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(most publications available online at <http://www.psych.ucsb.edu/research/cep/publist.htm>)

### Research interests and goals:

Complementary interests in 1) the dynamics of the evolutionary process as revealed in certain key evolutionary problems such as cooperation, sexual recombination, intragenomic conflict, coalitions, inbreeding avoidance, aggression, kin selection, status, Mendelism, *n*-person strategic interactions, counter-entropic development, and communication; 2) exploring how the architectures of our evolved systems of computation derive from the enduring structure of adaptive problems and the enduring information structure of ancestral environments; 3) combining experimentation, neuroscience methods, and field investigations with knowledge of how natural selection operated in ancestral hunter-gatherer contexts in order to map human nature (that is, to map the functional logic and information-processing designs of our evolved, species-typical cognitive, emotional, motivational, developmental, and neural programs); 4) exploring how these evolved neurocomputational adaptations organize (and were shaped by) social behavior, cultural processes, economic phenomena, and other population-level phenomena, 5) exploring how this approach can help pave the way for a genuine theoretical unification of the behavioral and social sciences, and their integration with the (rest of the) natural sciences.

### Education:

A.B. 1975 Experimental Psychology, *Harvard University*

A.M. 1981 Behavioral Biology, *Harvard University*

Ph.D. 1989 Biological Anthropology, *Harvard University*

Postdoctoral scholar, Department of Psychology, *Stanford University* 1988 - 1989 (with Roger Shepard)

### Employment:

1989 - 1990: Fellow, *Center for Advanced Study in the Behavioral Sciences*.

1990 - 1993: Assistant professor, Department of Anthropology, *University of California*, Santa Barbara

1994 - 1998: Associate professor, Department of Anthropology, *University of California*, Santa Barbara

1994 - : Co-Director, Center for Evolutionary Psychology, *University of California*, Santa Barbara

1995 - : Affiliated faculty, Department of Psychology, *University of California*, Santa Barbara

1998 - : Professor, Department of Anthropology, *University of California*, Santa Barbara

### Awards, Honors & Fellowships:

1989 - 1990: Fellow, *Center for Advanced Study in the Behavioral Sciences*

1991: Presidential Young Investigator Award, *National Science Foundation*

1992: Fellow, *Zentrum für interdisziplinäre Forschung (ZiF) der Universität Bielefeld (ZiF)*

1999 - 2001: President, *Human Behavior & Evolution Society*

1999 - 2000: Fellow, *John Simon Guggenheim Memorial Foundation*

2004: Finalist, NIH Director's Pioneer Award (final 21 out of 1300+ nominees worldwide based on track record of breakthroughs in behavioral and biomedical sciences)

2005: Fellow (elected), *American Psychological Society/Association for Psychological Science*

2006-2007: Arizona State University Templeton Research Fellow

**Major Grants:**

*National Science Foundation:* Cognitive adaptations to ancestral environments. (1991 - 1996, \$312,500).  
BNS9157-449

*James S. McDonnell Foundation:* Evolution and cognitive neuroscience. (1991 - 1996, \$187,500)

*Harry Frank Guggenheim Foundation:* Cognitive foundations of threat and alliance. (1995-1996, \$22,361,  
w/ Leda Cosmides)

*NIH Pioneer Award* (grant co-author and co-PI with Leda Cosmides, \$2.5 million; 2005-2010)

## **Co-Director, Center for Evolutionary Psychology:**

The Center for Evolutionary Psychology at UCSB trains graduate students and other researchers, and coordinates research teams with expertise in evolutionary biology, psychology, anthropology, economics, political science, and neuroscience to identify (1) adaptive problems our hunter-gatherer ancestors faced, (2) the psychological mechanisms (regulatory programs) that evolved to solve these problems, (3) their neurological basis, and (4) how they generate culture and impose systematic patterns of social behavior both within and across cultures. The CEP hosts visiting faculty, post-docs, and pre-doctoral researchers from around the world. Specific activities include the Human Universals Project, which attempts to document the existence of species-typical psychological adaptations through coordinating parallel experimental studies cross-culturally. These include projects at the Center's primary field sites in the Amazonian rainforest of Ecuador, as well as comparative projects in Argentina, Bolivia, Brazil, Dominica, Germany, Japan, and the U.S.

### ***Completed Ph.D. students, mentored (with Cosmides) through Center for Evolutionary Psychology/UCSB Anthropology & Psychology programs:***

- \*Lawrence Sugiyama, Ph.D., Dept. of Anthropology, University of Oregon
- \*John Patton, Ph.D. Dept. of Anthropology, Washington State University (co-mentored with N. Chagnon)
- \*Laurence Fiddick, Ph.D., Dept. of Psychology, James Cook University, Australia
- \*Robert Kurzban, Ph.D., Dept. of Psychology, University of Pennsylvania
- \*Clark Barrett, Ph.D., Dept. of Anthropology, University of California, Los Angeles
- \*Melissa Rutherford, Ph.D. Dept. of Psychology, McMaster University
- Gary Brase, Ph.D. Dept. of Psychology, University of Missouri (\*tenured at University of Sunderland)
- \*Bradley Duchaine, Ph.D. Institute of Cognitive Neuroscience, University College London
- \*Debra Lieberman, Ph.D., Dept. of Psychology, University of Hawaii
- \*\*Ed Hagen, Ph.D., Institute for Theoretical Biology, Humboldt University, Berlin
- \*\*Joshua New, Ph.D., Dept. of Psychology, Yale University
- \*Michael Price, Ph.D., Dept. of Psychology, Brunel University
- \*\*Aaron Sell, Ph.D., Center for Evolutionary Psychology, University of California, Santa Barbara
- \*\*Nicole Hess, Ph.D., Institute for Theoretical Biology, Humboldt University, Berlin, (co-mentored with D. Symons)

listed with current affiliations    \*tenured or tenure track position    \*\*post-doctoral fellowship

***CEP Doctoral students in process:*** Elsa Ermer, Jade Gibson, David Pietraszewski, Brandy Burkett, Max Krasnow, Daniel Sznycer, Andy Delton, Julian Lim

### **Selected Professional Activities:**

President, *Human Behavior and Evolution Society* 1999-2001; Advisory Board: *Institute of Cognition and Culture*, Queen's University Belfast; Editorial Boards: *Evolution & Human Behavior*; *The Cognitive Neurosciences*; *Journal of Cognition and Culture*; *The New Cognitive Neurosciences*; *Evolutionary Psychology*; *Psychology, Evolution & Gender*; Organizer, UCSB *Evolutionary Behavioral and Social Science* program (EBSS); Organizer, UCSB *Social Mind Project*; Organizer, UCSB *Evolution, Mind & Behavior Program* & joint UCLA-UCSB quarterly miniconference; Section Leader, *Evolutionary approaches to cognitive neuroscience*, 1998 *James S. McDonnell Cognitive Neuroscience Conference*, Olympic Valley, California (with Leda Cosmides); Program Co-chair for the 1995 *Human Behavior and Evolution Society Meetings* (with Leda Cosmides); Co-organizer for the 1994 *James S. McDonnell Cognitive Neuroscience Summer Institute*, UC Davis (with Leda Cosmides); Section Leader, 1993 *James S. McDonnell Cognitive Neuroscience Conference*, Olympic Valley, California (with Leda Cosmides)

### **Reviewer or Consultant for:**

*American Anthropologist, Behavioral and Brain Sciences, Cognition, Current Anthropology, Ethology and Sociobiology, Human Nature, Journal of Abnormal Psychology, Nature, Nature Genetics, MacArthur Foundation, NSF, NIH, MIT Press, Oxford University Press (and other presses), Psychological Review, Psychological Bulletin, Personality and Social Psychology Bulletin, Politics and the Life Sciences, Quarterly Review of Biology, Science, Trends in the Cognitive Sciences; non-academic: BBC, The New Republic, Newsweek, New Scientist, Scientific American, Time, US News and World Report, Washington Post, New York Times, Nightline, KCET, Nova, Horizon, NPR, The Sciences, Science News, Smithsonian, and many others*

### **Teaching:**

**Evolutionary genetics.** The evolution of genetic systems, sexual recombination, and intragenomic conflict. How natural selection produced the Mendelian system of inheritance and sexual recombination. The impact of Mendelism and natural selection on impact on sexual selection, development, parenting, kinship, inbreeding avoidance, cooperation, conflict, life-history, and senescence. The human genome, behavior genetics, and behavior genomics. The relationship of genetics to brain, psychology, and behavior.

**Evolutionary psychology.** The mapping of our evolved, species-typical neural/psychological adaptations for kinship, mating, sex, parenting, exchange, incest avoidance, cooperation, group dynamics, moral sentiments, coalitions and cognitive adaptations for groups, the evolved mechanisms implicated in warfare and intergroup conflict. The evolved functional logic of anger, guilt, shame, gratitude, love, outrage, fear, jealousy. Instincts as specialized problem-solving and learning systems. How natural selection among ancestral foragers designed mechanisms underlying human reasoning, emotion, motivation, memory, categorization, and attention.

