

## B. F. Skinner Lecture Series

B. F. Skinner Lectures are listed below, by area.

### AUT: Autism

#### #408 B. F. Skinner Lecture Series

5/25/2009

11:00 a.m. - 11:50 a.m.

West 301 AB

AUT; Applied Behavior Analysis

#### Genetic Considerations in Autism Spectrum Disorders

Chair: Jeff Tiger (Louisiana State University)

G. BRADLEY SCHAEFER (University of Arkansas for Medical Sciences)



Dr. Schaefer received his BS and MD degrees from the University of Oklahoma. He also did a pediatric residency and a fellowship in Genetics, Endocrinology and Metabolism at the OU Health Sciences Center. Dr. Schaefer is currently the Founding Director of the Division of Medical Genetics and the Chief of the Section of Genetics and Metabolism in the Department of Pediatrics, at the University of Arkansas for Medical Sciences. He has achieved board certification in Pediatrics, Human Genetics, and Pediatric Endocrinology. He is a founding fellow of the American College of Medical Genetics, and a fellow of the American Academy of Pediatrics. He has authored over 250 scientific articles, book

chapters, and invited reviews. He is on the editorial board of the Journal of Child Neurology, and sits on the National Advisory Board for the Sotos Syndrome Support Association. His clinical practice focuses on the genetics of neurologic conditions, neurosensory abnormalities, and craniofacial malformations. His research is in human clinical genetics with emphasis in neurogenetics and neurodevelopmental disabilities. This research utilizes computerized image analysis to quantify developmental changes in the brain, the face, and the inner ear.

**Abstract:** Epidemiologic data and molecular research document a strong genetic basis of autism spectrum disorders (ASDs). The familial pattern of ASDs clearly suggests multifactorial inheritance. The emerging themes in multifactorial conditions are 1) genetic heterogeneity with multiple major gene effects, 2) physiologically linked processes with multiple genes at work within each process, and 3) typically modest environmental buffering. A search for the etiology of an ASD is an option for families that can be facilitated by clinical geneticists. Continued advances in genetic technology have expanded the diagnostic options available for these evaluations and presumably increase the diagnostic yield. This presentation will review the genetic basis of ASDs and a model tiered evaluation scheme for identifying an etiology. Both of these concepts will be discussed in terms of insights into the primary pathophysiology that leads to an autism phenotype.

## BPH: Behavioral Pharmacology

### #554 B. F. Skinner Lecture Series

5/26/2009

11:30 a.m. - 12:20 p.m.

West 301 CD

BPH

### Exploring Behavioral Mechanisms of Putative Therapeutic Interventions

Chair: Karen G. Anderson (West Virginia University)

RICHARD W. FOLTIN (CU/NYSPI)



**Dr. Richard W. Foltin** is Professor of Neurobiology in the Department of Psychiatry at The College of Physicians and Surgeons of Columbia University, and a Research Scientist VII at New York State Psychiatric Institute. He received his undergraduate training at Franklin & Marshall College (1978) and a doctorate from The University of Chicago (1983) under the guidance of Dr. Charles Schuster and Dr. Chris Ellyn Johanson. Following completion of a two-year postdoctoral fellowship with Dr. Joseph Brady at The Johns Hopkins University School of Medicine, Dr. Foltin joined the faculty, where he worked closely with Dr. Marian Fischman. In 1992, Dr. Foltin joined the Department of Psychiatry at the College of Physicians and Surgeons. He was a founding member of the Division on Substance Abuse at the New York State Psychiatric Institute, and is currently the Director of the Substance Use Research Center. Dr. Foltin has been engaging in research on the effects of drugs of abuse for over two decades, and has published extensively on the behavioral pharmacology of cocaine and marijuana in humans and the effects of drugs on feeding behavior.

