

# Human Ethology Bulletin

Editor: Glenn Weisfeld

Department of Psychology, Wayne State University, Detroit, MI 48202 USA  
1-313-577-2835 (office) 577-8596 (lab), 577-2801 (messages), 577-7636 (Fax), 393-2403 (home)

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## SOCIETY NEWS

### Vienna Congress Update

The 13th biennial conference of the International Society for Human Ethology is scheduled for 5-10 August 1996 at the Biological Sciences site of the University of Vienna, Austria.

The conference will be dedicated to direct observation of human behavior. Themes will be gender advertisement, mate selection, environment-behavior interactions, nonverbal communication, evolution and cognition, behavior genetics, development, psychiatry, and hormonal control of behavior. In addition, workshops on epistemological issues in ethology and sociobiology and on digital image analysis will be held. There will also be an exhibit and sale of some of the famous drawings by the orangutan Nonja; she may be visited at the Schönbrunn Zoo in Vienna.

We invite all those who are interested in human ethology and allied fields to present their research and join us in the conference and in experiencing the tradition-laden atmosphere of the Austrian capital, a few hours by train from Salzburg, Munich, Budapest, Prague and Venice.

*Opening address:* Irenäus Eibl-Eibesfeldt (Max-Planck-Gesellschaft): "Vienna: Cradle of ethology."

*Keynote address:* Robin R. Baker (University of Manchester): "Copulation, masturbation, and infidelity: State of the art."

*Plenaries (preliminary list):*

Peter K. Smith (University of London Goldsmiths' College): "Observational and reported data: Children's rough-and-tumble play."

Robin Dunbar (University College London): "The language evolution story."

Karl Sigmund (Universität Wien): "Games evolution plays: Mathematical basics of cooperation."

Thomas Bouchard (University of Minnesota): "Twin studies and human behavior."

Sue Carter (University of Maryland): "Influence of hormones on human behavior."

Siegfried Frey (Universität Duisburg): "Non-semantic approach to nonverbal behavior: Cartographic methods."

Glenn Weisfeld (Wayne State University): "Observational studies and future developments in human ethology."

Delegates who wish to present research must submit an abstract along with their registration. Participants are limited to a single oral or poster paper; authors are requested to indicate their preference, but decisions rest with the Organizing Committee.

Talks are limited to 15 minutes plus 5 minutes for discussion. Minimum font size for overheads and slides is 18 pt. Posters must not exceed 120 cm. x 90 cm. They will be on display throughout the conference. Poster talks, Wednesday afternoon, are limited to 2 minutes, with no more than one slide or overhead.

### ***Abstract Instructions***

Send your abstract on paper and diskette or e-mail (3.5 ", DOS or Apple-Macintosh, any common word processing software, preferably Microsoft WinWord 6.0). Abstract, including title and name, must not exceed 200 words or will be cut. Use Times Roman 11 font for text. Title (in **bold face**) should be no more than 60 spaces, in Times 12 font. Authors' full names should be in capitals, with the presenter's name underlined. Title and authors should be centered. Text should be left- and right-justified, with no paragraph indentations. A maximum of six (capitalized) keywords should follow. Lastly, the authors' addresses (including fax and e-mail), should appear. **If you wish compete for the Young Investigator Award** (see following article), mark your abstract title in the left margin with the initials "YIA".

### ***Important Dates***

**Abstracts are due on 1 May 1996**; send to Dr. Alain Schmitt, LBI for Urban Ethology, c/o Inst. f. Humanbiologie, Universität Wien, Althanstr. 14, 1090 Vienna, Austria; e-mail [alain.schmitt@univie.ac.at](mailto:alain.schmitt@univie.ac.at). Notification of acceptance will be 1 July. **Deadline for reduced registration fees is 1 April**; for regular registration fees, 1 May. The opening address will be at 18:00 on 5 August; program will end at 13:15 on 10 August.

### ***Registration***

**All payments must be in Austrian schillings** (about ten to the US dollar). Payment may be by Eurochèque (max. 2500 ATS per chèque) or banker's check payable to "13th ISHE Conference Vienna"; bank transfer to the Raiffeisenbank Wien (bank code 32900), without charges for the recipient; Eurocard/Mastercard, Visa, Diners or American

Express (150 ATS charge per payment). Please bring receipts to the conference to help correct any errors.

Payment must accompany the **conference registration form**. There is a second registration form, for travel, hotel, and social programs. **Both forms** may be obtained from and must be returned to the Conference Bureau:

WKV-Wiener Kongress Management  
c/o Wiener Medizinische Akademie  
Alser Str. 4, A-1090 Vienna, Austria  
Tel. 43-1-42-71-65; fax 43-1-42-13-83-23.

Again, the **abstract** must be sent to Alain Schmitt.

Registration includes a welcome cocktail, a buffet dinner one evening and a *Heuriger* (traditional Austrian tavern meal with wine) on another, and a one-week ticket for unlimited local transportation. Lunch is available at 120 ATS per day; reserve your meal tickets on the registration form. Restaurants are within walking distance for those who prefer to lunch there, and for other dinners. Registrants and accompanying persons may also sign up for an extensive cultural program.

### **Registration fees:**

ISHE members: 2600 before 1 April; 3100 after  
Nonmembers: 3100 before; 3600 after  
Students under 30 years of age: 1600 before; 1900 after  
On site: add 10%.  
Accompanying persons: 1000 before; 1200 after; this includes all of the above amenities.

**Cancellation fees:** 20% if postmarked before 1 April; 50% before 1 June; no refund thereafter. Indicate bank code and account no.

Additional information and any corrections will appear in the next *Bulletin*.

*Information submitted by Bill Charlesworth and the Organizing Committee: Klaus Atzwanger, Karl Grammer, Katrin Schäfer, and Alain Schmitt.*

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## Announcement of the First Biennial Competition for Young Ethological Scholars

*By Gail Zivin, Chair, Ad Hoc  
Committee on Young Scholars  
Competition*

At the ISHE business meeting in Toronto in 1994, it was decided to offer a prize for young ethologists. The rules for the competition, which are presented below, have been formulated by this committee and approved by the officers. The rationale and scoring structure for this competition reflect the formal dimensions of scholarly productivity that the Society wishes to support in young researchers in our field. The first award will be given at the 5-10 August 1996 meeting in Vienna.

The tangible award will be free Society membership, free registration at the Biennial Congress following the one at which the Award was won, a coveted book, and a certificate of award.

**Eligibility:** Any graduate student whose degree is not yet awarded by the end of the spring of the year that the paper is submitted.

**Length:** Five pages double spaced (maximum).

**Form of Presentation:** Initial submission will be in writing (3 copies) to be read by 3 judges at least 8 weeks before the next Congress of the International Society for Human Ethology. The student will orally present the paper at that next Congress, in a regular program session, as organized by topic. (Each Competition entry will be indicated in the program.)

All three judges will read all submissions and see all oral presentations.

### **Judges' Criteria:**

**Substance:** well and clearly formed question or problem.

**Presentation:** clarity of presentation (written and oral).

**Extra credit:** originality of topic or question, originality of method, and contribution to the field. For additional details on scoring, contact Gail Zivin, Dept. of Psychiatry and Human Behavior, Jefferson Medical College, Thomas Jefferson University, Philadelphia, PA 19107 USA; tel. 1-215-247-1895, fax 1-609-488-0925; e-mail zivin1@tju.edu.

## New Address and Duties for Linda Mealey

Linda Mealey has taken over as chief book review editor. She is now arranging reviews of all books written in English. Stuart Laws has asked to be relieved of handling English language books published in Europe. He will follow through on book reviews that he has already assigned. We thank Stuart for his work in this capacity, and hope he can resume his involvement in the *Bulletin* at a future date.

Linda continues to work very hard in identifying books suitable for review, obtaining review copies, contacting potential reviewers, editing reviews, forwarding them to me, and sending reminders to those who have agreed to write reviews. Perhaps I should mention that I do any final editing of the *Bulletin* copy, so Linda should not be blamed for any errors or misguided revisions.

As some of you know, Linda will be moving to the University of Queensland, Brisbane, Australia in January 1996. We congratulate her on this new job and wish her well. In anticipation of this move, she has kindly provided a backlog of reviews for the next couple of *Bulletins*.

Linda's new address is Department of Psychology, Queensland University, Brisbane 4072, Australia. Fax: 61-7-3365-4466. E-mail: lmealey@psy.uq.edu.au. Please make a note of it, as it will not appear in the new Membership Directory.

## *HANS--Computer Program Cataloguing Evolutionary Explanations of Human Behavior*

The yellow card that accompanies this issue of the *Bulletin* allows you to order this new computer program developed by ISHE member Frans Roes and Marco Bleeker. HANS is distributed by the European Sociobiological Society. Added note: Dutch purchasers who use postal giro should send payment to J. Wind, Dept. of Human Genetics, Free University-Amsterdam, P. O. Box 7161, 1007 MC Amsterdam, The Netherlands. Editor's Note: Inclusion of this card was paid for by HANS.

## Membership Directory

All paid-up members of ISHE are receiving the new Membership Directory with this issue. All paid-up members are listed therein. **If you wish to receive the Directory and have not paid your dues**, you know what to do. Individual copies of the Directory are available at \$5 from the Editor.

