

# Human Ethology V<sub>1</sub>

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## Report from the Conference of the International Society for Human Ethology

July 27-31, 1986  
Tutzing, West Germany

The editor's view is that the Tutzing meeting was an unqualified, smashing success. The participants, the presentations, the organization, setting, weather, and extracurricular activities were superb. The only disappointment was that it had to end.

The Organizing Committee and hosts from the Max Planck Institute at Seewiesen, including Barbara Hold-Cavell, Wulf Shieffenhövel, and Irenäus Eibl-Eibesfeldt, had planned for virtually all our intellectual, social, and even tourist needs. Attention to detail was very evident, but never stifling, as, for example, by carefully pointing out that beer is food and not an alcoholic beverage.

Participants at the conference numbered approximately 150, from 25 countries and a very large number of disciplines. There was an enthusiasm, warmth, and mutual supportiveness that I have not seen at psychology or any other meetings.

The Academie Evangelische offered very fine accommodations and a lovely and hospitable setting. A walk on the shaded lawn by Lake Starnberg, or even a swim, was available between sessions. The weather was sunny and

warm and never threatened to dampen extracurricular activities such as the trip to the Andechs monastery or the dining and revelries at the Seewiesen Institute.

This brief report would not be complete without a note on the unbusiness meeting which followed the conference at President Eibl-Eibesfeldt's cabin in the Austrian Tyrol. It was there that two new officers were added: Bill Charlsworth as Society Dishwasher, and Wulf Shieffenhövel as Society Auto Mechanic.

Following, you will find Barbara Hold-Cavell's opening remarks to the conference. The historical context she provides will be of particular interest to new ISHE members. Gail Zivin has provided minutes of the business meeting. Of special note here in addition to the Constitution issue, are plans for U.S. meetings in 1987 in New Mexico and Massachusetts, and a 1989 meeting in Scotland.

## Call for Vice Presidential Nominees

Nominations, including self nominations are solicited for Vice President of the International Society for Human Ethology. The names of prospective candidates should be sent, accompanied by a one paragraph biographical statement by December 1, 1986, to:

*Jay Feierman, M.D.*

*Vista Sandia Hospital*

*501 Alameda Blvd., N.E.*

*Albuquerque, NM 87113 USA*

## Ballot in This Issue

The back page of this issue contains a ballot for your vote on the adoption of the Constitution approved by the General Assembly at the July meeting at Tutzing (see minutes).

Please clip (or photocopy), indicate your approval or disapproval, and mail to the Newsletter editor.

## Membership Renewals

If the date on your mailing label is earlier than 1986, it is time to renew your membership. Renewal notices are not sent for economic reasons.

Report any errors, changes of address, etc. to the editor.

## OPENING REMARKS TO THE CONFERENCE

by Barbara Hold-Cavell

As a member of the executive board I have the pleasure to welcome you to the Protestant Academy of Tützing to the International Congress on Human Ethology.

Human Ethology is a rather young discipline and so also is the Society. Only recently we elected our first president, Prof. Eibl-Eibesfeldt, the secretary, Gail Zivin, the treasurer, Herman Dienske, and the Membership chair held by Jay Feerman.

How did the Society develop? It started 14 years ago when Bill Charlesworth and Irenaus Eibl-Eibesfeldt initiated the first international human ethology workshop. It took place at the Institute of Child Development in Minneapolis in 1972. The group consisted only of 12 participants. As we had very fruitful discussions, we decided to meet regularly, and the following workshops took place in Percha and London, 1973, London, 1974, Sheffield 1975 and - after 7 years of interruption - in Atlanta 1982 together with the International Society for Primatology.

In all these years the group became larger and larger. The workshop evolved to a meeting and now to a Congress with more than 150 participants from all over the world. In the course of this development Don Omark and Bob Marvin from the United States started in 1974 to edit the first Human Ethology Newsletter. The intention of this paper was to inform about meetings, thoughts and about other people working in this field. In 1978 the first members of the executive board were elected, being composed of Bill Charlesworth, Irenaus Eibl-Eibesfeldt, Glenn King, Joan Lockard, Bill McGrew, Don Omark, Ron Simons and Cheryl Travis. As Human Ethology is touching many different disciplines, it was demanded that the Board members had to represent disciplines such as animal behavior, psychology, anthropology and another social science.

I must admit that without the initiative and activity of our American members this Society would not exist. With some envy do I realize that the American members meet regularly each year together with the Animal Behaviour Society. We Europeans, however, were not even able to unify the human ethologists in one organization. Well, I hope that the American example will help us to assemble the European Human Ethologists, and this conference may be regarded as a first attempt.

What else can we expect from this conference? Besides listening to a lot of interesting papers every conference has also other purposes: to meet those people whom you know from literature, to exchange ideas, to form personal bonds, and to prepare future co-operation. This list is surely not complete, I could think also of another purpose.

As some of you may know my special domain is the rank order or attention-structure in children's groups. In my studies I test two hypotheses:

1) Are those children which get most of the attention also the leaders and peace-keepers in the group? and

2) Does frequent attention-seeking behavior help to get a higher position in the attention-structure.

The first hypothesis could be confirmed for many groups in different cultures. As to the second hypothesis: frequent attention-seeking was only successful for getting a higher

position in the attention-structure when it was shown very frequently in the beginning of the term and after the holidays, which means: in times when the rank order was rather unstable. So I deduced from these results that struggling for attention can be interpreted as struggling for rank positions in a hierarchy of high regard or, in German: Hohes Ansehen.

You may ask yourself now: What do these children have to do with our conference? Well, I ask myself whether these two hypotheses could not also be tested on a conference like this? Do the leaders and peace-keepers get most of the attention? Do we employ the same strategies in order to get high regard or perhaps a better rank position?

I think we can take for granted that every person who speaks in front of the audience gets a lot of attention - I hope at least from half of the audience. Is our first hypothesis confirmed when we look at the persons who are invited to speak for one hour in the plenary sessions? As a member of the organizing committee I must confess that we did not invite a graduate student or someone who has just finished his Ph.D. We have chosen speakers with high regard and firmly established rank positions and this was not done because I wanted to prove my hypothesis.

What about the 20 minutes lasting paper sessions? They are open to all people who want to contribute a scientific work. Of course every conference gets more papers than can be accepted because of limited time. Therefore, many colleagues are asked to present their work in the form of a poster. But why are posters not regarded to be as important as a paper? When you give a paper, you have the chance to present not only your scientific work but also yourself. In the case of a poster your scientific work has to attract the attention, not your personality. I could imagine that shy people who hate to be looked at by many eyes could prefer this kind of self-presentation. Looking at the second hypothesis: what strategies do we employ in order to get more attention? Besides the paper sessions where we can attract the attention for 20 minutes we also have the possibility to seek attention during the roundtables and the discussions which always follow the paper sessions. Here everybody can talk without formal restrictions. From the length, the relevance and content of the contributions you may make your own hypothesis about the speakers motivation: whether he wanted to give and/or get information or whether he was just seeking attention.