**Human and primate behavioral ecology.** Hunter-gatherer studies; the reconstruction of hominin behavioral evolution; selectionist theories of primate behavior.

**Evolutionary anthropology:** Biocultural and biosocial anthropology, the evolutionary and cognitive basis of cultural transmission and social dynamics; the nature of culture; human universals; how evolved psychological specializations shape cultural and social phenomena, including social structure in small-scale societies; the effort to create a unified natural science of human behavior.

**Evolutionary cognitive neuroscience and social neuroscience.** Evidence about our evolved species-typical mechanisms from neuroimaging, neuropsychology, developmental syndromes, and normal development. Relationship between computational architecture and neural architecture.

**Psychological anthropology.** History and state of the art, from Freud to evolutionary psychology. Theoretical dialogue between models of universal human nature and models that emphasize cultural particularism. How children learn culture. How human psychological mechanisms generate culture. Human psychological development.

### **Professional memberships:**

American Psychological Society/Association for Psychological Science (Fellow)

American Psychological Association

American Anthropological Association

American Association of Physical Anthropologists

American Association for the Advancement of Science

Animal Behavior Society

American Society of Naturalists

The Human Behavior and Evolution Society

The Society for the Study of Evolution

Cognitive Science Program, UCSB

Interdisciplinary Development Program, UCSB

Developmental and Evolutionary Psychology Program, UCSB

Evolution, Mind, and Behavior Program, UCSB

### **UCSB Office of Research and intramural grants:**

2005-2006: The evolutionary biology of human kin recognition: mapping the evolved mechanisms designed for

the recalibration of the relative weight placed on the welfare of self versus others.  
2004-2005: The evolutionary biology of human anger and welfare trade-off ratios: the architecture of aggression regulation and cooperation withdrawal.  
2003-2004: The evolutionary biology of human kin recognition .  
2002-2003: Triggers of *us* versus *them* perception: Racial awareness as coalitional computation.  
2001-2002: Exploring the structure of incest avoidance mechanisms.  
2000-2001: The cognitive neuroscience of social reasoning.  
1999-2000: Mapping the structure of cognitive programs for precaution and threat interpretation for cross-cultural and neuropsychological investigations.  
Social Mind: Research Across Disciplines Grant, Office of Research  
Imagination and the Adapted Mind conference support, Office of Research  
Evolution, Mind, and Behavior Program support, Letters and Sciences  
Computer models of natural selection and behavioral ecology: Instructional Improvement grant.

## **Empirical Research Projects** (*Primary collaborator: Leda Cosmides*)

*Ongoing research in evolutionary psychology, anthropology, and cognitive neuroscience:* Our research goal is the discovery and progressive mapping of the evolved computational adaptations that comprise our species-typical brain architecture, and the exploration of the systematic behavioral patterns these programs generate in different social and cultural environments. Starting with models of specific adaptive problems derived from evolutionary biology and paleoanthropology, the design of cognitive, emotional, and motivational adaptations is explored through experimentation, cross-cultural studies, the study of selective neurological deficits, and neuroimaging. In addition to study sites we have established in Ecuador, we have been developing a collaborative network of field sites that will allow carefully controlled cross-cultural comparisons and the identification of species-typical architecture invariances. Recently, we have begun to collaborate on neuroimaging research, and studies of focal brain damage.

1) *Cognitive specializations for reasoning:* We are continuing to test hypotheses about the design and architecture of cognitive adaptations specialized for reasoning about cooperation, exchange, extortive threat, bluffing, and hazard management. In addition to testing fine-grained hypotheses about the computational structure of these reasoning specializations, we are exploring the cross-cultural universality, genetic basis, and neural correlates of these mechanisms.

2) *Human Kin Detection Project:* Theories of selection pressures suggest that humans ought to have a specialized neurocomputational system designed to identify genetic relatives. By relating variables such as childhood coresidence and family composition to the degree of welfare trade off and the degree of sexual repulsion to various family members, we have for the last decade been collecting data on over one thousand subjects to map the architecture of this system, and how it regulates altruism towards genetic relatives, sexual disgust toward genetic relatives, and moral sentiments about third parties engaging in incest. Using these data, we have been able to map the computational architecture of sibling detection, and show its uniformity across two human populations. We are presently expanding the number of sites (to Brazil, Japan, Dominica, and Bolivia), and expanding the categories of kinship explored.

3) *Ecuador Projects:* We have been adapting a variety of experiments for use with non-literate subjects, to investigate which psychological processes are culturally variable and which are universal. So far, we and our collaborators have adapted and are running experiments on reasoning about social exchange, threat, and precaution; collective action, hunting memory; predator-prey specializations; the computational architecture of anger; spatial cognition; mother-infant emotion communication; status perception and its relationship to aggressive formidability; risk of injury and its relationship to cooperation; waist-hip ratio and perceived attractiveness; and male affective responses to children and their impact on their perceived attractiveness.

4) *Evolved mechanisms for statistical inference:* We are presently exploring a series of hypotheses about what cognitive adaptations for statistical inference ancestral hominid hunter gatherers should have evolved. Contrary to the existing consensus, we have been able to detect the presence of well-designed statistical reasoning adaptations, by presenting subjects data in formats more similar to what ancestral human hunter-gatherers would have encountered than psychologists usually use.

5) *The evolved computational architecture of motivational adaptations for sociality:* We have been attempting to empirically and theoretically map the computational architecture of anger, guilt, shame, gratitude, sexual disgust, and kin-directed affection. We have gathered data on our hypothesis that humans have a series of evolved regulatory variables that both drive motivation and emotion and are (in turn) recalibrated by them. So far, have an empirically validated, well-developed model of the computational structure of anger, and have two additional studies exploring the recalibrational architecture of anger, guilt, and gratitude.

6) *Cognitive neuroscience*: Center affiliates have been working on a series of projects, including the origins of face recognition specializations (with developmental prosopagnosics), neural dissociations between social exchange reasoning and precautionary reasoning, neural imaging of social exchange versus precautionary reasoning, the effects of autism and focal brain damage on autobiographical and social memory, and other projects.

7) *Coalitional psychology, racial awareness, and collective action*: By modeling the selection pressures shaping how our hominid ancestors would have cooperated and competed in groups, we have been deriving a set of predictions about the designs of the computational components of a specialized evolved psychology of coalitions. We have begun testing these predictions using a variety of methods, and expect to explore increasingly sophisticated features of this psychology over the next several years. Using this set of models, we have (with Robert Kurzban and David Pietraszewski) found that that coalitional alliance is automatically encoded; that, contrary to consensus views in social cognition, race *per se* is not necessarily automatically encoded; that in modern circumstances, race is interpreted as a cue to coalitional alliance; and that race encoding can be reduced by creating contexts in which race does not predict coalitional alliance. These findings have recently been replicated and extended in seven sites in Brazil.

8) *Decoupled cognition, metarepresentation, and scope syntax*: A zoologically unusual – if not unique – property of human minds and behavior is our ability to construct novel plans of action based on information of limited scope (i.e., information that is true only within very limited circumstances of time and place). Plausibly related to this is our ability to engage in suppositional reasoning and to model counterfactual worlds. We have been exploring the nature of the computational machinery that causes these abilities, including the possibility that the mind has a sophisticated scope syntax: sets of rules, procedures, and data formats that control the flow of information between cognitive systems. Our theoretical and review work on this topic has been leading to a number of empirical projects. For example, with Prof. Stanley Klein, we empirically tested a hypothesis about scope syntax and the evolution of memory systems. This work indicates that speed plus accuracy can be engineered into decision rules that use stored information if they are designed to simultaneously retrieve a summary generalization (from semantic memory) along with episodic memories that are inconsistent with that summary, in order to bound the scope within which the generalization applies.

***Recently completed empirical studies***: In a series of recently finalized research reports, we and our colleagues have found empirical support for (1) the hypothesis that humans have evolved cognitive specializations for reasoning about bluffs and double crosses in situations of social threat; (2) evidence of a selective impairment in the ability to reason about social exchanges in a patient with damage to orbitofrontal and anterior temporal regions, who nevertheless shows no deficit in his ability to reason about precautions and other contents, suggesting that the social contract circuits are psychologically and neurally real; (3) other evidence that reasoning about social exchanges and precautions are cognitively distinct operations obtained through priming techniques (a double dissociation); (4) cross-cultural evidence of the same distinctive pattern of reasoning results obtained from nonliterate hunter-horticulturalists, the Shiwiari; (5) evidence that humans automatically and implicitly deduce and encode coalition affiliation as part of a person's identity, with men being more likely to encode coalition membership; and (6) in coalitional contexts, subjects are more likely to forgive ingroup members than outgroup members during the early phases of group formation, but with the passage of time become more inclined to punish ingroup members over outgroup members.

