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### Announcements

#### New Books and Current Literature

**The International Society for Human Ethology  
is pleased to announce graduate research scholarships  
in Human Ethology for the year 2003-2004.**

The **Owen F. Aldis Scholarship Fund** was established to support graduate studies in human ethology by assisting promising students in their research. The fund is administered by the Board of Trustees of the International Society for Human Ethology (ISHE) in collaboration with the ISHE Board of Officers. Up to ten students may be awarded an Owen F. Aldis Scholarship for 2003-2004.

Goals: Nurturance of excellent students by encouraging empirical research in all fields of human behavior using the full range of methods developed in biology and the human behavior sciences and operating within the conceptual framework of evolutionary theory.

The scholarships are intended to support scholarly work that contributes to the advancement of knowledge and learning in human ethology, broadly conceived. Human ethology investigates the proximate causation, ultimate causation, ontogeny and phylogeny of evolved human behaviors and their variants. Naturalistic observational studies are especially encouraged. In some cases, studies involving non-human species may be considered, if their relevance to human behavior is made clear.

A stipend not to exceed US\$5000, to be applied to documented, legitimate research costs (e.g., equipment, supplies, books, computer software), plus a travel stipend not to exceed US\$1000 to attend the biennial ISHE congress. The travel stipend may be applied to documented costs of travel, lodging, board (US\$30 per diem), and registration. No more than one award will be given to any one institution per year. Progress report and/or results are expected to be presented at the 2004 ISHE congress.

Travel stipends will also be awarded to some of the runners-up to attend the 2004 ISHE conference, depending on the availability of funds.

Eligibility: Graduate (predoctoral) students, in any academic discipline related to Human Ethology, who are in good standing as certified by their academic advisor or director are eligible. Applications must be submitted in English.

Deadline for Application: June 30, 2003

Awards announced: September 1, 2003

For complete application guidelines, please visit the ISHE website at  
<http://evolution.anthro.univie.ac.at/ishe.html>

## BOOK REVIEWS

### *Defenders of the Truth: The Battle for Science in the Sociobiology Debate and Beyond*

By **Ullica Segerstråle**. Oxford: Oxford University Press, 473 pp., 2000. ISBN: 0-19-286215-4 (paper), \$15.95USD (UK £ 8.99). [Hardback \$30 USD, ISBN: 0-19-850505-1].

Reviewed by **W.C. McGrew**, Depts. of Anthropology and Zoology, Miami University, Oxford, OH 45056, USA.

Has it really been more than a quarter of a century since E.O. Wilson's (1975) *Sociobiology* and R. Dawkins's (1976) *The Selfish Gene* transformed evolutionary behavioral biology? So much has taken place that a blockbuster analysis is needed to make sense of the multi-leveled controversy, and it is aptly supplied by Dr. Ullica Segerstråle. She is a Finnish sociologist of science, on the faculty of the Illinois Institute of Technology (Chicago). More importantly, her prior academic training was in science (chemistry) and her doctoral degree was from Harvard (see below).

Her treatment of the debate takes more than 400 pages of fine-printed text. The first half of this text is an historical account that lays out the principal characters, the ideas, and the blow-by-blow unfolding of the arguments. The next 100 pages interpret the debate. The final quarter takes stock of the wider implications of the debate for science and society. This is supplemented by 20 pages of helpful notes, a bibliography of over 800 references, a 7-page glossary of 55 technical terms in evolutionary biology, and an exemplary 17-page index. It is truly a *magnum opus*, years in the making.

The author's account is based on interviews of 78 persons and on unspecified "interest and moral support" from 17 more (curiously, Wilson is in the latter list, not the former). Everyone who was/is a player in that great game seems to have cooperated with Segerstråle, but a closer look shows that most of them are proponents of

sociobiology, or at least not opponents. Especially prominent are the Harvard adversaries with whom the author had collegial contact: Wilson, DeVore, et al. versus Gould, Lewontin, et al. This may be one bias; another is that the debate is treated almost as a trans-Atlantic contest of U.K. versus U.S.A., as if the rest of the world took no part.