Could it be that we may conclude that another purpose of a conference is to offer a platform in the competition for high regard? Well, if you like, you can make your own observations during the conference.

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## MINUTES OF THE GENERAL ASSEMBLY

July 31, 1986

Tützing, West Germany

The final draft of the new constitution of the society was read. The draft was the third as voted upon, part by part, and revised by the old Executive Board and the newly elected officers. Some additional changes were suggested and accepted at the General Assembly. The final draft will appear in the newsletter for a confirming vote (requiring a 2/3 majority) by members.

The Society's finances will move to the new Treasurer, Herman Dienske, from the charge of Robert Adams, who

has kept them as Newsletter Editor. This transfer will happen this year when Adams steps down as Newsletter Editor. The Society's funds currently are approximately \$2,000.

Announced and accepted was an invitation from the Servants of the Paracletes to sponsor a special 5-day seminar for approximately 24 scholars at their location in the Jemez Mountains, New Mexico (a 1 1/2 drive from Albuquerque, New Mexico). The invitation was offered through Jay Feierman, M.D., who has been affiliated with the Servants for several years. The seminar is to explore human sexuality and should have a book result from the papers that are presented. The Servants will pay all costs of the meeting and the fares for 20 scholars. Experts on sexuality who are not Society members will be invited by the program chairman. Members were encouraged to send proposals for papers based on their research to the program chairman. The dates selected for the seminar are June 29 - July 3, 1987. This is three days after the ABS meeting at Williamstown, Mass., the meeting with which ISHE will hold its annual meeting in 1987. Therefore, this date will facilitate attendance by non-North American members at both activities. A formal announcement of application procedures will appear in the newsletter. [This issue, Ed.]

The next formal International Congress of the Society will be held in Edinburgh, hosted by Tom Pitcairn, in 1989.

It was suggested that the newsletter supply members with a copy of a brief description of the Society and a membership application form to be Xeroxed by members and sent out with reprints.

The meeting discussed various ways of alternating affiliation of meetings with other societies, but of keeping the non-congress, annual US meetings, which are often held under the auspices of ABS, as the single large annual organized meeting of the Society.

Respectfully submitted,  
Gail Zivin, Secretary

## THE JEMEZ SPRINGS SYMPOSIUM

### "Adult Human Sexual Behavior with Children and Adolescents"

June 29 - July 3, 1987

Jemez Springs, New Mexico

CALL FOR PAPERS

The International Society for Human Ethology (ISHE) invites the submission of pertinent papers with relevant data and theory to the above Symposium. Papers concerned with adult - infant/juvenile sexual behavior in nonhuman species are encouraged provided the results have human implications. Twenty scholars in the field will be present as invited guests of the sponsor. An additional twenty five submitted papers will be selected on merit and relevance by the ISHE Executive Committee. Day one of the Symposium will address the descriptive, historical, anthropological, biopolitical, and demographic background of the behavior. Day two thru five will address the evolution, development, function, and cause of the behavior. Examples of topics that are appropriate include such things as courtship, pairbonding, determinants of sexual object choice, primate paternalism, as well as neuroethology. Analysis will be at the social group, individual and neuronal level. Selected portions of the Symposium will be published as an edited

volume. Registration fee is \$50.00 (U.S.A.) for all participants. Meals and lodging fee for individuals whose submitted papers are accepted is \$110.00 - \$235.00 (U.S.A.) per person for the five days, depending on the selected accommodations. Send abstract (under 400 words) with optional supporting material to Jay R. Feierman, M.D., Department of Research and Education, Vista Sandia Hospital, 501 Alameda Blvd., N.E., Albuquerque, New Mexico 87113, U.S.A. (Telephone 505-823-2000.) The deadline for receipt of abstracts is January 15, 1987. Applicants will be notified of the committee's decision by April 1, 1987. The Symposium language is English. Due to space constraints, attendance is by invitation only.

## MEETING REPORT: PSYCHOLOGISTS FOR PEACE

Sigrid Hopf

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A meeting of "European Psychologists for Peace," the first one of this kind, was held in Helsinki, August 8 to 10, 1986. Initiators were a small group of psychologists who had met at the 23rd International Congress of Psychology in Acapulco, Mexico, in 1984.

The Helsinki meeting was attended by some 170 psychologists from 24 countries, including 5 Warsaw Pact nations, and 6 from outside Europe. About 2/3 of the participants were Finnish colleagues. All age groups were present, and a majority were women.

The program included reports on: peace education in various countries; theoretical approaches from different schools and interdisciplinary viewpoints; empirical studies of attitudes toward the threat of war and nuclear weapons; studies on attitudes toward other nations or groups and the problem of enemy images; experimental work and case studies on conflict behavior; experiences with programs to increase empathy, self-assertiveness and improve interpersonal intergroup communication.

Contributions related to intra-individual, psychodynamic, communicative, and large group levels, respectively. Evolutionary and cultural aspects were presented. It was obvious that progress can be expected by cooperation of different approaches and by mutual exchange of research and practice work.

The contribution of Lennard Parknäs (Stockholm) combined the essences of many other approaches to a 4-step model which is the backbone of a *Handbook for Peace Work* (in preparation): alarm - emotional sharing - understanding own relationship with system - empowerment (action). Skipping steps 2 and 3 could easily (and often has) lead to shortlived and ineffective expenditure of strength.

The Initiators reported of their proceeding to form a Committee, as a section of the International Union of Psychological Science (IUPsyS). National Psychological Societies had been invited to nominate representatives to this Committee. So far some 22 persons have been nominated, invited, or have indicated their readiness to serve in this Committee. During the formal session some uneasiness was felt by many participants with respect to the process of delegation of activity to a subgroup - a well known and maybe universal experience in group formation.

The social evening was held in the "Peace Station", a former railway station building which had been moved from

Karelia (east Finland) to the suburb Pasila, north of Helsinki, and which is now used by 5 Finnish peace groups. Referring to some geographical and cultural impressions, in Helsinki and surroundings nature and human work seem to coexist in a somewhat inconspicuous harmony - maybe a good precondition for international cooperation in a practical and academic profession.