### **Other Areas of Research Activity**

*Ongoing research in evolutionary biology*:

*The evolution of genetic systems:* Starting from the hypothesis that the primary function of sexual reproduction is to defeat coevolving pathogens, and by using the specific approach developed by Tooby (1982) on recombination and Cosmides & Tooby (1981) on intragenomic conflict, the goal is the derivation and refinement of a systematic set of principles that predict and account for many of the fundamental features of genetic systems, including the ecological and life-history correlates of parthenogenesis, inbreeding, mating systems, chromosome morphology, chromosome number, polymorphism, dispersal, and others. Also, the breaking apart of gene associations through sexual recombination provides constraints on how much complex adaptations may vary between individuals in a species, including neural adaptations, making most complex adaptations species-typical. This selects for a layer of developmental adaptations to solve the problems of constructing complex adaptations given the chronic disordering effects of potentially developmentally disruptive allelic variation that accumulated to retard parasites.

*The evolutionary dynamics of n-person cooperation and conflict:* Using agent-based techniques, we are developing models of n-person cooperation, conflict, and punishment related to our empirical work on punitive sentiments, alliance detection, and social exchange.



## Publications

### **Books:**

- Barkow, J., Cosmides, L. & Tooby, J., editors (1992). *The Adapted Mind: Evolutionary psychology and the generation of culture*. Oxford University Press.
- Section Editor (1995). *The Cognitive Neurosciences*. (Michael S. Gazzaniga, Ed.) Cambridge: MIT Press.
- Section Editor, (2000). *The New Cognitive Neurosciences*. (Michael S. Gazzaniga, Ed.) Cambridge: MIT Press.
- Cosmides, L. & Tooby, J. (in press). *Universal Minds: Explaining the new science of evolutionary psychology*. (Darwinism Today Series). London: Weidenfeld & Nicolson. US: Yale University Press.
- Tooby, J. & Cosmides, L. (forthcoming) *Evolutionary psychology: Foundational Papers*. with a forward by Steven Pinker. MIT Press: Cambridge

### **Articles & Chapters:**

- Cosmides, L. and Tooby J. (1981) Cytoplasmic inheritance and conflict. *Journal of Theoretical Biology*. 89: 83-129.
- Tooby J. (1982). Pathogens, polymorphism, and the evolution of sex. *Journal of Theoretical Biology*. 97: 557-576.
- Tooby, J. (1984). Reply to M. Blute's "The sociobiology of sex and sexes today." *Current Anthropology*. 25(2): 193-212.
- Tooby, J. (1985). The emergence of evolutionary psychology. In: *Emerging Syntheses in Science. Proceedings of the Founding Workshops of the Santa Fe Institute*. Santa Fe, NM: The Santa Fe Institute.
- Tooby J. and DeVore, I. (1987). The reconstruction of hominid behavioral evolution through strategic modeling. In: *Primate Models of Hominid Behavior*, W. Kinzey (Ed.) New York: SUNY Press.
- Tooby, J. (1987). Reply to R.J. Blumenschine's "Characteristics of an Early Hominid Scavenging Niche." *Current Anthropology*. 28(4): 399-400.
- Cosmides, L. & Tooby, J. (1987). From evolution to behavior: Evolutionary psychology as the missing link. In J. Dupre (Ed.), *The latest on the best: Essays on evolution and optimality*. Cambridge, MA: The MIT Press.
- Tooby, J., & Cosmides, L. (1988). The evolution of war and its cognitive foundations. *Institute for Evolutionary Studies Technical Report 88-1*
- Tooby, J. (1988). *The evolution of sex and its sequelae*. Doctoral dissertation, Harvard University. University Microfilms.
- Tooby, J., & Cosmides, L. (1988). Can non-universal mental organs evolve? Constraints from genetics, adaptation, and the evolution of sex. *Institute for Evolutionary Studies Technical Report 88-2*
- Tooby, J. & Cosmides, L. (1989). Evolutionary psychology and the generation of culture, Part I. Theoretical considerations. *Ethology & Sociobiology*, 10: 29-49.
- Cosmides, L. & Tooby, J. (1989). Evolutionary psychology and the generation of culture, Part II.

- Case study: A computational theory of social exchange. *Ethology & Sociobiology*, 10: 51-97.
- Tooby, J. & Cosmides, L. (1989). The innate versus the manifest: How universal does universal have to be? *Behavioral and Brain Sciences*, 12: 36-37.
- Tooby, J. & Cosmides, L. (1989). Adaptation versus phylogeny: The role of animal psychology in the study of human behavior. *International Journal of Comparative Psychology*, 2(3): 105-118.
- Tooby, J. & Cosmides, L. (1989). Kin selection, genic selection, and information-dependent strategies. *Behavioral and Brain Sciences*, 12(3): 542-544.
- Tooby, J. & Cosmides, L. (1989). Evolutionary psychologists need to distinguish between the evolutionary process, ancestral selection pressures, and psychological mechanisms. *Behavioral and Brain Sciences*. 12(4): 724-725.
- Tooby, J. & Cosmides, L. (1990). On the universality of human nature and the uniqueness of the individual: The role of genetics and adaptation. *Journal of Personality*. 58(1): 17-67.
- Tooby, J. & Cosmides, L. (1990). The past explains the present: emotional adaptations and the structure of ancestral environments. *Ethology and Sociobiology*. 11: 375-424.
- Tooby, J. & Cosmides, L. (1990). Toward an adaptationist psycholinguistics. *Behavioral and Brain Sciences*.
- Cosmides, L. & Tooby, J. (1991). Reasoning and natural selection. *Encyclopedia of Human Biology*, vol. 6. San Diego: Academic Press.
- Cosmides, L., Tooby, J., & Barkow, J. (1992). Evolutionary psychology and conceptual integration. In J. Barkow, L. Cosmides, & J. Tooby (Eds.), *The adapted mind: Evolutionary psychology and the generation of culture*. New York: Oxford University Press.
- Tooby, J. & Cosmides, L. (1992). The psychological foundations of culture. In J. Barkow, L. Cosmides, & J. Tooby (Eds.), *The adapted mind: Evolutionary psychology and the generation of culture*. New York: Oxford University Press.
- Cosmides, L. & Tooby, J. (1992). Cognitive adaptations for social exchange. In J. Barkow, L. Cosmides, & J. Tooby (Eds.), *The adapted mind: Evolutionary psychology and the generation of culture*. New York: Oxford University Press.
- Cosmides, L. & Tooby, J. (1992). Section Introduction: Cooperation. In J. Barkow, L. Cosmides, & J. Tooby (Eds.), *The adapted mind: Evolutionary psychology and the generation of culture*. New York: Oxford University Press. pp. 161 - 162
- Cosmides, L. & Tooby, J. (1992). Section Introduction: The psychology of mating and sex. In J. Barkow, L. Cosmides, & J. Tooby (Eds.), *The adapted mind: Evolutionary psychology and the generation of culture*. New York: Oxford University Press. pp. 245 - 247
- Cosmides, L. & Tooby, J. (1992). Section Introduction: Parental care and children. In J. Barkow, L. Cosmides, & J. Tooby (Eds.), *The adapted mind: Evolutionary psychology and the generation of culture*. New York: Oxford University Press. pp. 323 - 326
- Cosmides, L. & Tooby, J. (1992). Section Introduction: Perception and language as adaptations. In J. Barkow, L. Cosmides, & J. Tooby (Eds.), *The adapted mind: Evolutionary psychology and the generation of culture*. New York: Oxford University Press. pp. 445 - 449
- Cosmides, L. & Tooby, J. (1992). Section Introduction: Environmental aesthetics. In J. Barkow, L. Cosmides, & J. Tooby (Eds.), *The adapted mind: Evolutionary psychology and the generation of culture*. New York: Oxford University Press. pp. 551 - 553
- Cosmides, L. & Tooby, J. (1992). Section Introduction: Introsychic processes. In J. Barkow, L.