Segerstråle works hard to maintain even-handedness, but her sympathies with the sociobiologists are clear even in the introduction, which contains a clever 4-page summary of the conflict as grand opera. If this were not clear enough, subheadings are revealing: "The scoundrels of San Marcos: Gould and Lewontin baffle the Royal Society" (p. 107), "Confessions of a former adaptationist" [Gould] (p. 117), etc. The prize for the most admirable contestant probably goes to Maynard Smith, which is in keeping with her overall pro-British (European) viewpoint. Wilson is the most 3-dimensional character, oscillating between rash and cautious, disingenuous and canny.

The author's analysis is often dichotomous: naturalist vs. experimentalist, holist vs. reductionist, "planter" vs. "weeder", free will vs. determinism, pluralists vs. ultra-Darwinists, and most importantly, scientific vs. moral truth. Her overall conclusion is that "the sociobiology debate represented a contrast between two fundamentally different views of 'good science'" (p. 35). The proponents attempt to model an evolutionary biology based on hypothesis-posing and evidence, the opponents seek to demolish the ideas by critical scrutiny and argumentation. Each side became entrenched and tellingly, none of the antagonists changed their views over the 25 years! In the end, the author concludes that sociobiology is better off because of the moral and political concerns that were generated, although she regrets the personal attacks that emerged.

The book is too long, partly because of repetitiveness, but mostly because she bookends the sociobiology debate with two other controversies that came before and after. The former is the hereditarian-intelligence-IQ-race

debate of the 1960s-70s (again Harvard rears its head, via Herrnstein). The latter is the more general debate on the "science wars" of the 1980s-90s. Neither is necessary here.

Ethologists will be interested in how the discipline fits into the debate. The answer is very little. Wilson's prediction that ethology (like everything else!) would be swallowed by sociobiology seems to have come to pass, whereas Dawkin's view is that sociobiology is the branch of ethology inspired by W.D. Hamilton. Tinbergen is given pride of theoretical place, but practicing human ethologists are mentioned only in passing (e.g., Blurton Jones, Eibl-Eibesfeldt). Ethology's best face put forward comes from typically insightful remarks from senior figures like Bateson and Hinde.

Anyone in the human behavioral sciences should read this book, at least the first half, to be reminded of the intellectual sleigh ride we have been on for the last 3 decades.

**W.C. McGrew** is Professor of Anthropology and Zoology at Miami University (Ohio). His doctoral degrees are from Oxford (psychology) and Stirling (anthropology) universities. His main research interest is the behavioural ecology of wild chimpanzees, especially their elementary technology.

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## *War and Gender: How Gender Shapes the War System and Vice Versa*

By **Joshua S. Goldstein**. Cambridge University Press, Cambridge CB2 2RU, United Kingdom, 2001, xv + 523p. ISBN 0-521-807166. [Hdbk; \$39.95 USD]

*Reviewed by* Johan M. G. van der Dennen. E-mail: [j.m.g.van.der.dennen@rechten.rug.nl](mailto:j.m.g.van.der.dennen@rechten.rug.nl)

Gender roles are nowhere more prominent than in war. Yet contentious debates, and the scattering of scholarship across

academic disciplines, have obscured understanding of how gender affects war and vice versa. In this authoritative and lively review of our state of knowledge, Joshua S. Goldstein assesses the possible explanations for the near total exclusion of women from combat forces throughout history and across cultures. Goldstein is Professor of International Relations at American University in Washington DC. He is the author of a broad range of research works on international conflict, cooperation, and political economy, with a central focus on great-power relations and world order. The topics covered in this book include the history of women who did fight and fought well, the complex role of testosterone in men's social behaviors, and the construction of masculinity and femininity in the shadow of war. Goldstein concludes that killing in war does not come naturally for either gender, and that gender norms often shape men, women, and children to the needs of the war system. Illustrated with photographs, drawings, and graphics, and drawing from scholarship spanning six academic disciplines, this book is a unique study of a fascinating issue.