**Abstract:** Drug abuse and dependence is characterized by persistent behavior that is resistant to change and often insensitive to dramatic changes in consequences. While contingency management is effective in decreasing and controlling drug use, a medication that could either enhance compliance or even better yet, work in the absence of any behavioral effort, would greatly aid in bringing drug abuse treatment to the masses. Thus, much work has focused on medication development for drug abuse. Our approach has been to use small-scale well-controlled laboratory studies to investigate behavioral mechanisms associated with medication action and behavioral change. Useful behavioral mechanisms for decreasing drug use might include reductions in drug “craving,” the positive subjective effects of drugs, drug liking, positive and negative drug reinforcement, stress-induced, drug-induced or craving-induced relapse and increases in cognitive ability, impulse control and perhaps in the negative subjective effects of drugs. Various approaches for measuring the behavioral mechanism of action of pharmacological interventions for cocaine and marijuana abuse will be presented and the relationship between behavioral mechanism and clinical outcome will be discussed. Knowledge about behavioral mechanisms can be combined with knowledge about neurochemical mechanisms to provide a foundation for understanding the neurobiology of drug abuse and other persistent behaviors.

## CBM: Clinical, Family, Behavioral Medicine

### #346 B. F. Skinner Lecture Series

5/25/2009

9:00 a.m. - 9:50 a.m.

West 301 AB

CBM; Applied Behavior Analysis

#### **The Role of Social Factors in Behavior Change**

Chair: Ann Branstetter (Missouri State University)

ROBERT B. CIALDINI (Arizona State University)



**Dr. Robert B. Cialdini** is Regents' Professor of Psychology and Marketing at Arizona State University, where he has also been named W. P. Carey Distinguished Professor of Marketing. He has taught at Stanford University and Harvard's Kennedy School of Government. He has been elected president of the Society of Personality and Social Psychology. He is the recipient of the Distinguished Scientific Achievement Award of the Society for Consumer Psychology, the Donald T. Campbell Award for Distinguished Contributions to Social Psychology, and the (inaugural) Peitho Award for Distinguished Contributions to the Science of Social Influence. Professor Cialdini's book *Influence: Science and Practice*, which was the result of a three-year program of study into the reasons that people

comply with requests in everyday settings, has sold over a million copies while appearing in numerous editions and twenty-five languages. He has recently coauthored a new book titled, *YES! 50 Scientifically Proven Ways to be Persuasive*, which has appeared on the New York Times, Wall Street Journal, and USA Today best seller lists.

**Abstract:** Social norms, which refer to what most people do (descriptive social norms) and what most people approve (injunctive social norms), are remarkably powerful in directing human action. Equally remarkable is how little note people take of this power at two critical decision points: when, as observers they decide how to interpret the causes of their own actions and when, as communicators they decide how to influence the actions of others. Studies in several environmental contexts (e.g., home energy conservation, household recycling, hotel conservation efforts) show that persuasive communications that employ social norms-based appeals for desirable behavior are superior to those that employ traditional appeals.

## CBM: Clinical, Family, Behavioral Medicine

### #72 B. F. Skinner Lecture Series

5/23/2009

3:30 p.m. - 4:20 p.m.

West 301 AB

CBM

### Motivational Interviewing: Humanistic and Behavioral Perspectives

Chair: Jonathan W. Kanter (University of Wisconsin, Milwaukee)

WILLIAM R. MILLER (The University of New Mexico)



**Dr. William R. Miller** is Emeritus Distinguished Professor of Psychology and Psychiatry at the University of New Mexico, where he joined the faculty in 1976 after receiving his Ph.D. in clinical psychology from the University of Oregon. He served as Director of Clinical Training for UNM's APA-approved doctoral program in clinical psychology and as Co-Director of UNM's Center on Alcoholism, Substance Abuse and Addictions (CASAA). His publications include 40 books and over 400 articles and chapters.

Fundamentally interested in the psychology of change, he has focused in particular on the development, testing, and dissemination of behavioral treatments for addictions. The Institute for Scientific Information lists him as one of the world's most cited scientists.