- Cosmides, & J. Tooby (Eds.), *The adapted mind: Evolutionary psychology and the generation of culture*. New York: Oxford University Press. pp. 599 - 600
- Cosmides, L. & Tooby, J. (1992). Section Introduction: New theoretical approaches to cultural processes. In J. Barkow, L. Cosmides, & J. Tooby (Eds.), *The adapted mind: Evolutionary psychology and the generation of culture*. New York: Oxford University Press. pp. 625 - 626
- Tooby, J. & Cosmides, L. (1992). Ecological rationality and the multimodular mind: Grounding normative theories in adaptive problems. *Center for Evolutionary Psychology Technical Report 92-1*. Reprinted in: Tooby, J. & Cosmides, L. (in press) *Evolutionary psychology: Foundational Papers*. with a forward by Steven Pinker. MIT Press: Cambridge
- Cosmides, L. & Tooby, J. (1993). The lords of many domains. *The Times Higher Education Supplement*, London. (June 25, 1993).
- Cosmides, L. & Tooby, J. (1994). The origins of domain-specificity: The evolution of functional organization. In L. Hirschfeld & S. Gelman (Eds.), *Mapping the mind: domain-specificity in cognition and culture*. Cambridge: Cambridge University Press.
- Cosmides, L. & Tooby, J. (1994). Beyond intuition and instinct blindness: Toward an evolutionarily rigorous cognitive science. *Cognition*, 50, 41-77. [invited article]
- Cosmides, L. & Tooby, J. (1994). Better than rational: Evolutionary psychology and the invisible hand. *American Economic Review* (May), 84(2): 327-332.
- Tooby, J. & Cosmides, L. (1995). Mapping the evolved functional organization of mind and brain. In M. Gazzaniga (Ed.), *The cognitive neurosciences*. Cambridge, MA: MIT Press.
- Cosmides, L. & Tooby, J. (1995). From function to structure: The role of evolutionary biology and computational theories in cognitive neuroscience. In M. Gazzaniga (Ed.), *The cognitive neurosciences*. Cambridge, MA: MIT Press.
- Tooby, J. & Cosmides, L. (1995). Section Introduction: Evolutionary approaches to cognitive neuroscience. In M. Gazzaniga (Ed.), *The cognitive neurosciences*. Cambridge, MA: MIT Press.
- Cosmides, L. & Tooby, J. (1995). From evolution to adaptations to behavior: Toward an integrated evolutionary psychology. In R. Wong (Ed.), *Biological perspectives on motivated and cognitive activities*. Norwood, NJ: Ablex.
- Tooby, J. & Cosmides, L. (1995). The language of the eyes as an evolved language of mind. Forward to: *Mindblindness: The language of the eyes*. by Simon Baron-Cohen. Cambridge, MA: MIT Press.
- Cosmides, L. & Tooby, J. (1996). Are humans good intuitive statisticians after all?: Rethinking some conclusions of the literature on judgment under uncertainty. *Cognition*. 58: 1-73
- Cosmides, L. & Tooby, J. (1996). A logical design for the mind? (Review of *The Psychology of Proof*, by Lance J. Rips, 1994 MIT Press.) *Contemporary Psychology*, 41(5): 448-450.
- Tooby, J. & Cosmides, L. (1996). Friendship and the Banker's Paradox: Other pathways to the evolution of adaptations for altruism. In: W. G. Runciman, John Maynard Smith & R. I. M. Dunbar (Eds.), [John Maynard Smith, Issue Editor], *Evolution of Social Behaviour Patterns in Primates and Man*. *Proceedings of the British Academy*, 88: 119-143. pp. 119-144
- Tooby, J. & Cosmides, L. (1996). Think again: Current issues in the evolutionary psychology of reasoning and cooperation. In: Betzig, L. (Ed.) *Human Nature: A Critical Reader*. New York: Oxford University Press. pp. 292-294
- Cosmides, L. & Tooby, J. (1997). The multimodular nature of human intelligence. In A. Schiebel &

- J. W. Schopf (Eds.), *Origin and evolution of intelligence*. Center for the Study of the Evolution and Origin of Life, UCLA. (pp. 71-101).
- Cosmides, L. & Tooby, J. (1997). Dissecting the computational architecture of social inference mechanisms. In: *Characterizing human psychological adaptations* (Ciba Foundation Symposium Volume #208). Chichester: Wiley.
- Thornhill, N., Cosmides, L., Maryanski, A., Meyer, P., Tooby, J., & Turner, J. (1997). Evolutionary theory and human social institutions: Psychological foundations. In P. Weingart, P. Richerson, S. Mitchell, & S Maasen (Eds.), *Human by nature: Between biology and the social sciences*. (pp. 201-252). Mahwah, NJ: Erlbaum.
- Stone, V. E., Baron-Cohen, S., Cosmides, L., Tooby, J. and Knight, R. T., (1997). Selective impairment of social inference abilities following orbitofrontal cortex damage. *Proceedings of the Nineteenth Annual Conference of the Cognitive Science Society*, M. G. Shafto and P. Langley (Eds.), London: Lawrence Erlbaum, p. 1062.
- Turner, J., Borgerhoff Mulder, M., Cosmides, L., Giesen, B., Hodgson, G., Maryanski, A., Shennan, S., Tooby, J., & Velichkovsky, B. (1997). Looking back: Historical and theoretical context of present practice. In P. Weingart, P. Richerson, S. Mitchell, & S Maasen (Eds.), *Human by nature: Between biology and the social sciences*. (pp. 17-64). Mahwah, NJ: Erlbaum.
- Brase, G., Cosmides, L., & Tooby, J. (1998). Individuation, Counting, and Statistical Inference: The role of frequency and whole object representations in judgment under uncertainty. *Journal of Experimental Psychology: General*, 127(1): 1-19.
- Tooby, J. & Cosmides, L. (in press). The evolution of coalitional aggression and its cognitive foundations. In: Tooby, J., & Cosmides, L. *Evolutionary psychology: Foundational Papers*. MIT Press: Cambridge
- Tooby, J., & Cosmides, J. (1998). Start with Darwin... In M. S. Gazzaniga & J. Altman (Eds.), *Brain and Mind: Evolutionary Perspectives*. Vol. 5, pp.10-15. Strasbourg, France: Human Frontier Science Program.
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### **Books in Preparation**

Tooby, J. (book in prep.) *Darwinizing Mendel: the evolution of sex and its sequelae.*

Cosmides, L. & Tooby, J. (book in prep.) *Darwinian Algorithms: An evolutionary approach to reasoning.*

Tooby, J. & Cosmides, L. (book in prep.) *The Great Awakening: Our species' self-discovery and its consequences.*

### **Selected Plenary, Public, Keynote & Invited Addresses**

- California Academy of Sciences / L.B. S. Leakey Foundation*: Allen O'Brien Memorial Lecture  
November 5, 1992; The evolution of human reasoning instincts. (with Cosmides) San Francisco,  
CA
- Evolution and the Human Sciences* (London School of Economics). Plenary address: The evolutionary  
psychology of incest avoidance. London, June 25, 1993.
- Human Behavior and Evolution Society*. Plenary address (with Cosmides): Cognitive adaptations for  
threat, cooperation and war. Binghamton, NY, August 6, 1993.
- Salk McDonnell-Pew Cognitive Neuroscience Meetings*, Southern California. Plenary address (with  
Cosmides): The cognitive neuroscience of social reasoning. Rancho Santa Fe, CA, May 28, 1994.
- Introduction to the *Human Quest*, 1995 Television Critics Association Meetings, Huntington Hotel,  
Pasadena, January 1995
- Harvard University Economics Department, Political Economy Lecture Series*, Address (with  
Cosmides): Evolutionary psychology: making economics a natural science. Cambridge, Mass.  
February 14, 1995
- Conference on Evolutionary Psychology and Epistemology*, Address: Beyond truth and reference:  
Ecological rationality and evolutionary psychology. Rutgers University, March 18, 1995
- Origin and Evolution of Human Intelligence*. Center for the Study of Evolution and the Origin of Life,  
UCLA, March 15, 1996. Public Address (with Cosmides): The multimodular nature of human  
intelligence.
- Southwestern Anthropology Association*, Plenary Address, April 13, 1996. The biological construction  
of social construction.
- Welcome Trust / Welcome Centre for Medical Science Open Meeting*, November 1, 1996, The  
evolution of friendship, love, and deep engagement: beyond kin selection and reciprocation.
- 1996-1997 Jacob Marschak Interdisciplinary Colloquium on Mathematics in the Behavioral Sciences*.  
UCLA, May 23, 1997. Public Address (with Tooby): Adaptation and evolution of decision-  
making processes and human reasoning.
- Chilean Engineering Institute / Chilean Academy of Sciences*. Santiago, Chile, October, 2001.  
*Neuvos Paradigmas a Comienzos del Tercer Milenio* (New Paradigms at the Beginning of the  
Third Millennium). Keynote address (with Cosmides) via DSL: "Evolutionary psychology: A new  
model for the social sciences".
- The Structure of the Innate Mind Conference*, University of Sheffield, England, 3rd–6th July 2002,  
Address: Motivation and the Debate on Representational and Nonrepresentational Innateness
- Human Behavior and Evolution Society*. Plenary Address (with Cosmides): The Functional  
Architecture of Human Motivation. Austin, Texas, June 3, 2005.
- The nature of human cooperation*. University of Lausanne, Switzerland, March 9-10, 2006. Invited  
address: The evolved motivational architecture of kinship and cooperation in humans.

### **Selected Conference Papers, Workshops and Addresses**

- First International Conference on Sociobiology and Primatology*. Harvard, November 1983. Paper  
presented: The hidden anomaly of aposematism and levels of selection.
- Man and Beast Revisited*. Smithsonian Institution, May 1986. Paper presented: Man, beast and mind:  
Evolutionary psychology and the maturation of the biological sciences.

*Evolved Constraints on Cultural Evolution*. UCLA, May 1986. Paper presented: Evolutionary psychology and the generation of culture, Part I. Theoretical considerations.

*Evolution and Human Behavior Meetings*, Ann Arbor, Michigan. April 1988. Paper presented (with Leda Cosmides): The evolution of war and its cognitive foundations.

*Evolution and Human Behavior Meetings*, Ann Arbor, Michigan. April 1988. Paper presented (with Leda Cosmides): Evolution and Cognition: Has natural selection shaped how humans reason about social exchange?

