

Human Ethology Bulletin

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This issue contains a ballot and **Call for Votes** for two ISHE officer positions: Secretary and Membership Chair. All eligible ISHE members are encouraged to vote. The issue also contains four book reviews, a message from the President Glenn Weisfeld, information on ISHE08, and the now usual *Bulletin* contents: listings of New Books and new articles (Current Literature), membership information, lists of upcoming conferences and forthcoming reviews, and various other announcements.

2008 ISHE Congress [ISHE08]

July 13 - 17, 2008 ♦ Bologna, Italy

www.ISHE08.org

The next biennial congress of ISHE (ISHE08) will be held at the University of Bologna in a historical building located in the city center. The previous two issues contain information about ISHE08, and some further information is provided in this issue, but readers are encouraged to visit the conference website to register and for the most complete and up-to-date information. A detailed program is now available at:

<http://www.ishe08.org/programme.php>

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Back Issues of the *Bulletin* may be ordered following the policy and pricing available in the most recent issue.

Bulletin Policies

Submissions. All items of interest to ISHE members are welcome, including articles (*Brief Communications*); responses to articles; news about ISHE members; announcements of meetings, journals or professional societies; etc. **Book reviews** and review inquiries may be sent to the Editor or to an Associate Editor. Guidelines for book reviews are available from any staff member and on the ISHE web site. Other types of submissions should be sent to the Editor. These include **Brief Communications** which may cover such topics as teaching ethology, ethological methodology, human evolution, and evolutionary theory.

All submissions must be in English, and sent to the appropriate editor via email, preferably as an attachment. If email is impossible, hard copies will be accepted, as long as they are accompanied by the same text on CD-R (preferably in Microsoft Word format). All submissions, including invited contributions, are subject to editorial review. Some submissions are rejected, but political censorship is avoided so as to foster free and creative exchange of ideas among scholars. Submissions are usually reviewed only by members of the editorial staff, although outside reviewers are used occasionally. All submissions should be original, and are not to be published elsewhere, either prior to or after publication in the *Bulletin*, without permission from the Editor.

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A Message from the President

Soon you will receive an announcement that a draft of the revised ISHE constitution is ready for members' comments. We are mainly seeking reports of possible inconsistencies and omissions that the Board of Officers may have overlooked in preparing their recommended revision. The membership will then vote on the revision at the Bologna congress, as we did in Montreal in 2002. Many of the changes being considered for recommendation are minor, but there are some major ones.

One possible recommendation is that officers not be paid for their work, although they may hire assistants for specific short-term jobs. Officers may also be reimbursed for expenses, including travel to ISHE meetings. Now that ISHE has received a large bequest of funds, certain officers have requested payment for their work for ISHE. Many of us, however, fear that for the officers to vote to pay themselves would pose a conflict of interest and would weaken ISHE's tradition of volunteerism. The constitution currently allows for payment of officers for duties performed, but this provision was inserted when ISHE had very little money. No officer has ever received payment, except for the Editor.

Before the current Editor took office, ISHE decided to offer \$5000 per year to the Editor, in recognition of the great amount of work and responsibility that this position entails. The current Editor did not vote for this policy, so there was no conflict of interest.

Other recommendations being considered are intended to protect ISHE from a takeover by people who seek access to ISHE's funds or who wish to use ISHE to promote their particular ideology or their careers. One possibility is that new members wait a year before being allowed to vote, so that a new group of people cannot easily vote in someone with hostile interests.

Another possible recommendation is that write-in candidacies not be allowed. An unexpected

campaign for a write-in candidate might result in election of someone without previous experience in ISHE and a clear commitment to ISHE's values. Also, candidates would have to submit a statement describing their qualifications for office and previous participation in ISHE activities. The current constitution does provide for a Nominations and Elections Committee to evaluate nominees for suitability for office, so this protection already operating.

Another existing protection, which I myself would like to retain, is the longstanding ISHE policy of having some appointed officers who, because they do not have to stand for re-election, provide stability in decision-making. Indeed, for just this reason, and to reduce the likelihood of disruption of the *Bulletin*, the membership voted to convert the Editor position to an appointed position in 1989. The Editor, Webmaster, and Treasurer are appointed positions that require special technical skills as well as dedication to ISHE's traditions and ideals. We have been fortunate to have had very capable, hard-working, and cooperative people filling these positions over the years, so I think this policy has been successful. We have also avoided a high degree of disruptive turnover. The proposed revision may provide for approval of these individuals by the membership every two years, to provide more oversight by the membership.

Another recommendation being considered is elimination of the Information Officer position. This new officer was intended to serve as an assistant to the Webmaster and so was not entitled to vote. However, this did not work out. The duties assigned to the Information Officer, essentially promotion of ISHE, might instead be performed instead by the trustees and other officers, special committees, and the membership at large.

ISHE has had some conflicts among the officers over the past couple of years, for which I take responsibility as President. For example, attempts have been made to deny appointed officers the right to vote, as clearly allowed by the

constitution. However, there is reason to believe that the atmosphere is improving.

ISHE seems to be doing well overall. The Bologna congress promises to be hugely successful, thanks to the great efforts of the organizers. Submission of abstracts has been very high, so that concurrent sessions will be held for the first time. An informal proposal has been submitted for a 2009 summer school in North America, where we would like to increase our membership. Other accomplishments and news are mentioned elsewhere in this issue. Thanks to all for your efforts at promoting and strengthening ISHE.

Glenn Weisfeld

ISHE President

ELECTION: Call for Votes

The ISHE Nominations & Elections Committee hereby calls for votes for one candidate for each of two positions: Secretary and Membership Chair. The anticipated start date for these positions is either 17 July 2008 (end of ISHE08) or 1 January 2009 with a term of 4 years.

All **dues-paying** members of ISHE whose dues are up to date are eligible to vote.

Secretary

The **Secretary** keeps the minutes of meetings of the Board of Officers and of the General Assembly. This person is responsible for distribution of these to the other Officers and Trustees, and may be asked to prepare an annual report. The Secretary also keeps track of the election calendar, monitors the fulfillment of obligations of ISHE award winners, and maintains a record of all votes, awards, and other noteworthy decisions made by the officers. The candidates are:

Maryanne Fisher, Ph.D.

Assistant Professor, Department of Psychology, member of the Women and Gender Studies Program, Saint Mary's University, Halifax, Canada

ISHE member since **1997**

Statement: I have been involved with ISHE for several years. The very first academic presentation I made was actually at an ISHE conference. ISHE is unique in that it is very encouraging to students, and the biannual meeting is consistently informative to a wide audience. As a faculty member, I constantly refer to the society when I teach my upper-year course on ethology, and recommend it to those I directly supervise. As a result, many students have joined and express an interest in using ethological methods in their research, and I hope to see more of them become members in the future. As well as advocating ISHE, I am an Associate Editor of the *Human Ethology Bulletin*. If elected Secretary, I hope to continue working for the *Bulletin* while also supporting ISHE by directly contributing to its board.

Patrick A. Stewart, Ph.D.

Assistant Professor, University of Arkansas. USA

ISHE member since **2006**

Statement: Patrick A. Stewart will be joining the Political Science faculty at the University of Arkansas this fall after serving as Associate Professor of Public Administration, Director of the Masters of Public Administration Program, and Co-Director of the Center for Social Research during his nine-years at Arkansas State University. He took his Ph.D. in Politics and the Life Sciences from Northern Illinois University in 1998. While at NIU, he worked extensively with James Schubert, a leading exponent of political ethology. Stewart teaches graduate classes in Political Behavior, Decision Making, Policy Analysis, and Techniques of Statistical Analysis and has published over 20 peer reviewed articles and chapters in such diverse areas as land use policy, agricultural biotechnology policy,

decision-making and leadership. He has been a member of the Association for Politics and the Life Sciences since 1992 and was elected to their governing council in 2005. His research uses observational field studies to consider the influence of non-verbal stimuli on political attitudes and the use of humor during political communiqués.

