building capacities. The conference ended with two insightful commentaries on the proceedings by **Ellen Markman** and **Bertram Malle**.

The conference was funded in large part by a generous donation from **Ival McMains**, an Honors College alumnus. Additional support came from a College of Arts and Sciences Distinctiveness grant, as well as from the Honors College, the Psychology Department, and the Institute. Prior to the conference we held a seminar on essentialism for students in the Honors College. These students then attended and participated fully in the conference. The conference presented a truly unique opportunity for students to experience the intellectual excitement of learning about state-of-the-art scholarship in a “live” forum.

Plans for a conference volume are now under way. In addition, for people who missed the conference, or who would like to review any of the presentations, the entire conference was videotaped and will shortly be available in DVD format in the Institute office. Please see Vonda if you wish to check out any of the DVDs.



Posner Tribute

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had inspired in others was palpable in every single talk. It is certainly no coincidence that such an excellent program can be constructed simply by going through the list of Mike’s former students, colleagues, and friends.

Around 60 outside guests (aside from speakers) were present at the conference, some traveling from as far as Spain, England, France, Israel, and Japan—a wonderful testimony to the scientific and personal appreciation Mike enjoys among his students and colleagues. This also became very clear at the Saturday evening banquet. It was a time for settling old scores (Wendy Kellog), for learning about critical differences between Texas-style psychology and Posner/Oregon-style psychology (Doug Hintzman), about how Mike took on the State of Oregon and won (Steve Keele), and about various hypotheses regarding how much Mike Posner actually does sleep and when (several speakers). In the end, we also learned that the Posner paradigm allows for song and dance, and at that pretty well (Jennifer Simonds and Charo Rueda).

So then, what does this retirement look like? Mike is currently actively engaged in numerous, innovative research projects, and is involved in several book projects. Moreover, he recently took on the position as coordinator of the important campuswide Brain Biology and Machine Initiative (BBMI). This leaves hopes for a number of things: more ground-breaking work, a glorious future for the BBMI, and maybe another great conference like this one when, one day, Mike *really* retires.

Aviation Safety Research Project

Robert Mauro

Today, commercial air travel is one of the safest forms of transportation. Over the last half-century, major advances in aircraft systems have dramatically reduced the number of airline accidents attributable to mechanical or other equipment failures. However, much less progress has been made in reducing the sources of human error. Human error is a major causal factor in about 80% of all aircraft accidents and most of these errors can be attributed to problems in human judgment and decision-making. The key to improving aviation safety in the 21st Century is improving judgment and decision-making.



Aviation

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In 1998, Institute member Robert Mauro established the Aviation Safety Research Project (ASRP) in collaboration with researchers at the National Aeronautics and Space Administration's (NASA) Ames Research Center. The purpose of this joint venture is to conduct research aimed at developing a deeper understanding of human judgment and decision-making with the goal of using that understanding to help develop decision aids and training materials that can be used to improve aviation safety. Many individuals have contributed to the technology and research development, among them UO graduate students Stacey Pederson and Patricia Bruininks (Dr. Bruininks is now a member of the faculty at Hendricks College), Scott Nemeth, of NetJets, and Jenny Terpenning, a UO graduate and now ASRP project coordinator.

In the laboratory, Mauro and his collaborators have been studying how affect influences memory and decision-making. Under normal conditions, people can hold a small amount of information in short-term memory. Using a variety of emotional inductions, Mauro and his colleagues have demonstrated that when people are anxious, their ability to hold and manipulate information in working memory is impaired. Previous research in this area has frequently attributed decrements in performance to "stress." However, the impairment appears to be specific to fear or anxiety not to anger or a generalized "stress" response. In fact, the deleterious effect of anxiety can be avoided in the laboratory if individuals are given short instructions



Figure 1. Take-off scene from IDRS

that lead them to feel angry or challenged instead of anxious in response to the same physical stressors.

This research has been conducted using both college students and pilots flying a flight simulator in Straub Hall (see Figs. 1 and 2).

This research has direct implications for how air traffic controllers interact with pilots. Air traffic controllers routinely issue long and complex instructions to pilots. Under normal conditions, well-trained pilots have no problem following these instructions, but when anxious they may have great difficulty with them. Such long air traffic control instructions are likely to have contributed to a number of aircraft accidents. In particular, pilots have crashed while attempting to cope with in-flight emergencies and controller instructions. The Oregon simulator research suggests that if these instructions had been broken into shorter segments, even anxious pilots would have been able to comprehend and remember them.