*Eighteenth Annual Meeting of the Jean Piaget Society*, Philadelphia. June 1988. Paper presented (with Leda Cosmides): "Domain general or domain specific? An evolutionary approach to cognitive psychology."

*XXIVth International Congress of Psychology*, Sydney, Australia. August 1988. Symposium topic: Has animal behavior got anything to do with human behavior? Paper presented (with Leda Cosmides): Adaptation versus Phylogeny: The role of animal psychology in the study of human behavior.

*Evolutionary Psychology and Psychiatry Conference*. Ann Arbor, Michigan, October 1988. Co-chaired session on Cognitive Psychology and Artificial Intelligence. Papers presented: 1) "Why adaptations are usually species-typical", and 2) (with Leda Cosmides) "From adaptation to mechanism: The role of computational theories."

*MIT Center for Cognitive Science Colloquium Series*. Can non-universal mental organs evolve? Constraints from genetics, adaptation, and the evolution of sex.

*Colloquium, Department of Psychology, Stanford*. Evolution and cognition: Adaptation to the physical and social world. January, 1989.

*Grand Rounds, Stanford Medical School*. Cognitive adaptations and the organization of the mind. Fall, 1989.

*American Psychological Association*. New Orleans, LA, August 1989. Symposium: Evolutionary Psychology: New Directions. Paper presented: Method in evolutionary psychology.

Human Behavior and Evolution Society. Evanston, IL, August 1989. Papers presented (with Leda Cosmides): 1) The logic of threat: evidence for another cognitive adaptation, and 2) Are there different kinds of cooperation and separate Darwinian algorithms for each?

*Center for Advanced Study in the Behavioral Sciences*, January 1989. Reconciling human universality with the uniqueness of the individual.

*Animal Behavior Society*. Binghamton, NY, June 1990. Symposium: Theoretical and empirical studies of cooperative behavior. Paper presented (with Cosmides): Human cognitive specializations and reciprocation.

*Human Behavior and Evolution Society*. Los Angeles, CA, August 1990. Paper presented: Is the mind frequentist? (delivered by Leda Cosmides)

*Conference on cultural knowledge and domain specificity*. Ann Arbor, MI, October 1990. Paper presented (with Leda Cosmides): Origins of domain specificity: The evolution of functional organization.

*Evolution and Human Behavior Colloquium*, Ann Arbor, Michigan. October, 1990 1988. Paper presented (with Leda Cosmides): The impact of combinatorial explosion on evolved mechanism specificity.

*Biological foundations of culture*. Zentrum fur interdisziplinare Forschung, Universitat Bielefeld, Germany, November 1990. Paper presented (delivered by Leda Cosmides): Normative logics versus adaptive logics.

- American Association for the Advancement of Science*. Washington, D.C., February 1991. Symposium: Evolution of cognitive functions in ecological-cultural context. Paper presented: The logic of threat: Evidence for a cognitive adaptation for reasoning about threat.
- Colloquium, Psychology Department, UCSB*, March, 1991. On the universality of psychological adaptations.
- Society for Philosophy and Psychology, San Francisco, August, 1991 Ecological rationality: the fit between reasoning specializations and the ecological structure of ancestral environments.
- Opening Conference, Biological foundations of culture*. Zentrum fur interdisziplinare Forschung, Universitat Bielefeld, Germany, October 1991. Paper presented: Two peoples separated by a common language: Misunderstandings between biologists and social scientists.
- Fellows' Colloquium, Biological foundations of culture*. Zentrum fur interdisziplinare Forschung, Universitat Bielefeld, Germany, November 1991. Paper presented: Psychological adaptations and the generation of cultural representations.
- Social Intelligence seminar, Biological foundations of culture*. Zentrum fur interdisziplinare Forschung, Universitat Bielefeld, Germany, October 1991. Paper presented: Task analyses for primate social cognition. (with Cosmides)
- Social Intelligence seminar, Biological foundations of culture*. Zentrum fur interdisziplinare Forschung, Universitat Bielefeld, Germany, November 1991. Paper presented: Emotion and cognition in evolutionary perspective.
- Cognitive Neuroscience Institute, Ninth Annual Meeting Napa*, June 1992. Paper presented: Genetic and adaptationist constraints on neuroanatomical adaptations.
- Human Behavior and Evolution Society*. University of New Mexico; July, 1992; Paper presented: Statistical reasoning in a multimodular mind, Part 1. An evolutionary approach to the study of judgment under uncertainty.
- Human Behavior and Evolution Society*. University of New Mexico; July, 1992; Paper presented: Statistical inference in a multimodular mind, Part 2. Experimental evidence.
- New Approaches to Human Development: Diverse methods, populations, and settings*. Human development program conference, UCSB, June 1993. Paper presented (with Cosmides & Sugiyama): Cognitive science in the rainforest: The search for universal human psychology.
- Conference on Darwinian Perspectives on Human Nature*. Dept. of Zoology, Oxford University, England, June 1993. Paper presented (with Cosmides): Pathogens and combinatorial explosion as selection pressures on human cognition.
- James S. McDonnell Cognitive Neuroscience Conference and Institute*. Olympic Valley, CA, July 1993. Paper presented: Constraints of the genetics of neural adaptations and domain-specific reasoning systems.
- Human Behavior and Evolution Society*. Binghamton, NY, August, 1993. Paper presented: What can you think about in a frequentist way? (Brase, Cosmides & Tooby)
- Human Behavior and Evolution Society*. Binghamton, NY, August, 1993. Paper presented: Genetics and the distribution of complex adaptations: some recent misunderstandings
- Human Behavior and Evolution Society*. Binghamton, NY, August, 1993. Paper presented: Psychological adaptations in women for assessing a man's willingness to invest in offspring (LaCera, Cosmides & Tooby).
- Human Behavior and Evolution Society*. Binghamton, NY, August, 1993. Evolution and culture workshop, panelist.

*American Economic Association*. Boston, MA, January 1994. Symposium organizer: Douglass North: Paper presented: Better than rational: evolutionary psychology and the invisible hand (with Cosmides).

*Colloquium, Department of Anthropology*, University of California, Davis, May 1994. Paper presented (with Leda Cosmides): Combinatorial explosion as a selection pressure on hominid cognitive evolution.

*Human Behavior and Evolution Society*. Ann Arbor, MI June, 1994. Universal Darwinism and the perennially elusive cancer cure (with Cosmides).

*Human Behavior and Evolution Society*. Ann Arbor, MI June, 1994. Prime time for Darwin: Converging lines of evidence for domain-specific modules (with Fiddick and Cosmides).

*James S. McDonnell Cognitive Neuroscience Summer Institute*, UC Davis, July 1994. How developmental adaptations impose functional organization on human neural organization.

*Max Planck Society, Presidential Committee Colloquium on Ethology/ Anthropology*, Heidelberg, Germany, August 1994: Paper presented: The emergence of evolutionary psychology. (Cosmides presenter)

*Second International Conference on Sociobiology and Primatology*. Harvard University, Cambridge, MA October 1994. The evolutionary genetics of complex adaptations.

*Department of Economics Institutional Analysis Workshop*, UC Berkeley, October 1994. Better than rational: economics as a natural science, and Are humans good intuitive statisticians? (with Leda Cosmides)

*Center for Neuroscience Conference on Evolution, Memory, and Consciousness*, (Organizer: Endel Tulving), UC Davis, March 16, 1995. Mind, memory, and adaptive function. (with Leda Cosmides)

*The Human Quest Symposium*, J. Paul Getty Museum, Malibu. March 24, 1995 (with Leda Cosmides).

*Royal Society / British Academy Meeting, Evolution of Social Behaviour Patterns in Primates and Man*, London, April 1995. (Organizer: John Maynard Smith) Paper presented: Evolutionary psychology, reasoning instincts, and culture. (Cosmides presenter)

*Science, Technology and Culture Studies Lecture Series*, UCSB Interdisciplinary Humanities Center, May 5, 1995. Paper presented: The Biological Construction of Cultural Construction

*Human Behavior and Evolution Society*. UCSB June, 1995. The evolution of memory, modularity, and information integrity (with Cosmides)

*Human Behavior and Evolution Society*. UCSB June, 1995. Are there really separate reasoning mechanisms for social contracts and precautions?: An experimental study (L. Fiddick, L. Cosmides & J. Tooby)

*Human Behavior and Evolution Society*. UCSB June, 1995. Testing for universality: Reasoning adaptations among the Achuar of Amazonia (Larry Sugiyama, John Tooby, and Leda Cosmides)

*Human Behavior and Evolution Society*. UCSB June, 1995. Detecting coalitions: An experimental study (R. Kurzban, J. Tooby, & L. Cosmides)

*Human Behavior and Evolution Society*. UCSB June, 1995. Episodic memory, theory of mind, and their breakdown. (with Cosmides)

*Interdisciplinary Human Development Program Lecture Series*. UCSB, October 30, 1995. Development as adaptive self-assembly.

