

Human Ethology Bulletin

<http://evolution.anthro.univie.ac.at/ishe.html>

VOLUME 16, ISSUE 1

ISSN 0739-2036

MARCH 2001

© 1999 The International Society for Human Ethology



PHOTO BY: ARENDA OOMEN

On War and Peace

An Interview of
Johan van der Dennen
by Peter LaFreniere

Johan van der Dennen was born in Eindhoven, The Netherlands, in 1944 and studied behavioral sciences at the University of Groningen. He is currently a senior researcher in the Political Science section of the Department of Legal Theory, formerly the Peace Research Institute, University of Groningen. He has published

extensively on the topic of human and animal aggression, including intergroup competition in primates and preindustrial, sexual violence, theories of war causation, and ethnocentrism. From 1990 to 2000 he was secretary of the European Sociobiological Society and editor of its newsletter, and he is currently Vice-President and President-Elect of ISHE. In 1995 he published *The Origin of War: The Evolution of a Male-Coalitional Reproductive Strategy*, a two volume work spanning a twenty year period of research.

PL: Johan, let's begin with some background on your early years, your training and the ideas and people that influenced you in your own development. Can you give us some background?

JVDD: I was born in Eindhoven, in the south of the Netherlands. As a youth I never had the aspiration to be a scientist; I wanted to be a writer or an artist. I enjoyed (or suffered?) a classic education (a school type we call, oddly enough, a gymnasium) and then I had the opportunity to study in Groningen but I didn't know what to do with my studies.

PL: What year did you come to Groningen?

JVDD: I came in 1964. It was a very small town and you could just walk into lectures. I did psychology, philosophy, sociology and medicine for a couple of years, and then ethology and biology; just sampling. It took some years before I found my niche and then I had the opportunity to become a student assistant at the Polemological Institute (or 'Peace Research' Institute as it is known in English) of the University of Groningen, during the years of the Vietnam war. Peace research was my major topic. The Institute then was just 10 to 12 people studying the causes of war and the conditions of peace. I was more or less sucked in. I was supposed to study aggression,

Editorial Staff**Editor**

Peter LaFreniere
 362 Little Hall
 Department of Psychology
 University of Maine
 Orono, ME 04469 USA
 tel. 1-207-581-2044
 fax 1-207-581-6128
 e-mail: peterlaf@maine.edu

Current Literature Editor

Johan van der Dennen
 Center for Peace and Conflict Studies
 University of Groningen
 Oude Kijk in 't Jatstraat 5/9
 9712 EA Groningen, The Netherlands
 tel. 31-50-3635649
 fax 31-50-3635635; e-mail:
 J.M.G.van.der.dennen@rechten.rug.nl

Chief Book Review Editor

Thomas R. Alley
 Department of Psychology
 Clemson University
 Brackett Hall
 Clemson, SC 29634-1511, USA
 tel. 1-864-656-4974
 fax 1-864-656-0358
 e-mail: alley@clemson.edu

Associate Book Review Editor

Colleen Schaffner
 1 Mendip Close
 Halewood
 Liverpool L26 1XU
 England
 tel. 44-151-475-0393
 e-mail: marmoset@dialstart.net

violence, war, and things like that, at a very fundamental level involving a review of the basic literature. And the literature at that time was not much more than Frustration-Aggression Theory and some ideas of Bandura on Social Learning and that was about it.

PL: Right, I remember those days myself.

JVDD: But then I came into contact with the biological literature especially Jane Goodall, Richard Wrangham and many others, and that was the decisive turning point in my thinking about aggression and violence. And I had a very good ethology teacher with Gerard Baerends; he is rather famous for the Dutch ethology school. And Jan van Hooff, who was the teacher of Frans de Waal and Otto Adang, and who is also a famous primatologist, and who is also a good friend of mine. And the well-known 'animal psychologist' Adriaan Kortlandt. These were very important people for me I think.

PL: This was the Zeitgeist that was created in late 60's and the early 70's as people began to be interested in formally studying primates and understanding the complexity of their societies and the possibility of aggression and prototypes of war in primates. Now, you've been a member of the European Sociobiological Society for many years, when did you become affiliated with ESS.

JVDD: Yes, I was one of the first. I was at the meeting when ESS was founded. Vincent Falger, Jan Wind and myself were always the core members of ESS.

PL: Jan Wind, I believe, has had a special influence on you?

JVDD: Yes, he was somebody who always encouraged me to write my book on the origin of war and was one of my principal readers. He was also at my promotion, though he was a very sick man at that time and died a couple of months later. He always had a very special influence on me; I regarded him as a kind of tutor. If I had questions I sought him out, and he always called me if he had problems with his Wordperfect program. If I had questions about evolution or was looking for some name I forgot he was always willing to help.

PL: This is a typical relation one sees. I visited Andechs last month and saw this kind of relation between Frank Salter and Irenaus Eibl-Eibesfeldt. Exactly this, so Frank handles the latest technological wizardry but relies on Eibl for the background and the historical and

theoretical knowledge that he has acquired. It is a good relationship. We say mentor in English. Would he be one of your most important mentors then?

JVDD: Yes. In the flesh, but I have many other mentors, but only from books, such as Eibl, whom you just mentioned, one of the founders of human ethology - I met Eibl personally much later.

PL: So the project that led to your 1995 book "Origin of War" began early on. This book had a long incubation period.

JVDD: Yes, about 20 years.

PL: 20 years! That's often the case I think. Now, I understand you're moving forward with new work on the same topic "Evolutionary Perspectives on the Origin of Warfare", and looking at some of the peculiar forms that human aggression can take, including things like ethnic cleansing and genocide. This is a very controversial topic, one which is almost unexplored. You have been teaching a course on it, I understand, and have developed a literature review and are moving forward with a book project. Can you tell us something about that project?

JVDD: Yes, I just started to review the literature on genocide and war atrocities. Originally this was as a kind of service for my students but it has grown beyond this and I'm now trying to integrate it with commentaries from several people to whom I sent the manuscript in order to make it into a book eventually. What I did was try to analyze the mechanisms which enabled people to slaughter each other, for instance dehumanization. That's the central mechanism, and all the other steps, some 20 to 30 psychological mechanisms which make it possible. The central concept is dehumanization and why we are able to dehumanize, and why chimps are able to "dechimpize" each other and so on. In the last chapter of the book I discuss the evolutionary backgrounds of in-group/out-group phenomena and ethnocentrism and groupism in general and review the social-psychological literature on small group research and also try to give a review on the literature on in-group/out-group behavior in primates and animals in general, especially social living animals and group territorial animals. I think we are not an

isolated species regarding in-group/out-group mechanisms. So the basics of belonging, a kind of consciousness of belonging, and group antagonism are very much correlated I think. It's like a love relationship which is by definition exclusive: if you love one you exclude all the others.

PL: Yes, so you cannot have an out-group without an in-group. We humans value community, we value belonging and feeling a part of a group. Does this necessarily imply out-group tension?

JVDD: Not logically, there is another possibility, simply indifference. Most people in the Netherlands are quite indifferent towards what happens in Africa for instance, but we are not antagonistic.

PL: Right. This is also true in the United States. We are sometimes viewed by Europeans as isolationists and at different points in our history we were isolationists. For example, it took us a long time to get involved in World War II. After Pearl Harbor there was no choice. But there was a reluctance to move out of the peaceful isolationism that the Atlantic and Pacific oceans provided us. Today as well, the events that take place on the far side of the globe, which can be horrible, do not have the impact of events that take place closer to home in an emotional sense. This seems to be true of humans the world over. We pay more attention to things that are directly connected to our daily lives, in terms of our emotional reactions. We've seen recently, since World War II, too many instances of ethnic cleansing and partial genocide, if not complete, where there is a concerted effort to eliminate a group. Thus, the goals and gains of war are not so much the material benefits, as eliminating an opposing group. Do you think this behavior has any foundations in our primate heritage?

JVDD: Yes and no. Yes, because there are many primate groups who manifest group antagonism; I have identified 40 or 50 species of such primate groups. And social carnivores are also very exclusive territorial groups who combat each other. But because we also have aspects which are quite novel because we are a very peculiar species, that is, we have unique features. And this is one: our ability to eliminate other groups. Chimps do it, but unfortunately, we are better at it. We have the knowledge and technology to

eliminate a whole people as an ethnic group. But the basic psychology that makes it possible is very old.

PL: The argument has been made that technology can remove the individual from the actual experience of atrocity. This distancing creates a danger because of the removal of inhibitions toward aggression, the so-called "push button warfare" that we saw in the Persian Gulf, for example, remote, technological, computerized attack. This kind of warfare is unlike animal aggression in that it removes the individual from any face-to-face encounter, where presumably inhibition mechanisms function in limiting animal aggression. So one of the common themes of animal aggression is that it is rarely lethal between conspecifics. There is much posturing, signaling, and symbolic attack or threat but without the lethal conclusion. Here in the human case, as you pointed out, there are radical differences, one of them being technology. Does this create special dangers for human interaction in your view?

JVDD: There are two types of distances. (Johan reaches for a book: *Psychological Cost of Learning to Kill in War and Society* by Lt. Colonel David Grossman). In this book Grossman shows rather convincingly that the closer you are to your enemy, the more inhibition there is for you to kill him. The more you are distant in space the easier it is to kill. Besides physical distance, we also have psychological distancing devices. Through dehumanization one can distance oneself from other human beings. If it is not human this allows one to kill it like an insect. I think these psychological distancing devices are much more important, ultimately, than the physical.

PL: From understanding some of these mechanisms that promote inter-group conflict can we better understand some of the mechanisms for preventing inter-group conflict? What would be some of your ideas regarding preventing war?

JVDD: Sighs, after a long pause.

PL: Tough question!

JVDD: Yes, tough question. I have recently published a paper on the politics of peace in

preliterate societies, but it is quite a different topic than modern industrial societies.

PL: I read this article and I remember one aspect was about exogamy to neighboring tribes who are trading family members. It is much more difficult to make war on a group that contains some of your own offspring. So in this sense this might be one mechanism that would tend to establish more peaceful means of conflict resolution even when conflicts arise ... by humanization. So if we say that conditions for warfare can be created through dehumanization, it follows that understanding an out-group in terms of its family structure, in terms of its games, in terms of the more pleasant aspects of their human existence that calls into attention similarities and not differences, communalities and universalities. Would you consider that to be a mechanism that would help promote peace or counter a movement toward more war?

JVDD: Exogamy is not necessarily a factor for peace. For example, New Guinea tribes who practice exogamy are almost perpetually at war with each other. But I think it tends to have a dampening effect on the decisions to make war.

PL: Do the New Guinea tribes inflict large numbers of casualties on each other?

JVDD: Most of these tribes have two kinds of warfare, raids and battles. The films we see depict the often highly ritualized battles which generally have few casualties, but the raids are usually much more lethal, - sometimes whole settlements are wiped out- but you don't see this on film.

PL: What would be some of the factors that determine when a raid takes place? Is it generally for revenge?

JVDD: Yes, that's the most proximate cause.

PL: We have seen recently in Kosovo that revenge can be based on an historical context dating back 500 hundred years or more. Nationalism with its use of emotional symbols and the recollection of historical events can generate a climate for hostility. Is nationalism one of the primary causes of war in your view?

JVDD: No, it can't be. People have been obliterating each other long before nationalism ever existed. Nationalism is just one more manifestation of the older out-group hostility and ethnocentrism.