If elected ISHE secretary I would look forward to working with colleagues from a range of academic backgrounds. I have worked extensively in a team-based environment and can bring to bear administrative skills to help build a cooperative environment. In addition to fulfilling secretarial functions, I will support policies that work to broaden ISHE's attraction to early and mid-career academics, expand the dissemination of results to a wider audience, and develop ties with like-minded organizations.

Membership Chair

The **Membership Chair** maintains the membership database, prepares mailing lists for both postal and internet **delivery** of the Bulletin and for occasional ISHE notices, and works in coordination with the ISHE Treasurer to maintain an accurate list of dues payments. In addition, the Membership Chair usually serves on election committees. The candidates are:

Astrid Juette, Ph.D. (incumbent)

Executive Manager of the Konrad Lorenz Institute for Evolution and Cognition Research, Austria;
Teaching position at the University of Vienna.

ISHE Member since **1996**

Statement: My involvement with ISHE goes back to my being an undergraduate student of Karl Grammer. I joined ISHE in 1996, being attracted by an open, supportive, and enthusiastic society. Until 2001 I worked with Karl Grammer at the Ludwig Boltzmann Institute, at the same time teaching behavioral biology at the University of Vienna. My scientific interests include mate choice, sexual behavior, and olfactory

communication, as well as methodological development.

I have been the Executive Manager of the KLI since 2002. Many of the skills that I developed in that position – like financial and scientific management, and development of funding policy – and as a member of several boards in other societies, have been very fruitful for service on the ISHE board of officers, especially in a time when ISHE has changed a lot. With the focus of KLI being on theoretical biology, I also developed more interest in the theoretical bases of human ethology.

My focus as Membership Chair has always been, and will continue to be, on improving the services for members. During the nearly 10 years that I've been ISHE's Membership Chair, my responsibilities have grown from keeping a simple list of names to establishing and maintaining online registration and payment services, and sending selected email announcements and reminders. I am currently working on providing an interactive online database that would allow ISHE members to search for common interests or specific other members, while keeping the privacy of information in mind. I really enjoy contributing to the well-being of ISHE and would be more than happy to continue.

Renee L. Pennington, Ph.D.

Adjunct Assistant Professor, Department of Anthropology, University of Utah, USA

ISHE member since **2007**

Statement: An important field in anthropology is the study of human behavior through integration of ethnographic and genetic records in the context of our species' several million-year history. In my research I have linked effects of disease evolution and life history trade-offs on population dynamics to evolution of parenting behaviors and female reproductive biology. With the recent surge in the genomic data we are now able to test our models against known gene distributions. We

have candidate genes, for example, to test our ideas about the relationship between life span differences and constraints on child care among geographic groups. These sorts of contributions by anthropologists are widely scattered but could have a cohesive presence within ISHE. As a late comer to the organization it is clear to me that the significance of ISHE to anthropology is underappreciated in North America. That the approach of anthropology has broad appeal beyond the discipline is evident from the classes I teach to non-majors about the evolution of human parenting behaviors. I hope to bring the views of behavior evolution in anthropology to ISHE as well as expand awareness of ISHE in North America.

Send votes to the Chair of the Nominations and Elections Committee, Dori LeCroy at DoriLeCroy@aol.com or using her postal address as printed on the back page of this issue.

**Deadline for receipt of votes:
15 July 2008**

Ballot: check **one** candidate for **each** position

[* candidates endorsed by
the Nominations and Elections Committee]

Secretary

_____ **Maryanne Fisher ***

_____ **Patrick A. Stewart**

Membership Chair

_____ **Astrid Juette ***

_____ **Renee L. Pennington**

BOOK REVIEWS

Beyond War: The Human Potential for Peace

By **Douglas P. Fry**

NY: Oxford University Press, 2007, 352 pp.
ISBN10: 0195309480 [Hdbk \$24.00 US].

Reviewed by **Judith L. Hand**

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In *The Human Potential for Peace* (2006), anthropologist Douglas Fry began debunking the belief that war is inescapable. In *Beyond War*, he continues his exploration in an accessible, finely-researched, and occasionally humorous manner.

Fry's definition of war (p. 16) is critical to his thesis:

"A group activity, carried on by members of one community against members of another community, in which it is the primary purpose to inflict serious injury or death on multiple nonspecified members of that other community, or in which the primary purpose makes it highly likely that serious injury or death will be inflicted on multiple nonspecified members of the community.... This definition highlights that war is a group activity, occurs between communities, and is not focused against a particular individual or that person's kin group (as occurs in feuding), but rather is directed against nonspecified members of another community... [It is] relatively impersonal lethal aggression between communities."

This definition excludes behavior often mistakenly categorized, Fry argues, as a form of war, e.g., homicides (usually triggered by disputes over women), and self-redress (revenge killings against specific individuals from other groups). Using his definition, Fry posits that war isn't an evolved trait or inescapable: numerous societies live without it (see list in Appendix 2). He also critiques studies used to argue that humans have been warlike since our deep past: e.g., studies by Blanc, Dart, Chagnon, Ember, Keeley, Wrangham and Peterson, Wright, and others.

In the chapter "War and Social Organization," he makes a crucial differentiation between simple, nomadic hunter-gatherers (NHGs) and complex hunter-gatherers (CHGs). In the former, war is rare; in the latter, war is common. A critical difference is that abundant food resources allow CHGs to live in settled communities. This suggests a causal link between settled living and war. CHGs also exhibit social and sexual inequality. Fry suggests that NHGs model conditions under which virtually all human ancestors evolved; the point being that the majority of ancestors in our deep past likely did not make war.

Focusing on NHGs, Fry describes conflict resolution in six societies: Siriono, Paliyan, Australian Aboriginal culture, Montagnais-Naskapi, Netsilik, and "Kung San (Ju/'hoansi). Examples from other NHGs are also compared with CHGs and tribal cultures. In some cultures, people may simply avoid conflicts by walking away, or if attacked by outsiders, by fleeing.

Fry examines his views using well-known biological theories: sexual selection and parental investment (Chapter 12) and inclusive fitness and game theory (Chapter 13). A striking parallel emerges from animal studies in which males of various species determine dominance and access to females and other resources using ritual displays, not killing; the

behaviors NHG men use to settle disputes show fascinating parallels to these ritual displays. Fry also cites rare cases where murderers were killed by their own kin (pp. 149, 151, 155) or after group discussion and agreement (p. 163); Fry suggests (p. 109) that overly-aggressive individuals were possibly selected *against*.

The myth of "man the warrior" is thoroughly critiqued. Fry details (Chapter 14) psychological reasons that draw so many people to this myth despite the fact that many societies live without war, and that the likely condition of early NHGs was one of cooperation among disbursed bands of small, egalitarian groups. Acceptance of this myth, Fry argues, has biased studies and conclusions. He discusses (Chapter 15) how public acceptance of this myth also creates a self-fulfilling prophecy, undercutting efforts to find ways to end war.

The last chapter summarizes how an anthropologically-derived view of the human potential for peace can guide us beyond war. Throughout the book, it's clear that much fighting and often warfare itself arises out of self-redress for grievances, and that the means for resolving these conflicts in NHGs often involve third party negotiators, mediators, even adherence to law (e.g., Australian aborigines). To extricate ourselves from war, Fry stresses several things, among them that we develop international courts and other mechanisms of conflict resolution, that we foster a global sense of community and interdependence, and that we expand new levels of democratic governance.

Beyond War has notable strengths. A reader gains profound appreciation for the importance of cooperation to the survival of small human bands. In a theoretical article entitled "Five rules for the evolution of cooperation" (2007), Martin Nowak explores the power of natural selection to produce cooperation even in a

brutally competitive world, and Fry makes a strong case that NHGs are good cooperators. They seem to be likely products of these principles.

Another strong point is his description of the nature and frequency of male aggression in even NHG bands, enabling readers to make reasonably informed assessments of rates and kinds of aggression.