Goldstein's book is one of the latest attempts to answer the vexing question why war, a predominantly a male phenomenon, is 'the most gendered activity in the world'. Among previous authors who have addressed this question are, in chronological order, Davie (1929), Wright (1942), Turney-High (1949), Tiger (1969), Daly & Wilson (1978, 1987), Symons (1979), Meyer (1981), Adams (1983), Trivers (1985), Kroeber & Fontana (1986), Elshtain (1987), Theweleit (1987), Tooby & Cosmides (1988), Fraser (1989), van der Dennen (1990, 1992, 1995), Low (1993, 2000), Falger (1994), Ehrenreich (1997); Geary (1998), Bourke (1999), Malagon-Fayar (1999), Ghiglieri (1999), Mealey (2000), Edgerton (2000), Browne (2001), Campbell (2002), Potts (f.c.), and Thayer (f.c.). Some of these authors are indeed referred to in Goldstein's bibliography, *except* those who have provided what, in my opinion, is the only 'real' answer; namely the evolutionary rationales underlying the sex differences in animals and humans in mating and reproductive strategies. The ultimate or phylogenetic dimension is entirely lacking in Goldstein's book. In the final analysis, this makes the book a failure (although

a magnificent failure, read on) despite the breadth of interdisciplinary knowledge exhibited.

The book's chapter each discuss one main potential explanation and several sub-hypotheses derived from this main hypothesis. Chapter 1 introduces the main topic and discusses the cross-cultural consistency of gender roles in war, and the universal gendering of war. In addition, the universal potential for war is critically examined.

Chapter 2 reviews the literature on women warriors and the historical record of female combatants in all-female or mixed-gender units. Chapter 3 investigates the biology of individual gender (anatomy and physiology, genetics, testosterone levels, size and strength, brains and cognition, and female sex hormones). Innate gender differences in group dynamics are discussed in Chapter 4, including male bonding, ability to work in hierarchies, in-group/out-group psychology, and childhood gender segregation. Chapter 5 examines in depth the cultural construction of 'tough' men and 'tender' women. Chapter 6 deals extensively with sex, rape, and exploitation in wartime, men's sexual and economic domination of women, male sexuality as a cause of aggression, feminization of enemies as symbolic domination, and dependence on exploiting women's labor in the war system. Finally, Chapter 7 evaluates the total evidence pro and con for the 6 main and 17 sub-hypotheses of the gender difference discussed in the book. He summarizes the best explanations of gendered war roles thus:

- small, innate, biological gender differences in average size, strength, and roughness of play;
- cultural molding of tough, brave men, who feminize their enemies to encode domination.

Together, he claims, these solve the puzzle of near-universally gendered war roles, although neither alone would do so (p. 406).

Perhaps as interesting are the hypotheses that received little or no empirical support (p. 407). Six cherished myths go down in flames:

1. Claims about *matriarchies* – that matriarchal Amazons once existed and (contradictorily) that matriarchies are (or were) true peaceful societies – do not hold up. No solid empirical evidence points to Amazons, matriarchies, or (with very rare exceptions) peaceful societies.
2. The idea of a separate *genetic code* for men – the genes for war on the Y chromosome – is wrong.
3. The widely held notion that *testosterone* levels cause aggression has weak empirical support. The idea that their higher testosterone levels cause boys to be more aggressive than girls in early childhood is wrong, because boys' and girls' testosterone levels are comparable at ages 1-7.
4. The claim that *female hormones* make women peaceful is not supported either.
5. *Male bonding* turns out to be generic bonding in an all-male setting, and is accessible to women in mixed-gender settings.
6. The evidence also contradicts the idea that most *women oppose wars* and thus choose not to participate in combat. Some women oppose wars (proportionally somewhat more than do men), but most women support wars.

In general, Goldstein treats his topics with a firm knowledge of the relevant literature (the bibliography is 65 pages long) and writes in a lucid style that lacks the stern and pretentious 'academese' that characterizes so many textbooks and monographs. However, Goldstein's *magnum opus* has a few shortcomings. One such shortcoming is Goldstein's facile and critiqueless equation of aggression, violence (containing antisocial behavior and criminality), and warfare ("the genes for war" and the collateral that 'nonaggressive' equals 'peaceful' above). For example, "Thus, the genetic basis for aggression is neither very specific (a 'gene for war') nor very closely tied to gender" (p. 139). This is a

very peculiar, yet common, idea: that the genetic basis of aggression would imply a 'gene for war'. In the American literature the idea that warfare is aggression writ large, that warfare is at bottom one gigantic outpouring of raw aggression, is commonplace. I have frequently argued (e.g., van der Dennen, 1995) that this is a fallacy. On the other hand, Goldstein skilfully manages to avoid another common fallacy among students of war and peace: the *a priori* dismissal of 'biology' as irrelevant for the explanation of warfare because warfare has next to nothing to do with 'genes and hormones' (e.g., Keeley, 1996).