The Directory was compiled by Membership Chair Nancy Segal, who deserves our thanks. She took great pains to eliminate errors, so there should be few of them. Please inform me of any that you do spot, however, so corrections can be published.

This Directory lists 412 members. This is almost the same as the 417 listed in the last Directory, compiled in 1990 by Frans Plooi, the last Editor. Year-end totals over the past few years also show amazing stability of our membership. This is perhaps not a bad thing, since several other similar societies have begun in the last several years. And our dues have risen by 20%, albeit only recently. As Barbara Fuller's report in the last issue shows, we are in good financial shape. Costs of printing and mailing the *Bulletin* have not risen greatly despite its increased length, mainly because we are using lighter paper.

The percentage of Americans remains constant: 56% now, 58% last time. To avoid any invidious competition, I will leave it to you to make any other national comparisons. Please do notice, however, that we have about 30 countries represented.

Almost all memberships are paid. A few people in relatively impoverished countries receive complimentary memberships. In some cases a member has sponsored a foreign colleague in financial straits. Please do consider providing this service to anyone in need.

For the past few years I have sent out sample issues to selected authors of articles listed in the Current Literature section. Nancy will now perform this service as Membership Chair. This tactic seems to have brought us some new members. Also, Linda and I send out some sample issues along with reprints of our publications. Last year we placed a small ad with a publication sent to academic librarians,

but we gained only a couple of new members and shall suspend practice for now.

A few years ago we lowered the membership rate for libraries to the rate for individuals, on the suggestion of Bill McGrew. This has not resulted in any noticeable increase in library memberships. Similarly, appeals to the membership to ask their university librarians to subscribe have not had any obvious impact. Let me ask again that you simply **send a note to your librarian** making this request. This is a relatively cheap periodical, and you may find it useful to refer students to the Current Literature sections for references. Sample issues are available from me to send to librarians or to distribute to students. The latter seems to be an effective means of gaining new members. Let me know how many copies you would like.

<p><b>ISHE ELECTRONIC BULLETIN BOARD: On the World Wide Web at <a href="http://evolution.humb.univie.ac.at">http://evolution.humb.univie.ac.at</a>. Operated by Karl Grammer, e-mail <a href="mailto:karl/grammer@univie.ac.at">karl/grammer@univie.ac.at</a>.</b></p>
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## Purchase of Our Mailing List

If you wish to publicize one of your books, please consider purchasing a set of mailing labels from us. There is a reduced price for members of \$0.25 each, or about \$125. The usual rate is \$0.35 each, total about \$175.

## Changes of Address

In its wisdom the U.S. Postal Service has stopped informing senders of addressees' changes of address. Formerly, mail sent to an expired address was returned to the sender with the recipient's new address provided. Now, because of some foul play, this service is no longer provided. This means that we are getting *Bulletins* returned and cannot forward them to the new addresses.

**If you move, please remember to send Barbara Fuller a change of address card.** You may also wish to send such cards to your loved ones, but above all send one to us. Until you do so, we may be unable to send you the *Bulletin*.

## Correction

In a new low, I managed in the September issue to err on both Treasurer Barbara Fuller's fax number and her e-mail address. The correct fax number is 1-303-270-8660. E-mail: barbara.fuller@uchsc.edu. My apologies to all affected.

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## REPLY TO A COMMENT

### A Response to Nancy Aiken's Comment on a Review of *Animal Mind*

By James H. Fetzer, Department of Philosophy, University of Minnesota, Duluth, MN 55812 USA (e-mail: jfetzer@d.umn.edu)

The *Bulletin* published a commentary by Nancy E. Aiken (June 1995) on my review of Donald Griffin's *Animal Mind* (September 1994). I appreciate the time and effort that she expended in composing this piece and agree with many aspects of her discussion. However, I believe she misunderstood my views in several regards.

Aiken begins by implying that I maintain that cognitive ethology is built upon two opposing views of behavior, the "common-sense" view that animals make deliberate choices and the "behavioristic" view that cognitive processes have no effect on behavior. Her criticism—that cognitive ethology must then be built on "two very simplistic views"—would be appropriate, if that were my position. But I introduced them merely to identify the range of views that have been advanced without suggesting they are remotely exhaustive.

She correctly reports that Griffin believes that animals might possess at least two different kinds of consciousness, **perceptual consciousness** (understood as the state or process of being aware of something), and **reflective consciousness** (understood as the state or awareness of one's own awareness). She responds to my proposal that consciousness might be best understood within the framework

of the **semiotic conception** of minds as sign-using systems, however, by declaring my view may be "too limiting".

On the account that Aiken provides, I suspect she is correct, but that account is not mine. She characterizes minds of Type I, for example, as those that can process signs that "look like" what they stand for. But that leaves out things that taste like, smell like, sound like and feel like other things as well. The omission of the capacity to recognize tastes (smells, sounds, textures or colors, for example) would surely supply an inadequate conception of minds of Type I, but my account includes capabilities that Aiken does not mention.

The crucial capacity of minds of Type I is that things that resemble other things can function as signs for them. Aiken correctly notes that minds of Type II are capable of using causes (or effects) as things that stand for corresponding effects (or causes), and of Type III the ability to use signs that are only habitually or conventionally associated with what they stand for. The same thing, however, such as a whiff of perfume, can not only resemble other instances of that aroma but also bring to mind someone who has used that perfume along with her name, a case involving signs of all three kinds.

Aiken cites David Hume as having said, "all we know is what we know from our senses; we can only assume cause and effect". What I have to say has little or nothing to do with Hume's **radical empiricism**, which claims that the only legitimate or acceptable ideas or thoughts are ones whose content can be traced back to sense impressions that gave rise to them. He therefore held that, since causal connections are not directly accessible to us in sense experience, our belief in their objective existence is not acceptable.

For reasons I have elsewhere explained (Fetzer 1981, Ch. 7, and Fetzer 1993, Ch. 2, for example), Hume's position—intended as a refutation of the Cartesian stance that "knowledge" must possess **certainty**—cannot be sustained, although the Cartesian stance is undoubtedly too strong. But even Hume admitted that the human mind invariably draws inferences from the occurrence of events that are spatially contiguous with and temporally prior to other events (as "causes") to the occurrence of other events (as "effects"),

which is the strongest Humean claim necessary for my position.

Aiken suggests that our knowledge of causal connections may require appealing to modes of functioning of the human mind, as once proposed by Immanuel Kant. While difficult to comprehend, she says, "(p)erhaps he [Kant] could have explained [himself] more clearly if he had ethological studies to use as examples". She cites a study by Michael Ruse, where he recommends viewing Kant's conception of a priori synthetic knowledge from the perspective of Lumsden and Wilson's idea of epigenetic rules.

There is a touch of irony here, since Ruse maintains that Hume, rather than Kant, is the philosophical precursor to Lumsden and Wilson. The Kantian approach, which I applaud, requires separating out the a priori from the synthetic. As developmental genetic programs, epigenetic rules provide a basis for anticipating the course of an organism's development under various (internal and external) environmental conditions. As evolved genetic programs, epigenetic rules also provide a basis for predicting the relative fitness for survival and reproduction of organisms possessing those programs in various environments (Fetzer 1985; 1996, Chs. 6 and 7).

Aiken also mentions the possibility that some stimuli may be able to affect an organism without the organism's awareness of its presence. She suggests that these stimuli function in a fashion similar to Type III signs; "(h)owever, the association is not through convention but through biology." While there may be some cases of subliminal influence involving symbols, I strongly suspect that associations that are effected by biology must be Type II causal connections of whose operation we are not entirely aware.

The introduction of metaphors within the context of this discussion introduces new issues that I have not previously discussed. To describe a person as "a real brick", for example, is to attribute to him some of the qualities of things of that object—firmness, strength, unyielding support—but not others. We would have misunderstood if we thought such a person was being characterized instead as a small block of clay and straw. The presupposition of a point of view, as in this case, I believe, is both distinctive of the use of signs and a pervasive aspect of mentality.

## References

Fetzer, James H. (1981), *Scientific Knowledge*. Dordrecht, The Netherlands: D. Reidel Publishing Company.

---(1985), *Science and Sociobiology*. In James H. Fetzer, ed., *Sociobiology and Epistemology*, pp. 217-246. Dordrecht, The Netherlands: D. Reidel Publishing Company.

--- (1996), *Philosophy and Cognitive Science* (2nd ed.). New York, NY: Paragon House Publishers.

--- (1993), *Philosophy of Science*. New York, NY: Paragon House Publishers.

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## Report on HBES Meeting

By Linda Mealey

The seventh annual meeting of the Human Behavior and Evolution Society was held in Santa Barbara, California 28 June - 2 July 1995. Despite a record number of both plenaries and paper sessions (there were 26 paper sessions plus a poster session), the organizers did an exemplary job of fitting everything into a practical and manageable schedule. The success in arranging sessions with fairly strong themes resulted in little need to jump from session to session; however, for those who did move around, presenters did an excellent job of staying on time.