### STATEMENT ON VIOLENCE

Submitted by Douglas P. Frye  
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Last May, a group of scientists from various academic disciplines including ethology met in Seville, Spain to draft a "Statement on Violence." The Statement is a response to the frequent misunderstanding and misapplication of scientific information on aggression — information which at times has been used to justify violence and warfare. In the 1950's, UNESCO sponsored a series of Statements on Race which served to clarify for the world community that racism has no basis in science, and these Statements on Race were widely disseminated to schools and libraries around the world. In parallel fashion, the present Statement on Violence seeks to clarify what can and what cannot scientifically be concluded about the nature of human aggression. The Spanish National Commission of UNESCO sponsored the drafting of the Statement and will formally present it to UNESCO. It is hoped that UNESCO will vote to adopt and disseminate the Statement. Since some ISHE members have conducted research on aggression or have knowledge in this area, I would encourage such scientists to write or telephone their appropriate National UNESCO Commissions to urge them to support the Statement on Violence. The Statement reads:

"Believing that it is our responsibility to address from our particular disciplines the most dangerous and destructive activities of our species, violence and war; recognizing that science is a human cultural product which cannot be definitive or all-encompassing; and gratefully acknowledging the support of the authorities of Seville and representatives of the Spanish UNESCO; we, the undersigned scholars from around the world and from relevant sciences, have met and arrived at the following Statement on Violence. In it, we challenge a number of alleged biological findings that have been used, even by some of our disciplines, to justify violence and war. Because the alleged findings have contributed to an atmosphere of pessimism in our time, we submit that the open considered rejection of these mis-statements can contribute significantly to the International Year of Peace.

"Misuse of scientific theories and data to justify violence and war is not new but has been made since the advent of modern science. For example, the theory of evolution has been used to justify not only war, but also genocide, colonialism, and suppression of the weak.

"We state our position in the form of five propositions. We are aware that there are many other issues about violence and war that could be fruitfully addressed from the standpoint of our disciplines, but we restrict ourselves here to what we consider a most important first step.

"IT IS SCIENTIFICALLY INCORRECT to say that we have inherited a tendency to make war from our animal

ancestors. Although fighting occurs widely throughout animal species, only a few cases of destructive intra-specific fighting between organized groups have ever been reported among naturally living species, and none of these involve the use of tools designed to be weapons. Normal predatory feeding upon other species cannot be equated with intra-species violence. Warfare is a peculiarly human phenomenon and does not occur in other animals.

"The fact that warfare has changed so radically over time indicates that it is a product of culture. Its biological connection is primarily through language which makes possible the coordination of groups, the transmission of technology, and the use of tools. War is biologically possible, but it is not inevitable, as evidenced by its variation in occurrence and nature over time and space. There are cultures which have not engaged in war for centuries, and there are cultures which have engaged in war frequently at some times and not at others.

"IT IS SCIENTIFICALLY INCORRECT to say that war or any other violent behavior is genetically programmed into our human nature. While genes are involved at all levels of nervous system function, they provide a developmental potential that can be actualized only in conjunction with the ecological and social environment. While individuals vary in their predispositions to be affected by their experience, it is the interaction between their genetic endowment and conditions of nurturance that determine their personalities. Except for rare pathologies, the genes do not produce individuals necessarily predisposed to violence. Neither do they determine the opposite. While genes are co-involved in establishing our behavioral capacities, they do not by themselves specify the outcome.

"IT IS SCIENTIFICALLY INCORRECT to say that in the course of human evolution there has been a selection for aggressive behavior more than for other kinds of behavior. In all well-studied species, status within the group is achieved by the ability to cooperate and to fulfill social functions relevant to the structure of that group. "Dominance" involves social bondings and affiliations; it is not simply a matter of the possession and use of superior physical power, although it does involve aggressive behaviors. Where genetic selection for aggressive behavior has been artificially instituted in animals, it has rapidly succeeded in producing hyper-aggressive individuals; this indicates that aggression was not maximally selected under natural conditions. When such experimentally-created hyper-aggressive animals are present in a social group, they either disrupt its social structure or are driven out. Violence is neither in our evolutionary legacy nor in our genes.

"IT IS SCIENTIFICALLY INCORRECT to say that humans have a "violent brain." While we do have a neural apparatus to act violently, it is not automatically activated by internal or external stimuli. Like higher primates and unlike other animals, our higher neural processes filter such stimuli before they can be acted upon. How we act is shaped by how we have been conditioned and socialized. There is nothing in our neurophysiology that compels us to react violently.

"IT IS SCIENTIFICALLY INCORRECT to say that war is caused by "instinct" or any single motivation. The emergence of modern warfare has been a journey from the primacy of emotional and motivational factors, sometimes called "instincts," to the primacy of cognitive factors. Modern war involves institutional use of personal

characteristics such as obedience, suggestibility, and idealism, social skills such as language, and rational considerations such as cost-calculation, planning, and information processing. The technology of modern war has exaggerated traits associated with violence both in the training of actual combatants and in the preparation of support for war in the general population. As a result of this exaggeration, such traits are often mistaken to be the causes rather than the consequences of the process.

"We conclude that biology does not condemn humanity to war, and that humanity can be freed from the bondage of biological pessimism and empowered with confidence to undertake the transformative tasks needed in this International Year of Peace and in the years to come. Although these tasks are mainly institutional and collective, they also rest upon the consciousness of individual participants for whom pessimism and optimism are crucial factors. Just as "wars begin in the minds of men," peace also begins in our minds. The same species who invented war is capable of inventing peace. The responsibility lies with each of us."

Seville, May 16, 1986

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## RESPONSE TO W. C. MACKEY'S "CHOOSE-N' SNIFF" (Daring Ideas Contest) HEN August, 1986

Dr. Sigrid Hopf  
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There are two points why I feel this grotesque goes wrong: 1) Even sarcasm can reinforce. The fallacies of simplistic, monocausal thinking and deterministic valuation are still very attractive and dangerous.

2) I have great reservation in the presence of phrases like: ... the woman must ... merely ..., especially when dealing with reproduction and human relations. In a vague, and therefore, hurting way, the wit is on the expense of females. This tenacious behavioral fossil (excuse me, Dr. Mackey) is too well known and should not be reinforced.

### Daring Ideas: Another Entry

(From a paper presented at American Anthropological Association Meetings, December 1983, Washington, D.C.)

## A SEXUAL SELECTION MODEL FOR HOMINID EVOLUTION

Sue Taylor Parker  
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Rohnert Park, California

The following paper develops a sexual selection model for the evolution of bipedal locomotion, canine reduction, brain enlargement, language and higher intelligence in *Australopithecus afarensis*, early *Homo* and *Homo erectus*, and *Homo sapiens*. The model involves an expansion of Darwin's ideas about human evolution based on recent elaborations of sexual selection theory. Modern notions about intrasexual competition and female and male choice and their ecological correlates are summarized along with a new model for the role of sexual selection in speciation. Rapid evolution of bipedal locomotion as a male adaptation for nuptial feeding of females is proposed as a model for ape-hominid divergence through sexual selection; canine reduction is attributed to selection for associated epigamic displays. The analogy with male specialization through sexual selection speciation in *hamadryas* baboons is noted. Subsequent changes in female reproductive physiology are attributed to female competition for increased male parental investment during the time of early *Homo* and *Homo erectus*. The origin of higher intellectual and language abilities in *Homo sapiens* is attributed to male competition through technology and rule production to control resources and females; intellectual abilities involved in social manipulation are attributed to female competition for male parental investment and maintenance of polyandry. The course of hominid evolution is characterized as involving a trend from a promiscuous mating system toward increasing intensity of adaptations for male control of females, and by increasing intensity of female adaptations to maintain male parental investment while circumventing male control. The paper ends with a brief description of sexually dimorphic features of the brain, language, and intelligence as well as locomotor and carrying anatomy in modern humans.