Like all good books, *Beyond War* provokes questions. For example, if war and social complexity go hand-in-hand (p. 63), isn't it hopeless to think we can get beyond war? We're not likely to revert to living in small NHG bands. Herculean attempts along the lines Fry recommends have thus far failed to end war (League of Nations, United Nations, International Court of Justice). Legions of advocates work to foster cross-cultural ties, so far with little obvious success in ending war.

Assuming a fixed link between war and social complexity, as many experts and lay people do, however, may be premature and in error simply because contrary examples have not yet been discovered. The Minoans (circa 600-1450 BCE), were a state-level culture that may not have had warfare. Discussing them, I described biological, cultural, ecological, religious, and social conditions that might allow the emergence of a state-level, non-warring culture (2003). Two other ancient, sophisticated cultures, the Harappa and Caral, also may not have had warfare. Perhaps social complexity *per se* doesn't equate with war; perhaps the form the complexity takes is the important variable (Hand, 2003, 2006).

Other questions arise, especially to a behaviorist. The expression of some traits, such as eye color, tends to be relatively little influenced by environment. Others, such as alcoholism, may only emerge in an environment that favors their expression. So for example, while the act of making war seems

not to be inevitable in all environments, there must be traits that are, say, in an environment of settled living, the roots from which war springs. Fry convincingly demonstrates that people can live peacefully, but to get beyond war in the present global context, the proximal motivators and reinforcers behind our behavior must be understood. What emotions trigger war, why has natural selection favored those emotions, and in complex societies, can we effectively control them?

Fry argues against the existence of universal psychological mechanisms underlying war, citing examples from Wrangham (1999) such as "the experience of a victory thrill, an enjoyment of the chase, a tendency for dehumanization, and ready coalition formation." Fry disagrees, saying, "rather than being universal human traits, (these) more likely represent attitudes and ideas circulating within the culture of the theorist" (p. 143). He suggests that the idea that a nonfeuding, nonwarring Paliyan man would experience a "victory thrill" is at odds with their behavior and the value they place on nonviolence.

This doesn't address the possibility that those traits, or others favoring war, are latent in a Paliyan man. Consider an infant Paliyan boy raised in the home of a typical American family, thrown into competitive contexts, and finally into a battle which he survives, which his side wins, and from which he emerges a hero. That Paliyan child might very well experience the thrill of victory. Socialization would, of course, be part of the explanation for his emotional response, but the capacity to be socialized to respond so as to experience that thrill in that context seems to require the existence of some underlying evolved mechanisms. Thus, questions about the existence of universal underlying psychological traits that make us susceptible to war remain open.

My own interests in aggression, conflict resolution, and gender differences lead me to focus on how women fit into the war picture (see Hand, 2003), and I would have liked more specifics, but Fry rarely mentions women. A reader interested in gender issues can suspect that “egalitarian” in nonviolent, nonwarring bands also refers to women’s social relationships, not just social and political ones between men, but this isn’t always made explicit. *Beyond War* seemed to fit the pattern of a “hidden females” phenomenon (Hand, 2003) in which women are lumped into discussions of humans, humanity, and people without considering that women may have quite different biological priorities and different responses to aggression than men.

Men demonstrate violent aggression in all the cultures Fry examined, even if only rarely. As Fry notes, women use violence much less frequently. Fry draws on sexual selection as an explanation for male aggression, but provides no comparable examination of why women are overwhelmingly not involved in war. One has the impression that being nonviolent is a default female position, and it works fine because women don’t need to compete for men as strenuously as men need to compete for women (the sexual selection hypothesis) (pp. 168-169). But women not only characteristically avoid physical violence, women, as a group, are more strongly predisposed than are men, as a group, to using various forms of win-win conflict resolution (e.g., Fisher, 1992; Hand, 2003). Why?

Lack of attention to a female biological imperative to foster social stability because of women’s greater investment in bearing and rearing children (Hand, 2003) is a weak point because the egalitarian position of women in nonwarring societies may be essential as a hedge against war. Fry isn’t alone in neglecting the possibility of ending war by specifically raising the status of women. Consider conclusions of other thinkers from a variety of

disciplines who seek to explain why we make war and, more importantly, how to be rid of it. An interesting pattern based on discipline emerges.

Political scientist Francis Fukuyama (1992) argues that we should foster the spread of liberal democracies. Journalist and war reporter Chris Hedges (2002) calls on us to embrace and abide by our moral precepts against war. Historian Robert McElvaine (2001) provides an account of how the agricultural revolution transformed relationships between the sexes leading to the rejection by men of anything female. McElvaine’s antidote calls on men to get in touch again with their feminine values and proclivities. In *Beyond War*, Fry looks with the eyes of the anthropologist and suggests that we set up international bodies to adjudicate our differences and that we foster a sense of oneness among the earth’s people. Although all of the above are likely necessary to move us beyond war, will they be sufficient? The egalitarian nature of nonwarring NHG societies as suggested in *Beyond War* invites further exploration of the (possibly necessary) contribution of independent women to social stability.

It’s regrettable that the publisher didn’t provide a better index. After unsuccessfully looking for *bonobos*, *egalitarian*, *Fry*, *gender equality*, *women*, and *Ax Fight*, I gave up on the index. The omission of egalitarian was particularly noticeable because NHGs are described at least 15 times as being egalitarian. There is also no bibliography: instead, references are lumped under chapter notes, making them difficult to find.

Beyond War is a highly rewarding read and an outstanding contribution to the literature on human behavior and war.

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Judith L. Hand is a published novelist under her name and the nom de plume Judith Leon and the creator of a website on the subject of war (www.AFutureWithoutWar.org). She completed her Ph.D. degree in Animal Behavior at the University of California, Los Angeles, in 1979, her subfields being ornithology and primatology. After completing a Smithsonian post-doctoral Fellowship in Washington, D.C., she taught briefly at UCLA and published on communication and conflict resolution. Currently, in addition to writing fiction, she writes, speaks, and networks to promote understanding of why and how we can end war.

The Science of Good and Evil: Why People Cheat, Gossip, Care, Share, and Follow the Golden Rule

By **Michael Shermer**

Henry Holt, 2004, 349 pp. ISBN 0-8050-7769-3 [Pbk, US\$16.00]

Reviewed by **Daniel J. Kruger**

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Michael Shermer is a psychologist, science historian and, most notably, the Editor of *Skeptic* magazine. Shermer presents *The Science of Good and Evil* as the third volume in his trilogy on belief. This book is directed at a generally literate audience, though it may be of particular interest to ethologists because Shermer describes how human morality is grounded in our evolutionary heritage and uses a great number of examples from researchers in the evolutionary community. He also attempts to create ethical guidelines informed by research and reason.

The book has two general sections divided into eight chapters, with a prologue and two appendices. The first section of the book is descriptive of human morality and immorality, the second focuses on Shermer's proposed system of provisional ethics. Chapter 1 proposes a solution to the Transcendentalist-Empiricist debate on whether moral principles exist outside of, or a product of the human mind. Shermer explains that moral sentiments were created in our Paleolithic ancestors by evolution, but we interpret them in the framework of our cultural and historical context. The second chapter explains that psychological states such as righteousness, pride, guilt, and shame evolved to coincide

with behaviors that were good (righteousness and pride) or bad (guilt and shame) for the individual or the group. Shermer believes that social-group level selection played a role in shaping human psychology, complementing individual level selection.

In his third chapter, Shermer presents his "bio-cultural evolutionary pyramid" model, which depicts the evolution of moral sentiments in terms of levels of consideration ranging from the individual to the biosphere and the needs and concerns at each level. Shermer's pyramid combines Maslow's need hierarchy with Peter Singer's expanding circle of ethical sentiments, and proposes that strength of ethical sentiment (how far beyond the individual it extends) is inversely related to the degree to which it is under evolutionary control. Shermer describes research and events indicating that humans are moral and immoral, good and evil, altruistic and selfish, cooperative and competitive (etc.), and explains that there will be variation within individuals as well as within and between groups. During the socio-cultural shift to larger forms of social organization, moral principles were codified as a form of social control to ensure the survival of individuals and the groups themselves. Shermer proposes that religious systems were the first social entity to codify the moral principles inherent in human psychology. The fourth chapter discusses free will and determinism. Shermer concludes that we may act as if we are free, because we cannot possibly comprehend the multiplicity of complex causes in its entirety, even in our determined universe.