The plenaries on each of the three full days of the meeting were well-attended and well-received. They were:

"Genetic Conflicts in Human Pregnancy" by David Haig of The Museum of Comparative Zoology at Harvard University;

"The Natural Origins of Understanding Other Minds" by Alan Leslie of The Center for Cognitive Science at Rutgers University;

"Behavioral Foundations of Reciprocity" by Vernon Smith of the Economic Science Laboratory of the University of Arizona;

"Birth Order and Evolutionary Psychology" by Frank Sulloway of the Massachusetts Institute of Technology;

"What the Culture Concept Can and Cannot Do for Human Behavioral Ecology" by Lee Cronk of the Department of Anthropology at Texas A & M;

"The Language Instinct" by Steven Pinker of the Center for Cognitive Neuroscience at MIT;

"Judeo-Christianity, Morality, and Group Selection" by John Hartung of the SUNY Brooklyn Medical School;

"Adapted Mind, Evolved Ontology, and Acquired Culture" by Pascal Boyer of C.N.R.S., Lyon, France; and

"From the Neanderthal to Modern Mind" by Steven Mithen of the Department of Archaeology of the University of Reading, England.

In addition, Richard Dawkins of the Department of Zoology, Oxford University gave a dinner keynote address entitled "Animal Models of Past and Present Worlds".

Perhaps the best-received plenary was that by Sulloway. His meta-analysis of birth order effects showed that despite reports to the contrary, the literature on significant birth order effects is alive and kicking. What made his talk particularly interesting is that he devoted a major portion of his presentation to the relationship between birth order and the openness to new ideas, using scientific ideas as an example. Sulloway showed that despite the very strong effect of firstborns being more assertive and more likely to take on leadership positions, it is laterborns who are more open to new ideas. Sulloway showed slide after slide demonstrating that laterborns were more open to the then-revolutionary ideas of Newton, Einstein, and even Darwin! Given that most of the people in the room were likely to be firstborns (including myself), a good deal of reference to the implications of this effect was bandied around throughout the rest of the weekend, with even Richard Dawkins explaining away the fact that he was a firstborn by making reference to the fact that when one is sent away to boarding school, one really is never in the dominant position vis-à-vis one's pseudosiblings!

Quite a few ISHE members were in attendance, including myself (N. Am. Book Review Editor), Nancy Segal (Membership Chair), and Chuck Crawford (Vice-President/President-Elect). Klaus Atzwanger of the Ludwig-Boltzmann-Institut was also there; he not only presented a marvelous talk on aggressive driving but also brought flyers and posted notices about the 1996 ISHE meeting in Vienna. I am sure that we will recruit a few new ISHE members from this publicity--one person, Iver Mysterud of Norway, gave me cash on the spot! (Welcome, Iver!)

Although I did not attend the business meeting, subjects of discussion included: the 1996 meeting (at Northwestern University in Chicago, to be hosted by Bill Irons and Jack Beckstrom, with Mike Bailey and me as program chairs); how to increase the number of entries into the New Investigator Competition; and how to find funds for graduate students to attend the meeting. Announcement of the newly-elected officers took place at the dinner banquet. They are: Margo Wilson as President-Elect; Kevin MacDonald as Secretary-Archivist; and Monique Borgerhoff-Mulder and Sarah Hrdy as Councillors. The Presidency exchanged hands from Napoleon Chagnon to Richard Alexander, but the treasurer and the rest of the councillor positions were not up for change this year.

## ESS Meeting

The European Sociobiological Society met at Christ's College, Cambridge 3-6 August 1995. This was the eighteenth annual meeting. The theme of this conference was "The Darwinian Heritage and Sociobiology." Keynote speeches were given by William Hamilton, Paul Ekman, and Robert Hinde. An inspiring tour of Darwin's Down House was arranged. This was one of the largest ESS meetings, and a very productive and well organized one in a beautiful setting. The papers:

Allott, R. Evolution and culture: the missing link. 5 Fitzgerald Park, Seaford, East Sussex BN25 1AX, England.

Alves, L.F. Darwin, Marx and human nature. Rua Uruguai 468 apt 206, CEP 20510-060, Tijuca - Rio de Janeiro, Brazil.

- Archer, J. Physical aggression among young men. Dept. of Psychology, Univ. of Central Lancashire, Preston, Lancashire PR1 3HG, England.
- Bonet, E. M. Xenophobia. Pötzleinsdorferstr., 194/8/8, A-1180 Vienna, Austria.
- Bradie, M. Darwin, the eighteenth century British moral tradition and contemporary sociobiology. Dept. of Philosophy, Bowling Green State Univ., Bowling Green, OH 43403, USA.
- Butovskaya, M., & Kozintsev, A. Sexual dimorphism and the evolution of gender stereotypes in man: A sociobiological perspective. Inst. of Ethnology and Anthropology, Leninski prospekt, 32 a, korp. "B", Moscow, 117334 Russia.
- Callebaut, W. Crossings the Atlantic gap in evolutionary epistemology. Limburgs Univ. Centrum, Universitaire Campus, 3610 Diepenbeek, Belgium.
- Constable, J. Naturalising the study of cultural objects: Using literacy material as data in human behavioural studies. Dept. of International Culture, Faculty of Integrated Human Studies, Kyoto Univ., Yoshida Nihonmatsu-cho, Sakyo-ku, Kyoto, 606-01, Japan.
- Corning, P. A. The co-operative gene: synergy, symbiosis and sociobiology. Institute for the Study of Complex Systems, 119 Bryant St., Ste. 212, Palo Alto, CA 94301-1103, USA.
- Ekman, P. Darwin and the expression of emotion. Univ. of California, Dept. of Psychiatry, 401 Parnassus, San Francisco, CA 94143-0984, USA.
- Elworthy, C. Darwinian psychology: the appropriate disciplinary link between evolutionary theory and the social sciences. European Academy, Schloss Wartin, 16306 Wartin, Germany.
- Euler, H. A. Grandparental care and intergenerational relations reflect reproductive strategies. Univ. of Kassel, 34109 Kassel, Germany.
- Gilbert, P. Evolution of shame and the Importance of social attractiveness. Kingsway Hospital, Derby DE22 3LZ, England.
- Hamilton, W. D. What made it a man's world? Dept. of Zoology, University of Oxford, south Parks Road, Oxford, England.
- Hinde, R. Darwin and culture. St. John's College, Cambridge, England.
- Kim, K., & Smith, P.K. Conflict in childhood and reproductive development: A survey in Italy. Dept. of Psychology, Univ. of Sheffield, Western Bank, Sheffield S10 2TP, England.
- Kozintsev, A., & Butovskaya, M. Grooming, social power, and kinship in female-bonded primates: the case of macaques. Museum of Anthropology & Ethnography, 199034, St. Petersburg-34, Russia.
- Lampert, A. With whom was Darwin supposed to fall in love? Ruppiner Institute, Israel 40260.
- Mace, R. Reproductive consequences of marital status in a traditional pastoralist society: implications for the pair-bond. Univ. College London, Gower St., London WC1E 6BT, England.
- Manning, J.T., & Scutt, D. Symmetry and ovulation in women. Dept. of Environmental & Evolutionary Biology, Univ. of Liverpool, P.O. Box 147, Liverpool L69 3BX, England.
- Meyer, P. The sociobiology of human cooperation: the interplay of ultimate and proximate causes. Buchenstrasse 19, D-86356 Neusäß, Germany.
- Nabulsi, A.J. Mating patterns and their role in the formation and structure of the Abbad tribe in Jordan. Institut für Humanbiologie, Allende-Platz 2, D-20146 Hamburg, Germany.
- Price, J. S. The implications of sexual selection theory for human behavioural variation. Odintune Place, Plumpton, Lewes, East Sussex BN7 3AN, England.
- Rushton, P. Individual differences, brain size, and evolutionary science. Dept. of Psychology, Univ. of West Ontario, London, Ontario, N6A 5C2 Canada.
- Santangelo, A. Forming of 'intellective-affective complexes' at a social extension: Economy, material inheritance, totemism. Piazzale Giovanni delle Bande Nere, 2, 20146 Milano, Italy.



Schell, N., & Weisfeld, C. Marital power dynamics: a Darwinian perspective. C. Weisfeld, Dept. of Psychology, University of Detroit Mercy, 8200 W. Outer Dr., Detroit, MI 48219 USA.

Scott, J.P. The Evolution of cooperative behavior in non-human animal societies. Dept. of Psychology, Bowling Green State University, Bowling Green, Ohio, USA.

Segerstråle, U. Who won the sociobiology controversy? Dept. of Social Sciences, Illinois Inst. of Technology, 3101 South Dearborn, Chicago, IL, USA.

Slurink, P. Culture and the evolution of the human mating system. Dept. of Philosophy, Univ. of Nijmegen, Erasmusplein 1, Postbus 9103, 6500 HD Nijmegen, The Netherlands.

Smillie, D. Darwin's two evolutionary paradigms. Dept. of Zoology, Duke Univ., Durham, NC, 27708-0325, USA.

Surbey, M.K. Human mate selection: Why girls just can't have fun. Dept. of Psychology, Mt. Allison Univ., New Brunswick, Canada.

Telleschi, T. Sociobiology of communication and culture.

Vanhanen, T. A theory of ethnic nepotism. Suopolku 4 D, 01800 Klaukkala, Finland.

Waller, M. J. C. Darwinism and the enemy within. "Glenclyne", Brook Lane, Cropthorne, Pershore, Worcs., WR10 3JX, England.

Weisfeld, G. Darwinian analysis of the emotion of pride/shame. Dept. of Psychology, Wayne State University, Detroit, MI 48202, USA.

Werner, D. Evolutionary Theory and Cultural Anthropology: Implications for Epistemology, Psychic Unity and Cross-Cultural Variation. Univ. of Hamburg, Schubertstr. 3, D-22083 Hamburg, Germany.