*Department of Economics Colloquium Series Workshop on Applied Economics*, University of Arizona

- (Vernon Smith, host). December 11, 1995. Evolutionary psychology: making economics a natural science (with Leda Cosmides)
- McDonnell-Pugh Conference on Cognitive Neuroscience*. Rancho Valencia, California January 14, 1996. Emerging methods in cognitive neuroscience.
- Colloquium, Department of Anthropology*, University of California, San Diego, February 12, 1996. The biological construction of social construction.
- Colloquium, Stanford University Economics Department / Hoover Institution*, February 13, 1996. Ecological rationality: The evolutionary psychology of economic decision-making.
- Cognitive Science Society*, San Diego, CA, July, 1996. Paper presented (with Cosmides): Ecological rationality in a multimodular mind.
- Human Behavior and Evolution Society*. Northwestern, Evanston, IL. June, 1996. Selective impairment of cheater detection: Neurological evidence for adaptive specialization (Stone, V., Cosmides, L. & Tooby, J.);
- Human Behavior and Evolution Society*. Northwestern, Evanston, IL. June, 1996. Retrieval cues in social categorization: Content and context effects (Kurzban, R., Tooby, J., & Cosmides, L.);
- Human Behavior and Evolution Society*. Northwestern, Evanston, IL. June, 1996. Adaptive sex differences in reasoning about self defense. (Rutherford, M., Cosmides, L. & Tooby, J.);
- Human Behavior and Evolution Society*. Northwestern, Evanston, IL. June, 1996. By accident or by design?: (Fiddick, L. Tooby, J. & Cosmides, L.);
- XXVI International Congress of Psychology*, Montreal, Canada. Symposium: *Reasoning and Rationality* (Gigerenzer). Paper presented (with Tooby): Ecological rationality in a multimodular mind.
- X Annual Cognitive Science Symposium*, Simon Fraser University, Vancouver, Canada. Symposium topic: *Metarepresentations*. Paper presented (with L. Cosmides): Consider the source: the evolution of cognitive adaptations for metarepresentation.
- Ciba Foundation*, London, England. Symposium #208: *Characterizing human psychological adaptations*. Paper presented (with Cosmides): Dissecting the computational architecture of social inference mechanisms. October, 1996
- Ciba Foundation*, London, England. Symposium #208: *Characterizing human psychological adaptations*. Paper presented (with Cosmides): Groups in mind: The evolution of cognitive adaptations for coalitions and status. October, 1996
- Cambridge University, Dept. of Biological Anthropology*, October 25, 1996. Risk and engagement models for the evolution of adaptations for altruism.
- American Anthropological Association Meetings*, November 23, 1996, Symposium on "Evolutionary Biology And Human Social Behavior" Twenty Years Later: Talk: Evolutionary psychology and the biological construction of social construction.
- British Psychological Society. Edinburgh, Scotland, April 4, 1997. Symposium on Evolutionary cognitive neuroscience: The logic of threat. (with Cosmides)
- Colloquium, Department of Biology (EEMB)*, University of California, Santa Barbara, May, 1997. Are there evolved computational specializations for reciprocal altruism? Cognitive, cross-cultural, and neuroscience tests. (with Cosmides)
- Human Behavior and Evolution Society*. University of Arizona, Tucson, June, 1997. Beyond kin selection and reciprocity: Other selection pressures for adaptations for altruism.
- Human Behavior and Evolution Society*. University of Arizona, Tucson, June, 1997. The

- computationalist theory of communication. (with Cosmides).
- Human Behavior and Evolution Society*. University of Arizona, Tucson, June, 1997. Cooperation and punishment in groups. (with Rutherford, M., Kurzban, R., & Cosmides, L.)
- Institute for Theoretical Physics*. University of California, Santa Barbara, May 20, 1998. Has natural selection shaped how humans reason? (with Cosmides).
- Human Behavior and Evolution Society*, Davis, CA, July, 1998. The evolution of cognitive adaptations for metarepresentation, Part I (with Cosmides)
- Human Behavior and Evolution Society*, Davis, CA, July, 1998. The evolution of cognitive adaptations for metarepresentation, Part II (with Cosmides).
- McDonnell-Pew Summer Institute for Cognitive Neuroscience*. Squaw Creek, CA, July 1998. The cognitive neuroscience of social reasoning. (with Cosmides)
- McDonnell-Pew Summer Institute for Cognitive Neuroscience, Squaw Creek, CA, July 1998. Strategies for mapping the evolved computational architecture of the human brain. (with Cosmides)
- MacArthur Workshop on Evolution and Economics: Strong Reciprocity*. Amherst, MA, October 16-18, 1998. (Organizers: Herb Gintis & Sam Bowles, Dept. of Economics, University of Massachusetts, Amherst.) Deep engagement, individuality, and the banker's paradox (with Cosmides).
- Marriage, Morality and Emotions – Updating Edward Wetermarck*, Helsinki, Finland, November 19-22, 1998. A closer look at the Westermarck hypothesis: An evolutionary analysis of the mechanisms of incest avoidance (with Lieberman and Cosmides; delivered by Lieberman).
- Working Group on Evolution and Rationality*. Santa Barbara, CA, January 15-17, 1999 (Organizer: Stephen Stich). Ecological rationality and the multimodular mind (with Cosmides).
- Close relationships interest group (CRIG)*. Dept of Psychology, UCLA, March 12, 1999. The evolution of friendship and the Banker's Paradox. (with Cosmides)
- Human Behavior and Evolution Society*, Salt Lake City, UT, June 2-6, 1999. Character counts: Cheater detection is relaxed for honest individuals (with Cosmides, Montaldi, & Thrall).
- Human Behavior and Evolution Society*, Salt Lake City, UT, June 2-6, 1999. Art, imagination, and the adapted mind: Toward a theory of aesthetics (with Cosmides).
- Imagination and the Adapted Mind: The Prehistory and Future of Poetry, Fiction, and Related Arts*. UCSB, August 24-29, 1999. Can beauty build adapted minds? The evolution of organizational adaptations.
- Human Behavior and Evolution Society*, Amherst, MA, June 7-11, 2000. Social exchange: Converging evidence for special design (with Cosmides).
- Human Behavior and Evolution Society*, Amherst, MA, June 7-11, 2000. Resolving the debate on innate ideas (with Cosmides).
- Human Behavior and Evolution Society*, Amherst, MA, June 7-11, 2000. In search of cues governing kin recognition and incest avoidance (with Lieberman & Cosmides).
- Knowledge, Social Change, and Economic Performance*. February 2001 (Stanford University, CA). Organized by Douglass North (Nobel laureate in Economics), the Mercatus Center (Arlington, VA), and the Stanford KNEXUS project.
- Colloquium, Dept. of Anthropology, University of Oregon*, May 21, 2001. The end of the blank slate: To be an expert on culture requires being an expert on the evolved content-inflected programs of the human brain.
- Human Behavior and Evolution Society*, University College London, London, UK, June 13-17, 2001. Decisions and the evolution of multiple memory systems: Using personality judgments to test the scope hypothesis (with Klein, Cosmides, & Chance).
- Human Behavior and Evolution Society*, University College London, London, UK, June 13-17, 2001.

Why attribute personalities to persons? The regulation of social reasoning by information about behavior in evolutionary games (with Cosmides & Sell).

*Human Behavior and Evolution Society*, University College London, London, UK, June 13-17, 2001.

Does it pay to interfere? An investigation of whether individuals are sensitive to the different costs associated with inbreeding within the family (with Lieberman & Cosmides).

*Conference on the Structure of the Innate Mind*, Mt. Washington Conference Center, Baltimore, March 8-10, 2002. Three cases: A demonstration that some ideas must necessarily be innate.

*Human Behavior and Evolution Society*, Rutgers University, New Jersey, June 19-23, 2002. Are there cognitive adaptations for learning about one's own personality: Neuropsychological evidence for specialized learning, storage, and retrieval systems. (with Klein & Cosmides).

*Human Behavior and Evolution Society*, Rutgers University, New Jersey, June 19-23, 2002. The evolution of collective action: An adaptationist dissection. (with Cosmides).

90<sup>th</sup> *Dahlem Conference on Genetic and Cultural Evolution of Cooperation*. Berlin, Germany, June 23-28, 2002. working groups on (1) The Role of Cognition and Emotion in Cooperation; (2) Markets and Exploitation in Mutualism and Symbiosis; (3) Genomic and Intercellular Cooperation: Distribution of Power and Division of Labor (4) Cooperation in Human Societies.

*Society for Personality and Social Psychology, Evolutionary Psychology Preconference*. Los Angeles, CA, February 6, 2003. Can race be erased? Coalitional computation and social categorization. (with Cosmides and Kurzban)

*Human Behavior and Evolution Society*. University of Nebraska, Lincoln, June, 2003. Elements of a Darwinian theory of Lamarckian inheritance. (with Cosmides)

*Human Behavior and Evolution Society*. University of Nebraska, Lincoln, June, 2003. Survival and reproduction in the evolutionary behavioral sciences.