Some of Goldstein's arguments are rather muddled. For example, he states (pp. 137-138) that "altruism and sacrifice are central aspects of war-fighting. Yet caring and helping are stereotypically feminine behaviors," as if the "altruism and sacrifice" of combat are the same behaviors as the "caring and helping" that is stereotypically female, which I don't think one can simply assume. Moreover, some of the sex differences that are most relevant to the military, such as risk-taking, get no mention at all (Browne, p.c.)

### Postscript

Dobzhanski's famous adage is that nothing in biology makes sense except in the light of evolution. But evolution implies ultimate as well as proximate levels of explanation, ontogeny and phylogeny. Arguably, the ultimate dimension - *why* a trait or a behavior has evolved - is the most important for understanding because it constrains the envelope of possible proximate explanations. Goldstein's *War and Gender* entirely lacks the ultimate dimension - thus he is unable to link together the many data points that he presents in one coherent evolutionary perspective. I received the book as a complimentary copy with the request for comments. I asked Goldstein about this serious omission and he promised to present a paper at the 2002 ISHE Montreal conference with the title "Evolutionary aspects of gender roles in war" (Abstract on the ISHE website). Unfortunately, he never arrived at the conference and I've never seen the paper.

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**Johan M.G. van der Dennen** is senior researcher at the Department of Legal Theory, Section Political Science (the former Polemological or War and Peace Research Institute), University of Groningen, the Netherlands. He has been studying all aspects of violence and warfare in animals and Man for more than 30 years now. In 1995 he published his two-volume main work, *The Origin of War: The Evolution of a Male-Coalitional Reproductive Strategy* (Origin Press), in which the war-and-gender issue is extensively investigated.

## *Hierarchy in the Forest: The Evolution of Egalitarian Behavior*

By **Christopher Boehm**, Harvard University Press, [www.hup.harvard.edu](http://www.hup.harvard.edu), 2000; 292p. ISBN 0-674-39031-8 [Hdbk, \$44] and 0-674-00691-7 [Pbk, \$20]

Reviewed by **Filippo Aureli**, School of Biological and Earth Sciences, John Moores University, James Parsons Building, Byrom Street, Liverpool L3 3AF, United Kingdom. E-mail: [f.aureli@Livjm.ac.uk](mailto:f.aureli@Livjm.ac.uk)

Following the words of the author himself, this book is about "the roots of democracy" and its main objective is "to explain the political dynamics that make egalitarian societies possible at all levels". Christopher Boehm was one of the leading experts on egalitarianism before writing this book. Since then, his contribution cannot be omitted from any review within anthropology, social sciences, biology and even psychology. The book is a synthesis of years of careful work and a stimulating contribution to understanding the origins of egalitarianism.

The title can be seen as misleading for a book on egalitarianism given the general accepted thesis that egalitarianism results from a lack of hierarchy. Boehm explains that he deliberately chose to have the term 'hierarchy' in the title to emphasize his novel *reversed hierarchy* hypothesis (put forward in a 1993 *Current Anthropology* article). Our political nature favors the formation of orthodox hierarchies. For egalitarian societies to exist, a considerable effort is needed to reverse the basic flow of power and maintain control of alpha-type group members. This egalitarianism is not without despotic expressions, as its basis is a hierarchy in which "the weak combine forces to dominate the strong" (from the book cover).

The book reminded me of the time I attended the Mellon Foundation symposium on Egalitarian Behavior at Emory University in

which Boehm was one of the invited speakers. I recall the contrasting views of chimpanzee societies. As in the book, Boehm placed the chimpanzees (and other African great apes) toward the despotic end of Vehrencamp's continuum of despotic versus egalitarian societies. In contrast, most primatologists view chimpanzee societies as rather egalitarian. My background in macaque behavior compelled me to agree with the latter position: many macaque species are certainly more despotic than chimpanzees. At the symposium, it became evident that the contrast was only due to the relative nature of the terms 'despotic' and 'egalitarian', which depend on the species being compared. Most macaques are more despotic than chimpanzees, but several human societies are more egalitarian than chimpanzees, although some can exhibit far more tyranny than African great apes and perhaps even more than macaques!