Wilson, D. R., & Stanton, S. Serotonin and dopamine in the service of kinship selection: the evolutionary epidemiology of sociophysiological transmission. 1101 Summit Rd., Cincinnati, OH 45237, USA.

Witte, K. Female response to artificial male traits - a test of Darwin's hypothesis. Arbeitsgruppe für Verhaltensforschung, Ruhr-Universität Bochum, 44780 Bochum, Germany.

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## Symposium on Sexual Orientation and Sex-Typical Behavior

An International Behavioral Development Symposium took place at Minot State University, Minot, North Dakota, USA on the "Biological Basis of Sexual Orientation and Sex-Typical Behavior." Organized by ISHE member Lee Ellis, it was held 25-27 May 1995. It was funded by a private foundation, and is probably the largest conference on this topic. As Lee says, there is an emerging consensus that sexual orientation is influenced most strongly by genetic and prenatal factors, but learning may play a substantial role in sex role behavior. Thus, this is one human behavior with widely acknowledged biological underpinnings. Thanks to Ritch Savin-Williams for the list of abstracts: Health Sciences, The Chicago Medical School, 3333 Green Bay Rd., North Chicago, IL 60064-3095, USA.

Adkins-Regan, E. Hormones and the development of sexual orientation. Dept. of Psychology, Uris Hall, Cornell Univ., Ithaca, NY 14853-7601, USA.

Ankney, C.D., & Rushton, J.P. Sex differences in brain size and cognitive abilities. Dept. Zool., Univ. Western Ontario, London, Ontario N6A 5C2, Canada.

Arai, Y., et al. Lordosis behavior in male rats: The presence of inhibitory mechanisms for the display of lordosis. Dept. of Anatomy, Juntendo Univ. School of Medicine, 2-1-1 Hongo, Bunkyo-ku, Tokyo 113, Japan.

Bakker, J. & Koos Slob, A. On the origin of sexual partner preference behavior in the male laboratory rat: Behavioral, anatomical and immunocyto-chemical studies. Dept. Endocrinol. & Reproduction. Faculty of Medicine & Health Sciences, Erasmus Univ. Rotterdam, POB1738, The Netherlands.

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## BOOK REVIEWS

### *Kanzi: The Ape at the Brink of the Human Mind*

By Sue Savage-Rumbaugh and Roger Lewin.  
1994, Wiley & Sons, 1 Wiley Dr., Somerset, NJ  
08875 USA, \$24.95 (hdbk.).

Reviewed by W.C. McGrew, Departments of  
Sociology, Gerontology, & Anthropology and  
Zoology, Miami University, Oxford, OH 45056  
USA

There is a curious cult of the personality in primatology, in which individual apes who try to speak are lionized by their human collaborators. This has occurred repeatedly over the 20th century: Joni and Nadya Kohts, Gua and Winthrop Kellogg, Viki and Cathy Hayes, Washoe and the Gardners, Sarah and David Premack, Lana and Duane Rumbaugh, Lucy and Maurice Temerlin, Koko and Penny Patterson. All but one were: females (except Joni), chimpanzees (Koko), and American (Joni again). The lineage is curious because it is specific to just this kind of research, with only a few of the characters from Jane Goodall's chimpanzees of Gombe coming close to this level of fame, and she has never singled out one for full booklength treatment, unlike most of the pongo-linguists listed above.

Now comes the latest candidate, a male bonobo, or pygmy, chimpanzee (*Pan paniscus*) called Kanzi, whose linguistic and other abilities seem to surpass all of his predecessors. According to his human friend and co-worker (amanuensis even?), psychologist Sue Savage-Rumbaugh, Kanzi's extraordinary achievements are a result of his: species, bicultural upbringing, stimulating environment and, most importantly, having the right relationships, both human and ape, to make complex communication rewarding. According to her, Kanzi is fluent in Yerkish, an artificial language of lexigrams, and he comprehends spoken English and tries to speak it himself. As if this were not enough, he makes and uses simple stone tools, as if to show that he is no linguistic idiot savant--a wondrous creature indeed.

By now, readers may have a sense of déjà vu, harking back to the other Wunder-apes of previous decades. In the 1970s, didn't we see Washoe gesticulating every time we picked up a magazine or switched on a television documentary? What is different this time is that the methods are tighter and the data are harder. Savage-Rumbaugh can (and does) tell as good an anecdote as anyone else, but here is a set of findings based on careful quantitative research, and with collaborators such as Patricia Greenfield and Nicholas Toth, these have to be taken seriously. Yet the difficulties of having these results published in academic journals, much less accepted by peers, are, alas, documented in frustrating detail.

The background to the work with Kanzi occupies the first half of the book, and is a mixture of autobiography, evolutionary and linguistic theory, history of science, and bonobo natural history. The best of the lot is the chapter on Sherman and Austin, two male chimpanzees (*Pan troglodytes*) whose (Texan-style?) good-old-boy buddieship and scientific partnership are well recounted. Savage-Rumbaugh's work with them on the essence of referential symboling provided the basis for the later study of Kanzi. The worst of the chapters is on the bonobo as a species, especially in nature, where misconception is piled on misunderstanding, whether the subject be diet, social life, tool-use, provisioning, conservation, etc.--Chapter 4 is best skimmed over.

Kanzi's abilities, as revealed in the second half of the book, are all the more impressive because they were unexpected and so often unassisted. Understandably, his human colleagues took a while to twig to the fact that (e.g.) he was trying to pronounce human words, but without the benefit of consonants. (Savage-Rumbaugh rightly concludes that the limitation is in the larynx and not in the brain, though the connection between the two is given less attention.) The key is to focus on genuine comprehension of language, say the authors, and not to be fixated on its production, as was so often the case in previous research, in which comprehension was taken for granted in the scramble to find syntax or semantic content.

The chapter on lithic technology is a prototypical example of cross-disciplinary cooperation: A conversation at a conference

leads to an intriguing challenge from archaeologist Toth to primatologist Savage-Rumbaugh—could Kanzi make functional, flaked stone tools? The answer is yes (though whether the sharp-edged fragments are really flakes or not is debatable), and another human-nonhuman barrier falls. More interesting in some ways than his use of the tools to solve the posed problem of a cord needing to be cut in order to give access to food is Kanzi's ingenuity in fracturing rocks in ways invented by him and not shown by humans.

The format of the book is a bit confusing, as it is written in the first author's first person singular, yet devotees of Roger Levine's science journalism will find his erudite prose interspersed. There are 16 pages of helpful black and white photographs that record Kanzi's development from babe-in-arms to an adult with a linebacker's physique. The most startling one shows him wearing headphones, sitting relaxed and listening intently, while an experimenter waits patiently for his response. Each chapter has notes and references, though these are sparse and clearly not aimed at the lay reader. The index faithfully reproduces Savage-Rumbaugh's penchant for misspelling names.

Overall, this is an advocative book that makes expert use of the scientific method and, when that is judged insufficient, pushes on beyond science to intuition. But this is hard-nosed, tempered, and well-informed intuition. That should not be summarily dismissed, especially by those who don't know one end of a primate from another. If an ape is to be apotheosized, this is the way to do it.

### *PsychoDarwinism: The New Synthesis of Darwin and Freud*

By Christopher Badcock. HarperCollins, 10 E. 53<sup>rd</sup> St., New York, NY 1002 USA, 1994, £16.99 (hdbk.).

Reviewed by John Price, Odintune Place, Plumpton, East Sussex, BN7 3AN, U.K.

This is the latest in a series of books in which the author attempts to integrate Freudian theory with modern behavioural science (see *HEN* vol. 7, No. 4, 1992 for Ian Vine's review of a previous book).

Christopher Badcock had a training analysis with Anna Freud from 1979 until her

death in 1982, during the course of which she told him that if he were alive today, her father would not have become a psychoanalyst. She would not be drawn into the question of what he might have become, but it seems likely that he would have started his own discipline.

The author is a sociologist by training and works at the London School of Economics, and so it is not surprising that his conversion to biology came from an article by Robert Trivers (1981) in a book entitled *Sociobiology and Human Politics*. Trivers wrote:

"Our destruction of group-selection thinking has removed the chief prop from the comfortable belief that the dominant interests naturally rule in everybody's self-interest. And we uncovered a series of submerged actors in the social world, for example, females and offspring, whose separate self-interest....we emphasize."

In this review I would like to discuss the author's attitude to group selection, and his application of parental investment theory to Freud's stages of infantile and child development. For the rest, let the author speak for himself:

"I begin with an introductory chapter devoted to the neglected subject of the many parallels and continuities to be found in the work of Darwin and Freud. Here I am indebted to Lucille Ritvo's book, *Darwin's Influence on Freud*. The next two chapters are an introduction to modern Darwinism. I must thank Dave Johnson for permission to use his computer program EVOLV-O-MATIC in illustrating the first, and to Ronald Beloin's Symbiosis 1.2 for illustrations in the second. I present a modern Darwinian view of the question of consciousness in the next two chapters, using an analogy based on the Macintosh computer operating system in the second. In the fifth and sixth chapters I present the essentials of my own work on reconciling Freud's findings related to sex with our modern, Darwinian understanding of it. In the seventh chapter I propose a new solution to one of the oldest and most confused questions in human behavioural science - that of incest and its avoidance. Finally, I devote the last chapter to suggesting some new answers to another central issue of Darwinism as applied to human behaviour. This is the question of how selection at the level of the individual gene can be related to the complexities of actual human

behaviour, with all its cultural and environmental influences. I take sex role determination as my key example, and show how Freud's findings provide an exemplary solution to the problem of how genes relate to behaviour in a complex environmental context."