PL: The reason I mention nationalism is that this seems to be a factor in making genocide more likely, and more lethal.

JVDD: The formation of the state may facilitate genocide but it is not a necessary condition. You can find genocide in the Bible.

PL: So genocide has been going on a lot longer than the 20th century.

JVDD: Yes, and even now modern weapons are not necessary as one could see in Rwanda.

PL: It would seem that if genocide were a recurring theme throughout human history, then this forces us to consider the possibility of group selection. Would you agree?

JVDD: Yes, I guess I would.

PL: Ernst Mayr liked to point out we're not selecting for, we're selecting against. If genocide has played a major role in terms of who survives than we can make a case for group selection based on the historical record.

JVDD: In contrast to instrumental warfare, genocidal war is peculiar in several ways. Why spend a lot of time, energy and resources on eliminating a whole people? Why would anyone do that?

PL: Are you implying that genocide is irrational?

JVDD: No, it has a rationality of its own. Of course there may be different types of genocide. One basic distinction I think is valid is between ideological and pragmatic types of genocide. An example of the former is the holocaust during the second world war, while the latter may be illustrated by the continuing elimination of native groups in South America by more technologically advanced societies. This is not as clearly organized or premeditated - it just happens.

PL: We have mentioned revenge as a primary cause of inter-group conflict and hostility. In your ongoing work on genocide, does this motive provide a kind of rationale?

JVDD: In examining the origins of genocide in history, prehistory and even possibly in different species, a lot of capabilities are necessary to show this odd kind of behavior. For instance, long term memory.

PL: Yes, clearly advanced cognitive factors are involved.

JVDD: In most primate societies there is no revenge. When the fighting stops between two individuals, an hour later they are once again the best of friends. There is no "burning" passion for revenge. In contrast, revenge in humans is evident. People are able to interiorize their enemies and become obsessed with "getting even".

PL: Yes, distressed relationships require a certain psychology. Individuals or groups may become locked in conflict, fed by hostile attributional processes, and there is no easy way out with retaliation and fear of retaliation, even when no aggression is taking place. It reminds me of an axiom in Axelrod's computer study of cooperation. The winning program, "Tit for Tat" called for swift retaliation, but equally swift reconciliation and cooperation. Of course computers are not human, and in conflicted human affairs even when one group has had enough it may be very difficult to regain a cooperative relationship. Hence long negotiations are required. This seems to be more peculiarly human, than comparative.

JVDD: You find it in chimpanzees too, especially females. They have a tendency to be vengeful as well. I think what is required is a lot of cognitive and emotional mechanisms too.

PL: In concluding, I can see from our previous conversations that you are not solely interested in warfare as a thinker, and you have tried your hand in the arts as well.

JVDD: I'm idealistic, my ideal is to be something like a renaissance man, a "Homo universalis" it's an old ideal, and somewhat unrealistic these days, but everyone should have

an ideal. I'm interested in everything regarding evolution, animal life, where all these behavioral systems come from and why.

PL: In reflecting on human ethology, I think of it as an interdisciplinary enterprise. I think you would agree, you seem to have the breadth in your thinking that complex phenomenon require. One needs to think fluidly across disciplinary boundaries and work on several levels of analysis.

JVDD: Yes, but people seem to have a kind of need to pigeonhole you. And I always have to say, "no, I'm not only a psychologist", "no, I'm not only an ethologist", "no, I'm not a only sociobiologist". I'm none and all of these.

PL: Ah, but we must pigeonhole you for the Human Ethology Bulletin, we must put you in a category, and you must go into one only! (Laughing). So Johan van der Dennen what category can we put you in? Human Ethologist?

JVDD: Yes, that's basically what we are doing. And we all generally agree about the basic evolutionary background, and how organisms function. but the details are still unclear. But the broad canvas, I think we can all agree on that.

References

- Grossman, D. (1995) On Killing: The Psychological Cost of Learning to Kill in War and Society. Boston: Little, Brown.
- Van der Dennen, J.M.G. (1995) The Origin of War: The Evolution of a Male-Coalitional Reproductive Strategy. Groningen: Origin Press.
- Van der Dennen, J.M.G. (1998) The Politics of Peace in Primitive Societies: The Adaptive Rationale behind Corroboree and Calumet. In: I. Eibl-Eibesfeldt & F.K. Salter (Eds.) Indoctrinability, Ideology and Warfare. New York: Berghahn Books, pp. 151-88.

Officers of the Society

President

Linda Mealey
Psychology Department
College of St. Benedict
St. Joseph, MN 56374 USA
tel. 1-320-363-5481
fax 1-320-363-5582
e-mail: lmealey@csbsju.edu

Vice-President for Information

Peter LaFreniere
(see Editorial Staff box)

Secretary

Karl Grammer
Ludwig-Boltzmann-Institute
for Urban Ethology / Human Biology
Althanstrasse 14
A-1090 Vienna, Austria
tel. 49-815237355
e-mail: karl.grammer@univie.ac.at

Treasurer

Dori LeCroy
PO Box 418
Nyack, N.Y. 10960 USA
DoriLeCroy@aol.com

Membership Chair

Astrid Jütte
Ludwig Boltzmann Institute for Urban
Ethology, Institute for Human Biology
Althanstrasse 14
A-1090 Vienna, Austria
e-mail: astrid.juette@bigfoot.com

Society News

ISHE FINANCIAL STATEMENT: JANUARY-DECEMBER 2000

BALANCE JAN. 14, 2000
\$19481.52

CREDITS

MEMBER'S DUES
\$3090.00

DEBITS

BANK CHARGES
219.55

TREASURER'S EXPENSES
244.00

1. PURCHASE OF ELECTRONIC
CREDIT CARD PROCESSING
EQUIPMENT (\$200.00)
2. POST OFFICE BOX RENTAL (\$44.00)

BULLETIN PRINTING
4822.47

BULLETIN POSTAGE
2406.44
(INCLUDES DEC. 1999 MAILING)

EDITOR'S EXPENSES
1672.75

CONFERENCE EXPENSES
2592.52

1. AIRFARE FOR SPEAKER (\$1022.52)
2. REPLACEMENT OF STOLEN
EQUIPMENT (\$1570.00)

DEBIT TOTAL
\$11957.73

BALANCE DECEMBER 20, 2000
\$10613.79

Reminder to ISHE Members:

Please take a minute to check your mailing label and renew now, if necessary, in time for the next Bulletin of 2001. If you have recently renewed, but have not received back issues, you will be credited with a full calendar year of membership. Any back issues may be obtained by sending a check for \$5.00 to the Treasurer for each back issue requested. Membership in the International Society for Human Ethology is still just \$25.00/yr or \$60.00 for 3 years, but will be going up later this year, so renew now! You may pay by cash, check, or by a fax or e-mail memo authorizing the ISHE Treasurer to charge your VISA or Eurocard a specific amount plus your credit card number and expiration date. You may also renew your ISHE membership by mailing the form on the back of this bulletin with your payment to:

Dori LeCroy
ISHE Treasurer
PO Box 418
Nyack, N.Y. 10960 USA

Fax: 845 358 8069
E-Mail: DoriLeCroy@aol.com

Among other things we have planned in 2001 is a special issue reviewing a number of new textbooks on evolution and human behavior. Don't miss it!

Cartwright, J. (2000). Evolution and human behavior. MIT Press.

Gaulin, S.J.C., & McBurney, D.H. (2000). Psychology: An evolutionary approach. NJ: Prentice Hall.

Gray, P. (1999). Psychology, 3rd. Ed., NY: Worth.

Halpern, D. (2000). Sex Differences in Cognitive Abilities. NY: Lawrence Erlbaum

LaFreniere, P.J. (2000). Emotional Development: A Biosocial Perspective. Belmont, CA: Wadsworth/ITP.

Mealey, L. (2000). Sex differences: Developmental and evolutionary strategies. San Diego: Academic Press.

Pope, G. (2000). Biological Basis of Human Behavior. Boston: Allyn & Bacon.

Weisfeld, G. (1999). Evolutionary Principles of Human Adolescence. NY: Basic Books.

Announcements

HBES 2001 Conference London, England June 13-17

Call for Papers

The Programme Committee encourages submission of proposals for symposia, individual papers/posters and competitions for the HBES 2001 conference. All proposed papers and posters should be submitted in the form of abstracts. The deadline for all abstracts (symposia, individual papers and posters) is March 31. Instructions for submitting these abstracts are given below.

Paper Proposals

Individuals are limited to one first-authored paper or poster. Spoken presentations will be 15 minutes long, with 5 additional minutes for questions.

Poster Proposals

Posters (presented June 14, evening) must fit within a 4' x 4' area. The poster judged best will be awarded a generous prize (roughly £300) at the meeting (all posters are automatically entered in the competition).

Symposium Proposals

Individuals may propose symposia or panel discussions for the conference. The proposer/organizer of the symposium must send in a session abstract (listing the names of proposed individual contributors, a brief synopsis of their contribution, together with a brief rationale for the session as a whole), preferably before the general deadline for abstracts (March 31st).

Symposia should consist of a set of 4 talks maximum (of 20 minutes each) on a particular topic. Each person participating in the session (including the symposium organizer, if he or she is proposing a paper) should submit their paper abstract individually in the usual manner (by the March 31st deadline). (That could mean two submissions for the symposium organizer!) The accepted abstracts of individual authors will be

assigned to appropriate sessions by the Programme Committee.

New Investigator and Postdoctoral Awards

To be eligible for the New Investigator Competition Award, you must enter before or during the calendar year in which you receive a Ph.D. or other post graduate degree. To be eligible for the Post Doctoral Competition Award, you must enter within 5 years of completing your Ph.D. or equivalent professional degree. Additionally, in order to enter these competitions you must: (a) never have won the competition before (although you may compete more than once), (b) be the sole author of the paper, and (c) submit, in addition to your abstract, a written version of your paper of no longer than 5,000 words, including captions and references. The deadline for papers is May 10 (your abstract is still due March 31st, however).

Papers submitted for publication may be included in the competitions. The written version of the competition paper should preferably be sent by email (in one of the formats prescribed below for abstract submissions) to: hbes2001@ucl.ac.uk. As a last resort only, a hard copy can be sent to the Department of Anthropology, University College London, Gower Street, London, WC1E 6BT, England, Attn: HBES 2001. The prizes are generous (roughly £300), so it is worthwhile entering!

How to Send in your Proposal

The text of an abstract should not exceed 250 words. Send your submission by one of the following modes, listed in order of preference :

- (1) as a Word document attached to an email message
- (2) as a Rich Text Format document attached to an email message
- (3) as plain (ASCII) text included in the body of an email message.

Your submission should be directed to the following email address:

hbes2001@ucl.ac.uk

If you do not have email, you can also send a FAX(+44) 01902 828598. However, please use this option only as a last resort!

CALL FOR PAPERS - EED SPECIAL TOPIC ISSUE

CULTURAL PERSPECTIVES ON SOCIAL ADAPTATION IN EARLY CHILDHOOD

An important area of research over the past twenty years has involved defining and measuring the somewhat elusive construct of social competence. From a developmental perspective researchers have used a wide array of assessment techniques to measure it at different ages. Some consensus has been achieved at a general level, and most definitions reflect the idea that the socially competent individual is a well-adjusted, successful member of the social groups that are vital for his or her adaptation. However, the construct continues to defy precise and universal operational definition, in part because of the changing developmental context of social adaptation as new cognitive and social skills emerge, and in part because one cannot assume that the values and social norms of the various groups to which different children adapt are equivalent. This aspect is particularly apparent when applying the concept in diverse cultural contexts.