The second section of the book entails Shermer's "science of provisional ethics" (p. 139). Shermer starts with answering in the affirmative to the question "can we be good without god(s)?" in Chapter 5. He builds the framework for his system of ethics, starting with the belief that moral principles should be provisional rather than absolute. Individual moral principles apply to most people in most

cultures in most circumstances most of the time. Shermer details his ethical framework in the sixth chapter, which he describes as one guideline and three principles: *Ask first* – to find out whether an action is right or wrong, first ask the recipient of the action; *Happiness principle* – it is a higher moral principle to seek always seek happiness with someone else's happiness in mind, and never seek happiness when it leads to someone else's unhappiness; *Liberty principle* – it is a higher moral principle to always seek liberty with someone else's liberty in mind, and never seek liberty when it leads to someone else's loss of liberty; and *Moderation principle* – when innocent people die, extremism in the defense of anything is no virtue, and moderation in the protection of everything is no vice. Shermer does not explain why numbers are assigned to the first three principles, but not to the moderation principle.

In the seventh chapter, Shermer proposes that science, fuzzy logic, and provisional ethics can help us solve moral problems or at least inform our moral decisions. Shermer puts his system to the test with five examples: lying, pornography, abortion, cloning and genetic engineering, and animal rights. Rather than dichotomize into moral vs. immoral, Shermer's fuzzy logic assigns values ranging from .1 to .9, e.g., .1 or .2 for a little white lie, .7 to .9 for "big lies" (p. 191). The concluding chapter discusses trends in human evolution, such as increasing paedomorphism (which he considers parallel to changes in domesticated animals artificially selected for friendliness and docility) and increasing between-group competition, which presumably made within-group cooperation more important. Shermer presents relevant findings from neuroscience, indicating that oxytocin is associated with cooperative and helping behaviors, and that arginine vasopressin is associated with aggression. The final section in this chapter provides a succinct summary of the book.

This book provides a broad survey of many topics, rather than a systematic review of the scientific literature in any one area of human behavior. An encyclopedia would be necessary for a complete review of all the issues at hand. Throughout the book, Shermer cites the work of many who have researched human behavior; those using an evolutionary perspective are well represented. Shermer discusses many historical and contemporary events – including the obligatory discussion of Hitler and the Nazis, and the school shootings at Columbine – as well as personalities such as Laura Schlessinger and John Hinckley Jr.

As one might expect from the founder of the Skeptics Society and *Skeptic* magazine, Shermer frequently discusses religion and religious issues throughout the work. Shermer defines his own position of agnostic non-theism and reviews his own history of religious belief and non-belief. He documents the strong and pervasive prejudice against atheists, as well as evidence against the fallacious belief that atheists are less moral than believers. If anything, religiosity appears to be inversely related to all those things which are right and good, based on the data that Shermer reviews.

Shermer does not take up much space with detailed definitions of what is good or evil, as he believes that the concepts of good and evil are constructed from our evolutionary heritage and cultural upbringing. All of Shermer's principles constrain behaviors that ought not to be pursued, but Shermer never suggests what ends ought to be pursued. Shermer's fuzzy logic would have us assign continuous values to morality. Of course; the devil is in the details. The values assigned will be subjective across individuals and cultures, and this may not advance the debate in many controversial areas. For example, it is unlikely that those actively involved in the anti-abortion movement would even consider rating humanness on a continuous scale.

Ethologists in particular will take note of Shermer's positions on hotly debated evolutionary topics. As noted, Shermer accepts group selection as a secondary selection force and believes that the (recent) integration of multilevel selection into evolutionary theory signals a higher stage of theoretical advancement. Shermer frequently expresses his fondness for Steven Jay Gould and is nearly an apologist for Gould and Lewontin's attack on E.O. Wilson following the publication of *Sociobiology*. Shermer explains that the reason why Gould and Lewontin didn't just walk down a flight of stairs and express their concerns directly was because in order to get their views into the marketplace of ideas, they needed to do it publicly. Thus, their scathing review appeared in the *New York Review of Books*. Shermer does not explicitly endorse this course of action; however, he also fails to note that it violated each of his own principles of provisional morality, including a general interpretation of the principle of moderation. Shermer reveals Gould and Lewontin's strategy to use extreme claims as a wedge to get attention for their ideas on hyperadaptationsim. It is notable that in his framework of judging the morality of actions, Shermer does not consider the actual consequences of actions. Today, few among the general public would know a spandrel from a spaniel. Yet proposals for evolutionary explanations of human behavior trigger associations with genocide and eugenics. Gould and Lewontin bear partial responsibility for these unfortunate and inaccurate associations.

Overall, this work is thought provoking and worth recommending as armchair reading, especially for those with an emerging interest in the evolutionary framework for understanding human behavior. Ethologists, psychologists and ethicists will quibble with some of Shermer's details and conclusions. For example, Shermer claims that there is no evidence for the harmfulness of second hand tobacco smoke, or for a connection between

watching television violence and human aggression. Shermer makes an abundance of points and claims that deserve further consideration, the thorough discussion of which may be found in works with a more narrow focus. Shermer's many points, claims, anecdotes, and facts provide a rich, if somewhat meandering, tour of the range of human behavior.

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From Monkey Brain to Human Brain: A Fyssen Foundation Symposium

Edited by **Stanislas Dehaene, Jean-Rene Duhamel, Marc D. Hauser** and **Giacomo Rizzolatti**

MIT Press, Cambridge, MA, 2005, xvii + 400 pp, ISBN 0-262-04223-1 [Hdbk, \$55.00].

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Understanding the inner workings of the human brain and their relation to behavior is one of the most formidable challenges that science has faced since its inception. The multifaceted character of the phenomena involved and the level of complexity of the questions asked are clearly reflected in the rapid expansion of the field of neuroscience, which is also becoming increasingly multidisciplinary in its makeup. Naturally, this has led to the problem of integrating knowledge generated by a variety of lines of research that often differ considerably in their approach to the subject. It is in this domain that *From Monkey Brain to Human Brain* finds its niche. As hinted by the title, the overall aim of this book is to provide an overview of current knowledge of cortical organization and function in human and non-human primates (mostly monkey species) that may help to shed some light onto the evolution of the human brain.

This book is a report of a symposium organized by the Fyssen Foundation in June of 2003 in St-Germain-en-Laye in France. The volume is organized into five sections. Section I, titled "Human Brain Evolution: New Methods and Results," describes different types of studies and methodologies employed in exploring patterns of similarity and difference between the neural organization of the monkey and human brain. Van Essen illustrates Magnetic-Resonance-Imaging (MRI) methodologies to create atlases of the human and rhesus monkey cerebral cortex, and surface-based interspecies registration procedures for assessing the possible homology of particular cortical areas. Kourtzy and Logothetis describe an integrated use of neurophysiological and MRI methodologies as a way to bridge the gap between our knowledge of the response properties of individual neurons, as opposed to those of ensembles of neurons, in the primate brain. Zilles describes his comparative work on cortical folding across several primate species

(indicating increased prefrontal folding in humans), and on the similarities and differences in transmitter receptors patterns in the human and macaque neocortex (locating the greater difference in posterior-parietal regions). Hublin offers a comprehensive review of paleoanthropological studies of brain evolution, and Changeux discusses how genetic and epigenetic processes may be related to changes in primate cortical architecture.