*Human Behavior and Evolution Society*. University of Nebraska, Lincoln, June, 2003. The asymmetric war of attrition and human anger. with Cosmides & Sell)

2003 James S. McDonnell Foundation Summer Institute in Cognitive Neuroscience. Lake Tahoe, CA, July 11, 2003. Social exchange reasoning: The Evolutionary Design of a Neurocomputational System. (with Cosmides)

*Conference on Innateness and the Structure of the Mind: Year 3— Reflections on Innateness*. Rutgers University, October 17-19, 2003. Adaptive targets, functional granularity, and the evolutionary logic of neural development: on reconciling natural selection, plasticity, entropy, and functional specificity in neurocomputational systems.

Anthropology Department, Rutgers University, October 14<sup>th</sup>, 2003. Evolved alliance detection and coalitions as *n*-party exchange.

*Kavli Institute for Theoretical Physics*. University of California, Santa Barbara. October 29, 2003. *Coalitional psychology and social categorization (with Cosmides)*.

*Human Behavior and Evolution Society*. Berlin, July 21st-24th, 2004. *Out-group exclusion or cheater detection? When two problems coexist T. (with Hiraishi & Cosmides)*

*National Institutes of Health, Bethesda*. NIH Pioneer Award proposal presentation. August 30, 2004. Two challenges for 21<sup>st</sup> century biology: Mapping the evolved neurocomputational architecture of motivation, and unpacking the evolutionary logic of neural development. (with Cosmides) Proposal unsuccessful first year, but successful next year.

*Conference on Darwinian security: Ecological and evolutionary models, National Center for Ecological Analysis and Synthesis*, January 28-30, 2005. Conflict, predation, parasitism, and coalitions in the history of life.

*Reason Foundation*. Laguna Nigel, CA. April 1, 2005. Human nature and social change: The evolutionary psychology of coalitions and collective action (with Cosmides).



*Third International Conference on Sociobiology and Primatology*. Harvard University, April 15-16, 2005. The computational architecture of human kin detection: Evidence for new cues and computational elements. (with Cosmides)

*Third International Conference on Sociobiology and Primatology*. Harvard University, April 15-16, 2005. Is “race” a byproduct of coalitional alliance detection? (with Cosmides)

*Human Behavior and Evolution Society*, University of Texas, Austin, TX, June 1-5, 2005. Character counts: Character information regulates trust in economic games (with Krasnow & Cosmides).

*Human Behavior and Evolution Society*, University of Texas, Austin, TX, June 1-5, 2005. Are computational adaptations for reasoning about social exchange and precautions neurally as well as functionally distinct? An fMRI study (with Ermer, Cosmides, Guerin, & Miller).

*Human Behavior and Evolution Society*, University of Texas, Austin, TX, June 1-5, 2005. Physical strength predicts entitlement, anger, and attitudes toward aggression in men. (with Sell & Cosmides).

*Human Behavior and Evolution Society*, University of Texas, Austin, TX, June 1-5, 2005. The contributions of Napoleon Chagnon to our understanding of human nature.

*UCLA International Institute, Global Fellows Program*, June 9, 2005. The evolved computational specializations underlying coalition and race: models and evidence.

*Ecological and evolutionary models for Homeland Security, National Center for Ecological Analysis and Synthesis*, June 15-19, 2005. The evolutionary psychology of terrorism.

*Ecological and evolutionary models for security, National Center for Ecological Analysis and Synthesis*, December 9-12, 2005. Long-term adaptive strategies for prevailing in antagonistic coevolution.

*Conference on Models of Cultural Transmission*, Luce Program in Individual and Collective Memory, Washington University at St. Louis, January 15-17, 2006.

*Society for Personality and Social Psychology Preconference on Evolutionary Psychology*. Palm Springs, CA, January 25, 2006. The agony and the ecstasy: Recalibration, scaling, and trade-offs in the evolution of motivation.

*UCLA-UCSB Evolution, Mind and Behavior Conference*, UCSB, Santa Barbara, CA, February 4, 2006. The neurocomputational architecture of kin detection in humans. (with Lieberman & Cosmides)

*Foundation for the Future: The evolution of the human brain*. Bellevue, Washington, March 19-20, 2006. Evolved neurocognitive programs as the foundations of cultural and social phenomena.

*Human Behavior and Evolution Society*, University of Pennsylvania, Philadelphia, PA, June 7-11, 2006. The role of “outrages” in the evolved psychology of intergroup conflict. (with Cosmides & Thrall)

*Human Behavior and Evolution Society*, University of Pennsylvania, Philadelphia, PA, June 7-11, 2006. Anger expressions dissected: Why does his face look like that? (with Sell & Cosmides).

*Human Behavior and Evolution Society*, University of Pennsylvania, Philadelphia, PA, June 7-11, 2006. Free riders and incompetents: Psychologically distinct categories. (with Delton, Robertson, & Cosmides).

*Human Behavior and Evolution Society*, University of Pennsylvania, Philadelphia, PA, June 7-11, 2006. ‘Erasing race’ with cooperation: Tracking down the dynamics of social alliance representations. (with Pietraszewski & Cosmides).

*Human Behavior and Evolution Society*, University of Pennsylvania, Philadelphia, PA, June 7-11, 2006. Fractionating the visual architecture for natural category recognition using the ‘attentional blink’ paradigm. (with New & Cosmides).

*Hendricks Conference on Political Behavior*, University of Nebraska, Lincoln, NE, Sept. 13, 2006. Keynote address: The role of outrages in the evolutionary psychology of groups and intergroup

conflict.

*Hendricks Conference on Political Behavior*, University of Nebraska, Lincoln, NE, Sept. 14, 2006.  
New directions in the study of politics. (& workshop panel).

*Templeton Fellowship Lecture, Conference on Human Nature, Humanism, and Transhumanism*,  
Arizona State University, Tempe, AZ, April 16, 2007. The once and future Homo  
*sapiens sapiens*: Did we become transhuman once our evolved developmental programs  
interacted with unanticipated new environments?

*Templeton Fellowship Lecture, ASU Fellowship Public address*, Arizona State University, Tempe, AZ,  
April 17, 2007, Who are we?: how to reconcile a universal human nature with the genetic  
uniqueness of the individual.

*Templeton Fellowship Lecture, Mathematical Cognition Colloquium*, Arizona State University,  
Tempe, AZ, April 17, 2007, A cue-theoretic approach to kin detection and reciprocity: A  
computational and evolutionary-functional approach to the architectures of motivational  
mechanisms.

*Templeton Fellowship Lecture, Colloquium, Anthropology Department*, Arizona State University,  
Tempe, AZ, April 18, 2007, Mapping universal human nature: A mission for a unified 21st  
century anthropology.

*Templeton Fellowship Lecture, Colloquium, Psychology Department*, Arizona State University,  
Tempe, AZ, April 19, 2007, “Outrages” as a social psychological engine of history.

*Templeton Fellowship Lecture, English Department*, Arizona State University, Tempe, AZ, April 20,  
2007, Adaptations for representational decoupling: Does beauty build adapted minds?

*Plenary, 3UC Conference (joint UC Davis, UCLA, UCSB at San Luis Obispo)*, May 6, 2007, The  
environment of evolutionary adaptedness.

*Human Behavior and Evolution Society*, College of William & Mary, Williamsburg, VA, May 30-  
June 3, 2007, Do humans have an evolved “Theory of Group Mind”? (Tooby & Cosmides)

*Human Behavior and Evolution Society*, College of William & Mary, Williamsburg, VA, May 30-  
June 3, 2007, Recalibrational emotions and welfare trade-off ratios: Cooperation in anger,  
guilt, gratitude, pride and shame (Sznycer, Gibson Price, Tooby, Cosmides).

*Human Behavior and Evolution Society*, College of William & Mary, Williamsburg, VA, May 30-  
June 3, 2007, Is “Accent” a dedicated dimension of agent representation? (Pietraszewski,  
Schwartz, Cosmides, Tooby).

*Human Behavior and Evolution Society*, College of William & Mary, Williamsburg, VA, May 30-  
June 3, 2007, Violent Yells Dissected: Physical Strength is Revealed in the Voice and  
Enhanced during Anger (Sell, Tooby, Cosmides).

*Human Behavior and Evolution Society*, College of William & Mary, Williamsburg, VA, May 30-  
June 3, 2007, Regulation of Resource Division by Coalitional Status (Ermer, Cosmides,  
Tooby).

*Human Behavior and Evolution Society*, College of William & Mary, Williamsburg, VA, May 30-  
June 3, 2007, Welfare Tradeoff Ratios and Social Support (Poster) (Sznycer, Gibson Price,  
Tooby, Cosmides).

*Human Mind, Human Kind: Interdisciplinary Conference on Human Characteristics*, University of  
Aarhus, Aarhus, Denmark, August 16, 2007, Keynote address: Groups in mind: the coalitional  
roots of morality and outrage (Tooby & Cosmides).