Boehm's first-hand experiences in fieldwork on various human groups and on chimpanzees constitute the backbone of his careful search for the evolutionary origin of egalitarianism. He acknowledges the political flexibility of humans and the closely related great apes, and postulates that the common ancestor had both egalitarian and despotic tendencies. He then presents a plausible scenario of how these apparently conflicting tendencies could have resulted into the various forms of egalitarianism of hunter-gatherers, tribal societies, and current democracies.

Boehm proposes an *ambivalence model* of human nature in which the conflicting tendencies are at the basis of our political flexibility from despotism to egalitarianism. The ambivalence stems from the fact that although dominance and submission are typically human traits, and submitting may have its own advantages, resentment to acting submissively is also present. Citizens in democratic nations, for example, make a sensible compromise between personal freedom and the acceptance of law to regulate their life. But this compromise is not made blindly; there is always high vigilance for any abuse of power. This vigilant compromise has its evolutionary roots in the ancestral hominoids who formed political coalitions of subordinates



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to control the power of alpha males who may otherwise bully them. Human nature surely has a despotic component, but it is flexible. That is why there are many forms of hierarchies across human societies. To explain how egalitarianism is present in spite of our despotic nature Boehm guides the reader through the findings of his ethnographic survey on hunter-gatherers and tribal societies, the details of the behavior of African great apes, the psychology of subordinate intransigence, and the political and cognitive pre-adaptations for the development of moral communities. It is a fascinating journey that results in an original view of the origins of egalitarianism.

Boehm's main hypothesis is that egalitarian societies are created and maintained by *moral communities*, which agree on their values and are ready to control individual deviants by acting as a large political coalition. The control is often achieved simply through high vigilance to keep in check the individual tendencies that could lead to despotism. Criticism and ridicule are used towards individuals who can potentially become authoritarian. Ostracism and threat of expulsion are employed against individuals who begin to be assertive. Ultimately, *moralistic aggression* can be used resulting in the actual expulsion or execution of the deviant.

Toward the end of the book, Boehm provides a novel scenario for the evolution of altruism through the impact of egalitarian behavior. He himself predicts the scenario will generate controversy by challenging certain basic principles of evolutionary biology. Although in his account there is possibly some confusion between proximate and ultimate levels of explanation, I found the overall scenario plausible and his arguments very inspiring. I invite everyone to read Chapter 9 with an open mind. It will certainly be a stimulating read.

The book is clearly written and provides a great review of various topics linked to egalitarianism. Although it appears a bit repetitive in certain parts, the book's style makes sure that the reader ends up with a clear take-home message. Apart from the behavioral details on the various apes, hunter-gatherers and tribal societies extracted from the literature,

the book benefits from descriptions of the author's own direct observations of chimpanzees and Navajos. These descriptions bring to life concepts that would otherwise be difficult to grasp and give a clear sense of what the author means with the various building blocks for his *reversed hierarchy* hypothesis of egalitarianism.

I strongly recommend this book to any student and scholar in anthropology, biology, psychology and social sciences. The book manages to portray a psychological and evolutionary scenario of how the conflicting despotic and egalitarian tendencies typical of human nature can be at the basis of both the orthodox and reversed hierarchies we witness in our societies. Readers will certainly be fascinated by the evolutionary scenario proposed by Boehm, even if they disagree with him.

**Filippo Aureli** is Reader in Animal Behavior at Liverpool John Moores University. He completed his PhD in Ethology at the University of Utrecht, The Netherlands and specialized in primate social behavior. His main research interest is on the regulation of social relationships and conflict management. He is the editor with Frans de Waal of *Natural Conflict Resolution* (University of California Press, 2000).