Section II, titled "Putative Prerogatives of the Human Brain and Their Evolutionary Precursors", focuses on cognitive functions that have been historically considered as peculiar to the human species (e.g., arithmetic, reading, cooperation and altruism) but for which precursors in non-human primates (and other animals) have begun to be identified. In this line, Brannon reviews comparative studies on quantitative abilities in monkeys and humans. Similarly, Nieder and Miller discuss their neurophysiological work on numerical cognition in macaques suggesting the presence of single neurons attuned to approximate numerosity in prefrontal and posterior-parietal cortices. In related work, Dehane reviews research indicating that the areas of the parietal lobe in monkeys may be homologous to parietal areas in the human brain known to be involved in numerical processing, and suggests that arithmetic abilities in humans emerged by "neuronal recycling" of these pre-existing cortical circuits. Stevens and Hauser provide a critical analysis of studies on the evolution of altruism and casts doubt on the concept that true altruistic cooperation can be found in non-human species because of constraints on cognitive processes (particularly lack of inhibitory control). Lorincz and colleagues present their ingenious single-cell-recording and eye-gaze work in macaques to assess possible presence of non-human primate antecedents of "theory of mind."

The third section, titled "Space, Action and Attention: The Multiple Functions of

Parietofrontal Circuits," focuses on the organization and functional implications of parietal and frontal areas (and their connections) in monkeys and humans. Rizzolatti and Buccino describe the networks of neurons known as the "mirror neuron system" that underlie the capacity to match observed actions (or even speech sounds in humans) onto their motor representations and discuss their possible role in the evolution of language. Luppino provides a review of the anatomical and functional organization of the posterior parietal cortex in the macaque brain and finds consistent evidence of homology with the human brain. Iriki describes the work of his group on tool-use learning in macaques that shows that training in these primates (which rarely use tools in the wild) induces a reorganization of parietal neural circuitry which may offer insight onto the evolution of tool-using abilities in primates. Wardak and colleagues review electrophysiological and brain imaging studies in monkeys and humans which show evidence of homology in parietal areas involved in attentional processing.

In the fourth section, titled "Cognitive Control and the Frontal and Cingulate Cortices," Petrides presents evidence in humans and monkeys of functional differentiation of different areas of the lateral frontal cortex along the anterior-posterior axis and discusses the implication of these areas in higher order control processing. Amiez and colleagues review the neuroanatomical and functional characteristics of the anterior cingulate cortex, again showing evidence of similarities between human and nonhuman primate brains.

The chapter by McKone and Kanwisher begins the final section of the book (titled "Visual Representations and the Temporal Lobe") by discussing competing interpretations of the nature of the cognitive processes involved in face recognition. These processes involve ventral regions of the temporal lobe in both humans and monkeys, although it is still

unclear if such regions are true homologs. Finally, Tanifuji and colleagues describe their work on networks of neurons in the macaque inferotemporal cortex that appear to underlie the representation of complex visual objects.

Overall, the book succeeds in its stated goal of providing a “comparative perspective on primate cortical organization and function” (p.xiii). The chapters are, in general, dense but clearly written. As may be expected with a collection of contributions from a number of different authors, there is considerable variability in the breadth and scope across the volume. Some authors focus on specifics of their own research, whereas others try to provide more of a critical overview of a particular research area. Nonetheless, the individual chapters are, overall, informative and thought-provoking. Certainly, the reader may find herself/himself in disagreement with some of the statements and positions presented in the book. For example, as part of the argument that cortical asymmetries in general would be more pronounced in hominids than non-human primates, Hublin cites work showing that “... although asymmetries are observed in apes, they rarely display the combination of left occipital/ right frontal petalias.” (p. 59). However, this position is clearly at odds with studies that have reported marked similarities between the human and ape brain both in direction and degree of cortical macrostructural asymmetry (Gannon et al., 1998, Pilcher et al., 2001).

Because of the rapid development of new MRI-based methodologies, some of the latest research reports in the area of comparative neuroanatomy are not mentioned in the book (e.g., comparative studies on connectivity using Diffusion Tensor Imaging; see for example Ramnani, 2006). Nevertheless, this book offers a valuable overview of patterns of similarity and differences in the cortical organization and function of the monkey and human brain. In doing so, the book also indicates areas of

research that are crucial for furthering our understanding of the evolution of the human brain yet have so far been unexplored, mostly for technical reasons, but that can be addressed successfully in the near future (e.g., functional imaging studies of the cortical organization of the brains of great ape species).

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Comparative Vertebrate Neuroanatomy: Evolution and Adaptation (2nd ed.)

By **Ann B. Butler** and **William Hodos**

New York: Wiley, 2005, xxi + 715 pp., ISBN 0-471-210054 [Hdbk \$139.95].

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If we heed Tinbergen, we should perhaps study not only the proximate and ultimate causation, ontogeny, and phylogeny of behavior, but also the evolution of the organ of behavior. This textbook describes the vertebrate nervous system and how it evolved. Part 1 discusses evolutionary change, sensory receptors, neurons, the organization of the vertebrate brain, brain size and intelligence, and theories of brain evolution. Part 2 addresses the spinal cord and hindbrain. Part 3 is devoted to the midbrain. Part 4 covers the diencephalon and autonomic nervous system. Part 5 deals with the telencephalon. The conclusion returns to the topic of brain evolution.

I found that many of my ideas about the brain had to be revised. Many terms have changed, and previous beliefs about certain homologies have been altered by recent research. In this review, I shall mention some of the information that I found surprising or otherwise informative.

Some Functional Speculations

The authors attempt to explain how various brain and other structures evolved, both in terms of structural changes and, sometimes, in terms of the selection pressures causing these changes. For example, the tongue evolved in

tetrapods to guide food toward the pharynx in the absence of a water current, and the salivary glands begin the process of digestion, again in the absence of water. In some tetrapods the tongue became modified for tasting, prey capture, or grooming.

Similarly, the authors argue that the cerebellum evolved in the predatory cyclostomes such as the lamprey but not in parasitic cyclostomes such as the hagfish, supposedly to allow predators such as the lamprey to keep their eyes fixed on prey while their bodies gyrate in pursuit. The cerebellum became elaborated in mammals, with their highly flexible movements. I would like to have seen more of such functional explanations, e.g., of why the corpus callosum evolved in some mammals, but perhaps the authors were wise to avoid dubious speculations.

Striedter (2005) is a little bolder, speculating, for example, that primates evolved a third cone type, for distinguishing red from green, in order to see ripe fruit, which is often red, and young leaves, which are often red in Africa. Striedter also states that primates evolved nine or more premotor areas, as opposed to four or fewer in other mammals, because arboreal locomotion requires highly flexible movements. And he reports that only primates possess three prefrontal cortical areas, the novel one being neocortical (dorsolateral) for rational decision-making in these highly social species. Other mammals have only two prefrontal areas, the limbic orbitofrontal cortex and anterior cingulate cortex, for emotional responding. More of these functional explanations would have been welcome in the Butler and Hodos book.

Developmental Mechanisms

This second edition of *Comparative Vertebrate Neuroanatomy* includes information on the similarities in gene expression across all bilaterally symmetrical animals, from fruit flies

to mice. These homeobox genes lay down the basic structure of the body, including the brain. For example, Hox genes are expressed mainly in the mouse hindbrain and in the homologous subesophageal ganglion of insects. Likewise, there is great conservation of the basic design of the vertebrate neurotransmitters, and hormones.

The conservativeness of the vertebrate brain is remarkable. On the evolutionary line to vertebrates, the urochordates (tunicates such as the sea squirt) have a forebrain, midbrain and hindbrain. Further on, the cephalochordates (lancelets) have a hypothalamus in the diencephalon. The vertebrates all have a five-segment brain. The vertebrate telencephalon has a hippocampus, a dorsal pallium, an olfactory cortex, an amygdala, a corpus striatum, and a septum. Following the much-maligned biogenetic law, the early existence of these telencephalic structures is evidenced embryologically by the structure of the anterior end of the neural tube, around which the primordia of these structures are arranged in the order given, with the hippocampus located dorsally and the septum ventrally.