Comments in response to the following original article are invited.

(This paper was presented at the 2nd World Congress on Sexually Transmitted Diseases, Paris, June, 1986.)

## SEXUALLY TRANSMITTED DISEASE AND HUMAN EVOLUTION: Survival of the Ugliest?

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Reproductive fitness is integral to evolutionary survival. Since sexually transmitted diseases (STD) can rapidly reduce reproductive fitness, an evolutionary effect of STD is proposed. The risk of STD is related to the degree of exposure (i.e. the number of sexual partnerships, the previous sexual behavior of those partners and the sexual behavior engaged in). Sexual partnerships are dependent upon communication. Selection by STD would have been: 1) against communication systems that increased STD exposure by providing increased sexual opportunity; and 2) for communication systems that improved fertility by providing sexual relationships with decrease risk of STD. Shifts in communication systems caused by STD may have influenced social organization. Awareness of STD may have resulted in adoption of sexual behaviors that reduced the risk of STD.

### SELECTION AGAINST DOMINANCE DISPLAY

It has been shown that in many species, including preindustrial humans, social status influences sexual exposure and is achieved by the intimidation of competitors with aggressive physical displays called dominance displays.<sup>1</sup> If the sexual exposure and, therefore, the exposure to STD of the ancestral human was increased by dominance display, selection would have been against the characteristics of dominance display. Some examples of characteristics of mammalian dominance display are: 1) vocalizations, 2) piloerection, 3) body posturing, 4) display of canine teeth and, 5) display of physical strength and agility. During human evolution selection has occurred against characteristics of dominance display.

### SELECTION AGAINST SEXUAL DISPLAY

Mammalian sexual display attracts sexual partners at the time of ovulation. Characteristics commonly used during mammalian sexual display are: 1) pheromone production, 2) perineal skin color change, 3) perineal swelling and, 4) body posturing. Since effective attraction of sexual partners would increase the risk of STD, selection by STD would have been against sexual display. This may explain the lack of outward signs of ovulation in the human female.

### SELECTION FOR PROTECTIVE CHARACTERISTICS

Selection may have occurred for characteristics that communicated reduced reproductive fitness or impaired social or sexual communication, such as non-lactational breast enlargement. Lactation can suppress ovulation. In the chimpanzee, the frequency of copulation is the lowest during lactation (fig 1).<sup>2</sup> By providing the appearance of

lactation, non-lactational breast enlargement may have reduced exposure to STD by falsely communicating reduced reproductive fitness and discouraging sexual partnerships. Therefore, STD may have selected for the non-lactational breast enlargement of the human female.

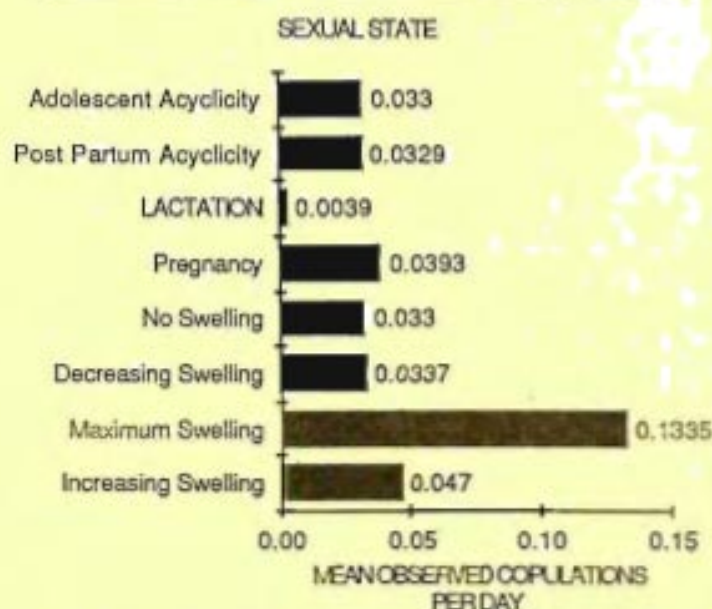


Fig. 1 Five year mean of observed copulations per day per sexual state of captive chimpanzee colony.<sup>2</sup>

### SELECTION FOR PAIR BONDING AND MONOGAMY

Communication systems that minimized the number of sexual partnerships would have been favored. Consort relationships, observed in many primate species, are monogamous sexual partnerships isolated from the social group at the time of estrus. In chimpanzees, consort relationships can last many days and are initiated by the male's dominance display towards the female. Once the female is attracted, the male turns and moves away hoping the female will follow. If the female does not follow the male's lead, the communication is repeated with greater intensity. Some couples have been observed to consort with little hesitation on the part of the female.<sup>3</sup>

Since the consort relationship reduces the number of sexual partnerships, the communication systems that facilitate consort relationships would have been favorably selected by STD. Perhaps selection for consort relationship communication has influenced the development of pair bonding and monogamy in humans.

### SELECTION FOR LANGUAGE AND CULTURE

Selection against characteristics of dominance display would have hampered the establishment of dominance relationships and decreased the stability of the social hierarchy. Selective pressure would have been for communication systems that established stable social relationships and social organization, such as language and increased memory. Language and memory would have allowed the development of and adherence to stabilizing social patterns (i.e. culture).

The selective advantage of adhering to the social patterns would have caused selection for extended childhood and increased parental investment which would have provided the time for the additional social learning. The need to learn additional social patterns may have resulted in the increased cranial capacity of humans. With learned communication as the basis for relationships, selection would have been for the development of the family unit and the isolation of social groups.

#### SEXUAL BEHAVIOR AND FEAR OF STD

With cognitive understanding of STD, sexual behavioral patterns may have changed. Since dominance and sexual display no longer determined reproductive fitness, selection would have been for behavioral patterns which: 1) minimized changes of sexual partners, and 2) prevented contact with high risk sexual partners. For example, the delaying of sexual intercourse until the formation of a closed, lifetime sexual partnership (i.e. marriage) would have decreased the transmission of STD and increased fertility. Selection would have been for control over sexual impulses (i.e. delay of gratification).

#### CYCLIC SOCIAL CHANGE: Sexual Gratification vs. Fear of STD

The level of fear of STD is influenced by: 1) the incidence of STD, 2) the availability of protective medical technology, and 3) social drug use. Adherence to protective social and sexual behaviors would have reduced the incidence and fear of STD. Over time reduced fear would have undermined the adherence to protective behaviors. With decreased adherence to protective behaviors, the incidence would have increased and resulted in increased fear and adherence to protective behaviors. Medical technology has probably influenced this cycle by providing real or perceived protection from the dangers of STD. Social drug use may have also influenced this cycle by impairing cognitive control of sexual impulse.