**Abstract:** The efficacy of motivational interviewing (MI), first described in 1983, has been examined in over 180 randomized trials. MI has been conceptually rooted in the humanistic psychotherapy of Carl Rogers, but behavioral explanations are also feasible. In this address, Bill Miller describes how MI first emerged, and its particular focus on client language as a precursor of behavior change. Behavior analysts are invited to contribute to our understanding and refinement of the mechanisms by which MI affects treatment outcomes.

## CSE: Community Interventions, Social and Ethical Issues

### #223 B. F. Skinner Lecture Series

5/24/2009

1:30 p.m. - 2:20 p.m.

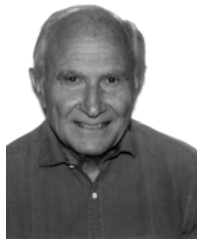
West 301 CD

CSE

### Global-Warming Effects and Human Solutions

Chair: Paul Chance

FREDERIC H. WAGNER (Department of Wildland Resources, Utah State University)



**Dr. Frederic H. Wagner** is currently Professor Emeritus in the Department of Wildland Resources at Utah State University. His educational background includes a B.S. in Biology at Southern Methodist University and graduate degrees in Zoology and Wildlife Management at the University of Wisconsin. Dr. Wagner has served as Director of the seven-department Ecology Center and Associate Dean of the College of Natural Resources, both at Utah State University; visiting professorships in the Department of Zoology, University of New England, Armidale, N.S.W. Australia and the Department of Biology, University of California, Santa Barbara. His research interests have addressed animal populations in Wisconsin and the Intermountain West, ecology of deserts in North America and North Africa, application of ecology in natural-resources management, and role of science in natural-resources and environmental policy. Involvement in the global-warming issue includes coordination of a 1998-2003 assessment of the effects of climate change on the nine-state Intermountain region, one of 19 regional assessments ordered by Congress; editing an in-press, multi-authored book *Climate Warming in Western North America/Evidence and Environmental Effects*; and conference presentations and publications in professional journals.

**Abstract:** During the 20th century, the average global temperature rose 1°C (1.8°F) in response to human emissions of CO<sub>2</sub> and other greenhouse gases. Environmental effects of this change included precipitation decline in subtropical latitudes, increases at higher latitudes. Montane snowpacks and glaciers shrank, changing, and in some cases stopping, streamflows. Ocean levels rose 12-13cm.

Health problems associated with increasing temperatures included direct heat deaths in hot years like the 20,000 Europeans who succumbed in the summer of 2003, and expanding ranges of disease vectors like the one transmitting dengue fever.

The global biota – terrestrial, freshwater, marine – has responded to these changes. Individual plant and animal species have extended their ranges; advanced the dates of migration, reproduction, and growth; changed their population densities. As these species undergo these changes, they alter their interactions with other species, and change the structures of their communities and ecosystems.

If, as predicted, human populations and economies increase (including higher per capita energy use and greenhouse gas emissions) during the 21st century, global temperatures are projected to increase 1.4-5.8°C (2.5-10.4°F) by 2100. The result will be profound magnification of the above environmental effects. Avoiding these changes will involve fundamental changes in human behavior at the levels of both individuals and institutions or governments.

## DEV: Human Development, Gerontology

### #377 B. F. Skinner Lecture Series

5/25/2009

10:00 a.m. - 10:50 a.m.

West 301 AB

DEV; Experimental Analysis

#### **Experience, Learning, and Development: The Role of Reliable Resources in Natural Environments**

Chair: Martha Pelaez (Florida International University)

CELIA L. MOORE (University of Massachusetts Boston)

**Dr. Celia Moore** was introduced to the study of animal behavior as an undergraduate at the University of Texas, where E. J. Capaldi was her primary mentor and major influence. She took his undergraduate Comparative Psychology and graduate Learning Theory courses, so had an early exposure to evolution and behavior steeped in the learning tradition. Capaldi introduced her to rats and research with a summer project, and to evolutionary biology by suggesting she take courses with R. K. Selander. The combination flourished, perhaps because of her experience growing up on a small farm. When Daniel Lehrman visited campus to give a guest lecture, the decision was quickly made to apply to his graduate program. She did her doctoral dissertation on parental behavior in ring doves under Lehrman's direction, where she developed a strong fascination with developmental inquiry. She took a position at the University of Massachusetts Boston shortly after graduate school. She has remained in this position, except for a visiting appointment at the University of Illinois, working with Janice Juraska. This collaboration brought her long-standing interest in the role of learning and experience in species-typical development to the cellular level of analysis.