### Group Selection

There are at least three categories of argument against group selection theory: (1) It is politically undesirable. (2) It is mathematically unlikely. (3) It is logically impossible.

I think it is difficult to maintain that any scientific theory is politically undesirable. The use made of a theory may be undesirable, but a theory can only be verified or refuted. Many statements in behavioural science are unsatisfactory from a Utopian perspective. It is unsatisfactory that humans cheat and lie and steal, that they are driven to these things by oppressors, that they degrade each other and treat outgroup members as less than human. But the fact that they do these things is a problem to be tackled, not denied. It is ironic that Marxist scientists, who maintain that no behavioural science should be done in case the findings are abused by politicians, should have persecuted Trivers at Harvard, when Trivers himself uses an egalitarian argument to criticise group selection theory. Surely, those who deal with the behavioural scourges of mankind should be honoured, not reviled. Who objects to the scientist who studies the tubercle bacillus? Admittedly, the tubercle bacillus is not going to claim that its inclusion in a textbook of pathology validates its identity and its right to infect people. But the scientific description of evil should not justify the perpetration of evil, nor should it be thought to do so.

To say that group selection is **mathematically unlikely** is a fair debating point and one to which I will return. This is the argument that Fisher, Haldane and Wright used in their approach to the subject. They felt that group selection required a greater rate of group division per unit of between-group genetic transfer than existed in most natural populations.

The argument that group selection is **logically impossible** is adopted by Badcock when he likens group selection to perpetual motion. Personally, I do not see the logic. If

groups differ genetically on some trait, so that there is a significant between-group variance, and if the selection between groups for that trait is greater than the selection against it within groups, then I do not see how one can avoid the conclusion that the trait will be selected for and group selection may be said to occur.

### The special case of group selection in humans

I would argue that group selection may apply to humans even if it is not mathematically possible in other animals, and that it may be partly responsible for human uniqueness. We have so many characteristics that seem designed to make group selection work. We have group boundaries marked by differences in language and group belief, boundaries which would be impossible in any nonhuman animal. Then we have the tendency to regard the members of alien groups as less than human, and often worthy of being exterminated, and we have the weapons with which to carry such exterminations out. Therefore human groups can perish at a far faster rate than animal groups. To replace the perished groups, we have a tendency for our groups to polarise into rival factions, whether the factions are based on kinship such as the Montagus and Capulets, or whether they are based on preferences such as Mods and Rockers. These tendencies cause human groups to split, even those groups which are based on shared beliefs such as religious movements.

Then we have mechanisms to deal with the "free-rider" problem. We have a seven year latency period in which the growing child

is scrutinised by the adult generation and any tendency to antisocial behaviour is either corrected or recorded in the log-book of its reputation. That reputation is then used by the adult generation in selecting a mate for the young person, so that free-riders are liable to remain unmarried. It is noteworthy that the mating couple is not at all skilled at identifying freeriding in each other, so that the handicapping of free-riders in the marriage stakes depends on parental control of mate selection, which seems to be a widespread custom in human groups, and in our own society is a major cause of serious feuds between parents and children. "Slight variations, in Darwin's view, are what the process of natural selection is daily and hourly scrutinising" (Weiner, 1994, p. 37). Is the scrutiny of young humans less intense? And why else has sexual selection



switched from a dyadic process between a pair of rivals or a pair of mates, to a system in which the relative status of rivals is decided by other group members, and mates are largely chosen by the older generation?

Turning to individual psychology, we have the emotions of shame and guilt which help us to adjust our conduct to the standards and the rules of our group. Those who show free-riding potential are punished by the group, and end up not only with bad reputations but with low self-esteem. Psychologists are puzzled by the high incidence of low self-esteem in young adults, but perhaps what they are seeing is the functioning of a very severe free-rider detection system. Milton, Hegel, Cooley, Maslow and others have emphasised that humans have an overwhelming urge to obtain a high reputation in the eyes of their fellow men, and to see themselves mirrored approvingly in those eyes. In order to achieve this aim they are likely to conceal their free-riding tendencies so effectively that they become even more co-operative than a true non-free-rider would be, if such a creature could ever evolve. As experts on deception have pointed out, it is easier to deceive others if you deceive yourself.

These are all human characteristics, not shared by animals, which seem designed to accelerate group selection and to reduce the effects of within-group selection for antisocial characters. In fact, so much of human psychology can be explained by the group selection model, that one might be forgiven for wondering if group selection is not a typically human adaptation which may have had a lot to do with the rapid evolution of our brains over the last three million years. Group selection may have facilitated the development of language, and language facilitated the development of group selection.

The brain capacity to believe in different gods (or psychoanalytical theories) helped groups to split, the belief in evil helped us to exterminate other groups, and the capacity for gossip enabled us to weed out the free-riders from our midst. If this is in the same category as perpetual motion, please spell it out more clearly.

#### **Parental investment theory and Freudian ideas about the stages of child development**

A chapter headed "Oedipus Sex" examines Freud's stages of infantile

development in terms of competition for parental investment. The baby's objectives are (1) to get more food from Mother and (2) to stop Mother becoming pregnant again. Freud was right in thinking that there was more to sucking than just getting milk; it now seems generally agreed that sucking at the breast usually inhibits ovulation for about two years. Badcock quotes evidence to show that in poor cultures the birth of a new baby has an adverse effect on the survival of the youngest existing child. Non-nutritive sucking is therefore an effective way of enhancing survival by stimulating a contraceptive mechanism in a willing mother. What is not clear is whether the "oral libido" of non-nutritive sucking has anything to do with libido in general, or whether it is isolated in an evolutionary module like the tail of a tadpole.

Badcock's explanation of the anal-retentive stage of infantile development is original. He suggests that the mother's feeding of the baby is affected by what she sees coming out - if not enough faeces are seen to be coming out, her response is to put more food in. This is particularly important during breast feeding, because, the breast tissue not being transparent (and milk not being particulate), it is difficult for the mother to know how much is going in. Thus, the baby which retains its faeces gets better fed. I am not sure whether this was Badcock's own idea, or whether it was

suggested to him by an anxious mother. My own paternal experience of babies suggests a further adaptation, to deal with the problem of what to do with the retained faeces. The well adapted baby waits until it knows that it is Daddy's turn to change its nappy and then it has a monumental evacuation. Mummy need never know that anything comes out at all!

The stage of infantile sexuality in boys is explained by the fact that male reproduction is more variable than female. The baby boy knows that its mother is wondering whether it will grow up to be one of those men who have twenty wives and three hundred children, or whether it will become a childless wimp. The baby's public relations department moves in on this dilemma to give a preview of what a sexy, seductive man he is likely to become. If the mother is convinced that she has on her hands a boy with good reproductive potential, she feeds him more than his sisters, and this conviction in the mother is experienced as maternal love. Daughters never receive this

love, because the variance of their reproduction is so slight that no bias needs to be introduced into their feeding. I think that, in a somewhat complex argument, the author is saying that this is why daughters feel penis envy, the penis being the unconscious symbol for maleness. The girl realises that her mother is investing more in her brother, and that the reason for this increased investment has something to do with the brother having a penis; so the girl is envying, not the penis itself, but the increased maternal investment it symbolises.

Quite separate from infantile sexuality is the child's reaction to the "primal scene". Badcock does not think the child's negative response to the sight of Daddy possessing Mummy is a manifestation of jealousy in the little Oedipal tyrant; on the contrary, it is a contraceptive device. Badcock postulates that there is an inherited template which corresponds to the primal scene, and when this is activated in the child by any overfamiliarity between its parents, the child screams or carries out some other attention-seeking, coition-interrupting activity. As a last resort it urinates and defecates on its copulating parents in an attempt to douse their ardour. Badcock has finally accounted for Freud's bemusement at his client who defecated on his copulating parents. This contraceptive device of interrupting the primal scene comes "on line" when the mother becomes insensitive to sucking, and in this case it is very much the mother's, rather than the collusive situation with the contraceptive sucking device.

What is disappointing about Freud's theories is that they have led to relatively little research. It would be nice if Badcock could have produced a lot of data about individual differences in infantile sexuality, for instance, and maternal responses to it. Let us hope that this new fertilisation of Freud by Darwinism leads to more abundant fruit.

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### *The Limits of Family Influence: Genes, Experience, and Behavior*

By David C. Rowe. Guilford Press, 72 Spring St., New York, NY 10012 USA. 1994.

Reviewed by William Abruzzi, 70 Bobwhite Hill, Leicester, NC 28748 USA.

Rowe has written a book to express the theory that family interrelationships, and especially parental rearing techniques and styles, have little to do with trait variations in offspring and with the development of personality characteristics. Rowe's concept of 'family rearing practices' includes such variables as class, parental warmth, encouragement of intellectual pursuits, and one- vs. two-parent households. The author claims that these factors, separately and together, have little causal effect on social and antisocial behavior, intelligence, psychopathology, and personality development in general. However, Rowe begins with the caveat of excepting family environments that are abusive, 'neglectful', and devoid of opportunity, thus eliminating the variables about which socialization science is most concerned.