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## THE PRIMAL FEAST

By **SUSAN ALLPORT**. New York: Harmony Books, 2000, 256p., \$23 (US). ISBN: 0609601490

**Reviewed by Vassilios Sarafis**. Dept. of Anatomical Sciences, University of Adelaide, Adelaide 5001 South Australia, Australia. Email: sarafis@hotmail.com

The Primal Feast is a gripping tale of food: getting it, consuming it, its role and value, and sex roles involved with it. It begins with a personal introduction from a female perspective of the acquisition of food. In the second chapter,

the author looks at herself as a forager and compares her experiences with those of other people from other parts of the earth. She examines how social conditions shape food gathering behaviours in social contexts foreign to her. Children and their food related behaviours are also illustrated by reference to both the author's family and tribal children. Some animal examples are nicely woven into her account.

Chapter 3 introduces optimal foraging theory and discusses this theory with reference to several leading authorities. The author reveals her personal feelings in this chapter which, to me, were a valuable individual comment on optimal foraging theory. In Chapter 4, a discussion with animal nutritionist Dierenfeld takes center stage and illustrates diets in carnivores and other types of animals. The next chapter looks at food acquisition and distribution in the wild. The role of food supply in maturing the young of animals is examined from the perspective of a field study in which the author participated.

In Chapter 6, sexual dimorphism in humans gets a very intriguing airing. Allport introduces the different attitudes males and females have to food and relates these to body dimorphism. The work of Trivers on sexual selection and the descent of man is used as an entrée. Wrangham's ideas regarding different food hoarding behaviours in higher apes are discussed, with sex differences in food acquisition and storage.

Chapter 7, "What's in a meal", looks at special foods and discusses the lactose intolerance and gluten intolerance, which Simoons has so ably done in his many papers. Simon Katz's description of food preparation of corn by American Indians and its benefits are discussed as are those of Stefansson, the arctic explorer who saw first hand the diet of Inuit and Eskimos. The chapter concludes by alerting us to the need to consider the social nature of much of our food contents. In this regard, Igor de Garine's ideas could have been usefully introduced but did not receive a mention.

Chapter 8 introduces Aiello's thesis about human brain size its relationship to the gut.

Human flexibility with diet is introduced but also the inflexibility of a maintained set of food conditions and the problems it causes are discussed. A fascinating example is presented involving Indian vegans who had a balanced diet in India due to dietary contaminants such as insects that ceased to be a dietary component when Indian vegans migrated to England.

In the next chapter, the author introduces the role of secondary plant metabolites in food and shows how humans have made various uses of some for medicine and flavouring and how they get rid of other intoxicants like cyanide. She makes an error in thinking people learned to detoxify manioc in Africa. The plant is a native of South America and H. Brucher, in his 1989 book on useful plants of neotropical origin and their wild relatives, gives a good account of the practice of purifying manioc (cassava) by chewing and spitting. Allport gives a varied assortment of naturally occurring poisons in foods and ways of coping with some, based on Lindner. Certainly genetic selection and special preparation methods, especially cooking, serve to detoxify a vast array of foods.

The next chapter, "The human omnivore", was my favorite. The author sensitively discusses the omnivores' dilemma in food choice. [*This is the conflict between dietary restriction of foods known to be safe versus dietary variation to increase nutrient consumption and the ability to withstand food shortages.* - TRA] The role of culture is paramount and examples are given of primate food choice that is culturally different from group to group. It would have been interesting here to note Jane Goodall's reward to her Gombe chimpanzees: bananas! These are not native to Africa and yet they are cherished by chimpanzees and consumed by peeling and eating the contents in a very human way. Perhaps such a cultural habit serves to explain by example our own extremely varied mix of foods. The next chapter on cravings gives good accounts of the love of humans for honey and meat. The discussion of our relationship to the honey guide (an African bird which guides both badgers and humans to honey sources it is unable to reach due to its inability to rip into beehives) is fascinating as this may be an example of behavioural evolution between

humans and birds where the honey guide gets access to both honey and wax and the human to honey. An absolutely fascinating symbiosis. The author's account of meat eating, habitually characteristic of Humans as compared with all primates, misses the close association with our tapeworms *Taenia saginata* and *asiatica* and *Taenia solium*, as recently discussed by Hoberg (2001).

Chapter 12 describes tool use and provides a clear discussion of the effects that tool use had on food choice. The sexual stratification of food in humans is raised, and handedness and its origin in time are discussed. There is also a thought provoking discussion of the role of infants in shaping food acquisition by humans. Chapter 13 develops these themes further in comparison with other higher primates and the role of scavenging and hunting are compared. A footnote raises the issue of post menopausal women in the food economy of the human group. The different roles of women, men and children are fascinatingly conveyed in this chapter.