The vertebrate dorsal pallium becomes the six-layered neocortex in mammals and the homologous avian Wulst (dorsal cortex in reptiles) and dorsoventricular ridge (in birds and reptiles). A large Wulst, previously thought to be homologous to the mammalian corpus striatum, allows certain birds, especially corvids (crow family), to exhibit many higher cognitive abilities previously thought to be confined to mammals. These include reversal learning, transitive inference, episodic memory, counting, complex category formation, tool use, and deception. The neocortex and Wulst differ in the form of their neurons, but are remarkably similar in their neural connections. Thus the neocortex is not unique to mammals, but its six-layered form is unique. Even the dorsal pallia of some ray-finned fish have somatotopic maps

(“fishunculi”) of the body for localized motoric and somatosensory functions.

This brings us to MacLean’s triune brain theory. This theory, along with the work of Papez, was important in highlighting the central role of the limbic system and emotion. MacLean concluded that reptiles evolved the basal ganglia, early mammals the limbic system, and later mammals the dorsal thalamus and neocortex. Butler and Hodos challenge MacLean’s theory, partly on grounds that, they claim, mammals evolved from amphibians, and birds and reptiles from mammals. Thus, the reptilian brain would not have been a precursor of the mammalian one. They support this evolutionary sequence by citing data (Carroll, 1988; Evans 2000) on the form of the vertebrate skull. Early amniotes had no temporal opening, stem synapsids (early mammals) had one, and stem diapsids (early reptiles) had two. But this one feature seems a weak basis for constructing the evolutionary line, and other sources (e.g., Ridley, 2004) adopt the traditional amphibian-reptile-birds and mammals sequence. Butler and Hodos are on more solid ground in questioning MacLean when they note that all vertebrates, even fish, possess basal ganglia and a limbic system with amygdala, hippocampus, olfactory cortex, thalamus, hypothalamus, and septum, as mentioned above. MacLean also underestimated the complexity of the social behaviors of some birds and ray-finned fish.

Butler and Hodos also describe current knowledge of how brains develop structurally. Neurons *proliferate* around the lumen of the neural tube and then most *migrate* radially, toward the surface. Later migrants pass earlier ones, so the outermost layer of the neocortex is the last to be formed. This demonstrates the evolutionary principle of accretion: later structures are built upon earlier ones, like bricks in a wall.

Once in place, neuronal cell bodies grow their axons and dendrites and otherwise *differentiate*.

Neural *connections* are established by the attraction of these processes to chemical neurotrophins released by target neurons, muscle cells, and sensory receptors. Those neurons that fail to establish or exercise these connections die off (*apoptosis*).

The nervous system takes shape as follows. Sensory neurons are generally dorsal, and motor ones ventral, as in the spinal cord. The neural crest cells are pinched off internally from the neural tube and form the neurons of the peripheral nervous system and some other structures. Cells lateral to those cells in the head end of the neural tube are pinched off externally and line up along the outer surface of the tube to form the neurogenic placodes, which give rise to the paired cranial nerves for hearing, vestibular sensation, olfaction, and taste.

Brain Evolution

Given these basic developmental processes, one can see some of the ways in which evolutionary changes can occur in the brain. Certain neurons *proliferate* more, or less, than their ancestors' did. For example, enlargement of the forebrain occurred in various lineages of vertebrates, and the prefrontal cortex enlarged in primates—and the echidna (spiny anteater). The visual cortex shrank in hominins, which had less need for stereoscopic vision than arboreal primates. Thus, brain structures sometimes become less complex as a species evolves, just as the three-chambered heart of some reptiles evolved from a four-chambered version.

Other mechanisms of evolutionary change would likewise require only a few genetic mutations: Some neurons coalesce into nuclei (*parcellation*) so they can be functionally grouped. Other neurons are arranged in layers (*lamination*), which allows rapid communication between corresponding structures on different layers (Striedter, 2005). Changes in *neurotrophins* can cause different

connections to be established. Thus, as one brain region grew, its neurotrophins might induce changes in other regions with which it was connected, resulting in a cascade of evolutionary changes and high degrees of connectedness and modularity (Striedter, 2005). Evolutionary change is also thought to result frequently from *heterochrony*—changes in developmental timing and duration orchestrated by mutations of regulatory genes—thus causing violations of the biogenetic law.

Butler and Hodos might have also mentioned the concept of *terminal addition*: the principle that evolutionary change, being conservative, tends to involve late-developing structures whose modification can usually be tolerated by the organism. This principle underlies the biogenetic law, one exception to which is the turtle's carapace, which begins to develop early in fetal life.

Another principle, developed by Striedter, is that, as brains enlarge, they save space by the use of "superhighways" that consolidate the input of multiple neurons for transmission to distant structures. Striedter also noted that design constraints can interact with functional advantages. For example, the convolutions of the brain are thought to have evolved to increase cortical surface within the space-limiting skull, but at the same time convolutions bring cortical neurons closer, especially those on opposite sides of a gyrus.

New brain structures probably often form by the evolutionary duplication of some gene complex that induces a particular structure to develop. For example, the hindbrain (rhombencephalon) is built up embryologically from a string of rhombomeres, each of which is induced by a similar set of genes. The same may be true of the forebrain and hindbrain (Striedter, 2005). Similarly, the segmental arrangement of the vertebral segments (vertebra, ribs, spinal nerves, and intercostal muscles comprising each segment) presumably

evolved by multiplication of the gene complex for the single original segment (Allman, 1999). In fact, these gene complexes for a series of segments are sometimes found to be lined up in order on the same chromosome. This mechanism of segmentation allowed for the evolution of larger structures through a minimum of mutations.

Once multiple segments of a body part have evolved, they can be differentiated for specific functions. Thus, the human cervical vertebrae are specialized for flexibility, while the lumbar vertebrae are stouter and less flexible because they have to support the trunk. Predictably, errors in segmentation and differentiation sometimes occur, such as cervical ribs and extra digits. In the brain, segmentation and differentiation are exemplified by the many visual areas, each of which processes a somewhat different form of visual information from the retina, such as color, shape, and movement. Each visual area is arranged retinotopically, showing their common origin. Old World monkeys possess as many as 36 such visual maps.

Incidentally, it is now believed that only the primary visual area (V1) receives its retinal input directly from the lateral geniculate nucleus of the thalamus. The other visual areas receive their input mainly from the pulvinar of the thalamus via the superior colliculus of the midbrain. Likewise, the primary somatosensory area receives its input directly from the thalamus, and the secondary somatosensory areas receive their input from the thalamus via the midbrain. Thus, the midbrain is multisensory, and it groups information from different senses derived from the same place around the organism.

I was struck by the extent of plasticity of which the evolving and developing brain is capable. In male birds the volume of the medial preoptic nucleus changes with seasonal fluctuations in androgen level. I had thought that subcortical

structures would not change notably in size after maturity. London taxi drivers have large hippocampi, but perhaps because of pre-selection (Maguire et al., 2000). Another example of brain plasticity is that the visual areas expanded to such an extent in diurnal primates that 75% of the neocortex responds to visual stimuli. By contrast, in the blind mole rat, neurons from the auditory system invade the idle visual cortex to convert its function to auditory processing. Similarly, congenitally blind people recruit visual cortex for somatosensation utilized in reading Braille.

Conclusion

The illustrations in the book are excellent. For example, they show that the corpus striatum has two major circuits. The direct loop facilitates movement, and the indirect loop inhibits it. When these two circuits are in balance, the animal can initiate voluntary movements or remain at rest. Damage to various striatal structures can result in athetoid (writhing), tremorous, or flinging movements, or in parkinsonian difficulty in initiating movements. The striatum also interacts with the limbic system, and is well developed in mammals with their great flexibility of movement.

The book is well organized and offers an appropriate amount of repetition as new topics are introduced. The writing is very clear. However, many spelling errors were not caught by the authors or editors. They seem to have relied on a computer program's "Spell-check," since many mistakes involve homonyms, e.g., lead, principle, mucous, overlie, and affect. A far more serious error occurs on p. 445: "Individual survival behaviors include ...obtaining...food, water.... Species-survival behaviors include courtship, defense of territory, mate selection, and parental care...."