Had he been satisfied with using his great experience and broad ecological data (ranging from hawk-dove equations to evolutionarily derived data on intelligence and gender dimorphism), Rowe would have made a substantial contribution to a necessary realization of the importance of genetics and evolutionary forces in human development and personality theory. But the temptation to go further was too great. In a 224 page volume Rowe attempts to settle the nature-nurture debate, answer questions on gender dimorphisms and 'difference' feminism, explain the occurrence of antisocial behavior, and finally, and most controversially, defend the concept that race and the individual characteristics that permit criminal behavior are connected.

Nevertheless, this little volume does much to sensitize us to the importance of biological factors in the development of intelligence, personality traits, and gender

conformity. It enlightens us about the limitations of family rearing as a causal agent in the development of such features. The explanation of frequency-dependent and hawk-dove payoffs, the marvelously lucid descriptions of shared family and environmental influences, and the demonstration of the importance of variation in genes that parents and children share are unexcelled in current literature.

However, there is one gigantic variable in this debate which Rowe either completely ignores or downplays: the effects of experiential factors on subsequent genetic influences. An editorial in *Science* (1994) by the president of Rockefeller University, Torsten Wiesel, stated, 'Studies have shown that many of the genes a nerve cell expresses can be regulated by environmental stimuli. Genes controlling embryonic development shape the structure of the infant brain; the infant's experience in the world then fine-tunes the pattern of neural connections underlying the brain's function. Such fine-tuning of the fabric of connections making up the brain must surely continue through adulthood...throughout life, experience continues to modulate the fine pattern of cortical connections, allowing us to acquire new skills and knowledge.'

A great deal of recent research gives credence to the concept that many social and cultural forces can influence human behavior and have subsequent indirect genetic effects. Rosenzweig, Bennett & Diamond (1972), Krech, Rosenzweig & Bennett (1966), Floeter & Greenough (1979), and Ayoub, Greenough & Juraska (1983) have described the importance of early life enrichment experiences in neurobiological development, in turn affecting behavioral and personality traits. Chisholm (1988), Draper & Harpending (1982), and Belsky, Steinberg & Draper (1991) have analyzed the effects of parental reproductive strategies on child behavior and the effects of cultural factors in the development of those strategies. Coe & Levine (1983) have described the effects of emotional distress in early childhood on the later development of aggressive and insecure types of social behavior. Jones et al. (1972), Moffitt et al. (1992), and Surbey (1990) have studied the effects of emotional stress on hormonal actions,

including the acceleration of menarche. The work of Bane & Ellwood (1989) and Draper & Harpending (1982) on anti-social personality formation in father-absent households and that of Cherlin et al. (1991), Wolkind & Rutter (1985) and Cohn & Tronick (1983) on the effects of parental squabbling, depression, divorce and death on personality development and morality expression cannot be ignored. Belsky (1991) described the effects of crowding, decreased access to resources, and low male parental investment on life-course eventualities such as the onset of intercourse, illegitimacy, and future aspirations. Also see Skolnick (1986), Main (1990), Lempers et al. (1989), McLoyd (1990), Crockenberg (1981), Egeland et al. (1987), Hayden (1986), Conger (1984), Chisholm (1993), Promislow & Harvey (1990, 1991), and Belsky, Steinberg & Draper (1991).

A related issue is the author's stance on the importance of race as a causal factor in academic achievement, intelligence and antisocial behavior. He would have us believe that tied to the genetic message for 'blackness' are messages for lack of intelligence and for antisocial behavior. If we follow a Cloninger-type model (Cloninger & Gottesman, 1978 & 1987), we would indeed have to assume that increased impulsivity, decreased harm avoidance and excessive degrees of reward-dependency--the results of particular neurotransmitter configurations--would be determined by the genes that dictate racial status.

It seems more logical that this neurotransmitter set of configurations is not written in stone as a result of hereditary factors. Rather, the work mentioned above implies that factors such as crowding, sanitation, illness, injury, and emotional experiences in the prenatal, neonatal, and childhood periods can affect personality, as by altering gene expression.

Nevertheless, it may very well be that aggressive and impulsive behavior is frequently adaptive for inner city victims of poverty, racism, and unemployment. Perhaps recourse to aggressive and impulsive behavior is necessary in the absence of adequate educational and other resources. The

neurobiological combinations required for criminal behavior may constitute an evolutionary throwback to formerly widespread adaptive strategies. Thus a lack of caring, supervision and enrichment could produce constitutional results altering genetic features which in turn contribute to a more primitive adaptive strategy.

Rowe's absolution of the rearing process from its possible causal role in behavioral and personality problems is appropriate. For too long, the 'schizophrenogenic mothers' and other supposed groups of parents have suffered under the burden of having 'caused' psychological disorders and antisocial behavior. There is no question but that an unhealthy family climate can contribute to maladjustment and antisocial behavior. But this is a multi-faceted issue.

The specter of eugenics is difficult to ignore in Rowe's reasoning. Rowe would have the minister 'stop the marriage' if two homozygotes with a high family history of divorce wanted to marry each other (p. 154). Furthermore, Rowe denigrates environmental planning and other attempts to improve socio-cultural conditions by stating that 'a second bag of fertiliser would fail to transform a cherry tomato plant into a beefsteak tomato plant' (p. 148). The occasional mild caveats about efforts at improving education and social conditions are not enough. The changes must be accomplished first and then we can examine, from longitudinal studies, the effects of rearing, culture, and genetics.

And so we have a very important book in the continuing nature-nurture debate, this one from a paragon in the field. Nevertheless it requires the same old caveats lest we forget our responsibility to social change, increased brotherhood and tolerance, and avoidance of the moral and ethical dilemma of eugenics.

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## Officers of the Society

### President

William R. Charlesworth  
Institute of Child Development  
51 East River Road  
University of Minnesota  
Minneapolis, MN 55455 USA  
tel. 1-612-624-6599  
fax 1-612-624-6373

### Vice-President/ President-Elect

Charles B. Crawford  
Department of Psychology  
Simon Fraser University  
Burnaby, B. C. V5A 1S6 Canada  
tel. 1-604-291-3660  
fax 1-604-291-3427  
E-mail internet usercbc2@cc.sfu.ca

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### Secretary

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Ludwig Boltzmann Institute for  
Urban Ethology/Human Biology  
Althanstrasse 14  
A-1090 Vienna, Austria  
tel. 43-1-31-336-1253  
fax 43-1-31-336-788  
Email <http://evolution.humb.univie.ac.at> (World Wide Web)

### Treasurer

Barbara F. Fuller  
School of Nursing  
University of Colorado  
4200 E. Ninth Ave.  
Denver, CO 80262 USA  
tel. 1-303-270-8929  
fax 1-303-270-8660  
E-mail [barbara.fuller@uchsc.edu](mailto:barbara.fuller@uchsc.edu)

### Membership Chair

Nancy L. Segal  
Department of Psychology  
California State University  
Fullerton, CA 92634 USA  
tel. 1-714-773-2142  
fax 1-714-449-7134  
E-mail [nsegal@fullerton.edu](mailto:nsegal@fullerton.edu)

## *Human Nature and the New Europe*

Edited by Michael McGuire. Westview Press, 5500 Central Avenue, Boulder, CO 80301-2877, USA, 1993, \$49.95 (hdbk.).

Reviewed by Valentina Leonovičová. Tiché údolí 1609, 252 63, Roztoky u Prahy, Czech Republic.

This book is a very interesting and important attempt to analyse, from an evolutionary point of view, the new situation in Europe following two momentous events: the fall of the communist regime in the former USSR and its satellites, and the consolidation of the states of EU.

The evolutionary approach to the problems of social sciences is especially important for social scientists from the former Soviet Republics who were educated in the Marxist dogma of the purely cultural nature of human beings. To reject this doctrine and recognize that animals as well as humans can be influenced by society constituted "Biologizatorstvo" (in Russian), and was seen as one of the worst sins of "bourgeois" science. Despite the fall of Marxist dogma as a whole, the ideas absorbed about human behavior during the whole period of one's education have remained very influential on the minds of Eastern European scientists (maybe on the unconscious level). Thus this book, edited by a renowned figure in psychiatry and the biobehavioural sciences, is an important contribution to science in these countries.

Chapter 1, "Biological constraints on cooperation in large political groups," is written by Alfonso Troisti, a psychiatrist and primatologist at the University of Rome. Troisti describes three types of cooperation: (1) mutualism (the fitness of both participants is raised), (2) nepotism (kin altruistic behaviour), and (3) reciprocal altruism (especially useful for our human ancestors who had a long life span and low dispersal rate, lived in small and stable groups, and were able to recognise one another and remember previous encounters). Troisti perceives natural constraints on cooperation in the fact that large political groups are very different from the small and stable social bands that favored the evolution of reciprocity among early humans.

Troisti depicts some scenarios in which proximate mechanisms could be manipulated to support the occurrence of cooperative behaviour even under conditions that might appear to discourage it. On the other hand, dangers may be posed by the political manipulation of proximate mechanisms (e.g., racial discrimination). This sort of manipulation could also be religious or cultural, especially as implemented by the "global village" mass media in Orwellian fashion. A second danger of increasing cooperation is the possibility of losing valuable diversity among individuals. This is perfectly obvious in the former Soviet Union system where the politics of communist party and government disturbed individuality. Lastly, the author discusses the possible ethical problems that arise from manipulating the mechanisms controlling cooperative behaviour.