**Abstract:** Changes in development occur through constructive processes using available resources that are either endogenous to the organism or incorporated from its surround. In species-typical development, separate individuals of the same species predictably go through similar stages and achieve similar endpoints, whereas individuals of different species exhibit at least some predictable differences in outcome. This is also the case for different sexes within a species. Reliable resources for development are provided by conditions essential for life found in the physical and social world of an organism as well as by properties and functions of its own body. These conditions generate experience, which operates through neurosensory, neuromotor, and hormonal activity to affect developmental outcomes. Experience encompasses heterogeneous contributors functioning at molecular, cellular, anatomical, physiological, and behavioral levels in a developing system. (It gets complicated.) Some experience can be understood using principles of learning and conditioning; other experience operates through functionally remote pathways and on endpoints that are not readily captured by this framework. A broad concept of experience can help to resolve difficulties inherent in nature-nurture dichotomies and provide new insights into the evolution of behavior.

## EAB: Experimental Analysis of Behavior

### #418 B. F. Skinner Lecture Series

5/25/2009

1:30 p.m. – 2:20 p.m.

West 301 AB

EAB

### The Evolutionary Economics of Information Use: From Simple Signals to Learning

Chair: James S. MacDonall (Fordham University)

DAVID W. STEPHENS (University of Minnesota)



**Dr. David W. Stephens** received a bachelor's degree in biology and mathematics from the University of Utah in 1978. He received a doctoral degree (D.Phil.) from Oxford University in 1982. From 1982 until 1989, he held postdoctoral fellowships at the Smithsonian Institution, the University of British Columbia, the University of Utah, and the University of Massachusetts at Amherst. In 1989, he joined the biology faculty at the University of Nebraska, Lincoln. In 1997, he took up his present position at the Twin Cities Campus of the University of Minnesota, where he serves as a Professor of Ecology, Evolution and Behavior. In 1990 he received a Presidential Young Investigator Award from the National Science Foundation. He is the author (with J. R. Krebs) of *Foraging Theory*, and editor (with J. S. Brown & R. C. Ydenberg) of the recently published *Foraging: behavior and ecology*. His work on animal foraging and decision-making has influenced many disciplines and it is widely cited in biology, economics, computer science, neuroscience, psychology, robotics and anthropology.

**Abstract:** Animals use signals in many situations: to attract mates, to avoid noxious food items, to defend resources. The value of signals depends, obviously enough, on how potential receivers respond. This presentation develops simple ideas about when receivers should value signals, and argues that these simple principles apply quite generally to situations in which animals use experience to modify their behavior. Part 1 will introduce the basic approach of behavioral ecology and explain how this has been applied to signaling. Following this tradition, I will develop a simple model of 'receiver economics' that emphasizes the interaction between signal reliability and environmental uncertainty. I will discuss experimental tests of this model from my laboratory. In part 2, I will review long-standing ideas about the evolution of learning. These ideas emphasize the statistical properties of the environment (e.g. change and predictability), but they have proved very difficult to study. My laboratory has tested these ideas by controlling patterns of change and predictability for *Drosophila* over many generations. These studies confirm many of our basic claims. Importantly, the principles involved here closely parallel our studies of animal signal use, and this suggests that same basic economic principle may guide information-use in many situations.