Figure 2. Cockpit scene from IDRS prototype

Another problem tackled by the Aviation Research Project is appropriate decision making about in-flight icing. In-flight icing is an insidious cause of many aircraft accidents. Under certain conditions, water in the air can freeze on an aircraft's surface and cause substantial decrements in performance and handling. Enough ice can accumulate within minutes to cause serious problems (see Fig. 3). In extreme cases, the aircraft may become impossible to control. Most aircraft used in commercial operations are equipped to handle some icing conditions, but no aircraft is completely immune to this phenomenon. Because in-flight icing is very difficult to forecast, pilots cannot avoid all icing encounters. Instead, whenever they fly in conditions that could be conducive to icing, they must continually evaluate the environment and determine whether it is safe to proceed or whether some other action must be taken to ensure the safety of the flight.

Aviation

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In cooperation with the aerodynamic engineers and research pilots at NASA Glenn Research Center in Columbus, Ohio, the weather experts at the National Center for Atmospheric Research in Boulder, Colorado, the human factors experts at the NASA Ames Research Center, the pilots of the Airline Pilots Association, and the Federal Aviation Administration, Mauro and his colleagues at the ASRP worked with the University of Oregon New Media Center (now Interactive Media Group) and the NASA Glenn Imaging Technologies Center to produce an interactive training program for pilots on in-flight icing. This program, *A Pilot's Guide to In Flight Icing*, is now available to pilots throughout the country free of charge. It is designed to not only impart knowledge about icing but to help the pilots who use the program to be better able to recall the information when they need it and to make decisions using that information before and during flights. Given that the effectiveness of different decision strategies varies across individuals and situations, this program was designed not to teach a particular decision strategy but rather to support a variety of different decision strategies. It has been very well received and has earned a NASA award for “turning goals into reality.” However, Mauro and his colleagues are continuing to evaluate the educational value of the training program using professional pilots and pilots in training.



Figure 3. A NASA icing research aircraft covered in ice following a research flight.

In these and other projects, researchers at the UO Institute of Cognitive and Decision Sciences in coordination with their colleagues at the NASA Ames Research Center are simultaneously developing a deeper understanding of how people make decisions and applying that knowledge to solve real problems today.

Student Research Award Winners

Setting the Story Straight: Discrepant Accounts of Conflict and Their Convergence by Sarah Nelson

People construct stories about what goes on around them and their role in those events. However, when a negative interpersonal event occurs, different parties' stories often conflict, with consequences for blame and future interactions. This project examined how perspective-taking and self-disclosure instructions can influence conflict resolution. College roommates were brought into the lab, asked to write about conflicts they had with each other, instructed to focus on their own thoughts or their roommates' thoughts (or given no instruction at all) as they discussed these conflicts, and given post-discussion questionnaires about the conflict and their discussion of it.

Although I initially hypothesized that both instructions—to focus on the other person's thoughts and feelings vs. to focus on one's own thoughts and feelings—would increase overall conflict resolution by increasing shared perspectives, all instruction effects were greatly moderated by the role the participants had played in the conflict—victim or offender. Offenders were less satisfied with the discussion in the perspective-taking condition, perhaps because they were forced to think about their roommates' thoughts and feelings resulting from that negative event. And whereas victims understood their own behavior best when asked to focus on their own thoughts and feelings, offenders understood their own behavior worse in that condition. Despite the surprising results for offenders, participants with instruction were overall more likely to report the conflict as resolved by the end of the discussion than control participants, and the discussion itself increased feelings of conflict resolution for all participants.

The results from this study, as well as similar results from a related study on perspective taking in restorative justice mediation sessions, illustrate the complexity involved in discussions of conflict. In addition to bringing different perspectives to the table, parties may have different needs, vulnerabilities, and goals as a result of their initial role in the conflict. Thus, a successful conflict resolution must rely on a balance between the two parties and their role-specific needs as well as on the sharing and integrating of their different perspectives.