*Human Mind, Human Kind: Interdisciplinary Conference on Human Characteristics*, University of  
Aarhus, Aarhus, Denmark, August 18, 2007, Evolutionary psychology and criminal justice: a  
recalibrational theory of punishment and reconciliation (Petersen, Tooby, Cosmides)

*Human Mind, Human Kind: Interdisciplinary Conference on Human Characteristics*, University of  
Aarhus, Aarhus, Denmark, August 16, 2007, Cognitive adaptations for social exchange

(Cosmides & Tooby)

- California Association of Marriage and Family Therapists*, November 14, 2007, Family-directed altruism and incest avoidance.
- University of Hokkaido / UCSB Joint Conference on the Evolution of Mind and Society*, University of California, Santa Barbara, February 23, 2008, Towards constructing a computational and adaptationist approach to human motivation: the case of kin detection, family-directed altruism, and incest avoidance (Tooby & Cosmides)
- Southwest Economic Theory Conference*, University of California, Santa Barbara. March 1, 2008. The architecture of kin detection: Internal regulatory variables and economic theory (Tooby & Cosmides).
- Symposium on Evolutionary and Neuroscientific approaches to the Sources of Conflict, International Studies Association Annual Meeting*, San Francisco, CA, March 28, 2008, An evolutionary perspective on outrages as a cause of war.
- Institute for Humane Studies, Social Change Workshop*, UC Berkeley, March 29, 2008, Human nature and society: Using evolutionary psychology to understand institutions. (*Workshop theme: Behavior, Development, and Institutions.*) (Cosmides & Tooby)
- 66th Midwestern Political Science Association Annual National Conference*. Chicago, IL, April 3-6, 2008. Politics in the evolved mind: Political parties and coalitional reasoning. (Petersen, Delton, Robertson, Tooby, Cosmides).
- Trilience Forum, Cal Tech*, April 8, 2008, Internal regulatory variables and the computational architecture of human motivation. (Tooby & Cosmides)
- Evolution, Culture, and Human Behavior: Perspectives from Different Disciplines*, UC Irvine, May 10-11, 2008. Natural selection never sleeps: How coordinative selection builds species-typical design within a shifting matrix of transient and stable genetic variation (Tooby & Cosmides).
- Human Behavior and Evolution Society*, Kyoto University, Kyoto Japan, June 4-8, 2008, Evolutionizing the study of conceptual knowledge (Krasnow, Truxaw, Cosmides, Tooby)
- Human Behavior and Evolution Society*, Kyoto University, Kyoto Japan, June 4-8, 2008, Adaptations for computing personality traits: co-evolved functions of episodic recall and summary representations (Cosmides, Klein, Tooby)
- Human Behavior and Evolution Society*, Kyoto University, Kyoto Japan, June 4-8, 2008, The welfare tradeoff system as an adaptation for integrated allocational decision-making (Tooby, Cosmides, Sell, Delton, Sznycer, Lim, Robertson)
- Human Behavior and Evolution Society*, Kyoto University, Kyoto Japan, June 4-8, 2008, An evolved internal regulatory variable for making welfare tradeoffs (Delton, Robertson, Sznycer, Lim, Cosmides, Tooby)
- Human Behavior and Evolution Society*, Kyoto University, Kyoto Japan, June 4-8, 2008, Emotions and the recalibration of welfare tradeoff ratios: gratitude as a case study (Lim, Sznycer, Delton, Robertson, Cosmides, Tooby)
- Human Behavior and Evolution Society*, Kyoto University, Kyoto Japan, June 4-8, 2008, Humans accurately estimate others' welfare tradeoff ratios (Sznycer, Lim, Delton, Robertson, Tooby, Cosmides)
- Darwinian Approaches To War: An Interdisciplinary Conference*, University of Oregon, Eugene, October 17, 2008, The evolved cognitive basis of coalitions and war (Tooby & Cosmides)
- Endogenous Factors in Social Decision-making: Emotions, genetic influence, and beyond. Workshop, Center for Advanced Study in the Behavioral Sciences*, Stanford, CA, December 11-13, 2008. Can race be erased? Evolutionary psychology and coalitional alliances (Cosmides & Tooby).
- Endogenous Factors in Social Decision-making: Emotions, genetic influence, and beyond. Workshop, Center for Advanced Study in the Behavioral Sciences*, Stanford, CA, December 11-13, 2008.

- Outrage and coalitional psychology (Cosmides & Tooby).  
*Rutgers University Center for Cognitive Science Colloquium*, Rutgers University (Busch Campus),  
 New Brunswick, NJ. February 9, 2009. Darwin address: Evolutionary psychology and  
 Darwin's dream (Cosmides & Tooby).
- Rutgers University Center for Cognitive Science Colloquium*, Rutgers University (Busch Campus),  
 New Brunswick, NJ. February 10, 2009. The architecture of human motivation: An  
 evolutionary and computational approach (Cosmides & Tooby).
- Sage Conference on Endogenous Sources of Political Behavior*, University of California, Santa  
 Barbara, February 26, 2009, How coordinative selection builds species-typical design  
 within a shifting matrix of transient and stable genetic variation.
- Human Behavior & Evolution Society*, California State University, Fullerton, CA, May 27-31, 2009,  
 I will only know that our interaction was one-shot if I kill you: A cue theoretic approach to  
 the architecture of cooperation (Tooby, Krasnow, Delton, Cosmides)
- Human Behavior & Evolution Society*, California State University, Fullerton, CA, May 27-31, 2009,  
 Regularities of the ancestral world exploitable for cooperation: Why I always remember a  
 face (Krasnow, Delton, Tooby, Cosmides).
- Human Behavior & Evolution Society*, California State University, Fullerton, CA, May 27-31, 2009,  
 Combining ancestral cue structure with direct reciprocity explains one-shot cooperation.  
 (Delton, Krasnow, Tooby, Cosmides).
- Human Behavior & Evolution Society*, California State University, Fullerton, CA, May 27-31, 2009,  
 The role of welfare tradeoff ratios in reciprocity (Lim, Sznycer, Delton, Robertson, Tooby,  
 Cosmides).
- Human Behavior & Evolution Society*, California State University, Fullerton, CA, May 27-31, 2009,  
 Jealousy and the threat of being replaced: Friendship and the banker's paradox (Burkett,  
 Cosmides, Tooby).
- Human Behavior & Evolution Society*, California State University, Fullerton, CA, May 27-31, 2009,  
 Mapping the "grammar" of anger-based arguments (Sell, Cosmides, Tooby).
- Human Behavior & Evolution Society*, California State University, Fullerton, CA, May 27-31, 2009,  
 The regulatory theory of shame (Sznycer, Tooby, Cosmides).
- In the Light of Evolution IV: The Human Condition*, *National Academy of Sciences* (Arthur M. Sackler  
 Colloquium), Irvine, CA, December 10-12, 2009. Whence intelligence? (Cosmides & Tooby).
- The International Society for Political Psychology*, Dublin, Ireland, July 14-17, 2009, Why  
 Deservingness? Evolved Emotions and Deservingness Judgments in Welfare Opinion.  
 (Petersen, Tooby, Cosmides).
- Human Behavior & Evolution Society*, University of Oregon, Eugene, OR, June 16-20, 2010,  
 Follow the Leader: Endorsement as a cue of political coalition (Curry, Petersen, Tooby,  
 Cosmides).
- Human Behavior & Evolution Society*, University of Oregon, Eugene, OR, June 16-20, 2010,  
 Your life or mine? Reported welfare tradeoff ratios when the currency is survival (Kim, Tooby,  
 Cosmides).
- Human Behavior & Evolution Society*, University of Oregon, Eugene, OR, June 16-20, 2010,  
 What are punishment and reputation for? Critical tests. (Krasnow, Pedersen, Tooby,  
 Cosmides).
- Human Behavior & Evolution Society*, University of Oregon, Eugene, OR, June 16-20, 2010,  
 X-raying the soul: Cheater detection is designed to look for guilty minds (Cosmides, Barrett,  
 Tooby).
- Human Behavior & Evolution Society*, University of Oregon, Eugene, OR, June 16-20, 2010,  
 Moral warfare: Group cooperation and the invention of the moral domain. (Tooby, Cosmides).

*Human Behavior & Evolution Society*, University of Oregon, Eugene, OR, June 16-20, 2010,  
The ancestral logic of politics: Fighting ability and resource level shape attitudes about income  
distribution. (Szyner, Petersen, Sell, Cosmides, Tooby).

*Human Behavior & Evolution Society*, University of Oregon, Eugene, OR, June 16-20, 2010,  
A Psychological and Anthropometric Study of Social Support and Risk Reduction in Humans  
(Robertson, Delton, Tooby, Cosmides).

*Additional Invited talks include:* UCLA, 5/87; Colloquium, Dept. of Psychology, Stanford University, 3/89; University of New  
Mexico; 1/90; Stanford University Medical School, 4/90; UCSB, 5/90; Harvard University, 1/90; University of Virginia, 4/90;  
University of Michigan, 4/88; University of Michigan 4/90, Zentrum fur interdisziplinäre Forschung, Bielefeld, Germany  
(11/91), UC Davis (5/94), and numerous others.