## EDC: Education

### #225 B. F. Skinner Lecture Series

5/24/2009  
1:30 p.m. - 2:20 p.m.  
West 301 AB  
EDC

#### **Data-Based Decision Making and Evidence-Based Practice: A Systems Level Approach**

Chair: Ronnie Detrich (Wing Institute)

BRUCE CHORPITA (UCLA)



**Dr. Bruce Chorpita** is currently Professor of Psychology, at the University of California, Los Angeles. He received his Ph.D. in psychology from the University at Albany, State University of New York and held a faculty position with the Department of Psychology at the University of Hawaii from 1997 to 2008. From 2001 to 2003, Dr. Chorpita served as the Clinical Director of the Hawaii Department of Health's Child and Adolescent Mental Health Division. With over 100 publications on children's mental health, he has been the recipient of multiple awards and honors for his work. Dr. Chorpita has held research and training grants from the National Institute of Mental Health, the Hawaii Departments of

Education and Health, the John D. and Catherine T. MacArthur Foundation, and the Annie E. Casey Foundation. He recently published a book on Modular Cognitive Behavior Therapy in 2007 with Guilford Press.

**Abstract:** The heart of the evidence-based practice movement for practitioners is data based decision-making. Practitioners use data for two purposes: (1) guide decisions about which interventions have an adequate empirical basis for a particular individual and problem; (2) determine if an implemented interventions is actually effective. If practitioners are to be successful with the evidence-based practice model then it will be necessary for clinicians to have easy access to information to the evidentiary status of interventions so they can make real time decisions for clients. It will also be necessary for the clinician to have feedback about the effectiveness of an intervention once implemented. To do this on a large scale will require a systems level intervention. This presentation will provide an overview of the considerations when introducing evidence-based services into established mental health systems, including (1) strategies for the measurement and feedback of child outcomes to guide clinical decisions and (2) strategies for pulling clinically useful information from the published research trials. Examples of clinical and feedback strategies will highlight the concept of a "clinical dashboard," which is a visual summary of complex client-specific information to guide the clinician.

## EDC: Education

### #306 B. F. Skinner Lecture Series

5/24/2009

4:30 p.m.- 5:20 p.m.

West 301 AB; Service Delivery

EDC

### Barriers to the Preparation of Highly Qualified Teachers in Reading

Chair: Ronnie Detrich (Wing Institute)

DANIEL J. RESCHLY (Vanderbilt University), Susan M. Smartt (Vanderbilt University)



**Dan Reschly** is Professor of Education and Psychology in Peabody College, Vanderbilt University where he Chaired the #1 ranked Department of Special Education from 1998-2006. From 1975 to 1998 Reschly directed the Iowa State University School Psychology Program where he achieved the rank of Distinguished Professor of Psychology and Education. Reschly earned graduate degrees at the University of Iowa and the University of Oregon and served as a school psychologist in Iowa, Oregon, and Arizona. Reschly has published on the topics of response to intervention, reduction of special education disproportionality, identification of disabilities (high incidence, minority issues), and policy issues in special education. He currently is a PI in the US Department of Education funded National Comprehensive Center on Teacher Quality. Reschly has trained teachers, principals, and related services personnel in 27 states regarding implementation of the response to intervention process in general, remedial, and special education.

In 1999 Reschly was listed in the top 5 in school psychology career service contributions and in 2004 he was identified as the most widely cited author in school psychology books and journals over 2002-2004 period. He has been active in state and national leadership roles including President of the National Association of School Psychologists, Editor of the *School Psychology Review*, Chair of NASP Graduate Program Approval, President of the Society for the Study of School Psychology, and Chair of the Council of Directors of School Psychology Programs. Reschly served on the National Academy of Sciences Panels on *Standards-based Reform and the Education of Students with Disabilities* and *Minority Overrepresentation in Special Education*. He chaired the National Academy Panel on *Disability Determination in Mental Retardation*. He has received the NASP Lifetime Achievement Award (2000) and Legend Award (2007), three NASP Distinguished Service Awards, the Stroud Award, appointment to Fellow of the American Psychological Association and the American Psychological Society, and 1996 Outstanding Alumnus, College of Education, University of Oregon.