Research Awards

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Metaphors for the Mind by Bayta Maring

The role of metaphor in human cognition is an essential topic for many contemporary philosophers. Lakoff and Johnson (1999), for example, suggest that we understand all abstract concepts by mapping them onto concrete experiences using metaphors, as reflected in every day language. This project examined the development of children's understanding of the mind in terms of different metaphors for the mind. For instance, we sometimes talk about the mind as if it were a container, e.g., "I tried to put it out of my mind," "Keep in mind." Conceptualizing the mind in this way might allow children to understand that beliefs are separate or bounded from reality and therefore may or may not correspond to the way things really are in the world. Hence, the *Mind as Container* metaphor might be related to understanding false beliefs, an important milestone in theory of mind development that occurs between the ages of three and five. Another metaphor for the mind is the *Mind as Homunculus*, or little person, e.g., "My mind was racing," "My mind wandered." This metaphor involves thinking about the mind as an active agent, and previous research indicates that children do not grasp how the mind actively interprets information until age seven. Therefore, one might predict a progression from thinking about the mind as a container to thinking about it as a homunculus. In addition, there should be a relationship between children's understanding of metaphors for the mind and their performance on theory of mind tasks.

In the first study of this project, five-year-olds were presented with both Mind as Container and Mind as Homunculus metaphors. The results from 26 five-year-olds in Study 1 indicated that five-year-olds scored significantly better on Mind as Container metaphors than Mind as Homunculus metaphors, $F(1, 25) = 9.57$, $p < .01$. Study 2 included a larger sample of both four- and five-year-olds, with the primary purpose of relating children's understanding of Mind as Container metaphors to their performance on false belief tasks. A correlational analysis from 80 participants indicated that this relationship was significant, even after controlling for age, verbal ability, analogical reasoning, and overall metaphor comprehension, $r(63) = .28$, $p < .05$. However, there was no such relationship between theory of mind performance and the other two types of metaphors (Mind as object and Mind as Homunculus), $r(69) = .08$, *ns* and $r(69) = .03$, *ns*, respectively. In addition, children who heard a Mind as Container metaphor immediately before the theory of mind tasks were significantly more likely to perform above chance on those tasks than children who heard a different type

of metaphor, $\chi^2(2) = 8.74$, $p < .05$. The results of this project so far support the idea that children's understanding of the mind might, at least in part, be based on conceptual metaphors for the mind. A third study in this project involves a training procedure in which children age 3 and 1/2 to 4 and 1/2 are either trained on false belief tasks, Mind as Container metaphors, or analogical reasoning. It is predicted that children trained on Mind as Container metaphors will improve on false belief tasks more than those children trained on analogical reasoning.

References

Lakoff, G. & Johnson, M. (1999). *Philosophy in the flesh: The embodied mind and its challenge to Western thought*. New York: Basic Books.

Current Activities

The **Event Representation Focus Group** currently meets weekly. Active members include Eric Pederson and Dare Baldwin (faculty) and Annika Andersson, Helen Bjork, and Alicia Craven (students). Affiliated are also Russ Tomlin (faculty) and Carey Benom (student).

The group is engaged in running an experiment testing the possibility of linguistic input affecting attention to event boundaries. For this they present video stimuli of everyday human actions with multiple possible endpoint boundaries to attend to. The linguistic input is hypothesized to increase or decrease attention to these boundaries depending on the clause structure.

Those interested in the focus group should contact Eric Pederson (epederso@darkwing.uoregon.edu).

Hill Center Laboratories for Social Cognition and Decision Making

Ongoing research. The Hill Center laboratories have seen quite a bit of experimental activity this year. In fall and winter, a DoD-funded project to assess the psychometric qualities of a nonverbal reasoning style measure was conducted by Bertram Malle, Jen Simonds, and a team of dedicated undergraduate research assistants: Susan Harrison, Amber Nederhood, Scarlet Rappl, Zach Raschke, Rodney Rice, Amy Stamiris, and Aimee Wright. Chuck Tate led, in Holly Arrow's absence, the Small Groups lab team and conducted experiments on how students perceive diversity on the University of Oregon campus, a project funded by CODAC (the Center for Diversity and Community). This ongoing study, conducted with the help of undergraduate research assistants Clinton Davis-Stober and Kayoko Matsui, also

Current Activities

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examines group formation and emergent leadership in groups of same or different ethnic identities and studies the social construction of “race” in group discussions on this topic. First-year Ph.D. student Stephan Dickert, advised by Paul Slovic, Ellen Peters, and Robert Mauro, is conducting a study on the potential divergence of cognitive and affective paths of decision making. And another first-year Ph.D. student, Jonathan Cook, advised by Bertram Malle and Holly Arrow, recently began an experiment exploring the effect of differential power of group members on impression management and mental-state inferences during a joint group task.