Our goal in this Special Issue is to address this cultural aspect of social competence by inviting a wide-ranging discussion of cultural differences and universals in the period of early childhood that includes, but is not limited to, the following topics:

- 1) the socialization goals and values of preschool teachers,
- 2) the normative development of children's social competence,
- 3) individual differences in social competence: origins and significance,
- 4) the frequency and type of adaptation problems experienced by preschoolers.

The Special Issue will include a collection of articles ranging between 25 and 40 manuscript pages. We welcome theoretical discussions and empirical studies using both qualitative and quantitative methods. Priority will be given to

studies that examine the topic in understudied cultural groups in the U.S. and abroad, or cross-cultural studies that explicitly examine culture as a variable. All submissions will follow the Journal's blind review process. The Special Issue Editor and Journal Editor will make all acceptance decisions. Accepted manuscripts not included in the Special Issue because of space limitations will be published in a future issue of the journal.

Five copies of the manuscript should be submitted and marked "Special Issue: Cultural Perspectives on Social Competence". Submissions should be sent to:

Richard R. Abidin, Editor
Early Education and Development
Special Issue: Cultural Perspectives
405 Emmet Street
147 Ruffner Hall
Charlottesville, VA 22903-2495

Manuscripts are due June 1st, 2001. Projected publication date is the January, 2002 issue of Early Education and Development.

For additional information contact:

Peter LaFreniere, Ph.D.
EED Special Issue Editor
Department of Psychology
362 Little Hall
University of Maine
Orono, ME 04469

(phone: 207-581-2044)
(e-mail: peterlaf@maine.edu)
(fax: 207-581-6128)

Jean-Marie Delwart Award 2000

The \$10,000 Award of the Jean-Marie Delwart in Chemical Communication was given to Dr. Bill S. Hansson, Professor at the Department of Ecology of Lund University, Sweden for his work on neurophysiological aspects of Insect Chemical Communication with special emphasis on correlations between neural functions and behaviour as well as central nervous processing of neurochemicals and the structure and function of olfactory glomeruli in Insects. This Award was presented during the Annual Session of the Académie Royale des Sciences de Belgique, Bruxelles, on December 16th, 2000.

**XXVII International
Ethological Conference
August 22-29, 2001**

Eberhard-Karls-Universität
Tübingen, Germany
International Council of Ethologists
Ethologische Gesellschaft e.V.

2001 Deadlines:

- Feb 28 Submission of Abstracts;
 Budget Registration;
 Financial Aid Application
- April 30 Notification about acceptance
 and allocation of contribution
- July 15 Standard Registration

Please see their website for more information
and new developments.

Contact address:
Raimund Apfelbach
Dept. of Zoology / Animal Physiology
Auf der Morgenstelle 28
D-72076 Tübingen, Germany
Phone: ++49-7071-2972624
Fax: ++49-7071-294634
e-mail: ethology01@uni.tuebingen.de

Book Reviewer Position Available

We are seeking one additional international scholar for help organizing and editing reviews. Those interested in this position should send their CV and current research interests to the editor or book review editor.

AWARD OF THE YEAR 2001

**ETHOLOGY and
CULTURAL ANTHROPOLOGY**

The **Jean-Marie Delwart Foundation** will award in 2001 a Prize for an original work or series of works, individual or collective, realized in the joint perspective of Ethology and Cultural Anthropology.

Candidates can send themselves their own application or be presented by a person competent in the field considered.

The Prize, \$10.000 in amount will be attributed to works written or translated in French or in English, which should be sent for March 15th 2001 to the following address:

**Fondation Jean-Marie Delwart
A l'attention de Raphaëlle Holender
U.C.L. Bâtiment Pythagore
4, Place des Sciences (Bte 4)
B-1348 Louvain-la-Neuve
Belgique**

The applications should be accompanied by a letter, a curriculum vitae and a complete list of publications, as well as by the works (letter, C.V. and list of publications in triplicate).

The Jury is composed of members of the scientific committee of the Jean-Marie Delwart Foundation and of members of the Académie Royale des Sciences de Belgique.

The Prize will be awarded in December 2001 at the occasion of the Public session of the Académie Royale des Sciences de Belgique.

The candidates are requested to send copies of the works they consider most linked with their application

BOOK REVIEWS

Alas, Poor Darwin: Arguments Against Evolutionary Psychology

Edited by Hilary Rose and Steven Rose. NY: Harmony Books, 2000, \$25.00 (hdbk.), 400p. ISBN: 0609-605135

Reviewed by David P. Schmitt, Department of Psychology, Bradley University, Peoria, IL 61625, USA.

There are several scientific disciplines, including human ethology, behavioral ecology, and physical anthropology, that apply Darwin's theory of natural selection and the principles of biological adaptation to human behavior. Within the last decade, many of the scholars within these areas have begun to refer to the application of evolutionary principles to human behavior more generally as "evolutionary psychology." This may be, in part, because Darwinian thinking about human behavior is becoming one of the great perspectives on human existence, potentially reaching the level of Freudian and behaviorist views of human psychology. *Alas, Poor Darwin* is presumed by its editors to present the leading critics and criticisms of this new Darwinian paradigm of psychological science.

I came to this edited volume filled with great anticipation. I teach a course on evolution and human behavior in a university setting. Students typically come into the course with many misconceptions concerning the links among genes, development, and behavior. These misconceptions usually stem from overly simplistic and sometimes uncritical understandings of what has come to be called evolutionary psychology: No, genes do not lead directly to complex behavior; yes, genes can indirectly influence behavior in all animals, including humans; no, people are not consciously driven simply to outlast and out-reproduce their neighbors; yes, evolutionary hypotheses can be

subject to empirical confirmation; no, adaptations are not completely optimal designs.

What I eagerly anticipated from this volume was to be able to add other solid criticisms of the evolutionary psychology perspective to my pedagogical tool-kit. For example, I find that when I present Gould's views on adaptation constraints and punctuated equilibrium (as discussed in this volume, see Ch. 5), students quickly realize that adaptations are unlikely to possess neat-and-tidy optimal design. Unfortunately, I came away from this book largely disappointed, with few serious contributions to my pedagogical tool-kit.

The basic outline of this text is compelling. In the early chapters, authors ranging from an architect to a geneticist spotlight what they consider to be disturbing tendencies among evolutionary psychologists, such as a tendency of evolutionists to insist that they are right, whereas others must be wrong. Some of my colleagues have accused me of this when, for example, I insist that their theories of mind must at least be consistent with what we know about evolutionary biology if they are to stand a good chance of ultimately being correct. The early chapters also take on what is portrayed as the "delusional" views of particular evolutionary theorists, such as Wilson's notion of Consilience, Dawkins' emphasis on the selfish gene, and the growing use by many theorists of the meme concept. Daniel Dennett and Steven Pinker seem to take on the brunt of the critical assaults throughout the text. Stephen J. Gould devotes most of his chapter to rebuffing some of Daniel Dennett's (1995) specific attacks, and continues to insist that human culture is beyond Darwinian explanation, while most human universals are probably spandrels. Hilary Rose, one of the volume's editors, provides an engaging account of Darwin's reading material before writing *The Origin of Species* (1859), and then moves through Spencer, Marx, and the history of the London School of Economics, after which she takes on Tooby and Cosmides' classic portrayal of the Standard Social Science Model, and critically evaluates Daly and Wilson's famous work on the Cinderella effect.

The middle chapters address the issue of modularity, arguing that evolutionary psychologists are overly nativistic in their metaphor of the human mind as a Swiss Army

knife of various instinct-like adaptations, and that evolutionary psychologists pay too little attention to ontogenetic processes that are necessary for the development of domain-specificity within the human mind. Chapter's 10 and 11 highlight and discuss problems with the way evolutionary psychologists explore differences between people. The final chapters address the recurring issue of level of analysis, with a resolute rejection of evolutionary psychology's "colonizing" attempts to explain culture and meaning in people's lives. Most of the chapters provide a well-grounded sociohistorical context for the issues that are discussed, and equally appealing are detailed reviews of original works and letters by Darwin, Wallace, Marx, Wilson, and Dawkins, among others.

So, why my overall disappointment? The main disappointments I have with virtually all of the chapters are two-fold. First, evolutionary psychology is portrayed throughout the book in overly simplistic terms. This is, of course, somewhat to be expected. To take down a entire paradigm, it is often best to start with its earliest work and in this case much of the founding scholarship of both sociobiology and evolutionary psychology was, in hindsight, rather simplistic. In a book of this size and with the quality of the authors at hand, though, I expected a penetrating evaluation of more than the caricature of evolutionary psychology that is roundly criticized here. For instance, evolutionary psychology was repeatedly appraised as biologically reductionistic and untestable, nothing more than a series of speculative just-so stories. Issues of reductionism and testability are very important, and some of the authors do a fine job of noting the difficulty of testing evolutionary hypotheses. However, these issues have been addressed with much more sincerity and sophistication by evolutionary psychologists than is evident in the criticisms in this volume. I urge the concerned reader to consult more enlightening discussions of these issues in other locations (e.g., Bock & Cardew, 1997; Ketelaar & Ellis, 2000).

The second central disappointment I felt toward this volume was more troubling. The specific examples of evolutionary psychology that are invoked throughout the text, examples that are decried as overly naive and culturally

pernicious, are presented in what seems to be a biased manner, often with selective depictions of the state of evidence. In some cases they are complete misreadings of the original works. To take an example with which I am quite familiar, Fausto-Sterling discusses in Chapter 10 the androcentric bias present throughout the history of Darwinism, a point well-taken among modern evolutionary psychologists. But then she lambastes evolutionary psychology, as do many of the volume's authors, for claiming that men are more promiscuous and less restrained when choosing their mates. Among evolutionary psychology academics, this oversimplified depiction of the psychology of sex differences in human mating has not been put forth for many years. In fact, starting in the early 1990's with the work of Doug Kenrick, Steven Gangestad, and Jeff Simpson, among others, evolutionists from almost all quarters have strongly argued for emphasizing theory and research on differences **within** as well as between men and women in promiscuity and unrestrained sexuality. Even the most cursory review of the literature on this topic within the past 5 years would show that current evolutionary psychology is focused on men's and women's short-term and long-term sexual strategies. All women are no longer viewed as simply "coy" and all men are no longer viewed as simply "cads." Instead, modern evolutionary psychologists such as Belsky (1999), Ellis et al. (1999), Gangestad and Simpson (in press), Kenrick et al. (1994), and Kirkpatrick (1998) have been examining the adaptive backdrop for mating variation both between and within the sexes.