**Abstract:** Despite the fact that early reading proficiency for all children has become a national mandate captured in both the No Child Left Behind Act (NCLB) and the Individuals with Disabilities Education Act (IDEA), the poor performance of America's fourth graders on national examinations of reading proficiency indicates that the nation is far from achieving that goal. This is all the more disappointing given that advances in research now provide a scientific basis for reading instruction that promises to enable nearly all students to become proficient readers by Grade 4.

Both NCLB and IDEA have invoked scientifically based reading research as the basis not only for mandating the adoption of scientifically based reading instruction but for related changes in education policy. Coupled with the emphasis in the federal legislation on putting "highly qualified" teachers who teach core content in all of the nation's classrooms, scientifically based reading research has become central to the requirement that all elementary and special education teachers be adequately prepared to teach reading. Presently, not only are far too few teachers proficient in scientifically based reading instruction, but far too many of the programs that prepare the nation's teachers are failing to give them the grounding they need in order to become proficient.



## TBA: Teaching Behavior Analysis

### #282 B. F. Skinner Lecture Series

5/24/2009  
3:30 p.m. - 4:20 p.m.  
West 301 AB  
TBA

#### **Applications of Behavior Analysis in Urban Education**

Chair: Denise E. Ross (Chicago School of Professional Psychology)

**Applications of Behavior Analysis in Urban Education** (Applied Behavior Analysis) BETINA JEAN-LOUIS (Harlem Children's Zone, Inc.)



As Director of Evaluation, **Dr. Betina Jean-Louis** has spearheaded the Harlem Children's Zone's evaluation efforts since March 2002. Prior to starting her position as an internal evaluator at HCZ, Dr. Jean-Louis worked as an independent evaluation consultant with a variety of organizations, including Safe Horizon, The New York City Department of Education, Sports and Arts in the Schools, Children's Television Workshop, and Homes for the Homeless. She also worked for three years at Metis Associates, a consulting company with a focus in educational evaluation. Dr. Jean-Louis earned a bachelor's degree at Columbia College and a Ph.D. in developmental psychology at Yale University. While at

Yale, Dr. Jean-Louis was a Zigler Center Fellow, received several University Fellowships, obtained a John F. Enders Research Grant, was awarded a Franklin S. Cooper Fellowship Award, and earned an American Psychological Association Dissertation Research Award. Dr. Jean-Louis served on the advisory board for the national expansion of Safe Horizon's Project Safe Harbor, a youth violence prevention and reduction program. She is currently a Board Member of Dwa Fanm ("the Rights of Women"), an organization that is dedicated to improving the lives of women and girls in Haiti and in the United States.

**Abstract:** The Harlem Children's Zone is an innovative and unique community service program that has served the educational and social needs of children and families in New York City's Harlem since 1970. As Director of Evaluation, Dr. Betina Jean-Louis has spearheaded the Harlem Children's Zone's evaluation efforts since March 2002. In this capacity, she assesses the implementation and impact of a variety of programs, including: 1) The Harlem Children's Zone Project, Geoffrey Canada's innovative approach to improving the lives of thousands of children living in Harlem, 2) Beacon Schools, 3) Preventive (family preservation) programs, and 4) Charter Schools. In this lecture, Dr. Jean-Louis will describe the programs of Harlem Children's Zone and the behavioral philosophy that guided the organization's development. Specifically, Dr. Jean-Louis will discuss the role that principles of behavior have had in the development of the organization's programs along with applications of its principles to educational and social issues in urban communities.