Video system expansion

With the completed move of Institute offices to the second floor of Straub Hall, a lab room in the Hill Center was reclaimed (Straub 170), which now houses a VCR and monitor to play back videos recorded in the main AV-equipped lab room 178. This allows experimental procedures in which multiple interaction partners’ behaviors can be recorded in 178 and then simultaneously played back to the participants in separate rooms. Participants might be asked, for example, to evaluate their own interaction behavior or indicate at what points during the interaction they formed certain impressions or had certain partner-related cognitions or emotions.

Wireless system

A recent update of the wireless apparatus in the Hill Center now allows recording of dyadic interactions in which one partner (the “signaller”) unobtrusively registers on-line (during the interaction) a certain target emotion or cognition, such as “considering what my partner is thinking or feeling right now”. Each time the signaller notices a target cognition, he or she simply taps a shoe to press a tiny button hidden under the carpet, sending a signal to the main computer that records the exact time point of the signal relative to the audio/video recording made of the interaction. After the interaction, the signaller reviews the video recording and the computer stops the tape at each time point at which the person had sent an on-line signal. The signaller then elaborates on the registered cognition or answers specific experimenter questions. Simultaneously, the signaller’s partner may review the same recording and specify what thoughts or feelings he or she had at the time the signaller considered those thoughts or feelings. This method allows us to assess the timing of mental-state inferences relative to the interaction, their specific content, and their accuracy with respect to the partner’s actual mental states.

Evolution Seminar

An interdisciplinary Cognitive Science seminar “The Evolution of Mind” is being offered this Spring quarter by John Orbell (Political Science) and Tom Givón (Linguistics), jointly with Warren Holmes (Biology/ Psychology) and Frances White (Anthropology). The seminar is meeting in the Institute’s Hill Center on Wednesday afternoons, 2:00 to 5:00. The seminar surveys the application of evolutionary theory across a range of disciplines, but with a focus on cognitive evolution. About fourteen graduate students and one advanced undergraduate student from Psychology, Linguistics, Anthropology, Political Science and Management are taking the course, all of them interested in evolutionary approaches to human behavior; several others are sitting in on the course. To date, John Postlethwait (Biology) has provided a broad overview of evolutionary thinking, stressing cognitive issues; Warren Holmes has led a discussion on issues related to kinship and social behavior; Frances White has led a discussion on the concept of “Machiavellian intelligence” and the evolution of primate intelligence; and two sessions by Tom Givón have focused on evolutionary issues related to language and communication. In two subsequent sessions, John Orbell will lead discussion on the relationship between Machiavellian intelligence and cooperative behavior; and in a final session, students will discuss the projects on which they are working for this course. Readings are distributed in advance of each session, and the faculty members leading those sessions attempt to bridge the gaps between the diverse disciplines by the common concern with the evolution of mind. Sessions have been very lively, with productive exchange among students and faculty from those diverse disciplinary backgrounds and traditions.

Personals

Susan Guion

Institute member Susan Guion, Linguistics, has been working on a project designed to investigate the nature of knowledge of word stress patterns in early and late language learners. The work, supported by an NIH grant (DC05132), is conducted in collaboration with Co-PI’s Tetsuo Harada (EALL) and Ratreé Wayland (University of Florida) and student researchers J.J. Clark and Kyoung-Ho Kang (UO Linguistics). The first aim of the project is to investigate the effects of type of learning (i.e., traditionally called rule-based vs. irregular or associative learning), age of learning, and their interaction on word stress knowledge. The second aim is to investigate the role



Personals

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of first language transfer in the formation of rules in a second language. The third aim is to investigate the ability to acquire production proficiency of stress accent by learners whose native language exhibits non-stress accent or tone. The research has English as its target language and investigates speakers of a variety of first languages: Japanese (a language that specifies accent lexically), Korean (a language that has regular phrase-level accent), Spanish (a language that has both regular and irregular accent), and Thai (a language that has lexically specified tone).

Andriy M'Yachykov

Andriy M'Yachykov is a visiting Fulbright exchange student from the Department of Linguistics, Cherkasy State University, Ukraine. He participates in a newly introduced Fulbright Scholarship program for international graduate students and young faculty who seek to pursue a graduate degree from an American University. This program is among a very few degree-oriented programs funded by the United States government.