Another recurring feature of this edited volume is that the contributors consistently portray evolutionary hypotheses as statements of fact that are really untrue and must be refuted as matter of intellectual honesty. Fausto-Sterling, for example, asserts that Buss (1994) claims that women prefer men with resources, and notes there are typically four standards used by evolutionary biologists for evaluating such a claim. In brief, do the data fit the hypothesis, are there better alternate explanations, are there objective behaviors that confirm questionnaire answers, and is such a preference related to fitness? Fausto-Sterling states that "only the first of the four criteria has been reasonably met" (p. 217). It is true that many evolutionary psychologists have documented

that women seem to prefer men with resource-related attributes (see Ellis, 1992). In the context of what we know about women's mate preferences, to state that the other three criteria have not been met is puzzling. For example, many alternate explanations of this finding have been ruled out (e.g., Townsend & Levy, 1990), objective behavioral data such as actual marital patterns match this preference (e.g., Elder, 1969), and preferences for resource-related attributes seem likely to lead to fitness in foraging societies (Kaplan & Hill, 1985). Astonishingly, all of the references mentioned above are cited in the original Buss (1994) text in support of this mate preference adaptation. Of course, this evidence does not lead to the irrefutable conclusion that such an adaptation assuredly exists within women. We need to continue to critically evaluate evidence of special design in this preference, such as developmental manifestations of the preference, cross-species perspectives, cross-cultural analyses, computer modeling of the preference, and paleontological evidence. Ultimately the genetic and neurological substrates of such an adaptation need to be fully outlined. The point is that the broad psychological literature in support of this evolutionary hypothesis is vast. As with many of the authors of this text, key research findings are routinely neglected when making criticisms of specific evolutionary theorists and their hypotheses.

Perhaps evolutionary psychologists fall prey to this tendency as well. Many of the contributors note that most evolutionary psychology hypotheses about human adaptations are stated with very little foundation from anthropology, biology, and paleontology. Certainly, much less of a foundation is provided than is usually given by evolutionary biologists testing for adaptations in non-human animals. Perhaps this criticism will sound a warning among evolutionary psychologists to improve their evolutionary hypothesizing, in both disciplinary breadth and intellectual depth. Doing so would certainly address many of the critics and criticisms levied in Alas, Poor Darwin.

Each of the contributors of this volume have made arguments against some facet of evolutionary psychology. Some arguments are more successful than others. Overall, the quality

of the prose is good. In my opinion, however, much of the substance of the book means I cannot recommend it for the evolutionary scholar's bookshelf.

References

- Belsky, J. (1999). Modern evolutionary theory and patterns of attachment. In J. Cassidy & P.R. Shaver (Eds.), Handbook of attachment (pp. 141-161). New York: Guilford.
- Bock, G.R., & Cardew, G. (Eds.). (1997). Characterizing human psychological adaptations. West Sussex, England: John Wiley & Sons
- Buss, D.M. (1994). The evolution of desire. New York: Basic Books.
- Darwin, C. (1859). On the origin of the species by means of natural selection, or the preservation of favoured races in the struggle for life. London: Murray.
- Dennett, D.C. (1995). Darwin's dangerous idea. New York: Simon & Schuster.
- Elder, G.H., Jr. (1969). Appearance and education in marriage mobility. American Sociological Review, 34, 519-533.
- Ellis, B.J. (1992). The evolution of sexual attraction: Evaluative mechanisms in women. In J.H. Barkow, L. Cosmides, & J. Tooby (Eds.), The adapted mind (pp. 267-288). New York: Oxford University Press.
- Ellis, B.J., McFadyen-Ketchum, S., Dodge, K.A., Pettit, G.S., & Bates, J.E. (1999). Quality of early family relationships and individual differences in the timing of pubertal maturation in girls: A longitudinal test of an evolutionary model. Journal of Personality and Social Psychology, 77, 387-401.
- Gangestad, S.W., & Simpson, J.A. (in press). The evolution of human mating: Trade-offs and strategic pluralism. Behavioral and Brain Sciences.
- Kaplan, H., & Hill, K. (1985). Hunting ability and reproductive success among male Ache foragers. Current Anthropology, 26, 131-133.

- Kenrick, D.T., Neuberg, S.L., Zierk, K.L., & Krones, J.M. (1994). Evolution and social cognition: Contrast effects as a function of sex, dominance, and physical attractiveness. Personality and Social Psychology Bulletin, 20, 210-217.
- Ketelaar, T., & Ellis, B.J. (2000). Are evolutionary explanations unfalsifiable? Evolutionary psychology and the Lakatosian philosophy of science. Psychological Inquiry, 11, 1-21
- Kirkpatrick, L.A. (1998). Evolution, pair-bonding, and reproductive strategies: A reconceptualization of adult attachment. I.J.A. Simpson & W.S. Rholes (Eds.), Attachment theory and close relationships (pp. 353-393). New York: Guilford.
- Townsend, J.M., & Levy, G.D. (1990). Effects of potential partners' physical attractiveness and socioeconomic status on sexuality and partner selection. Archives of Sexual Behavior, 371, 149-164.

The Cannibal Within

By Lewis Petrinovich. Aldine de Gruyter (200 Saw Mill River Road, Hawthorne, NY 10532), 2000, 232 p. ISBN: 0-202-02048-7 (pbk., \$21.95).

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

If ever a topic needed human ethology, it must be human cannibalism! For what other topic is there such powerful imagery and sustained controversy, yet so few data? "Strong observational methods" is what the author, a retired University of California psychologist, calls for in this provocative, synthetic book. Petrinovich's goal is "to develop and defend the thesis that human cannibalism has been widespread ... and that this ubiquitous behavior can be ... viewed through an evolutionary lens" (p. 19). Thus the overall viewpoint is advocative (perhaps even polemical) but is meant to be based on scientific analysis.

Many readers may find this aim unexceptional, but within anthropology the phenomenon of anthropophagy is considered dubious. (Cannibalism by other species is well-documented, Elgar & Crespi, 1992.) The most extreme case opposing its very existence was presented by William Arens (1979), who systematically debunked all the classic cases of normative cannibalism, from Aztec to Zande, as being calumnies. To varying degrees, Arens's view of cannibalism as Western-inspired myth persists in socio-cultural anthropology. Petrinovich strongly disagrees.

However, the phenomenon of cannibalism is not monolithic. There are at least 6 types: gastronomic, medicinal, mortuary, political, sacrificial, or survival. Each of these can be (at least in principle) *exo-* (eating outsiders) or *endo-* (eating community or family members). There is even *auto-* which is eating part of oneself! And, lest the Western reader be dismissive, how many of us have partaken of the Eucharist? Which is yet another type, symbolic.

Petrinovich says that cannibalism is not an aberrance exhibited psychopathologically (a la Hannibal Lector) or sociopathologically, but instead "is a universal adaptive strategy that is evolutionarily sound." However, all his supporting evidence with regard to fitness payoffs is indirect. There is a common sequence in survival cannibalism from shipwrecks to snowbound settlers: Eat animals first, then dead outsiders (e.g., other races), non-kin, distant kin, and finally close family members. Scavenge from natural victims as long as possible, but *in extremis* kill companions for food, and then only after a random lottery. These predictable patterns are widespread, from the Andean plane crash to the famous Donner Party of pioneers. In the latter case, the data on survivorship are well analyzed, as are some on reproductive success; e.g., larger families fared better than did smaller ones.

Petrinovich disclaims expertise in anthropology, which weakens his cross-cultural assault upon Arens and his ilk. In many cases, Petrinovich relies on the same secondary sources (e.g., missionary reports) but comes to positive, rather than negative conclusions. Much ethnography is cited, especially from Africa and South America (yet never Europe or Asia), but is usually second-hand and retrospective (e.g., our

ancestors ate the neighbors). He does cite persuasive first-hand data from New Guinea, in which an ethnologist witnessed consumption, but it is restricted to ritual cannibalism. Thus Arens, who is characterized as a "sensation-hungry journalist," is refuted.

The book is clearly written, and strong on integration of a wide range of sources. (Although placentophagia is never mentioned.) Survival cannibalism is described in careful detail, while osteological evidence of paleo-cannibalism is derivative and sparse. There are unexpected chapters on cannibalism in modern famines (but the practitioners are restricted to Soviets, Chinese Communists and Nazis) and in fiction (Dickens apparently was obsessed). The material is up-to-date, with over 400 references. There is a single, minimal index but no illustrations.

Clearly, ethnology has not been sufficient to clarify the topic, and ethology is called for. Circumstantial, attributional accounts are inadequate to resolve the competing claims. The issue of limited observability is not trivial, and not restricted to cannibalism -- how good are the observational data on masturbation or combat? -- but some opportunities for research still exist. For any human ethologist seeking to take up the challenge, Petrinovich's book is a good source for homework.

References

- Arens, W. (1979) *The Man-Eating Myth*. Oxford: Oxford University Press.
- Elgar, M. A. & Crespi, B. J. (eds.) (1992). *Cannibalism: Ecology and Evolution among Diverse Taxa*. Oxford: Oxford University Press.

The Mating Mind: How Sexual Choice Shaped the Evolution of Human Nature

By **Geoffrey F. Miller**, Doubleday (2000), 503pp, US\$27.50 (hdbk). ISBN 0385495161

Review by **Linda Mealey**, Psychology Department, College of St. Benedict, St. Joseph, MN 56304 USA

Reading The Mating Mind (TMM) is very much like having an extended conversation with Geoffrey Miller. This is a good thing. Having an extended conversation with Geoffrey is an event which I value tremendously but which I rarely get an opportunity to do. Settling for his book in his stead is a bit frustrating, but well worth the time.

Actually, I had thought that, having already read everything Geoffrey has published, I would find TMM to be a quick read that I could casually toss onto my increasingly large pile of pop evolutionary psychology books. I was wrong. TMM, like its author, is erudite, engaging, challenging, sometimes a bit off-putting, and ultimately, extremely enlightening.

The thesis of TMM is derivative of all of Miller's previous research on cognition, art, sex differences, mate choice, social display and, most recently, intelligence. To wit, Miller postulates that the attributes that we consider to be so uniquely definitive of what it means to be human -- appreciation of poetry, art, music, humor, intelligence, and even morality -- are the peacock's tail of our species; they exist only because they were sexually selected, largely via female mate choice.

Miller's presentation is so compelling that by the time you are done reading, the thesis will seem so obvious that you will feel certain that it was already your belief before reading this book. Furthermore, you will find it difficult to believe that it is not the standard way of thinking. Yet it is not. Every other evolutionary model of intelligence (and of language, creativity, morality, etc.) is based on the premise that there was some *survival value* for the cognitive

<p>ISHE Web Site http://evolution.anthro.univie.ac.at/ishe.html</p>
--

abilities that eventually led to human domination of the earth. Miller rejects this basic premise. Instead, he sees intelligence-- and all of its accouterments-- as a *correlate*, rather than a *cause of*, fitness, so that, like the peacock's tail, it became a status indicator that was selected through Fisherian "runaway" selection. We are brilliant, witty and charming because we appreciate brilliance, wit and charm in potential mates. There is no need to search for the survival value of language or art or morality-- because there is none.

As Darwin did in The Descent of Man and Selection in Relation to Sex and Daly & Wilson did in Homicide, Miller relies first and foremost on *observation* to make his argument. In this instance, the observation is that human intelligence has all the attributes of a sexually selected trait: it is expensive, wasteful, and attractive. It also seems to have exhibited extraordinary and unexplained bursts in magnitude over periods of time that were no more than blinks of the evolutionary eye. How else can this be explained other than by sexual selection?

Miller relies on modern evolutionary models such as the Handicap Principle, signaling theory, and mutation-selection balance to help to explain *how* sexual selection could have brought us to our present state, but these models are presented only as explanatory tools to help us to piece together a huge puzzle; they are not the puzzle pieces themselves. The puzzle pieces are otherwise confounding facts of human nature such as the heritability of intelligence, sex differences in music, art, and oratorical display, and a primarily monogamous mating system that, on the surface, would not seem to promote runaway sexual selection.