I recommend this book to those who have some background in neuroscience and who wish to

gain a better feel for the evolution of the vertebrate brain and hence of vertebrate behavior, and for the degree of specialization of particular brain structures. The question of the degree of modularity of the brain is not a simple one, and can only be answered with respect to particular functions. Also, one person's module may be another's domain-general mechanism.

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Filler, A., & Pilbeam, D. *The Upright Ape: A New Origin of the Species*. New Page Books, 2007, 288 pp. ISBN: 1564149331 (see www.uprightgate.net)

Hausfater, S., & Hrdy, S. Infanticide: Comparative and Evolutionary Perspectives. Aldine Transaction, 2008, 657 pp. ISBN: 0202362213

Hauser, M. Moral Minds: The Nature of Right and Wrong. Harper Perennial, 2007, 528 pp. ISBN: 006078072X

Linden, D. J. The Accidental Mind: How Brain Evolution Has Given Us Love, Memory, Dreams, and God. Belknap Press, 2007, 288 pp. ISBN: 0674024788

Marcus, G. Kluge: The Haphazard Construction of the Human Mind. Houghton Mifflin Co, 2008, 224 pp. ISBN: 0618879641

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Maria Emilia Yamamoto - Universidade Federal do Rio Grande do Norte

XIX Biennial Congress of the International Society for Human Ethology (ISHE08)

July 13 - 17, 2008 University of Bologna, Italy

Conference Overview

The 2008 biennial ISHE Congress (ISHE08) will be held at the University of Bologna, one of the largest universities in Italy. The program will feature four invited speakers (see below), poster presentations, a symposium on the Biology of Religious Behavior, and other talks. Special events will include a banquet dinner, a reception, and a free guided tour of Bologna. The Conference also will be the occasion to celebrate the 80th birthday of the founder of human ethology: Irenaeus Eibl-Eibesfeldt. ISHE08 will start on Sunday, July 13th at 5 p.m. with a tribute to the founding fathers of Human Ethology, and will end at 7 p.m. of Thursday the 17th. Additional information can be found below, in the previous two issues of the *Human Ethology Bulletin*, and on the conference website: www.ishe08.org.

Some Updates:

- The conference banquet is scheduled **Wednesday** evening.
- The detailed conference program is available at: <http://www.ishe08.org/programme.php>
- Students who are first author of an accepted paper need to register online selecting the options "Student first author of an accepted paper" and "Not now" for the banquet.

For the latest announcements, and to register for the conference, please check the ISHE08 website.

Poster Awards [NEW for 2008]

Beginning with ISHE08, ISHE will provide awards of US\$500 to the first author of each of the 3 best posters. Some funds for travel to the 2010 biennial ISHE congress will also be provided to winners who successfully submit a presentation to the 2010 conference. No special application is needed; all posters accepted and presented at ISHE08 will be eligible.

Keynote Addresses

[The previously announced keynote address by Ernst Fehr has been cancelled and replaced with a presentation by Claudio Cantalupo.]

***Brain Asymmetry in Chimpanzees (*Pan troglodytes*):
An overview of MRI and behavioral evidence***

Claudio Cantalupo – Assistant Professor of Psychology at Clemson University (SC, USA). He is also affiliated with the Yerkes National Primate Research center of Emory University in Atlanta.

***“Motor Cognition and its Role in the Phylogeny and Ontogeny
of Intentional Understanding”***

Vittorio Gallese - professor of human physiology at the University of Parma (Italy).

“The Evolution of Morality: What is conscience good for?”

Eckart Voland - professor of "Philosophy of Biology" at the Centre for Philosophy and Foundations of Science, University of Giessen (Germany).

“The Production of Rambos: Parent-offspring conflict and male hierarchies in New Guinea”

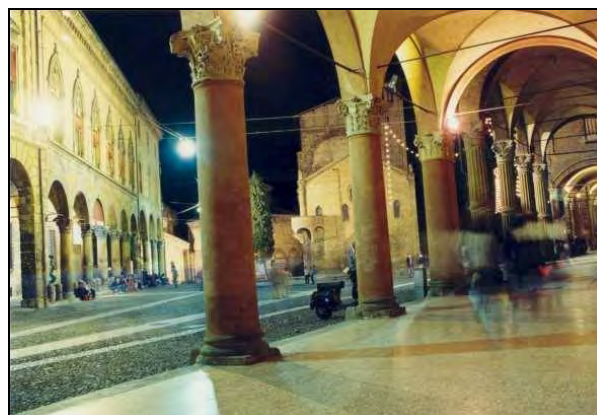
Polly Wiessner - Professor of Anthropology at the University of Utah (USA).

Transportation

Bologna Airport (www.bologna-airport.it) has public bus transportation connecting the airport with the city center and railway station. **Forlì Airport** (www.forliairport.com) is situated about 80 kilometers east of Bologna and hosts mainly low budget flights. Forlì is connected to Bologna by train (about 1 hour).

The **railway station** is about 20 minutes by foot from the Conference venue. Bologna has very good **rail connections**: e.g., you can reach Florence in 1 hour, Venice in 2 hours, and Rome in about 3 hours.

The historical center of Bologna which has narrow and irregular streets. You are allowed to enter the historical center of Bologna with your own **car** only if you have an accommodation in a center hotel. In this case you have to give your car registration number to the hotel reception.



University of Bologna

Bologna / Conference Lodging

ISHE08 will take place in the historical center of Bologna, with the main attractions of the city within walking distance.

For information on Bologna tourist attractions visit: <http://iat.comune.bologna.it/iat/iat.nsf>

For a virtual tour of Bologna, visit:

<http://www.comune.bologna.it/girabologna/>

You can find a complete list of available **hotels, bed and breakfasts, hostels, and camp sites** at: www.ishe08.org/accommodation.html where you can also find a detailed map.

For **more information**, visit the ISHE08 website, www.ishe08.org or contact the local organizers at info@ishe08.org.

ISHE08 Program Committee

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See you in Bologna!



Central Bologna

Bologna Fast Facts

- Region: Emilia-Romagna
- Population: 390,000
- Currency: Euro (EUR)
- Time zone: GMT + 1 hour
- Country phone code: +39
- Telephone area code: 051
- Religion: mainly Catholic



University of Bologna

PLEASE REGISTER ONLINE AT WWW.ISHE08.ORG
 USE THIS FORM ONLY IF YOU HAVE NOT ACCESS TO AN INTERNET CONNECTION

Registration Form

XIX Biennial Conference of the International Society for Human Ethology

Bologna, Italy -- July 13 to 17, 2008

Name (last, first)

Organization:

Postal address:

E-mail:

Send the completed form by fax to:

Dr. Marco Costa
 Department of Psychology
 University of Bologna
 Fax number ++39 051 243086

PLEASE CHECK THE ITEMS FOR WHICH YOU MAKE PAYMENT

Registration fees (after April 30, 2008):

[The registration fee includes all conference presentations, welcome buffet, abstract book, free guided tour of Bologna, all coffee breaks.]