Andriy graduated from Cherkasy State University with a Master's degree in Linguistics in 1998. After graduation, he was employed by his home University. He taught courses in General Linguistics, Country Studies and Advanced English for Graduate Students. In 2001, Andriy entered the Ph.D. program in Linguistics at the same school, developing a research program on English and Russian pronoun systems from a Cognitive Linguistics perspective.

At the University of Oregon, M'Yachykov is working on his second Masters, this time in Psychology. He has been developing an interdisciplinary program in the departments of Psychology, Linguistics and Philosophy, under the guidance of Mike Posner and Russell Tomlin. Andriy's current research explores the connection between syntactic subject assignment and word order on the one hand and focal attention on the other. He compares languages with fixed and flexible word order, currently working with Russian and English.

Andriy also presented a talk on the pilot data results and the methodology he uses at the conference "Empirical Methods In Cognitive Linguistics" at Cornell University, May 2-5, 2003.

Ellen Peters

After obtaining her Ph.D. from the UO Psychology Department in 1998, Ellen Peters joined *Decision Research* as a Research Scientist, became an Adjunct Assistant Professor in Psychology, and has continued to be a member of the Institute of Cognitive and Decision Sciences - since 2002, as an Executive Committee member. Ellen's work is far-reaching, reflected in talks she has given at conferences and workshops on the neuroscience of economics to lifespan developmental changes in judgment and decision making. She is Principal Investigator on federal research grants from the National Science Foundation, National Institute for Aging, and the Agency for Health Care Research and Quality, among others. Recently she also accepted a position as Visiting Scientist for the National Cancer Institute, which is interested in developing their understanding of basic issues in judgment and decision research and how it applies to cancer communication.

In Memoriam Jake Beck

With great sadness I report the passing earlier this week of Professor Jacob Beck. Jake, as he preferred to be called, studied with J.J. Gibson at Cornell and held appointments at the University of Pennsylvania, Harvard University, and the University of Oregon before coming to Boston University in 1992. Notable among his academic activities was his role as co-organizer of a series of Human and Machine Vision workshops in the 1980s. Publications spanning five decades reported many fundamental contributions in auditory and visual perception. His results on lightness perception, texture segregation, contour completion, perceptual grouping, and figural organization often anticipated by many years the subsequent consensual understanding of the phenomena that he investigated. His studies of *linking* and *emergent features* in texture and contour perception, in particular, were so crafted as to yield a virtual blueprint for subsequent computational treatments and helped to foster the current revival of interest in the gestalt tradition. Jake remained keenly involved in research collaborations until his strength waned in his final days, and he led a seminar on a new topic in perception each year that he was at Boston University. These seminars were eagerly attended by faculty as well as students, including some from nearby institutions. Students who participated learned from Jake's example that a rigorous intellect, for which no idea was spared the consequences of confrontation with data, can be compatible with a gentility of spirit in a person evidently incapable of expressing ill will for another human being. He is survived by his wife, Ruth, and son, Jonathan.

Ennio Mingolla, Boston University
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Scholarly Events

Bibb Latané

Bibb Latané, an eminent social psychologist, visited the Institute in March of 2003 and gave a colloquium entitled *Creating Culture by Communication*. He also met with several Institute members and graduate students to discuss ongoing research projects.

Dr. Latané received his Ph.D. from the University of Minnesota in 1963 and held positions at Columbia University, Ohio State University, the University of North Carolina, and Florida Atlantic University. He received several awards for his groundbreaking work on bystander intervention with John Darley (in the late 1960s) and subsequently developed a theory of social impact to explain such phenomena as social loafing and the diffusion of responsibility. He was co-founder of a major journal in the field of Personality and Social Psychology (*PSPB*). He received the Donald T. Campbell Award from the Society of Personality and Social Psychology in 1986 and the Distinguished Scientific Contribution Award from the Society of Experimental Social Psychology in 1997.

Jean Decety and the Neuroscience of Social Cognition

Jean Decety, Head of the Social Cognitive Neuroscience Laboratory at the Center for Mind, Brain & Learning, University of Washington, was our first short-term visiting scholar in August, 2002. Jean Decety held discussions with several researchers and laboratories and embarked on collaborations with Sara Hodges, Psychology (which has so far led to several study ideas and a jointly submitted grant proposal) and Marjorie Taylor, Psychology. Decety also established a working relationship with the Lewis Center for Neuroimaging, to which he returns every few months with students and post-docs to conduct neuroimaging studies of empathy, imitation, and shared self-other representations.