Food sharing forms the center of the next chapter and has various modern cultural effects introduced especially as relating to our responses to food related events. In the penultimate chapter the origins of agriculture are discussed, regrettably without discussing Rindos's (1984) work, but interestingly treating the faults that agriculture has introduced into human health. The epilogue describes the author returning to her own garden and her foraging instincts within it.

I found the book fascinating and I just had to read it in a single night from cover to cover. The author, despite faults in the index (e.g., no manioc or cassava) and references (some in the bibliography not in the text and vice versa) does the field a great service in two ways. First it would be an excellent subsidiary reference in college and university courses. Second, and more importantly, it shows the value of personal interest and experience to students of the field. A definite must buy.

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## ANNOUNCEMENTS

Second Annual Conference of the New England Institute for Cognitive Science and Evolutionary Psychology

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Join scholars and researchers from all over the world for this landmark conference on the cognitive and evolutionary underpinnings of religious thought and experience. In addition to keynote presentations by Pascal Boyer, Scott Atran and Matthew Alper, and many fascinating concurrent lectures, a highlight will be a symposium on 'Religion, Terrorism and War' with contributions from the three keynote speakers and Allen MacNeill. Dr. Atran's article on the 'Genesis of Terrorism', recently published in Science, can be accessed at [http://jeannicod.ccsd.cnrs.fr/documents/disk0/00/00/03/43/ijn\\_00000343\\_00/ijn\\_00000343\\_00](http://jeannicod.ccsd.cnrs.fr/documents/disk0/00/00/03/43/ijn_00000343_00/ijn_00000343_00).

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### CONFERENCE SCHEDULE

#### TUESDAY, AUGUST 12

8:00 registration desk

8:00 - 8:45 Coffee

8:45 - 9:00 Plenary Welcome  
David Smith, Ph.D., Director and Co-Founder, NEI

Robert Haskell, Ph.D., Associate Director, Co-founder, NEI

Jacque Carter, Ph.D., Dean College of Arts and Sciences

9:00 - 9:15 Opening Thoughts, Nicholas Humphrey, Ph.D., Centre for Philosophy of Natural and Social Science, London School of Economics and Professor of psychology, Graduate Faculty, New School for Social Research, New York.

9:15 - 10:15 Keynote Opening Religion and The Mental Instincts That Create It.

Pascal Boyer: Henry Luce Professor of Individual and Collective Memory  
Washington University, St. Louis

10:15 - 10:30 Break:

10:30 - 11:15: Natural Selection Is Non-denominational: Why Evolutionary Models of Religion Should Be More Concerned with Behavior than Concepts.

(concurrent)

Jesse M. Bering, Ph.D., Department of Psychology, University of Arkansas

10:30 - 11:15 : Negation and Doubt in Religious Representations.

(concurrent)

Bradley Franks, Ph.D., Lecturer, London School of Economics

11:15 - 12:00 Religion, Death and Horror Films: An Evolutionary Analysis. (concurrent)

Hank Davis, Ph.D., and Andrea Javor, Ph.D., Dept. of Psychology, University of Guelph

11:15 - 12:00 Cognitive Psychology of "Original Sin." (concurrent), H. John Caulfield, Ph.D., Distinguished Research Professor Fisk University

12:00 - 1:30 Lunch: Off Site Independent

1:30 - 2:30 Keynote The Evolutionary Origins of Spiritual Consciousness.

Matthew Alper: Independent Scholar, Brooklyn, NY.

2:30 - 3:15 Religious Costs as Adaptations Signaling Altruistic Intention. (concurrent)  
Joseph A. Bulbulia, Ph.D., Religious Studies, Victoria University of Wellington

2:30 - 3:15 God Talk: Unconscious Schemata of Deity in Verbal Narratives (concurrent)  
Robert E. Haskell, Ph.D., Psychology, University of New England, NEI

3:15 - 3:30 Coffee.