- Member** 230 Euro
- Non-member** 280 Euro (includes 1-yr. membership)
- Student/Retiree** 130 Euro

ISHE Banquet (including dinner)

- 40 Euro

Payment by bank transfer

Bank: UniCredit Banca Italy
 IBAN Code: IT16J020080248000010932397
 Swift Code: UNCRIT2BOM0
 Registered to: XIX CONF. INT. SOC. HUMAN ETHOLOGY

Treasurer's Report

2007 FINANCIAL SUMMARY

US ACCOUNT

INCOME

INCOME FROM MEMBERSHIPS	\$1,460.00
TIAA-CREF FUND TRANSFER	\$74,000.00
TOTAL	\$75,460.00

EXPENSES

BANK CHARGES	\$1,471.91
PRINTING/POSTAGE	\$6,420.82
EDITOR'S COMPENSATION	\$5,000.00
BOT/OFF EXPENSES	\$15,207.00

TREASURER'S EXPENSES	\$800.00
Andechs Summer School	\$20,000.00
OWEN ALDIS AWARDS	\$29,400.00
TOTAL	\$46,639.79

PAYPAL ACCOUNT

<u>INCOME</u> [Memberships]	\$1188.00
<u>EXPENSES</u>	
BANK CHARGES	\$57.47
BALANCE [December 31, 2007]	\$4,403.77

ANNOUNCEMENTS

Human Ethology Listserv

It has now been over one year since the International Society for Human Ethology established a listserv to facilitate communication among persons interested in human ethology and to attract new people to the field. This listserv is intended to promote discussion, information distribution, criticism, and analysis of human ethology research. Any interested person may participate. The language is English. The listserv moderator is Jay R. Feierman.

The listserv can be accessed by daily e-mails, a digest or summary folder sent once a day with all the e-mails of the past 24 hours, or through the web page of the group. Members are encouraged to submit drafts of manuscripts, etc. for comments, as well as published articles in PDF or other suitable formats, for circulation. Listserv members and not the list owner or moderator are responsible for not posting copyrighted material on the listserv without authorization from the copyright holder.

To join go to <http://tech.groups.yahoo.com/group/human-ethology/>

ISHE members seeking graduate students or postdoc's are invited to submit material to inform and attract potential applicants for inclusion on the ISHE web site. Research interests, recent publications, etc. may be included, along with links to the person's department and personal or lab web pages. Such material can be sent to the ISHE Webmaster, Karl Grammer (see back cover).

The **National Evolutionary Synthesis Center (NESCent)** is now accepting proposals for sabbatical scholars, working groups and catalysis meetings. Proposals for postdoctoral fellowships are accepted at the December 1 deadline only. Proposals for sabbatical scholars (one semester to a full year), working groups and catalysis meetings are accepted twice a year, with June 15 and December 1 deadlines. Proposals for short-term visitors (2 weeks to 3 months) are considered four times a year, with deadlines on January 1, April 1, July 1 and September 1. For more information, please see our website at <https://www.nescent.org/science/proposals.php>.

www.ISHE.org

As noted last issue, most old issues of *ISHE Newsletters* and *Bulletins* have been removed from the ISHE website upon detection of a variety of problems, including miss ordered and missing pages. These issues are being gradually replaced by the output of a new archiving process that produces better rendered and **searchable** issues. Many of these are already available and listed at:

<http://evolution.anthro.univie.ac.at/ishe/about%20us/bulletin%20contents/index.html>

ISHE plans to post improved and searchable versions of all available older issues during 2008.

ISHE Information Officer, **Hiram Caton**, has resigned from this office. This position will remain vacant while the ISHE officers consider whether it is best to redefine or eliminate this position.

The ISHE Board of Officers has voted to provide 10% of the funds needed (2616 euros) in support of a **Siberian summer school on human ethology** to be held in Novosibirsk, Russia, 9-17 September 2008. The chief organizer is ISHE member Zhanna Reznikova, head of the Department of Comparative Psychology, Novosibirsk State University, and head of the Laboratory of Community Ethology, Institute for Animal Systematics and Ecology, Siberian Branch, Russian Academy of Sciences.

ISHE will consider other proposals for partial funding of such human ethology educational projects. However, these are not meant to substitute for our policy of organizing **ISHE summer schools** in alternate years with locations alternating between Europe and North America. The next of these is tentatively scheduled for North America in 2009.

Electronic Subscriptions

Would you like to receive the *Bulletin* sooner? ... up to 4 weeks sooner! Wish you had an electronic version to allow easier searching of the *Bulletin's* contents and easier filing of back issues? Want to see full color, higher resolution photographs in the *Bulletin*? ... You can make your wish come true by requesting an electronic (PDF) version. Switching to an electronic version will get you the *Bulletin* faster and with full color photographs and working URLs. You can also feel good about this choice because an electronic subscription reduces the environmental impact of the *Bulletin* and saves ISHE the funds required for printing and mailing.

To request an electronic copy in place of the printed version, members should simply send their full name and e-mail address to the Membership Chair (see back cover). The default for new and renewed *Bulletin* subscriptions is now an electronic subscription. Members who pay dues will continue to be able to receive the printed version by requesting it at the time of renewal. Most members now receiving the *Bulletin* in printed form will continue to do so until they renew or request otherwise.

A new MIT Press journal, *Evolutionary Applications*, welcomes papers about evolution and medicine. The editors welcome queries about possible contributions. Articles in the first volume are available for free download. More information is available on the [Evolution and Medicine Network](#).

Praeger (Greenwood Publishing Group) will publish *The Biology of Religious Behavior*, edited by Jay R. Feerman. The book is the outgrowth of the symposium of the same name that will occur at The University of Bologna in conjunction with the biennial meeting of ISHE in July of 2008. The symposium in Bologna will contain 12 of the 14 the papers that make up the 14 chapters in the book. Both the book and the symposium from which it derives are organized around Niko Tinbergen's four ways in which any behavior should be

understood. After an initial section on the descriptions of religious behaviors, the next four sections will address religious behaviors' phylogeny, ontogeny, proximate causes, and if religious behaviors have adaptiveness. The expected publication date is late 2009.

Human Nature is now published by Springer, the international academic and profession publishing house. Springer offers a discounted subscription for 2008 to ISHE members. You can phone Springer at 1-800-SPRINGER, e-mail service-ny@springer.com, or go to the website [www.springer.com] to place a subscription order. Please identify yourself as an ISHE member. It is best to phone or email Springer to identify your affiliation with ISHE.

Upcoming Conferences

20th Annual Meeting of the Human Behavior and Evolution Society

4-8 June 2008 – Kyoto University,
Yoshida Campus in Kyoto, Japan
<http://beep.c.u-tokyo.ac.jp/~hbes2008/index.htm>

2nd International Congress on Interpersonal Acceptance and Rejection

3-6 July 2008 – island of Crete, Greece
www.isipar08.org

Biennial Congress of the International Society for Human Ethology (ISHE08)

13-17 July 2008 – University of Bologna, Italy
www.ISHE08.org

4th European Conference on Behavioural Biology (ECBB 2008)

18-20 July 2008 – Dijon, France
www.u-bourgogne.fr/ECBB2008/

American Psychological Association (APA)

14-17 August 2008 – Boston, MA, USA.

Evolution: The Experience

February 8-13, 2009 – Melbourne, Australia
<http://www.evolution09.com.au/>

Darwin's Reach: Celebrating Darwin's Legacy Across the Disciplines

March 12-14, 2009 – Hofstra University (USA)
http://www.hofstra.edu/Community/culctr/culctr_events_darwin.html

CURRENT LITERATURE

Compiled by Johan van der Dennen

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Forthcoming

Book Reviews

- ***Evolution and the Social Mind*** (Psychology Press, 2007) edited by **J. P. Forgas, M. G. Haselton, & W. von Hippel** – reviewed by Rick O’Gorman
- ***The Omnivore’s Dilemma: A Natural History of Four Meals*** (Penguin Press, 2007) by **Michael Pollan** – reviewed by William F. McKibbin and Todd K. Shackelford
- ***Oxford Handbook of Evolutionary Psychology*** (Oxford Univ. Press, 2007) edited by **R.I.M. Dunbar & Louise Barrett** – reviewed by Glenn Weisfeld
- ***Who’s Afraid of Charles Darwin? Debating Feminism and Evolutionary Theory*** (Rowman & Littlefield Publishers, 2005) by **Griet Vandermassen** – reviewed by Maryanne Fisher
- ***Why Beautiful People Have More Daughters*** (Penguin Press, 2007) by **Alan S. Miller & Satoshi Kanazawa** – reviewed by Daniel P. Howrigan and Farnaz Kaighobadi

Report from Bologna (with photos) on ISHE08

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