Dr. Decety is now a member of the Institute of Cognitive and Decision Sciences. Those who would like to meet with him during one of his upcoming visits to Eugene, should contact Bertram Malle or Sara Hodges.

Jean Decety's research is grounded in the model of **shared representations** between self and others. This concept, borrowed from social psychology and developmental science, refers to the process of reciprocal interactions by which individuals internalize other people's perspective, thereby promoting self-monitoring, self-regulation, and reflection on their own cognition.

In cognitive neuroscience, the model of shared representations accounts for the demonstration that similar brain areas and computational processes are involved in mental representations of one's own action (e.g., in planning) and mental representations of another's action (e.g., in observation).

But representations that are shared are not identical, or else representations of self and others would completely overlap and lead to a confusion. Self-awareness and experiences of agency are important features for distinguishing between these shared representations, a distinction that is crucial to successful imitation, empathy, and social interactions.

Dr. Decety's research has obvious connections with Sara Hodges' work on empathy, Dare Baldwin's work on intention inferences in behavior observation, Marjorie Taylor's work on imagination, and several other Institute members' work on mental state inferences in communication and social interaction, such as Bertram Malle's, John Orbell's, and Tom Givón's.

More information on Dr. Decety's research can be found on the web site of his Social Cognitive Neuroscience Lab: <http://adam.cmbi.washington.edu>.

Recent Publications

- Blakemore, S., & Decety, J. 2001. From the perception of action to the understanding of intention. *Nature Reviews Neuroscience*, 2, 561-567.
- Decety, J., & Chaminade, T. 2003. The neurophysiology of imitation and intersubjectivity. In S. Hurley (Ed.), *Perspectives on imitation: From cognitive neuroscience to social science*. Cambridge: MIT Press. in press.
- Decety, J., Chaminade, T., Grèzes J., & Meltzoff, A.N. 2002. A PET exploration of the neural mechanisms involved in reciprocal imitation. *NeuroImage*, 15, 265-272.
- Ruby, P., & Decety, J. 2001. Effect of subjective perspective taking during simulation of action: a PET investigation of agency. *Nature Neuroscience*, 4, 546-550.



Future Activities

Other Minds: An Interdisciplinary Conference

Institute of Cognitive and Decision Sciences
University of Oregon

September 27-28, 2003

This fall, the Institute of Cognitive and Decision Sciences will host an interdisciplinary conference on current knowledge and new research directions on the topic of *Other Minds*. This label subsumes work on perspective taking, empathy, theory of mind, and mental state inference across a variety of disciplines, including anthropology, linguistics, philosophy, psychology, and neuroscience. Look for a detailed program to be sent to the ICDS mailing list in early September 2003.

Scheduled Symposia

Symposium I Culture, Language and Other Minds

1. Janet Astington (Psychology, OISE, Toronto)
2. Brian MacWhinney (Psychology, Carnegie Mellon)
3. Michael Schober (Psychology, New School for Social Research, NY)
4. Susan Fussell (Human-Computer Interaction Institute, Carnegie-Mellon University)

Symposium II Explaining Behavior, Reading Minds

1. Stephen Read (Psychology, University of Southern California)
2. Bertram Malle (Psychology, University of Oregon)
3. Alison Gopnik (Psychology, UC Berkeley)

Symposium III Reading Behavior, Reading Minds

1. Glenn Reeder (Psychology, Illinois State University)
2. Robert Gordon (Philosophy & Cognitive Science, University of Missouri, St. Louis)
3. Daniel Povinelli (Institute of Cognitive Science, University of Louisiana at Lafayette)

Symposium IV Own and Other Minds I

1. Radu Bogdan (Philosophy, Tulane University)
2. Sara Hodges (Psychology, University of Oregon)
3. George Loewenstein (Decision Sciences, Carnegie Mellon) & Leaf Van Boven (Psychology, University Colorado, Boulder)
4. Stephen Stich (Philosophy, Rutgers University) & Shaun Nichols (Philosophy, College of Charleston)

Symposium V Own and Other Minds II

1. Jean Decety (Social Neuroscience, University Washington)
2. Alvin Goldman (Philosophy, Rutgers University)
3. Josef Perner & Anton Kühberger (Psychology, University of Salzburg, Austria)
4. Mark Davis (Psychology, Eckerd College)