3:30 - 4:15 Problem Solving and Religion in the EEA: An Endorphin Rush? (concurrent)  
Christopher di Carlo, Ph.D., Dept. of Philosophy, University of Guelph

3:30 - 4:15 Categorizing the Supernatural: An Investigation of the Relationship Between Conceptualization and Belief (concurrent), Andrew Shtulman, Ph.D., Dept. of Psychology, Harvard University

4:15 - 5:30 Reception

6:00 - 9:00 Special Conference Dinner

WEDNESDAY, AUGUST 13

8:00 Registration desk

8:30 - 9:00 Coffee

9:00 - 9:15 Opening

9:15 - 10:15 Keynote, Scott Atran, Ph.D.: Religion's Evolutionary Landscape: Counterintuition, Commitment, Compassion, Communion; Charge de Recherche, Centre National de la Recherche Scientifique, CREA-Ecole Polytechnique, Paris, France, and research scientist at the Institute for Social Research.

10:15 - 10:30 Break

10:30 - 11:15 Why So People Behave Religiously? (concurrent),  
Stephen W. Kercel, Ph.D., Research Fellow, Dept of Psychology, University of New England and NEI

and Donald C. Mikulecky, Ph.D., Senior Fellow in the Center for the Study of Biological Complexity, Virginia Commonwealth University.

10:30 - 11:15 The Cognitive Neuropsychiatry of Religious Belief (concurrent), Ryan McKay, Ph.D., Macquarie Centre for Cognitive Science, Macquarie University.

11:15 - 12:00 With or Without Belief: A New Evolutionary Approach to the Definition and Explanation of Religion (concurrent), Craig Palmer, Ph.D., Department of Anthropology, University of Colorado at Springs and Lyle B. Steadman, Ph.D. Department of Anthropology, Arizona State University

11:15 - 12:00 Religion, Evolution and an Immunology of Cultural Systems. (concurrent)  
Jespert Sørensen, Ph.D., Dept. for the Study of Religion, University of Southern Denmark.

12:00 - 1:30 Lunch: Off Site/ Independent

1:30 - 2:15 The Capacity for Religious Experience Is An Evolutionary Adaptation to Warfare (concurrent), Allen D. MacNeill, Ph.D., Biology Learning Strategies Center Cornell University.

1:30 - 2:15 Shamanism as the Original Neurotheology. (concurrent)  
Michael Winkelman, Ph.D., Department of Anthropology, Arizona State University

2:15-3:00 Symposium: Religion, Terrorism, and War. Presentations  
Moderator: Nicholas Humphrey.  
Presenters: Matthew Alper, Scott Atran, Pascal Boyer, Allen D. MacNeill

3:00 - 3:15 Break

3:15 - 4:00 Symposium: Continuation Audience Discussion

4:00 - 4:15 Concluding Plenary Session

## *New Books*

Barrett, L., Dunbar, R., & Lycett, J. (2002). Human Evolutionary Psychology. Princeton University Press, 434p. ISBN: 0691-09622-8.

Conniff, R. (2002). The Natural History of the Rich: A Field Guide. W. W. Norton, 256p. ISBN: 039301965-9.

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Shweder, R. A. (2003). Why do men barbeque?: Recipes for cultural psychology. Harvard Univ. Press, 419p. ISBN: 0674-01135-X.

## **Bulletin Submissions**

All items of interest to ISHE members are welcome: Society Matters; articles; replies to articles; suggestions; announcements of meetings, journals or professional societies; etc. These sorts of submission should be sent to the editor. Book review inquiries should go to the book review editor. All submissions should be in English, and sent to the appropriate editor via e-mail, as an attachment in order to maintain formatting. If e-mail is impossible, hard copies will be accepted, as long as they are accompanied by the same text on diskette (preferably in Microsoft Word version 6.0 or earlier). Shorter reviews are desirable (1000 words). **Please include complete references for all publications cited.** For book reviews, please include **publisher's mailing address and the price of hardback and paperback editions.** Submissions are usually reviewed only by the editorial staff. However, some submissions are rejected. Political censorship is avoided, so as to foster free and creative exchange of ideas among scholars. The fact that material appears in the Bulletin never implies the truth of those ideas, ISHE's endorsement of them, nor support for any of them.



## CURRENT LITERATURE

Compiled by Johan van der Dennen

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