The second chapter is written by McGuire, at UCLA. Its goal is to use evolutionary biology "to inform our understanding of human behaviour to the degree that fewer undesirable decisions will be made" under the conditions of great political, economic, cultural and ethnic variability that now prevail in Europe after the collapse of the communist system. McGuire invokes the concept of Value of future ( $V_f$ ), which "references feeling-thinking states about future events" (p. 19).  $V_f$  comprises 10 factors; 7 are biological (reproductive potential of living kin, one's capacity to influence the well-being and reproductive success of current and future kin, etc.), and 3 are cultural (covering religious, ethical, and governmental factors). McGuire asserts that responsiveness to these factors has been shaped and reshaped by natural selection, will not go away, and can only be suppressed (as in Eastern Europe). McGuire views Europe as setting forth with the aim of achieving reasonable economic parity within the constraints set by biological predispositions and cultural-ethnic-religious history.

Chapter 3, "Fitness Accounting," is written by Gordon Getty, a composer and businessman from San Francisco who chairs the Richard Leakey Foundation. I must say that my competence is not enough to evaluate this chapter. It seems to me to be interesting, and its attempt to see the "homologues" in the functioning of the economy and of living systems could reveal some new regularities.

Chapter 4, "The score at half-time is Marx 3, Darwin 2: production and reproduction in industrial Europe", is written by Lionel Tiger, an anthropologist at Rutgers University.

Tiger focuses on the problem of reproduction, which "is more important politically than may appear at first glance" (p. 62). People have only a limited quantity of time and energy, and if they produce more, they reproduce less. This is a simple relationship with complex consequences. Tiger claims that the rate of reproduction is a function not of capitalism or communism, but rather of the industrial system itself. He notes that "only very coercive systems are able to affect reproductive choice directly if not altogether successfully, such as the current effort of China to limit its offspring to one per family" (p. 63). He analyzes the influence of various changes of state policy on reproduction (such as welfare in the US), and concludes that the main determinant of reproduction is changes of lifestyle influenced by changes in the industrial system (change in the structure of the family from many-generation to one-generation, migration of people of various cultures and religions, etc.). Especially important for the reproductive strategy of individuals is the economic independence of women and the advent of effective female controlled contraception. The author notes a change in the system of values of current industrial society, whereby the workplace has become a more significant factor in people's lives, and predicts that the demand for pleasurable and rewarding work is likely to increase.

Chapter 5, "Preliminary notes on ethnocentrism and xenophobia," and chapter 6, "An anthropological view of the social infrastructure in the new Europe," are by Paul Bohannon, University of Southern California. These problems are extremely important for the new Europe because of the exacerbation of ethnic rivalries. Bohannon's main idea is that xenophobia is universal and springs from the process of learning a specific version of human culture. In large-scale societies it becomes a serious social trap that must be countered by broad-gauge educational efforts.

According to Bohannon, two new kinds of culture have emerged: "Planet-wide" culture includes universal institutions such as airports and international corporations. These create

broad networks of interdependence, such as the consequences for the North American economy of the Tokyo earthquake of 1923 when many Japanese investors were called back to help restore the city. At the same time, people live in small communities based on social networks and common interests.

The author recommends studying the following eight problems: (1) human rights as one of the important problems of the new Europe, (2) new work activities and work groups - those who have found the calling they enjoy and those who have not, (3) new kinds of family forms, (4) SPIN (Segmented Polycephalous Idea-based Network) as a new form of social organization based on shared values (such as Green Peace) rather than on the principle of hierarchy, (5) nationalities, (6) life with a strangers, (7) new kinds of education--adult learning, professional retraining, etc., and (8) the emergence of new mythologies. Bohannon concludes: "There *must* be ways better than socialism or the market to guarantee housing, health care and the like at the same time that they allow personal freedom that people all over the world not only treasure but demand" (p. 97).

Chapter 7, "On the evolution of political communities," is written by Roger Masters, a professor of government at Dartmouth College. Masters tries to understand "how similar institutions and practices of economic activity could have opposite effects in Eastern and Western Europe" (p. 99). Why should Western Europe have been moving toward economic, social and political community, while at the same time in the East, parochial attachments have been destroying broader political ties? He thinks that the psychological side of social institutions (such as the military and the public at large) could help to explain this puzzle. Specifically, he analyzes the role of biological mechanisms in the recognition of social partners in global political processes, especially in Europe. He conjures up the notion of an imaginary little town and uses it as a model for the modern state. For example, with the origin of the state a "fictive kinship" began to prompt citizens to pay taxes for the common good and with the expectation of reciprocal benefits.

Masters considers the Marxian idea that national identities will disappear with economic development, and finds that it does not account for the current situation in Europe. He argues that shifts in social, economic and political institutions have often been accompanied by strong, biologically based emotions and surprisingly weak rational justification. Therefore he suggests that evolutionary theory and human ethology might be able to tell us, for example, how an individual knows when to cooperate and above all whom to help. He considers, as possible factors, commonality of phenotype, language, religion, and territory.

Masters also tries to explain why centralized governments are usually fragile. The strategy of indirect reciprocity and helping normally entail such high costs that institutions like the state are not found in other mammals and were absent for most of human evolution. Moreover, the relatively recent markers that are used as stimuli for helping behaviour by the citizen are fragile because they depend on myths and symbols. "Myths and symbols make it possible for humans to develop hitherto unparalleled material wealth and control over environmental contingencies. But these same myths and symbols also make it possible for humans to deceive themselves and others to a hitherto unparalleled degree" (p. 120).

Chapter 8, "Language and federalism," is written by George P. Fletcher, a Columbia University law professor. The author discusses problems posed by the multicultural, multilingual, and multilegal character of Europe, as contrasted with the US. He recommends that the EU use one common language, such as English, alongside local languages, just as the ecu might be used along with local currencies. He foresees that this evolution may occur by happenstance because of the predominance of English as the main language of music, film, television, and newspapers.

Chapter 9, "Organizational property and privatization," was contributed by Robert D. Cooter, a University of California (Berkeley) law and economics professor. Cooter notes that because the law varies widely across different capitalist states, there "are many capitalisms, not one" (p. 137). Alternative

models are offered by America, Germany and Japan. He maintains that a "pure property regime" (without any regulation by the state) is not possible now, because relationships are so complex that it is very difficult to determine who has harmed whom.

Property serves to preserve liberty by decentralizing power and resisting tyranny, and to promote efficiency. But a pure property regime could not preserve human rights. Thus, democratic states such as the US have a constitution that guarantees both human rights and property rights. Cooter analyzes property as a framework for competition, and regards the possibility of the formation of a new economy in Eastern Europe as posing the problem of choosing the right capitalism.

Chapter 10, by economist Robert H. Frank of Cornell University, is "Human nature and economic policy." He analyzes the problems of competition and exploitation, the "positional arms race" among individuals, safety regulation, limiting the work week, legislating democracy in the workplace, savings, and so on.

Chapter 11, "The principle of competition," is by law professor Michael Lehmann, University of Munich and Max Planck-Institut. This chapter covers the history of the principle of competition in German and European commercial law and particularly antitrust law. The author compares the application of the principle of competition in biology, economy and jurisprudence. "The principle of competition can thus be viewed as a basic element of evolution, which man should above all always put to use when entering new territory.... This principle may be equally applied by biologists, economists and lawyers, even if the first speak of Darwin and natural selection, the second of Schumpeter and the process of creative destruction, and the third of von Hayek and commercial competition as a process of discovery" (p. 189).

The book as a whole is a very interesting and stimulating attempt to apply a new approach to old problems. It is especially recommended for those policymakers and scholars in the formerly communist countries that are trying to reconstruct their economies and legislative systems.



## ANNOUNCEMENTS

### *Job Openings*

The University of Detroit Mercy is seeking to hire two tenure-track Assistant Professors of Psychology for the fall of 1996. The positions involve both teaching and research. Applicants should have a background in at least two areas of psychology. If interested, as soon as possible send a cover letter, three letters of reference, and your curriculum vitae to Dr. Mary Hannah, Dept. of Psychology, University of Detroit Mercy, 8200 W. Outer Dr., Detroit, MI 48219 USA. Contrary to information in the *APA Monitor*, the University is not under censure by the American Association of University Professors.

### *HBES Meeting*

The eighth annual meeting of the Human Behavior and Evolution Society will take place at Northwestern University, Evanston, Illinois 26-30 June 1996. Keynote speaker will be Edward O. Wilson. HBES members will receive registration forms in January. Others may request them of the convention organizer, Dr. William Irons, Dept. of Anthropology, Northwestern University, 1810 Hinman Ave., Evanston, IL 60208-1310 USA. Abstracts (200 word maximum) are due the ides (15th) of March; send them to Dr. Michael Bailey, Dept. of Psychology, Northwestern University, 303A Swift Hall, Evanston, IL 60208-2710 USA, e-mail [jm-bailey@nwu.edu](mailto:jm-bailey@nwu.edu). Papers on nonhumans are welcome if they address issues relevant to human evolution.