As with any good jigsaw, there are many puzzle pieces in TMM that seem at first to fit together one way, but, after further reflection, are seen to work better in some other place or orientation. As I read I found myself constantly disagreeing with Miller, saying "But what about _____?!" ...only to have my question almost immediately answered and rebutted. (Indeed, my frustration with TMM derived from the fact that so many times I felt like a child whose parent had stepped in to show me how the puzzle pieces *really* fit. I then, of course, had to

resolve my cognitive dissonance by convincing myself that I had simply been playing Devil's advocate and knew the right answer all along!).

Of course, the tutorial nature of the book is not lost upon its author. Nor is the fact that the act of writing a book is a perfect exemplar of the very acts of sexual display that are being discussed. Here, as an example, is the first paragraph of a section titled "But is it art?"

The fitness display theory of aesthetics works much better for folk aesthetics than for elite aesthetics. Folk aesthetics concerns what ordinary people find beautiful; elite aesthetics concerns the objects of art that highly educated, rich elites learn are considered worthy of comment by their peers. With folk aesthetics, the focus is on the viewer's display of the creator's craft. With elite aesthetics, the focus is on the viewer's response as a social display. In response to a landscape painting, folks might say "Well, it's a pretty good picture of a cow, but it's a little smudgy," while elites might say "How lovely to see Constable's ardent brushwork challenging the anodyne banality of the pastoral genre." The first response seems a natural expression of typical human aesthetic tastes concerning other people's artistic displays, and the second seems more of a verbal display in its own right."

Of course, so is Miller's concoction and presentation of the dialogue. This rather perverse recursion almost invariably sets the reader in a mode of oppositional defiance against the ongoing attempt at intellectual seduction. But seduced I was, and I am not alone. On the back cover, three other reviewers whom I greatly admire also admit to being seduced by TMM: Nick Humphrey says it is "a brilliant and seductive book" which will "sweep you off your feet"; Richard Dawkins says that Miller is "a beguilingly skilled advocate"; and Helena Cronin also uses the word "beguiling" (as well as "elegant", "original" and "lucid").

So Miller is seductive and beguiling. But "is it art" or is he *right*? I think he is right. I think he is profoundly right, although I know others who will strongly disagree. This is a passionately written book that, like any other passionate act, will evoke passionate responses. Love it or hate it, *TMM* involves the reader in a conversation about the things that are most important to us and about the very reasons why they are so important. It is a conversation about IQ and about penis size; about love and about politics. It is a conversation that is eminently scientific, yet eminently feminist. It is a conversation that is over 100 years old, but is way ahead of its time. Disturbing though it may be, it is a conversation worth having.

I. References

Daly, M., & Wilson, M. (1988) *Homicide*. NY: Aldine de Gruyter.

Darwin, C. (1871/1981) *The descent of man and selection in relation to sex*. NJ: Princeton University.

Why Sex Matters: A Darwinian Look at Human Behavior

By Bobbi S. Low. Princeton, NJ: Princeton University Press, 41 William Street, Princeton, NJ 08540, USA, 2000, xviii + 412 pp. [Hdbk, \$29.95] ISBN 0-691-028958

Reviewed by Johan M.G. van der Dennen, Dept. of Legal Theory, Section of Political Science, University of Groningen, P.O. Box 716, 9700 AS Groningen, the Netherlands. E-mail: j.m.g.van.der.dennen@rechten.rug.nl

Why are men, like other primate males, usually the aggressors and risk takers? Bobbi Low ranges from ancient Rome to modern America, from the Amazon to the Arctic, and from single-celled organisms to international politics to show that these and many other questions about human behavior largely come down to evolution and sex. More precisely, as she shows in this comprehensive survey of

behavioral and evolutionary ecology, they come down to the basic principle that all organisms evolved to maximize their reproductive success and seek resources to do so.

Low begins by reviewing the fundamental arguments and assumptions of behavioral ecology: selfish genes, conflicts of interests, and the tendency for sexes to reproduce through different behaviors and strategies (p. xv). She explains why, in primates, males seek to spread their genes by devoting extraordinary efforts to finding mates, while females expend more effort on parenting: "Other things being equal, male mammals achieve maximum reproductive success through expending their reproductive effort as mating rather than parental effort, and by expending generalizable parental effort rather than true offspring-specific parental investment. Female mammals, equipped to nurse their young, do best by producing healthy, viable offspring, optimally apportioning effort to specific offspring" (p. 280).

Her book presents three themes: "First, resources are useful in human survival and reproduction; like other living things, we have evolved to wrest resources from the environment for our benefit. Second, the two sexes tend to differ in how they can use resources most effectively to accomplish survival and reproduction. Third, how each sex accomplishes these ends relies not only (and not obviously) on differences in genes, but on differences in environment - there are no identified genes specific for polygyny, for example, but in many environments the trends for male mammals to profit from trying to be polygynous are strong" (p. xiv).

This book has 15 chapters (plus extensive notes, glossary, references, and name and subject indexes): 1. Introduction; 2. Racing the red queen: Selfish genes and their strategies; 3. The ecology of sex differences; 4. Sex, status, and reproduction among the apes; 5. Sex, resources, appearance, and mate choice; 6. Sex, resources, and human lifetimes; 7. Sex and resource ecology in traditional and historical cultures; 8. Sex, resources, and fertility in transition; 9. Nice guys can win - in social species, anyway; 10. Conflicts, culture, and natural selection; 11. Sex and complex coalitions; 12. Politics and reproductive competition; 13. Sex resources and early warfare;

14. Societal complexity and the ecology of war; and 15. Wealth, fertility, and the environment in future tense. Low skillfully presents the basics and fundamentals of evolutionary and behavioral ecology, ultimate and proximate causation, the origin of anisogamy and sex differences, differential reproductive strategies, life history parameters, cooperation and coalitions, sexual selection and its importance for the explanation of intergroup conflicts and warfare.

The main themes and topics covered in the book are selfish gene theory, sexual selection theory, Hamilton's kin selection theory, parental investment theory, 'red queen' theory, reciprocity, the evolution of anisogamy, mating and parental effort, polygyny and the ecology of human mating systems (and, surprisingly, its correlation with pathogen stress), mate choice strategies and augmentation of sexual signals, life history theory and parameters, parent-offspring conflict, differential reproductive trade-off curves, senescence, sexual divisions of labor, sex and power in traditional societies, fertility transitions, the group selection muddle (Sober & Wilson [1998], in lumping almost all interactions as 'group selection,' conflate kin selection, clade selection, interdemid selection, and 'cooperator selection,' including reciprocity and coalitions), Machiavellian intelligence and logical fallacies, male coalitions as reproductive strategy, female coalitions as parental effort, the rarity of women as major political figures, politics and war as outcomes of highly developed coalitions, intergroup conflict in (some) other species, and the demographic transition.

She introduces the concept of 'phenotypic gambit': "By using the phenotypic gambit, we assume that when we look at behavior, we are seeing the result of gene-environment interactions over time, and that the most common behaviors in an environment are working well compared to available alternatives" (p. 13). Low relies on 'life history theory' and behavioral ecology. "Life histories - the lifelong patterns of maturation, courtship, reproduction, and death in any species - are the outcome of competing costs and benefits of different activities at any point in the life cycle. ...It is a subset of natural selection theory, and shares the same logic: it argues that the characteristics we see represent

trade-offs in allocation of effort (energy and risk) between survival and current reproduction; between current versus future reproduction; and, within current reproduction, among offspring of different sex, size, and number. As in any zero-sum game, an organism's effort spent in one endeavor cannot be spent in another" (p. 277).

Behavioral ecology is based, in brief, on the following assumptions: (1) Organisms are generally well suited to the environments in which they live; (2) Only heritable variation is appropriately considered in testing predictions about changes in gene frequencies over time; (3) Organisms that are more efficient in getting resources in any environment will survive and reproduce better than others; (4) No organism, including humans, has evolved to perceive or assess directly the spread of genes; rather, organisms behave as though these proximate correlates were their goal; (5) In their 'deep' objectives - in what we evolved to do - humans are not qualitatively different from other living organisms.

Why Sex Matters is an important book. It reflects a wealth of knowledge and expertise in a broad spectrum of disciplines: evolutionary biology and sociobiology, human ethology and behavioral ecology, life history theory, primatology, sociology and anthropology; it is biobehavioral science at its best; a synthesis 25 years after Wilson's monumental synthesis. Low claims this to be 'novel' approach, but that seems to be valid only for those who have never heard of Charles Darwin, William James, Ronald Fisher, John Haldane, George Williams, William Hamilton, Michael Ghiselin, Irenäus Eibl-Eibesfeldt, Edward Wilson, Robert Trivers, Richard Dawkins, Richard Alexander, John Maynard Smith, and all the other pioneers who have promoted an evolutionary approach to (human) behavior.

What else did I find troublesome? It has too much recycled material and too much academesse. Also, too much is omitted, especially the more problematic, unpleasant, and violent aspects of the 'battle of the sexes'. For example, Low (deliberately?) avoids rape ('rape' did not even make into the index), sexual coercion and sexual predation, sexual jealousy and mate guarding, though she mentions clitoridectomy as a male control strategy *in passim* (p. 84, 86), as

well as massive rape as a concomitant of warfare (p. 241). Also the extensive literature on behavioral and other sex differences (especially aggressive and sexual behavior), recently competently reviewed by Geary (1998) and Mealey (2000), is hardly touched upon, or rather casually treated. 'The battle of the sexes' is in Low's work (p. 185) only a tame game.

Those who are familiar with Low's publications will not find much that is new in this book: it is mainly a recycling of older publications and papers, sometimes with some more recent references added. Low's important chapter 'An evolutionary perspective on lethal conflict' (1993) has been improved little if at all and still uses the same arguments and criticisms I hardly found convincing when I examined her ideas in my *Origin of War* (1995). She again attacks Tooby & Cosmides' (1988) 'Darwinian algorithms' argument governing coalition formation and warfare (219-220).

Low hopes to "reach scholars in the traditional human disciplines with concepts that may be new and tantalizing to them" (p. xvi). But I doubt whether presenting the figures showing disruptive selection leading to anisogamy and bimodal gamete size distribution (p. 40) and the reproductive payoff curves for males and females (p. 42) right at the beginning of the book will lead to many *Aha-Erlebnis*-experiences in an average traditional social scientist without former education in evolutionary biology.

This leads me to my final point of critique: throughout the book it is unclear what audience Low is addressing. For many of those whom she is trying to reach, this book is simply too difficult and too elusive: it requires many hours of devoted reading, absorbing and digesting - hardly a favorite pastime for amateurs. This is only partly a matter of the sometimes terse, academic style. Compared to Low's book, the introductory text by Linda Mealey (2000) is a monument of clarity and lucidity. Almost paradoxically, although Low's style suggests profundity, the contents sometimes seem superficial and shallow (the inevitable price one has to pay for a panoramic perspective?). Low's book is, unfortunately, not the introductory textbook and accessible survey for laypersons she had hoped it to be. This final remark does not

belittle the many merits and qualities of Low's fine book.