#### SUMMARY

While many factors must have been involved in human evolution, STD can directly and rapidly reduce reproductive fitness and, therefore, may have been a significant factor in human evolution. Since sexual exposure and, therefore, exposure to STD is dependent upon communication, it is suggested that STD would have selected against communication systems that increased sexual exposure and, therefore, exposure to STD, such as dominance display and sexual display. STD would have selected for characteristics that reduced sexual exposure, such as non-lactational breast enlargement and pair bonding and monogamy. The selection against communication systems that formed social relationships would have caused selective pressure for characteristics which would have provided stable social relationships, such as language and memory. Awareness of the dangers of STD may have altered sexual behavior and selected for increased control over sexual impulses. Variance in the degree of awareness may have been responsible for cyclical social change.

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Another entry in the Daring Ideas Contest:

#### ETHNOCENTRISM AND THE DEMOGRAPHIC TRANSITION: AN ETHOLOGICAL PERSPECTIVE ON KEYNES HERITAGE

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Around our dinner table — as is the case in millions of other American homes — informal conversation usually involves some facet either of the Spanish Inquisition or of the Demographic Transition. Because recent mini-series docudramas have hashed and rehashed the Spanish Inquisition with remarkable thoroughness, this essay will discuss a particular aspect of the demographic transition: the ethnocentrism of DEMOGRAPHIC TRANSITIONISTS.

For those few of you who have never had a graduate seminar focusing upon the demographic transition, a brief primer follows. Several countries in the northern hemisphere — Germany, Japan, U.S.A., France, Hungary, Taiwan will do nicely as examples — have gone through a predictable sequence of demographic stages. (i) Centuries ago, each of these countries boasted high birth rates and high death rates. The population remained reasonably stable. (ii) When industrialization and de-ruralification began to bite hard, the death rates dropped, but the birth rates stayed high. Populations, to coin a phrase, "exploded." (iii) Birth rates eventually did decide to drop and to align themselves with low death rates wherein the population level once again achieved stability. The demographic transition is the sequence: High Birth Rates/High Death Rates → High Birth Rates/Low Death Rates → Low Birth Rates/Low Death Rates.

Beginning in the 1950's and with initial grins wide enough to humble a Cheshire cat, demographers have anticipated, and anticipated, and, yet again, anticipated Sub-Saharan Africa to follow the European (Northern) pattern. Chalks and pointers have been poised to trace the Birth Rates and the Death Rates as they both were predicted to plummet.

And, lo, as Westernized medical intervention has been introduced to prevent and to cure disease, Southern death rates have, in fact, dropped and dropped quickly. The enthusiasm that Oriental and Occidental parents have for keeping their children alive is shared with the Sub-Saharan Africans. No surprise there. One shoe down and one to go. But, as an item of pedagogic consternation, the birth rates have proven to be quite another matter. In terms of the birth-rates, Kenyans are simply terrible Japanese, and even worse Swedes. Kenyan birth rates are still very high; and these elevated rates are shared with their Sub-Saharan

neighbors.

"Like an embarrassed groom awaiting the long overdue bride-to-be, the demographers' smiles have waned, and they have had to urge patience and faith: "The birth rates will drop. Really they will. They dropped in Switzerland, didn't they? They dropped in Spain, didn't they? They'll drop in Sub-Saharan Africa. The demographic transition transcends cultural boundaries. It is real. It is true. *Semper fidelis.*"

Perhaps such is so, but a primal premise of the demographers is hereby contested. The premise is the assumed homogeneity of the Human condition; especially the identity of hierarchies of motivations.

It is argued here that ancestral Northerners had to contend with "winter" — a cruel, lethal stimulus. Ancestral Southerners did not. Southerners may have had other nuisances with which to contend, but freezing to death within a matter of hours was not included in their list of problems. In the process of developing small group alliances, Northerners were filtered "in" who had ratcheted-up their search for "achievement" in potential colleagues and ratcheted-down their reliance upon relatives (ascription). Incompetent, if well-meaning, kin would be reasonably dangerous in sub-zero January. Southerners were under different selective pressures: drought, disease, noisy neighbors.

In brief: Northerners would more tend 1) to find solutions to ecological problems and 2) then to find folks to execute those solutions. Inter-family alliances increased in cathexes; intra-familial alliances decreased. Southerners would more tend 1) to recruit and nurture intra-familial relationships and 2) then call upon those kin when need arose. Intra-familial allegiances superseded inter-familial alliances.

As long as Birth Rates and Death Rates were both high, and nearly everyone enjoyed the *Gemeinschaft*-life, then the different shades of emphases were not particularly important.

But, if death rates become low and if the *Gemeinschaft* life-style is remanded only to the lyricism of "Little House on the Prairie" folklore, then the difference becomes important. The key difference is ensconced in the evaluation and valuation of children.

To Northerners, children, in general, become a "net cost." They gobble up much more in resources than they produce. To phrase it in another vein, kids are an economic disaster zone. Because Northerners like the "good life," "Birth Rates Drop."

To Southerners, children are still very much "net benefits." They are the drive wheel to generate wealth for a family. The Southerners' economic strategy remains quite intact: develop a widespread family with economic duties and obligations infinitely interwound amongst its members. An increased number of children means a (potentially) increased flow of debts and credits within the family and thus becomes the conduit to greater wealth. Birth Rates remain high. Families with few children create an economic liability for themselves.

If one is to believe Kenyans, Kenyans also want the "good life" and will follow the "invisible hand" just as readily as the Dutch. The economic theorems, however, are slightly different between the Dutch and the Kenyans. Consequently the corollaries will also emerge slightly different.

With their increased reliance upon intra-familial economic systems, the Southerners were pre-adapted for the new niche whereby technology prevents deaths via disease. High Birth Rates and Low Death Rates become a Daily-Double Darwinian Jackpot of New York Lottery proportions.

How much of this tactical difference between Northerners and Southerners is due to genetic differences is anyone's guess. My empirical estimate is "Lots ± some" ( $df = 1$ ). Nonetheless, whether the genetic penetrance is higher or lower, the Demographic Transitionists' latent assumption of unilinear evolution by a homogeneous humankind opens them up to the withering charge of "ETHNOCENTRISM."

Even worse, their presumption illustrates an ethological heresy, which, if followed by a fitting and proper Inquisition of a more Ramboesque age, might well have led to a Medieval version of idiographic quantification: drawing and quartering. My case wrests,

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## BOOK REVIEW

### **Person, Self, and Experience: Exploring Pacific Ethnopsychologies**

Berkeley: University of California Press, 1985. viii, 433 pp., \$44.25, £32.75. ISBN 0-520-05280-3. By Geoffrey M. White and John Kirkpatrick, (Editors)

#### **Reviewed by William D. Wilder**

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This book comprises a selection of papers given at meetings of the Association for Social Anthropology in Oceania (ASAO) in 1981-82. It is divided into four parts as follows:

Part I. Introduction (=Ch. I 'Exploring Ethnopsychologies', by John Kirkpatrick and Geoffrey M. White, 3-32).