### *International Society for Research on Aggression*

The twelfth meeting of the International Society for Research on Aggression is planned for 25-30 August 1996 at the Louis Pasteur University, Strasbourg, France. Local organizer is Marc Haug, Laboratoire de Psychophysiology, 7 rue de l'Université, Strasbourg 6700, France; tél. 33-88-358-212.

### *New Book: The Origin of War*

Johan M. G. van der Dennen has published *The Origin of War: The evolution of a male-coalitional reproductive strategy* (2 volumes), ISBN 90-74528-06-6. This is a limited and non-commercial edition. Copies can be ordered by writing to Origin Press, Parklaan 12, 9724 AN Groningen, The Netherlands, or by e-mail: [J.M.G.van.der.Dennen@rechten.rug.nl](mailto:J.M.G.van.der.Dennen@rechten.rug.nl). Price is Dfl. 125 (about US\$79), postage and shipping included. Hans is the Secretary of the European Sociobiological Society as well as an ISHE member.

### *European Anthropological Association*

The tenth congress of the European Anthropological Association will take place in Brussels, Belgium 19-22 August 1996. Contact Prof. C. Suzanne/Dr. R. Hauspie, Free University of Brussels, Lab. Anthropogenetics, Pleinlaan 2, 1050 Brussels, Belgium. Tel.: 32-2-641-34-26. Fax: 32-2-641-33-89. E-mail: [rhauspie@vnet3.vub.ac.be](mailto:rhauspie@vnet3.vub.ac.be). Note that this meeting begins a week after ISHE's.

### *International Political Science Association Seeks Biologists*

Research Committee #12 (Biology and Politics) of the International Political Science Association wishes to attract more scholars interested in the connection between politics and biology. ISHE member Albert Somit is president of the Committee, which includes the effects of evolutionary and physiological forces on political behavior and institutions, and policy implications of biological knowledge. If interested in being added to the mailing list, send name, address, and internet address to Dr. Steven A. Peterson, Division of Social Sciences, Alfred University, Alfred, NY 14802 USA, Internet: [fpeterson@bigvax.alfred.edu](mailto:fpeterson@bigvax.alfred.edu).

### *ESS Meeting*

The nineteenth annual meeting of the European Sociobiological Society will be held in Alfred, New York, 22-25 July 1996. **The meeting will be held just before the 25-27 July meeting of the International Political Science Association and the Association for Politics and the Life Sciences.** The theme will be "Sociobiology and Politics," which is meant to include such issues as exercise of power, dominance, leadership in societies (including nonhuman) from an evolutionary perspective, sex differences in political behavior, and war and other forms of political violence. Local organizer of both meetings is Steve Peterson (fpeterson@bigvax.alfred.edu). See report on the 1995 conference above.

ESS members are being asked to provide the organization with their addresses etc. and main fields of interest. Please send the information to the ESS Newsletter Editor and Secretary, J. M. G. van der Dennen, Center for Peace and Conflict Studies, University of Groningen, Oude Kijk in 't Jatstraat 5/9, 9712 EA Groningen, The Netherlands; fax 31-50-635-635; e-mail J.M.G.van.der.Dennen@rechten.rug.nl.

#### *Obituary: Jan Wind*

On 30 October 1995 ISHE member Jan Wind died at age 63 of cancer. Professor Wind was probably best known as the "founding father" of both the European Sociobiological Society (in 1982) and the Language Origins Society (1985). Jan Wind graduated as an MD and specialized in ear-nose-throat surgery. His thesis was on the phylogeny and ontogeny of the human larynx (Groningen: Wolters-Noordhoff, 1970). In 1967 he became a lecturer in otolaryngology at the Free University of Amsterdam. His research ranged from the radiology of fossil hominid skulls to the evolution of the airway, speech and social behavior. Since 1874 he was a senior lecturer in human evolution and in 1991 became professor in the evolutionary biology of human behavior. He published more than 200 articles and edited 7 books. Our condolences to his relatives, friends, and students.

-Contributed by Marcel Roelofs

### *ASCAP Society*

The Across-Species Comparisons and Psychopathology Society will hold its annual meeting in New York on 4 May 1996. This is one day before the meeting of the American Psychiatric Association. At the meeting the second annual Aaron T. Beck Award will be presented for the best unpublished paper related to evolutionary biology and psychopathology. Possible subjects include evolutionary theory and psychotherapy, comparative psychology and psychiatric illness, comparative brain anatomy and pathological behavior, and relations of attachment processes or social rank hierarchy to psychopathology. Papers may be submitted by residents in psychiatry and related clinical fields, and by graduate students and recent graduate students in various academic disciplines. The \$1000 prize is given to support travel expenses. Applicants should send three copies of their paper to Mark Erikson, MD-Beck ASACAP Award; c/o Russell Gardner, Jr., MD; Dept. of Psychiatry & Behavioral Sciences; 4.450 Graves Bldg.; University of Texas Medical Branch; Galveston, TX 77555-0428 USA. Deadline is 1 March 1996. Call 1-409-7727029 for more information.

#### *ASCAP Newsletter*

This 20-page monthly deals with the biological underpinnings of psychopathology. It discusses evolutionary models of psychopathology, brain and neurotransmitter factors in brain disease, etc. It promotes the idea that our understanding of psychopathology ought to rest on an understanding of normal behavioral processes. The newsletter has been published every month since 1988 by Russell Gardner, Jr., MD, an ISHE member. It contains articles, essays, letters, ASCAP Society news, and abstracts of journal articles. A subscription drive is now under way. Please mention the newsletter to individuals who might be interested; free samples and back issues are available. Subscriptions are \$35 per year; write Erica Ainsbury, Managing Editor *The ASCAP Newsletter*, c/o Linda Crouch, Dept. of Psychiatry D 28, 301 University Blvd., University of Texas Medical Branch, Galveston, TX 77555-0428 USA.

### **Harry Frank Guggenheim Foundation**

This foundation supports research on urgent problems of violence and aggression in the modern world and also encourages related research in biology, animal behavior, the social sciences, history, and the humanities which illuminates modern human problems. Grants have been made to study violence related to social change, violent relationships within families, aggression in child development and socialization, the psychopharmacology of aggression, violence within the illegal drug trade, and war and other conditions of intergroup conflict, and for investigations of the control and amelioration of conflict. Most **postdoctoral grants** are from \$15,000 to \$30,000 per year, usually for one or two years. About 20 of the expected 200 applications will be funded. Applications are due 1 August for a decision in December. **Fellowships** are also awarded for support during the writing of Ph.D. dissertations, and are worth \$10,000 each. Ten are awarded out of about 200 applications. Applications are due 1 February for a decision in June. The dissertation must be finished during the award year. For a copy of the guidelines for these awards, contact the Foundation at 527 Madison Ave., New York, NY 10022-4304; tel. 1-212-644-4907; fax 1-212-644-5110.

### **Bibliography of Human Behavior**

The December 1993 issue contained an announcement of this book, edited by ISHE members Hiram Caton, Frank Salter and J. M. G. van der Dennen. Everyone should be aware of this bibliography, which contains 6700 entries under headings such as human evolution, prehistory, human biology, sociobiology, behavior genetics, parenting, sexuality, and ethology. The author and subject indices are invaluable for locating references quickly. This is the successor to the several issues of *Human Ethology Abstracts*, which ISHE published irregularly in the journal *Man-Environment Systems* over the years. Copies of the 600-page bibliography are available for \$95 (hdbk.) from Greenwood Publishing Group, 88 Post Road West, Westport, CT 06881 USA. Credit card orders can be placed at 1-800-225-5800.

### **Behavior Genetics Association**

The Behavior Genetics Association will meet at Penn State University, Pittsburgh campus 13-16 June 1996. Contact Dr. Gerald E. McClearn, Penn State University, Dept. of Human Development, University Park, PA 16802, USA.

### **E. O. Wilson Receives Award**

Edward O. Wilson has been selected to receive the Audobon Medal from the National Audobon Society as a tribute to his conservation work. He is the Pellegrino University Professor at Harvard and curator in entomology at the university's Museum of Comparative Zoology. He has been urging the US Congress to reauthorize and strengthen the Endangered Species Act. Dr. Wilson published *Sociobiology* in 1975 and has been awarded two Pulitzer prizes: for *On Human Nature* in 1979 and for *The Ants* in 1991.

### **New Journal on Aggression**

*Aggression and Violent Behavior: A Review Journal* will begin publication in 1996. Co-Editors are Vincent Van Hasselt and Michel Hirschen. This quarterly is described as multidisciplinary, with contributions welcomed from psychology, psychiatry, criminology, criminal justice, law, sociology, anthropology, genetics, social work, ethology, and physiology. It will publish integrative reviews as well as summary reports of innovative clinical research programs. Papers will encompass a wide range of issues, populations and domains, including homicide, rape, child molestation, paraphilias, pyromania, gang violence, child abuse and neglect, incest, spouse abuse, elder abuse, genetic predispositions, and physiological bases. Papers describing aggression in normal, criminal, or psychopathological populations are acceptable. Reviews of animal research will be considered. For a sample copy, write to Elsevier Science, 660 White Plains Rd., Tarrytown, NY 10591-5153, USA, tel. 1-914-524-9200, fax 1-914-333-2444. Subscriptions for individuals whose libraries subscribe (at \$204) are \$55.

## CURRENT LITERATURE

December 1995

**Interested in possibly reviewing one of the books below or some other suitable book? Please contact the appropriate book review editor (see Editorial Staff box).**

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