Symposium VI 11:00-1:00 Limits of Mindreading

1. Bill Ickes (Psychology, University Texas at Arlington) & Jeff Simpson (Psychology, Texas A & M University)
2. Boaz Keysar (Psychology, University of Chicago)
3. Robyn Langdon (Cognitive Science, Macquarie University, Australia)
4. Diego Fernandez-Duque (Cognitive Neurology, Sunnybrook Hospital, U Toronto)

Workshop: Molecular Genetics of Attention and its Disorders

FRIDAY JUNE 6, 2003 4:00 p.m.
Straub Hall, Room 146

JAMES SWANSON, UC, Irvine
Theories of Attention of Deficit Hyperactivity Disorder (ADHD) that Suggested Candidate Genes for the Initial Molecular Genetic Studies

DAVID GRANDY, OHSU

Studies Involving Dopamine Receptor-Deficient Mice Provide New Insights Regarding Neuronal Signaling Pathways Relevant to Attention and ADHD

ROBERT MOYZIS, UC, Irvine

The Genetic Architecture of Selection Acting on the Human Dopamine 4 (DRD4) Gene.

Upcoming Visiting Scholar

Philosopher and cognitive scientist **Alfred R. Mele** will be visiting the Institute October 14-19, 2003. Mele is the author of numerous monographs on the philosophy of mind and action, including:

- Irrationality: an essay on akrasia, self-deception, and self-control* (Oxford University Press, 1987),
- Springs of action: understanding intentional behavior* (Oxford University Press, 1992),
- Autonomous agents: From self-control to autonomy* (Oxford University Press, 1995), and
- Self-deception unmasked* (Princeton University Press, 2001).

Mele will hold a brownbag talk at noon on Wednesday (October 15) and a colloquium at 4pm on Friday (October 17). He will also be available for individual meetings. Please contact Bertam Malle if you would like to meet with Alfred Mele.

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Growing the Attneave Lecture Endowment

The Attneave lecture is a premier endowed lecture series sponsored by the Department of Psychology and Institute of Cognitive and Decision Sciences. The lecture series began in 1989 with the first presentation by Roger Shepard; the 15th will be this fall featuring Zenon Pylyshyn. The initial fund-raising effort produced approximately \$26,000. In order to provide a comfortable endowment for the series it is thought that about twice that amount is needed. Thus in connection with the recent Posner retirement event we sought to increase the endowment. Many of the visitors who returned to Oregon knew Fred Attneave and twenty different people have contributed or made pledges to the fund so far. We have already raised an additional \$11,300 and have pledged for \$950 more. Thus we are half way toward our eventual goal. The present sum with supplementation from regular colloquium funds should be sufficient to continue the series in perpetuity. However, we will continue to solicit funds to reach the eventual goal of an endowment of \$50,000.

For those of you who did not know Fred Attneave, below are some of the reasons why the lecture fund has received such widespread support.

Why a lecture to honor Fred Attneave? Certainly because of the importance of his ideas to the development of the fields of perception and cognition. But also for his ability to attract a wide variety of experimental psychologists to Oregon and for helping to make the University of Oregon a major center for studies of visual

Other Minds

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Symposium VII 2:00-4:00

Cognitive processes

1. Ralph Adolphs (Social Neuroscience, University of Iowa)
2. Jim Uleman (Psychology, New York University)
3. Lou Moses (Psychology, University of Oregon)
4. Daniel Ames (Business School, Columbia University)

Symposium VIII 4:30-6:15

Evolutionary processes

1. John Orbell (Political Science, University of Oregon)
2. Stephanie Preston (Behavioral Neuroscience, U of Iowa College of Medicine)
3. Discussant: Charles Crawford (Psychology, Simon Fraser University)

Continuing Initiatives

Student research funding. Each year we are awarding small research grants to graduate or undergraduate students who are engaged in **inter-disciplinary** research (see reports by Bayta Maring and Sarah Nelson on pages 4 and 5). Inquiries or application letters can be submitted at any time to a member of the Executive Committee:

Ellen Peters <empeters@OREGON.UOREGON.EDU>
 John Orbell <jorbell@oregon.uoregon.edu>
 Eric Pederson <epederso@darkwing.uoregon.edu>

or to the Director, Bertram Malle <bfmalle@darkwing.uoregon.edu>

A letter of application, no more than two pages long, must include: (a) a brief description of the proposed research, (b) a justification for the claim that the research is interdisciplinary, (c) name and contact information of a faculty sponsor, and (d) suggested use of the grant money (e.g., for paying research subjects, purchasing equipment, paying a programmer). Grant amounts will be up to \$500.