II. References

- Charnov, E.L. (1994). Life History Invariants: Some Explorations of Symmetry in Evolutionary Ecology. Oxford: Oxford University Press.
- Geary, D.C. (1998). Male, Female: The Evolution of Human Sex Differences. Wash. DC: American Psychological Association.
- Low, B.S. (1993). An evolutionary perspective on lethal conflict. In: H. Jacobson & W. Zimmerman (Eds.) Behavior, Culture, and Conflict in World Politics. Ann Arbor: University of Michigan Press.
- Mealey, L. (2000). Sex Differences: Developmental and Evolutionary Strategies. New York: Academic Press.
- Roff, D.A. (1992). The Evolution of Life Histories: Theory and Analysis. New York: Chapman & Hall.
- Sober, E. & D.S. Wilson (1998). Unto Others: The Evolution and Psychology of Unselfish Behavior. Cambridge MA: Harvard University Press.
- Stearns, S.C. (1992). The Evolution of Life Histories. Oxford: Oxford University Press.
- Tooby, J. & L. Cosmides (1988, April). *The evolution of war and its cognitive foundation*. Paper presented at the Conference on Evolution and Human Behavior, University of Michigan, Ann Arbor.
- Van der Dennen, J.M.G. (1995) The Origin of War: The Evolution of a Male-Coalitional Reproductive Strategy. Groningen: Origin Press.

Two Sisters and Their Mother: The Anthropology of Incest

By Françoise Heritier (translated by Jeanine Herman), New York, NY: Zone Books. ISBN 0-942299-33-7 (cloth); \$28.00; 341 pages.

Reviewed by Wade C. Mackey, Anthropology Department, Tomball College, Tomball, Texas 77375. E-mail: WADDMAC@aol.com

For most readers, this is not a book about incest. To wit, Heritier writes: "For most people today, incest involves opposite-sex partners who are close blood relations or relatives by marriage... but incest can also occur between a man and his wife's sister or his brother's wife and so forth. The aim of this book is to establish the existence of a form of incest which for lack of a better term, I call incest of the second type (as opposed to incest of the first type, which is the usual but overly narrow definition of incest)" (p. 10). Her use of "incest" is at odds with *The Dictionary of Anthropology* (Barfield, 1997) which restricts "incest" to "sex...between close kin". Heritier argues: "The fundamental criterion of incest is the contact between identical bodily fluids" (p. 11), and that the degree of consanguinity between any two people is but one way to evaluate the existence of incest.

The theory is proffered that natives of various tribes believe that the "contact between identical bodily fluids" is dangerous to the health and well being of the participants as well as to that of the commonweal. This belief and the relevant "incest taboo" to prevent such contact are then woven into the myth and symbolizing structure of the society. Which fluids are targeted and which categories of individuals are the focus of the myth system vary across societies. That is, the "danger from the contact of identical fluids" is viewed as thematic, but the specifics are highly variable across cultural boundaries.

The bulk of the book is devoted to a litany of cultural examples, viz. the Hittites, the Greeks, Christianity, Islam, Judaism, the Samo. These examples are very carefully spelled out with charts and extended analysis. In sum, the book is

about sexual prohibitions in several cultures (most of which are Circum-Mediterranean). The prohibitions are analyzed within the myth systems of the various cultures.

Why such a contact of identical fluids would be considered at all dangerous to anyone or to any society is not of interest to the author and is not explored. Neither are the theme's origin and maintenance, over and beyond cultural inertia. There is minimal effort to compare and contrast Heritier's concept of "incest" with more conventional views of incest. Heritier does write: "I think that it can be shown that if incest of the second type is not the very foundation of incest of the first type, it nevertheless provides the only coherent anthropological explanation for it. It also explains why other unions — with milk kin and god-parents, for example — are prohibited as incestuous" (p. 265).

The book is in the tradition of French Structuralism and of Claude Lévi-Strauss to whom the book is dedicated. French Structuralism is not unlike Freudian psychology in that testability and refutation are neither sought nor given much credence. One either accepts the tenets or not. Once the tenets are in place, then the further work to be done is deductive in character.

Value of the book to ethology. Given its indifference to incest between "blood" or consanguine relatives, the book has limited appeal to our discipline. However, it does profile a rather different paradigm; namely, the symbolizing or myth system of a society that drives human behavior. The "bio-" part of bio-cultural evolution is simply not considered. If one of our number wanted an example of the loyal opposition, then this book will suffice nicely. In addition, if one is interested in the "sexual prohibitions" ("incest" really is the wrong word) in the cultural examples, then this is an informative book. The examples that are given are analyzed with a fine-grained filter. Thus, the book offers an insight into those anthropologists who are insulated from bio-cultural theory/data and gives ethnographic insight into the symbolizing systems of a variety of cultures.

Problems with the book. Either the author enjoyed complicated syntax or the translator of

the book from French to English was not conversant in one or the other language. The book is not an easy read. On occasions, it is simply difficult to follow.

Literary examples infuse the beginning and end of the book. For example, most of Chapter 9 is devoted to analysis of a fictional novel plus an analysis of Woody Allen's marriage to Soon Yi Previn. Neither of these efforts strengthens the book. A glossary is provided; an index would have been useful

Reference

Barfield, T. (ed.) 1997. The Dictionary of Anthropology. Oxford UK: Blackwell pub.

New Books March 2001

Adler, L. L., & U. P. Gielen (eds.) (2001). Cross-cultural Topics in Psychology (2nd ed.). Greenwood Publishing. 368p. ISBN: 0275-969738

Boehm, C. (2000). Hierarchy in the Forest: The Evolution of Egalitarian Behavior. Harvard Univ Press, 292p. ISBN: 0674-390318

Calvin, Wm. H., & D. Bickerton (2000). Lingua ex Machina: Reconciling Darwin and Chomsky with the Human Brain. Cambridge, MA: M.I.T. Press. 298p., ISBN 0-262-032732 (hdbk.), \$26.95.

Cosmides, L., J., Tooby, H., & Cronin (Eds) (2001). What Is Evolutionary Psychology?: Explaining the New Science of the Mind. Yale Univ Press, 64p. ISBN: 0300-083092

Cronk, L., Chagnon, N., Irons, Wm. (2000). Adaptation and Human Behavior: An Anthropological Perspective (Evolutionary Foundations of Human Behavior). Aldine De Gruyter. ISBN: 0202-020444 (pbk).

Eckhardt, R. B. (2000). Human Paleobiology. Cambridge Univ. Press. 350p. ISBN: 0521-451604

Eldridge, N. (2000). The Triumph of Evolution and the Failure of Creationism. W. H. Freeman & Co., 224 p. ISBN: 0716-736381

Gray, P. H. (1998). Ghoulies and ghosties and long-leggety beasties: Imprinting theory linking serial killers, child assassins, molesters, homosexuality, feminism and day care. Montana: Badger Press. 278p. ISBN 0-9663734-13

Jolly, Alison (1999). Lucy's Legacy: Sex and intelligence in human evolution. Harvard Univ. Press, 416p. ISBN: 0674-000692

Jones, S. (2000). Darwin's Ghost : The Origin of Species Updated. Random House, 377p. ISBN: 0375-501037

Katz, L. D. (2000). Evolutionary Origins of Morality: Cross-Disciplinary Perspectives. Imprint Academic, 352p. ISBN: 0907-84507X

Lewontin, R. C. (2000). It Ain't Necessarily So: The Dream of the Human Genome and Other Illusions. New York Review of Books. ISBN: 0940-322102

Lewontin, R. C. (2000). The Triple Helix: Gene, Organism, and Environment. Harvard Univ. Press, 192p. ISBN: 0674-001591

Plomin, R., J. C. DeFries, G. E. McClearn & P. McGuffin (2001). Behavioral Genetics (4th ed.). NY: Worth, 449p. ISBN: 0716-751593

van Schaik, C. P., & Janson, C. H. (eds.) (2000). Infanticide by Males and its Implications. Cambridge Univ Press, 569p. ISBN: 0521-774985

Sober, E., & Wilson, D. S. (1998). Unto Others: The Evolution and Psychology of Unselfish Behavior. Harvard Univ Press, 394p. ISBN: 0674-930479

Stevens, A., & J. Price (2000). Evolutionary Psychiatry: A New Beginning (2nd ed.). Brunner-Routledge, 320p. ISBN: 0415-219795

Turner, J. H. (2000). On the origins of human emotions: A sociological inquiry into the evolution of human affect. Stanford Univ. Press, 189p. ISBN: 0804-737207

CURRENT LITERATURE

March 2001

Compiled by Johan van der Dennen

- Ahn, T.K., Ostrom, E., Schmidt, D., Shupp, R. & Walker, J. (2001) Cooperation in PD games: Fear, greed, and history of play. *Public Choice*, 106, 1-2, 137-155 (Walker, J: Indiana Univ., Dept. Econ., Wylie Hall 105, Bloomington, IN 47405, USA)
- Anderson, A.K., Spencer, D.D., Fulbright, R.K. & Phelps, E.A. (2000) Contribution of the anteromedial temporal lobes to the evaluation of facial emotion. *Neuropsychology*, 14, 4, 526-536 (Phelps, E.A.: NYU, Dept. Psychol., 6 Washington Pl, New York, NY 10003, USA)
- Anderson, K.G. (2000) The life histories of American stepfathers in evolutionary perspective. *Human Nature: An Interdisciplinary Biosocial Perspective*, 11, 4, 307-333 (Univ. Michigan, Inst. Social Res., POB 1248, Ann Arbor, MI 48106, USA)
- Björklund, D.F. & Pellegrini, A.D. (2000) Child development and evolutionary psychology. *Child Development*, 71, 6, 1687-1708 (Florida Atlantic Univ., Dept. Psychol., Boca Raton, FL 33431, USA)
- Blair, T.M., Nelson, E.S. & Coleman, P.K. (2001) Deception, power, and self-differentiation in college students' romantic relationships: An exploratory study. *Journal of Sex and Marital Therapy*, 27, 1, 57-71 (Nelson, E.S.: James Madison Univ., Dept. Psychol., Harrisonburg, VA 22807, USA)
- Blum, K., Braverman, E.R., Holder, J.M., Lubar, J.F., Monastra, V.J., Miller, D., Lubar, J.O., Chen, T.J.H. & Comings, D.E. (2000) Reward deficiency syndrome: A biogenetic model for the diagnosis and treatment of impulsive, addictive, and compulsive behaviors. *Journal of Psychoactive Drugs*, 32 Suppl. S: NIL_3-43,45-47,49-61,63-112 (Univ. N Texas, Dept. Sci. Biol., Denton, TX 76203, USA)
- Boehm, C. (2000) Conflict and the evolution of social control. *Journal of Consciousness Studies*, 7, 1-2, 79-101 (Univ. So Calif., Jane Goodall Res. Ctr., Los Angeles, CA 90007, USA)
- Booth, A., Carver, K. & Granger, D.A. (2000) Biosocial perspectives on the family. *Journal of Marriage and the Family*, 62, 4, 1018-1034 (Penn State Univ., Dept. Sociol., 211 Oswald Tower, University Pk, PA 16802, USA)
- Borgerhoff Mulder, M. (2000) Optimizing offspring: the quantity-quality tradeoff in agropastoral Kipsigis. *Evolution and Human Behavior*, 21, 6, 391-410 (Univ. Calif. Davis, Dept. Anthropol., Davis, CA 95616, USA)
- Brüne, M. & Ribbert, H. (Hrsg.) (2001) *Evolutionsbiologische Konzepte in der Psychiatrie*. Frankfurt a.M.: Europäischer Verlag der Wissenschaften.
- Buchholz, E.S. & Helbraun, E. (2000) A psychobiological developmental model for an "alonetime" need in infancy (in French). *Psychiatrie de l'enfant*, 43, 1, 285-307 (NYU, Dept. Appl. Psychol., 239 Greene St, E Bldg, 5th Floor, New York, NY 10003, USA)
- Burch, R.L. & Gallup, G.G. (2000) Perceptions of paternal resemblance predict family violence. *Evolution and Human Behavior*, 21, 6, 429-435 (Gallup, G.G.: SUNY Albany, Dept. Psychol., 1400 Washington Ave, Albany, NY 12222, USA)
- Buss, D.M., Shackelford, T.K. & LeBlanc, G.J. (2000) Number of children desired and preferred spousal age difference: context-specific mate preference patterns across 37 cultures. *Evolution and Human Behavior*, 21, 5, 323-331 (Univ. Texas, Dept. Psychol., Austin, TX 78712, USA)
- Byrne, R.W. (2000) Evolution of primate cognition. *Cognitive Science*, 24, 3, 543-570 (Univ. St Andrews, Sch. Psychol., St Andrews KY16 9JU, Fife, Scotland)
- Cacioppo, J.T., Berntson, G.G., Sheridan, J.F. & McClintock, M.K. (2000) Multilevel integrative analyses of human behavior:

- Social neuroscience and the complementing nature of social and biological approaches. *Psychological Bulletin*, 126, 6, Special Iss. SI : 829-843 (Univ. Chicago, Dept. Psychol., 5848 S Univ Ave, Chicago, IL 60637, USA)
- Charavel, M. (2000) Evolution in the attitudes of mothers of premature and full-term infants in their interaction with their child: An ethological study from birth to six months (in French). *Psychiatrie de l'enfant*, 43, 1, 175-206 (Univ. Grenoble 2, Lab. Psychol. & Psychopathol. Clin., 1251 Voie Cent, BP 47X, F-38040 Grenoble, France)
- Cloninger, C.R. (2000) Biology of personality dimensions. *Current Opinion in Psychiatry*, 13, 6, 611-616 (Ctr. Psychobiol. Personal., 4840 Childrens Pl, St Louis, MO 63110, USA)
- Coleman, P. & Watson, A. (2000) Infant attachment as a dynamic system. *Human Development*, 43, 6, 295-313 (Univ. South, Dept. Psychol., 735 Univ Ave, Sewanee, TN 37383, USA)
- Constantino, J.N. & Todd, R.D. (2000) Genetic structure of reciprocal social behavior. *American Journal of Psychiatry*, 157, 12, 2043-2045 (Washington Univ., Sch. Med., Campus Box 8134, 660 S Euclid Ave, St Louis, MO 63110, USA)
- Coolidge, F.L., Thede, L.L. & Young, S.E. (2000) Heritability and the comorbidity of attention deficit hyperactivity disorder with behavioral disorders and executive function deficits: A preliminary investigation. *Developmental Neuropsychology*, 17, 3, 273-287 (Univ. Colorado, Dept. Psychol., POB 7150, Colorado Springs, CO 80933, USA)
- Cox, S.M., Hopkins, J. & Hans, S.L. (2000) Attachment in preterm infants and their mothers: Neonatal risk status and maternal representations. *Infant Mental Health Journal*, 21, 6, 464-480 (Beloit Coll., Dept. Psychol., 700 Coll St, Beloit, WI 53511, USA)
- Danis, A., Bourdais, C. & Ruel, J. (2000) The co-construction of joint action between mothers and 2-4-month-old infants: The mother's role. *Infant and Child Development*, 9, 4, 181-198 (Univ. Paris 05, Lab. Cognit. & Dev., 71 Ave Edouard Vaillant, F-92774 Boulogne, France)
- Davidson, R.J., Jackson, D.C. & Kalin, N.H. (2000) Emotion, plasticity, context, and regulation: Perspectives from affective neuroscience. *Psychological Bulletin*, 126, 6, Special Iss. SI : 890-909 (Univ. Wisconsin, Dept. Psychol., 1202 W Johnson St, Madison, WI 53706, USA)
- Delveaux, K.D. & Daniels, T. (2000) Children's social cognitions: Physically and relationally aggressive strategies and children's goals in peer conflict situations. *Merrill Palmer Quarterly Journal of Developmental Psychology*, 46, 4, 672-692 (Daniels, T.: Carleton Univ., Dept. Psychol., 1125 Colonel By Dr, Ottawa, ON K1S 5B6, Canada)
- Diamond, A. & Lee, E. (2000) Inability of five-month-old infants to retrieve a contiguous object: A failure of conceptual understanding or of control of action? *Child Development*, 71, 6, 1477-1494 (Univ. Massachusetts, Sch. Med., 200 Trapelo Rd, Waltham, MA 02452, USA)
- Ebstein, R.P., Benjamin, J. & Belmaker, R.H. (2000) Genetics of personality dimensions. *Current Opinion in Psychiatry*, 13, 6, 617-622 (Herzog Mem. Hosp., Res. Lab., POB 35300, IL-91351 Jerusalem, Israel)
- Eshel, Y., Landau, R., Daniely, A. & Ben-Aaron, M. (2000) Adult attunement and child availability: Interaction of mother and caregiver with three-year-old kibbutz children. *Infant Mental Health Journal*, 21, 6, 411-427 (Univ. Haifa, Dept. Psychol., Mt Carmel, IL-31905 Haifa, Israel)
- Facchini, F. (2000) Symbolism in prehistoric man. *Collegium Antropologicum*, 24, 2, 541-553 (Univ. Bologna, Dipartimento Biol. Evoluzionist. Sperimentale, Via Selmi 3, I-40126 Bologna, Italy)
- Farris, M.R. (2000) Smiling of male and female infants to mother vs stranger at 2 and 3 months of age. *Psychological Reports*, 87, 3, Part 1, 723-728 (Care of Dr Roe KV, Univ.

- Calif. Los Angeles, 300 Med Plaza, Los Angeles, CA 90095, USA)
- Feinberg, M.E. & Hetherington, E.M. (2000) Sibling differentiation in adolescence: Implications for behavioral genetic theory. *Child Development*, 71, 6, 1512-1524 (Penn State Univ., Prevent. Res. Ctr., Henderson S-109, University Pk, PA 16802, USA)
- Flack, J.C. & de Waal, F.B.M. (2000) 'Any animal whatever' - Darwinian building blocks of morality in monkeys and apes. *Journal of Consciousness Studies*, 7, 1-2, 1-29 (Emory Univ., Psychol. Program, 202 Psychol. Bldg, Atlanta, GA 30322, USA)
- Furnham, A., Lavancy, M. & McClelland, A. (2001) Waist to hip ratio and facial attractiveness: a pilot study. *Personality and Individual Differences*, 30, 3, 491-502 (Univ. Coll. London, Dept. Psychol., 26 Bedford Way, London WC1 0AP, England)
- George, P.A., Hole, G.J. & Scaife, M. (2000) Factors influencing young children's ability to discriminate unfamiliar faces by age. *International Journal of Behavioral Development*, 24, 4, 480-491 (Univ. Sussex, Sch. Cognit. & Comp. Sci., Brighton BN1 9QH, E Sussex, England)
- Grammer, K., Kruck, K., Juette, A. & Fink, B. (2000) Non-verbal behavior as courtship signals: The role of control and choice in selecting partners. *Evolution and Human Behavior*, 21, 6, 371-390 (Ludwig Boltzmann Inst. Stadtethol., Inst. Anthropol., Althanstr 14, A-1090 Vienna, Austria)
- Halpern, L.F. & Coll, C.T.G. (2000) Temperament of small-for-gestational-age and appropriate-for-gestational-age infants across the first year of life. *Merrill Palmer Quarterly Journal of Developmental Psychology*, 46, 4, 738-765 (SUNY Albany, Dept. Psychol. Social Sci. 112, Albany, NY 12222, USA)
- Hay, D.C. & Cox, R. (2000) Developmental changes in the recognition of faces and facial features. *Infant and Child Development*, 9, 4, 199-212 (Univ. Lancaster, Dept. Psychol., Lancaster LA1 4YF, England)
- Herpertz, S.C. & Sass, H. (2000) Emotional deficiency and psychopathy. *Behavioral Sciences and the Law*, 18, 5, 567-580 (Univ. Hosp., RWTH, Pauwelsstr 30, D-52074 Aachen, Germany)
- Hess, U., Blairy, S. & Kleck, R.E. (2000) The influence of facial emotion displays, gender, and ethnicity on judgments of dominance and affiliation. *Journal of Nonverbal Behavior*, 24, 4, 265-283 (Univ. Quebec, Dept. Psychol., CP 8888, Stn A, Montreal, PQ H3C 3P8, Canada)
- Hochwalder, J. (2000) Assumptions about human nature: Comparison of implicit and explicit personality theories. *Psychological Reports*, 87, 2, 611-622 (Mid Sweden Univ., Natl. Inst. Working Life, S-11279 Stockholm, Sweden)
- Hoyle, R.H. (2000) Personality processes and problem behavior. *Journal of Personality*, 68, 6, 953-966 (Univ. Kentucky, Dept. Psychol., 106-C Kastle Hall, Lexington, KY 40506, USA)
- Jacobson, K.C., Prescott, C.A. & Kendler, K.S. (2000) Genetic and environmental influences on juvenile antisocial behaviour assessed on two occasions. *Psychological Medicine*, 30, 6, 1315-1325 (Virginia Commonwealth Univ. Med. Coll. Virginia, 800 E Leigh St, POB 980126, Richmond, VA 23298, USA)
- Jones, D. (2000) Group nepotism and human kinship. *Current Anthropology*, 41, 5, 779-809 (Univ. Utah, 102 Stewart Hall, Salt Lake City, UT 84112, USA)
- Jones, O.D. (2000) On the nature of norms: Biology, morality, and the disruption of order. *Michigan Law Review*, 98, 2072-2103 (Arizona State Univ., College of Law, Tempe, AZ 85287-7906, USA)
- Jones, O.D. (2000) An evolutionary analysis of rape: Reflections on transitions. *Hastings Women's Law Journal*, 11, 151-178 (see above)
- Kanazawa, S. (2000) Scientific discoveries as cultural displays: A further test of Miller's courtship model. *Evolution and Human Behavior*, 21, 5, 317-322 (Indiana Univ.