Part II. Identify, Emotion, and Social Process (=Chs. 2-6, by Lutz, Kirkpatrick, Gerber, Schieffelin, and Poole, 35-242).

Part III. Person, Deviance, and Illness (=Chs. 7-10, by Black, Ito, White, and Fajans, 245-397).

Part IV. Epilogue (=Ch. 11. 'Ethnopsychology and the Prospects for a Cultural Psychology', by Alan Howard, 401-420).

Each chapter follows as closely as possible an identical format, viz.: text acknowledgements, notes, references, plus, in the nine substantive ethnographic papers, a glossary of local words used in the text, ranging from 16 or 17 words to an extravagant but not unmanageable total of 119 for the Bimin-Kuskusmin, Chapter 6 by Poole.

Three ethnographic subregions of the Pacific area are represented by the selected papers, namely: Melanesia (chs. by Poole, Schieffelin, Fajans, and White), Polynesia (chs. by Gerber, Ito, and Kirkpatrick), and Micronesia (chs. by Lutz and Black).

All of the fieldwork was done between 1971 and 1978, except for Schieffelin's, on the Kaluli, in 1966-68, but in writing for the present volume, the authors have omitted some background facts on the communities, for example population figures and subsistence. In other cases, background ethnography is summarized in a page or so. There is some justification for the omissions in the case of



Polynesians and Micronesians in that those areas are well-reported in the literature; this is not yet the case with Melanesians however. Because of the arrangement of the book and the paucity of ethnographic background, it is easy to get the impression that 'the Pacific' is a cohesive area whereas it is the subregions at best that have some degree of shared social patterns, languages, and history.

The other word in the book's subtitle is 'ethnopsychology'. The subject is sometimes also known as ethnopsychiatry, folk or indigenous psychology, 'cultural [non-psychological] psychology', 'native' or everyday psychology, or, quite simply, 'unwritten psychology' (including the unwritten psychologies practiced in a literate culture, as pointed out in Lutz's paper on [faluk, Ch.2, p.38]). Nearly all the contributors attempt one or more definitions but, as Alan Howard notes in his Epilogue, not with any agreed result. This inconclusiveness would not be too worrying if the definitions proposed were truly 'exploratory' in the spirit of the book. But are they?

It seemed to me, in reading the various definitions, that most were not very well worked out. A possible reason for this is the writers' apparent lack of acquaintance with key writings on 'folk psychology'. This deficit, to my mind, handicaps all the papers with the exception of Poole's and Schieffelin's (Chs.6 & 5) whose insight and overall quality makes them self-sufficient. It is true that the names of key figures such as Gregory Bateson, Ruth Benedict, George Devereaux, Irving Hallowell and Michelle Rosaldo (the book's dedicatee) are mentioned, but one looks, somewhat in vain, for, first, some consistency or consensus among the contributors about what these authors have said about ethnopsychology and, second, for an attempt to apply or test their views on the Pacific field data.

To take a specific example, an excellent study of Javanese folk psychology has been written by Jerome Weiss in his Yale Ph.D. thesis *Folk psychology of the Javanese of Ponorogo [East Java]* (1975), under the supervision of Harold Conklin; this study, together with Michelle Rosaldo's on the Ilongots and George Devereaux's on the Mohave Indians of California (1961), can be said to set the current standard for ethnopsychological research. Neither Weiss's nor Devereaux's study is cited.

Another possible reason for the deficit is that Weiss's, Rosaldo's, and Devereaux's monographs run to hundreds of printed pages, so that the failure of most contributors to get to grips with the problem is that they have tried to do too much with too little. Most of them deal, predictably, with the lexicon of 'emotions' in the community studies (hence the decision to append a glossary to each chapter); but this linguistic approach is, of necessity, an incomplete one, and the format of the book leaves no space - and the authors' rather restricted concepts no scope - for further working out. The overall truncation of effort is disappointing and does seem to this reviewer to be a major drawback of the book. For example, there is barely a mention of Freud despite the fact that Freudian ideas are frequently criticized (most recently by Ernest Gellener *The psychoanalytic movement*, 1985) precisely because they are 'culture-bound' and constitute an 'ethnopsychology' which can be comparatively studied. Freudian ideas, on the other hand, have also exerted the greatest impact on psychological anthropology in general, starting with Freud himself, in *Totem and Taboo* (1913), then with Malinowski, Roheim, and Margaret Mead, and later still Erik Erikson, Irving Hallowell, George

Devereux, and Melville Spiro, to name only a few.

There is a further defect, at least for anthropologists, in this book; it is the complete absence of any focus on social change. The pictures presented tend to be idealized and generalized and this bias seems to preclude close attention to adaptation and ongoing changes in the communities. This point applies particularly to the Polynesian and Micronesian studies where it is apparent that drastic and irreversible changes, mostly the results of Americanization and Christianization, have taken place. But the reader needs to remind himself of this. Even in the Melanesian studies, where change is not so much an issue, and where pagan ritual symbols offer a rich field for study (Poole and Schieffelin again), some obvious points are not explored. For example, in the Baining case (chap. 10, by Jane Fajans) adoption of children is more highly-valued than raising one's own, yet the author makes little or no attempt to discover in which ways, if any, the indigenous psychology reflects this 'structural mass'. To take another issue, that of gender and gender psychologies (for which Margaret Mead's work is so well known), here too no author explicitly tackles the subject and few if any relevant data are given in the majority of the papers. Neither of the general reviews (chs. 1 & 11) discuss it.

In sum, this is a book by area specialists largely for area specialists. It is hard to see it overall as a very substantial or suggestive contribution to the study of folk psychologies, if for no other reason than that the various studies, with exceptions already note, are too thin and tentative. With such classic and innovative monographs at Bateson's *Naven* (on the Iatmul of New Guinea) (1936), Ruth Benedict's *The Chrysanthemum and the Sword* (on the Japanese) (1946), and Devereaux's *Mohave Ethnopsychiatry and Suicide* (1961), to name only three, we are entitled to current work which builds on them or effectively criticizes their claim to scientific truth, and does not, as so often in this volume, casually sidestep or ignore them.

## BOOK REVIEW

### An Introduction to Ethology

Cambridge University Press, 1985. £22.50 (HB) 0 521 30266 8. £7.95 (PB) 0 521 31606 7. By P. J. B. Slater

Reviewed by C. J. Henty

Department of Psychology, University of Stirling, Scotland

In 195 pages Professor Slater covers modern animal ethology quite systematically at a level aimed at students late in their school or early in their university careers. The introduction is historical and then the major issues of ethology are outlined — causation, development, evolution and function which are taken up at length in later chapters. The book ends with communication and social organization and a list for further reading.