Technical reports. We would like to encourage Institute members to add to our collection of Institute Technical Reports. Besides submitting genuinely technical documents (e.g., describing a method, instrumentation, or a computer program), consider submitting manuscripts under review, unpublished conference papers, chapters in progress, or student theses. We have begun to make Tech Reports available electronically and will try to post all future Reports on the Institute web page.

Indirect cost returns on research grants. The Institute's funding system allows us to reclaim a portion of the overhead costs of any Institute-run research grant and use the money for communal resources that benefit the grant holder and some other Institute members. We strongly encourage members to consider running a grant through the Institute, because it benefits both the researcher and the Institute as a whole.

Call for scholarly meetings. In the past, the Institute has funded a number of successful conferences, many of which have led to published proceedings. Members are encouraged to propose high-profile conferences, but also variants of the typical conference format, such as workshops (e.g., a weekend during which a particular scientific method is



Attneave

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perception and information processing. Hyman, Beck, Posner, Wickelgren and Stevens were among those people who have been influenced in their decision to come to Oregon by the presence of Fred Attneave. Many were attracted to Oregon by the promise of a department, which hoped to link stimulus to knowledge and awareness as well as to response. Others felt that a place, which had been home to Attneave, must be a good place to do psychology. Most of all, however, an Attneave lecture is appropriate because of the kind of person Fred Attneave was and the things he stood for in the psychology department and in the field. Attneave was a person interested in a deep understanding of his field, not merely its latest or easiest fads. He was a person of high standards, but also high tolerance for diversity and even idiosyncrasy. Attneave was not one to attempt to impose any single view or rigid orthodoxy. His goal was truth as best he could grasp it. Truth, but with a certain skepticism that anyone, even he, had already attained it.

Anyone wishing to make contributions to the Fred Attneave Lecture Fund may contact Vonda Evans (vevans@oregon.uoregon.edu) or simply send a check made payable to the "Attneave Lecture Fund" c/o Vonda Evans, Institute of Cognitive and Decision

Initiatives

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presented and discussed), summer schools (a meeting for top graduate students working on a particular topic) or community events (e.g., a day of presentations and discussions on problems of decision making for local business leaders or on group dynamics and conflict resolution for local law enforcement).

Visiting scholars program. For many years, the Institute has invited scholars to give colloquium talks and visit the Institute for one or two days. Such visits raise interest in a scientist's work, but substantial intellectual contact is unlikely under these circumstances. We are therefore continuing a program that finances a small number of one-week visits by scholars who share research interests with several Institute members. These visits will include a colloquium, one or two informal seminars, and copious opportunity for conversation. Institute member are encouraged to propose candidates for this program, and the executive committee will select up to two visiting scholars per year.

New Books

The *Evolution of Language out of Pre-Language*, edited by T. Givón and Bertram Malle, was published in 2002 (Philadelphia: John Benjamins). This volume is the proceedings of the Institute-sponsored conference under the same name held in spring of 2001 in Eugene. *Bio-Linguistics: The Santa Barbara Lectures*, by T. Givón, was published in 2002 (Philadelphia: John Benjamins). *Intentions and Intentionality: Foundations of Social Cognition*, edited by Bertram Malle, Lou Moses, and Dare Baldwin, originally published in 2001, has been reprinted as a paperback edition (Cambridge, MA: MIT Press).





Institute Technical Reports

- No. 02-1 "From Attributions to Folk Explanations: An Argument in 10 (or so) Steps"
by **B.F. Malle**
- No. 02-2 "People's Praise and Blame for Intentions and Actions: Implications of the Folk Concept of Intentionality"
by **B.F. Malle and R.E. Bennett**
- No. 02-3 "The Relation Between Language and Theory of Mind in Development and Evolution"
by **B.F. Malle**
- No. 02-4 "F.Ex: A Coding Scheme for Folk Explanations of Behavior"
by **B.F. Malle**
- No. 02-5 "The Role of Orienting Attention for Learning Novel Phonetic Categories"
by **S.G. Guion and E. Pederson**
- No. 03-1 "The Representation of Conversation in Episodic Memory: Information Vs. Interaction"
by **M. Barker and T. Givón**
- No. 03-2 "Toward a Neuro-Cognitive Interpretation of 'Context'"
by **T. Givón**

ICDS NEWSLETTER

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