- Pennsylvania, Dept. Sociol., Indiana, PA 15705-1087, USA)
- Kavsek, M.J. (2000) Visual habituation and dishabituation in infancy: The comparator model. *Psychologische Rundschau*, 51, 4, 178-184 (Inst. Psychol., Abt. Entwicklungspsychol. & Padagog. Psychol., Romerstr 164, D-53117 Bonn, Germany)
- Keltner, D. & Anderson, C. (2000) Saving face for Darwin: The functions and uses of embarrassment. *Current Directions in Psychological Science*, 9, 6, 187-192 (Univ. Calif. Berkeley, Dept. Psychol., 3210 Tolman Hall, Berkeley, CA 94720, USA)
- Killgore, W.D.S. (2000) Sex differences in identifying the facial affect of normal and mirror-reversed faces. *Perceptual and Motor Skills*, 91, 2, 525-530 (Harvard Univ., Sch. Med., 115 Mill St, Belmont, MA 02478, USA)
- Kircher, T.T.J., Senior, C., Phillips, M.L., Rabe-Hesketh, S., Benson, P.J., Bullmore, E.T., Brammer, M., Simmons, A., Bartels, M. & David, A.S. (2001) Recognizing one's own face. *Cognition*, 78, 1, B1-B15 (Univ. Tübingen, Dept. Psychiat., Osianderstr 24, D-72076 Tübingen, Germany)
- Kirker, B., Tenenbaum, G. & Mattson, J. (2000) An investigation of the dynamics of aggression: Direct observations in ice hockey and basketball. *Research Quarterly for Exercise and Sport*, 71, 4, 373-386 (Tenenbaum, G.: Florida State Univ., Coll. Educ., 307 Stone Bldg., Tallahassee, FL 32306, USA)
- Kiyonari, T., Tanida, S. & Yamagishi, T. (2000) Social exchange and reciprocity: Confusion or a heuristic? *Evolution and Human Behavior*, 21, 6, 411-427 (Yamagishi, T.: Hokkaido Univ., Grad. Sch. Letters, N10 W7, Sapporo, Hokkaido 0600810, Japan)
- Krueger, R.F. (2000) Phenotypic, genetic, and nonshared environmental parallels in the structure of personality: A view from the multidimensional personality questionnaire. *Journal of Personality and Social Psychology*, 79, 6, 1057-1067 (Univ. Minnesota, Dept. Psychol., N414 Elliott Hall, 75 E River Rd, Minneapolis, MN 55455, USA)
- Lemieux, R. & Hale, J.L. (2000) Intimacy, passion, and commitment among married individuals: Further testing of the triangular theory of love. *Psychological Reports*, 87, 3, Part 1, 941-948 (Western Maryland Coll., Dept. Commun., 2 Coll Hill, Westminster, MD 21157, USA)
- Lesch, K.P. & Merschdorf, U. (2000) Impulsivity, aggression, and serotonin: A molecular psychobiological perspective. *Behavioral Sciences and the Law*, 18, 5, 581-604 (Univ. Wurzburg, Dept. Psychiat. & Psychotherapy, Fuchsleinstr 15, D-97080 Wurzburg, Germany)
- Lewis, M.B. & Ellis, H.D. (2000) The effects of massive repetition on speeded recognition of faces. *Quarterly Journal of Experimental Psychology Section A: Human Experimental Psychology*, 53, 4, 1117-1142 (Cardiff Univ., Sch. Psychol., POB 901, Cardiff CF10 3YG, S Glam, Wales)
- Lindsey, E.W. & Mize, J. (2000) Parent-child physical and pretense play: Links to children's social competence. *Merrill Palmer Quarterly Journal of Developmental Psychology*, 46, 4, 565-591 (Texas Tech. Univ., Dept. Human Dev. & Family Studies, POB 41162, Lubbock, TX 79409, USA)
- Marlowe, F. & Wetsman, A. (2001) Preferred waist-to-hip ratio and ecology. *Personality and Individual Differences*, 30, 3, 481-489 (Harvard Univ., Dept. Anthropol., Cambridge, MA 02138, USA)
- Mayberry, R.I. & Nicoladis, E. (2000) Gesture reflects language development: Evidence from bilingual children. *Current Directions in Psychological Science*, 9, 6, 192-196 (McGill Univ., Sch. Commun. Sci. & Disorders, 1266 Pine Ave W, Montreal, PQ H3G 1A8, Canada)
- McBrearty, S. & Brooks, A.S. (2000) The revolution that wasn't: A new interpretation of the origin of modern human behavior. *Journal of Human Evolution*, 39, 5, 453-563 (Univ. Connecticut, Dept. Anthropol., Storrs, CT 06269, USA)

- McHenry, H.M. & Coffing, K. (2000) Australopithecus to Homo: Transformations in body and mind. *Annual Review of Anthropology*, 29, 125-146 (Univ. Calif. Davis, Dept. Anthropol., Davis, CA 95616, USA)
- Mogg, K., Millar, N. & Bradley, B.P. (2000) Biases in eye movements to threatening facial expressions in generalized anxiety disorder and depressive disorder. *Journal of Abnormal Psychology*, 109, 4, 695-704 (Univ. Southampton, Dept. Psychol., Highfield, Southampton SO17 1BJ, Hants, England)
- Moomal, Z. & Henzi, S.P. (2000) The evolutionary psychology of deception and self-deception. *South African Journal of Psychology*, 30, 3, 45-51 (Univ. Natal, Dept. Psychol., ZA-4001 Durban, South Africa)
- Murray, J.E., Yong, E. & Rhodes, G. (2000) Revisiting the perception of upside-down faces. *Psychological Science*, 11, 6, 492-496 (Univ. Otago, Dept Psychol, Box 56, Dunedin, New Zealand)
- Nyberg, L., Habib, R. & Herlitz, A. (2000) Brain activation during episodic memory retrieval: Sex differences. *Acta Psychologica*, 105, 2-3, 181-194 (Umea Univ., Dept. Psychol., S-90187 Umea, Sweden)
- O'Connor, L.E., Berry, J.W., Weiss, J., Schweitzer, D. & Sevier, M. (2000) Survivor guilt, submissive behaviour and evolutionary theory: The down-side of winning in social comparison. *British Journal of Medical Psychology*, 73, Part 4, 519-530 (Wright Inst., 2728 Durant Ave., Berkeley, CA 94704, USA)
- Olivier, I. & Bard, C. (2000) The effects of spatial movement components precues on the execution of rapid aiming in children aged 7, 9, and 11. *Journal of Experimental Child Psychology*, 77, 2, 155-168 (Univ. Grenoble 1, APS, BP 53 X, F-38041 Grenoble, France)
- Panksepp, A. (2000) The riddle of laughter: Neural and psychoevolutionary underpinnings of joy. *Current Directions in Psychological Science*, 9, 6, 183-186 (Bowling Green State Univ., Dept. Psychol., Bowling Green, OH 43403, USA)
- Pearson, O.M. (2000) Postcranial remains and the origin of modern humans. *Evolutionary Anthropology*, 9, 6, 229-247 (George Washington Univ., Dept. Anthropol., Washington, DC 20052, USA)
- Peirson, A.R. & Heuchert, J.W. (2000) Correlations for serotonin levels and measures of mood in a nonclinical sample. *Psychological Reports*, 87, 3, Part 1, 707-716 (Univ. Witwatersrand, Dept. Psychol., Private Bag 3, ZA-2050 Wits, South Africa)
- Ridderinkhof, K.R. & van der Stelt, O. (2000) Attention and selection in the growing child: views derived from developmental psychophysiology. *Biological Psychology*, 54, 1-3, 55-106 (Univ. Amsterdam, Dept. Dev. Psychol., Roetersstr 15, NL-1018 WB Amsterdam, Netherlands)
- Rodseth, L. & Novak, S.A. (2000) The social modes of men - Toward an ecological model of human male relationships. *Human Nature: An Interdisciplinary Biosocial Perspective*, 11, 4, 335-366 (Univ. Utah, Dept. Anthropol., 270 South 1400 East, Rm 102, Salt Lake City, UT 84112, USA)
- Ross, C.F. (2000) Into the light: The origin of Anthrozoidea. *Annual Review of Anthropology*, 29, 147-194 (SUNY Stony Brook, Hlth. Sci. Ctr., Stony Brook, NY 11794, USA)
- Rushton, J. P. & Skuy, M. (2000) Performance on Raven's Matrices by African and White university students in South Africa. *Intelligence*, 28, 251-265 (Dept. Psychol., Univ. Western Ontario, London, Ontario Canada N6A 5C2)
- Schuiling, G.A. (2000) Pre-eclampsia: a parent-offspring conflict. *Journal of Psychosomatic Obstetrics and Gynecology*, 21, 3, 179-182 (Univ. Groningen, Fac. Med. Sci., A Deusinglaan 1, NL-9713 AV Groningen, Netherlands)
- Sheldon, K.M., Sheldon, M.S. & Osbaldiston, R. (2000) Prosocial values and group assortment - Within an N-person prisoner's dilemma game. *Human Nature: An Interdisciplinary*

- Biosocial Perspective, 11, 4, 387-404 (Univ. Missouri, Dept. Psychol., 210 McAlester Hall, Columbia, MO 65211, USA)
- Stevenson, J.C. & Williams, D.C. (2000) Parental investment, self-control, and sex differences in the expression of ADHD. *Human Nature: An Interdisciplinary Biosocial Perspective*, 11, 4, 405-422 (Western Washington Univ., Dept. Anthropol., Bellingham, WA 98225, USA)
- Surbey, M.K. & Conohan, C.D. (2000) Willingness to engage in casual sex - The role of parental qualities and perceived risk of aggression. *Human Nature: An Interdisciplinary Biosocial Perspective*, 11, 4, 367-386 (James Cook Univ., N Queensland, Sch. Psychol., Townsville, Qld 4811, Australia)
- Vrij, A., Edward, K., Roberts, K.P. & Bull, R. (2000) Detecting deceit via analysis of verbal and nonverbal behavior. *Journal of Nonverbal Behavior*, 24, 4, 239-263 (Univ. Portsmouth, Dept. Psychol., King Henry Bldg, King Henry 1 St, Portsmouth PO1 2DY, Hants, England)
- Wade, T.D. & Kendler, K.S. (2000) The genetic epidemiology of parental discipline. *Psychological Medicine*, 30, 6, 1303-1313 (Kendler, K.S.: Virginia Commonwealth Univ., Med. Coll. Virginia, POB 980126, Richmond, VA 23298, USA)
- Ward, M.J., Lee, S.S. & Lipper, E.G. (2000) Failure-to-thrive is associated with disorganized infant-mother attachment and unresolved maternal attachment. *Infant Mental Health Journal*, 21, 6, 428-442 (New York Presbyterian Hosp., 525 E 68 St, New York, NY 10021, USA)
- Weiss, A., King, J.E. & Figueredo, A.J. (2000) The heritability of personality factors in chimpanzees (*Pan troglodytes*). *Behavior Genetics*, 30, 3, 213-221 (Univ. Arizona, Dept. Psychol., Tucson, AZ 85721, USA)
- Weiss, K.M. & Buchanan, A.V. (2000) Rediscovering Darwin after a Darwinian century. *Evolutionary Anthropology*, 9, 5, 187-200 (Penn State Univ., University Pk, PA 16802, USA)
- Whiten, A. (2000) Primate culture and social learning. *Cognitive Science*, 24, 3, 477-508 (Univ. St Andrews, Sch. Psychol., St Andrews KY16 9JU, Fife, Scotland)
- Yamaguchi, M.K. (2000) Discriminating the sex of faces by 6-and 8-mo.-old infants. *Perceptual and Motor Skills*, 91, 2, 653-664 (Chuo Univ., Sch. Literature, 742-1 Higashinakano, Hachioji, Tokyo 1920393, Japan)
- Zuckerman, M. & Kuhlman, D.M. (2000) Personality and risk-taking: Common biosocial factors. *Journal of Personality*, 68, 6, 999-1029 (Univ. Delaware, Dept. Psychol., 220 Wolf Hall, Newark, DE 19716, USA)

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 (less than 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 newsletter never implies the truth of those ideas, ISHE's endorsement of them, or support for any of them.