The illustrations are well chosen, though most are familiar, and comprise line drawings, diagrams and black-and-white reproductions of photographs. Professor Slater's style is direct and straight forward with extensive use of modern examples and I approve of many of the ways in which he explains particular topics, clearly convergence in teachers. I particularly like the chapters on sensory systems, evolution, function and social communication. I feel the chapter on development is not well connected and gives little

weight to actual ways by which genes are known to affect development. This is unfortunate since this area is both fundamental and in a very lively state of progress. Admittedly the effects of mutations on behavior are treated as part of behavior genetics at the start of the chapter on evolution but not in a way that is truly developmental. I also feel that the relation of single gene effects and artificial selection to large scale evolution is in practice too tenuous for them to act as a useful basis for a discussion of comparative evolution.

The book has not been well served by the arrangement of diagrams many of which are placed overleaf from the text and inside the next subchapter. There are also many diagrams of good examples, with well explained legends, that have no reference in the text at all. Possibly this is a hint of haste in writing which could also explain why the introductory section on evolution and function was not really clear, and also that a number of points in the text need just a sentence more of explanation.

This book could act as a good basis for an introductory course on zoological ethology provided it was supplemented by a detailed reading list — the bibliography is restricted to fairly generalized books and omits the important recent texts by McFarland and by Trivers. As part of a psychology course it has the severe limitation that no discussion is made of specifically human ethology or of human evolution and ethological aspects of anthropology. I must however admit that there seems to be no single introductory book that even attempts to do this.

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### BOOK REVIEW

#### **The Inner Eye**

Faber and Faber, London, 1986. 188 pp., £4.95. By N. Humphrey

#### **Reviewed by James R. Anderson**

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Laboratoire de Psychophysiologie, Université Louis

Ethologists and psychologists already familiar with Nicholas Humphrey's ideas on the evolution of consciousness, as expressed, for example, in *Consciousness Regained* (1984), will find little that is new in *The Inner Eye*. But this new book is not really aimed at such a sophisticated market. As a companion (though independent) volume to a recently broadcast television series dealing with human consciousness, it brings to a much wider readership some of the basic issues surrounding self-awareness, e.g. its evolution and distribution among the animal kingdom, its functions, and some of society's techniques for exercising or eliminating our own social intellectual capabilities.

To this aim the book is user-friendly: the language is simple and can easily be imagined as a spoken narrative, it is uncluttered by references (the few there are come from various disciplines), and over 3 dozen thoughtful cartoons (by Mel Calman) light-heartedly illustrate points arising in the text.

Briefly, Humphrey suggests that conscious awareness has evolved in humans because of the advantages it gives not only in understanding our own thoughts and behavior, but those of other people too. Put simply, self-awareness vastly improves our ability to deal with social relationships, by providing us with 'psychological insight' into other

individuals. Thanks to this ability we can anticipate their thoughts and future actions, and even manipulate their behavior.

Two related topics which I do not well remember from *Consciousness Regained* are clearly treated here. First, there is a straightforward assault on the question of why consciousness exists, with three possible explanations considered: 1) It is a necessary precondition for intelligent and purposive behavior in all animals. 2) It is merely an epiphenomenon of brain process, without much influence on behavior. 3) It has evolved in some organisms because it conveys advantages in meeting certain biological challenges. Naturally, Humphrey proceeds to refute the first two and comes out in favor of the third, with social problem-solving being the task. Second, the early development of self-awareness is included, with accounts of findings from early self-recognition studies and the possible role of imitation in triggering empathy being particularly stimulating. Stimulating, yes, but most people who read this review would probably find the book's treatment of such topics just too light to be satisfying. In books such as this one critical evaluation of the evidence cited in support of a given point of view tends to give way to readability. And once he warms up, Humphrey becomes very readable indeed, taking us through the roles of dreaming, theatre, literature, and the media in sharpening our psychological skills. The darker sides of western society are exposed too; including the preponderance of 'artificial superstimulus' psychological aids (e.g. much of television and cinema), and military techniques to suppress self-reflection and empathy.

Anyone who wants a more serious perspective on Humphrey's arguments about consciousness would probably do better to go straight to *Consciousness Regained*. But for anyone looking for a good springboard to discussions in a first year seminar, or just wanting a first inside look, *The Inner Eye* should do nicely.

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### BOOK REVIEW

#### **Females of the Species: Sex and Survival in the Animal Kingdom**

Harvard University Press, Cambridge, Mass., 1986. 254 pp., \$20.00. By Bettyann Kevles

#### **Reviewed by Julie Anne Johnson**

Department of Zoology, University of Edinburgh, Edinburgh, Scotland

Some years ago, a fellow student walked into my room brandishing a primatology text book. "The next time," she said, "I read that males 'struggle and compete', whereas females 'bicker and squabble,' I'm going to scream." Her fury concerned a political point: the language that subtly dignified male behavior and trivialized female behavior was indeed offensive. But she could just as well have protested on biological grounds; attitudes towards the human female and her place in society have coloured descriptions of female behaviour in other species. Wherever the female has been depicted as a passive partner dragged forward by male progress - or wherever female strategies have been ignored altogether - we have missed an important part of the evolutionary picture.

In *Females of the Species: Sex and Survival in the Animal Kingdom*, Bettyann Kevles sets out to redress the balance. Her experience as a science journalist is apparent;

this broad survey of female reproductive strategies is pitched for the general reader, who will find it clear and entertaining, despite the complexities of the topic. The book is divided into four sections: Courtship, Mating, Motherhood, and Sisterhood; and each chapter is amply illustrated with examples from current research across many phyla.

Courtship is described as a "checking-out period," when a female evaluates the suitability of a potential mate. Here, Kevles stresses the importance of female choice, a phenomenon which has proved difficult to disentangle from male competition. To Kevles, the female is not always the acquiescent trophy won by the most competitive male (although a male's competitive ability may be important to the female to the extent that it confers some future advantage on any sons he fathers). In the shorter term, courtship may serve to demonstrate what the male can contribute to the welfare of the offspring: protection, shelter, care, or food. And females not only choose; in many species, they actively initiate courtship or incite competition between males.

The section on Mating is a catalogue of the extraordinary variety of ways females and males of different species achieve the union of egg and sperm. Kevles also discusses sexual activity which takes place outside of fertile periods. Why should a female engage in or even initiate sex when she cannot conceive or is already pregnant? Kevles suggests that the sexual act has become an end in itself in many species, enhancing long-term bonds between females and males. In group-living species, including many primates, it is also possible that confusion over an infant's paternity protects that infant from potentially infanticidal males.