## TPC: Theoretical, Philosophical and Conceptual Issues

### #182 B. F. Skinner Lecture Series

5/24/2009  
11:00 a.m. – 11:50 a.m.  
West 301 AB  
TPC/ Theory

#### The Complementary Nature of Coordination Dynamics

Chair: Ted G. Schoneberger (Stanislaus County Office of Education, Modesto, CA)

J. A. SCOTT KELSO (Florida Atlantic University)



**Dr. Scott Kelso** was born in Derry, Northern Ireland and received his undergraduate education at Stranmillis University College Belfast and the University of Calgary, Alberta, graduating with the Ph.D. degree from the University of Wisconsin, Madison in 1975. He taught at the Universities of Iowa and Connecticut and was a Staff Scientist at Haskins Laboratories before moving to Florida Atlantic University in 1985 where he founded the Center for Complex Systems and Brain Sciences. Dr. Kelso has received numerous awards for his research on the coordination dynamics of brain and behavior, including most recently the Pierre de Fermat Laureateship and the Docteur Honoris Causa Degree from the Republic of France and the University of Toulouse. He is a Fellow of AAAS, APA and APS and the author of *Dynamic Patterns: the Self-Organization of Brain and Behavior* (The MIT Press, 1995), *Coordination Dynamics* (with V. K. Jirsa) published by Springer in 2004 and *The Complementary Nature* (with D.A. Engström) published by MIT Press in 2006 (ppbk released March, 2008). A recent invited piece “Coordination Dynamics” will appear in *Encyclopedia of Complexity and System Science* (2009).

**Abstract:** Despite all the successes of contemporary neuroscience in alleviating the many neuropsychiatric and neurological diseases that afflict us, we--us human beings--have not changed in any fundamental sense. Wars, poverty, rape, violence, fear, greed, power, etc. seem to permeate modern life just as they have for centuries. What can we do to change that, to change ourselves? Changing human nature as a goal of scientific understanding is a tall order. Nevertheless, improving our understanding of how the brain works may help illuminate human behavior and open up new ways to promote peace and tolerance. Recent research and modeling of brain coordination dynamics has revealed a novel metastable mode of brain functioning in which the well-known tendencies of specialized brain regions to express their autonomy (segregation) coexist with tendencies for individual regions to work together as an integrated system. Integration  $\sim$  segregation is just one of many complementary pairs (denoted by the squiggle ( $\sim$ ) symbol) to emerge from a deeper understanding of the brain's coordination dynamics. The squiggle exposes a basic truth: both complementary aspects and their dynamics are required for an exhaustive account of how the brain works. Though it may be anxiety provoking, this view of the brain potentially frees us from the instinct to dichotomize and the ubiquitous tendency to polarize. It shows us how contraries can be reconciled, promotes the logic of ‘both and’ and may help erase the artificial boundaries we have erected in all walks of life.

## VRB: Verbal Behavior

### #448 B. F. Skinner Lecture Series

5/25/2009

2:30 p.m. - 3:20 p.m.

West 301 AB

VRB

### Guess What? Language is Learned!

Chair: Matthew P. Normand (University of the Pacific)

Dr. Fiona Cowie (California Institute of Technology)



**Dr. Fiona Cowie** is an Associate Professor of Philosophy at the California Institute of Humanities. She has a B.A. (Hons.) in Philosophy from the University of Sydney, and a Ph.D. in Philosophy from Princeton University. Her book, *What's Within? Nativism Reconsidered* (OUP, 1999) was the first book-length attempt to refute Chomsky's innateness hypothesis and challenge the nativist hegemony, and Cowie regards the vituperation it engendered as a clear vindication of her arguments. Cowie is currently writing a book about the evolution of language, entitled *Building Babel*. She expects it to be similarly denounced. She lives in Pasadena, CA, with her children and other animals.

**Abstract:** Chomsky's view that much of one's knowledge of a natural language is innate has dominated theorizing in linguistics, psychology, and philosophy for fifty years. On the basis of 'arguments from the poverty of the stimulus,' Chomsky and his followers argued that human beings are innately endowed with a 'language faculty' containing substantial information about the form and functioning of human languages. New (and not-so-new) research from a variety of fields reveals that this view is now untenable. In the first part of this paper, I will survey some of this research – from psychology, neuroscience, and linguistics -- showing how it undermines the Chomskyan position. In the second part, I will explore the origins of language, arguing that evolutionary considerations also strongly support an empiricist picture of language acquisition.