Motherhood is not only about "the stuff of fables," as Kevles calls it: the care, seeming self-sacrifice and energy mothers of many species expend on their young. The section also describes the mother who acts purely in her own self-interest, those circumstances in which it will benefit the female to abandon, neglect, or even kill her youngster. She cuts her losses, as it were, and starts again when conditions allow.

Finally comes the section on Sisterhood, which is a bit of a misnomer in this case. True, it documents cooperation in many species between females who live together in social groups, protect one another and help care for each others' offspring. But, as further chapters reveal, females who benefit from group life also exact costs from one another. Competition with other females and their offspring for resources and, sometimes, for mates can take the form of reproductive suppression of low-ranking females, harassment, attacks, or infanticide.

I winced when I read on the book's paper sleeve that a female animal's ultimate goal is "perpetuation of the species," although I realized the fault lay with the blurb-writer, not the author. But Kevles herself is often not sufficiently clear at what level — the individual or the species — selection is acting. In stating, for example, that in choosing an appropriate mate, a female "safeguards the continuity of the species," Kevles is not strictly wrong, but she may mislead a general reader already enamoured with group selection.

The bibliography is extensive, but it is difficult to locate the source of a particular piece of information in the majority of examples where the researcher is not named. I realize that the conventional scientific format, listing author

and date of the relevant publication, would be cumbersome in a popular book, but footnotes or superscripts referring to references would certainly have helped me.

Studies of animal behavior now acknowledge the important and diverse roles females play in animal societies. This book is an introduction to behavior and evolution from a relatively new point of view; Kevles' purpose is to "recognize females as, at the very least, co-equal players in the evolution game." It is too serious a game to bicker about.

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## BOOK REVIEW

### Animal Thought

London: Routledge & Kegan Paul, 1985. Paperback, 437 pp., £6.95. By Stephen Walker

### Reviewed by Dr. W. A. Phillips

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The central question discussed in this book is "Which mental faculties do we share with other animals and which are uniquely human?" This is a basic question for anyone interested in evolution, since the emergence of mind is surely as significant as transition as the emergence of elementary particles, atoms, or life. To those interested in human evolution it must be a crucial question. Walker's book, first published in hardback in 1983, and now reissued with minor additions, attempts a balanced and up-to-date review of current understanding of these issues. It is written at a level that presupposes no prior technical knowledge, and for the most part in a clear and fluent style. I believe that the central message and the supporting arguments and evidence would be clearer if presented in far fewer pages, but then we would lose the obiter dicta that other readers may find particularly informative or entertaining.

In pursuit of an answer to this question Walker first summarizes philosophical views from Descartes to Eccles and Armstrong. The main body of the book then discusses in detail the evidence provided by comparative experimental psychology and comparative neuroanatomy and physiology. A major strength of the book is that it emphasizes what is clearly established without losing sight of highly plausible but unproven generalizations. Occam's razor and Lloyd Morgans canon are given the short shrift they deserve. I think that this book succeeds admirably in showing how far science has come in understanding mental evolution. The clear implication is that it still has very far to go. Walker offers no suggestions as to how that further journey might be taken, nor any as to where it might lead.

The major areas of mental function discussed are learning, perception, memory, language, and consciousness. This immediately raises a fundamental difficulty, because these traditional notions of the organization of mental function are too weak to bear any analytical weight. Nevertheless, Walker makes clear that in each of these areas animal performance demands more than simple S - R associative mechanisms can yield. Animals learn to attend to some aspects of stimuli rather than others, they can be shown to expect some consequences from their actions rather than others, they can learn abstract classes such as regular versus irregular figures, pictures with trees, people, water, oak-leaves, etc., and higher primates can learn signs for abstract concepts. With respect to consciousness he says, "When consciousness refers to brain states which direct and

select perception, memory, and action even in the absence of verbal processes, there is no compelling reason to believe that it is uniquely human" (pp 384). Quite so, but neither is there any compelling evidence to the contrary. Consciousness still defies exploration either by experimental psychology or neurobiology. Since its function and neural basis remain unknown neither studies of an animals abilities nor studies of its structure can demonstrate its presence.

The conclusion that Walker draws is that language is the only faculty unique to man. (The evidence for pongo-linguistics is taken as a demonstration that apes have abstract concepts, which are necessary but not sufficient for language). This ancient and common suggestion clearly has something in it, but exactly what is still not clear. The opposing view that language is but one manifestation of a more basic and general cognitive advance is equally defensible, and equally speculative.

A considerable amount of behavioral and neural evidence is described as supporting a major distinction between higher vertebrates - birds and mammals - and lower vertebrates. For example, higher vertebrates show evidence of the form of sleep - REM sleep - associated with dreams in man, but lower vertebrates do not.

Finally, throughout the book Walker uses evidence from comparative neuroanatomy to support the general thesis that mental evolution is both conservative and progressive. At a general level this is fair enough, but such evidence can only be used convincingly in relation to such processes as learning, attention, abstraction, and language, in-so-far as their neural mechanisms are known. At the moment that is not very far.

## BOOK REVIEW

**The Evolution of Law, Law, Biology, and Culture**  
Ross-Erikson, 1983. Paperback, 205pp., \$10.95. Edited by Margaret Gruter and Paul Bohannan

Review by Glendon Schubert

Department of Political Science, Southern Illinois University at Carbondale, and University of Hawaii at Manoa

### Cultural Statics: Law Without Biology

This book was initially published as a special issue of the *Journal of Social and Biological Structures* [5(3), Oct. 1982] and is based on a symposium convened on the West Coast in California, at a time not specified but evidently sometime between 1979 and 1982. The avowed goal of the organizers of the symposium was to encourage exploration of the relationships between evolutionary biology and legal behavior ("law") from the perspective of behavioral science. Biology-oriented participants would be brought into an intensive discourse with exponents of social science knowledge of law and legal behavior; and participants knowledgeable about law would engage in extended conversation with scholars committed to accept the paradigm of the modern neo-Darwinian/Mendelian synthesis of biological evolution. The published symposium includes fourteen papers; there were nine additional participants in the three-day conference who did not contribute papers to its publication. Strictly speaking only two of the contributors (Alexander and Mark) are zoological or evolutionary biologists (as distinguished from

the five physical anthropologists or experimental psychologists) but a total of six chapters are classified by the editors as biological. Three chapters are by legal scholars; and the remaining four authors include two cultural anthropologists, a social psychologist, and a political scientist. Only two chapters discuss evolutionary theory seriously: one is categorized as "law and morality" and the other as "social science"—neither as "biological."

There are, without doubt, important transactional relationships (Dewey and Bentley, 1949) between human biology and legal—like any other aspect of human—culture. But there has been minimal importance associated in the past with empirical investigations of such relationships; and therefore this book, which undertakes to discuss biology and law, could pursue only two approaches: 1) analogizing, to law, deductions from other research that has examined other facets of culture, in relation to biology; and/or 2) speculating about the possible implications of "general principles" of human evolution for human culture, as applied to law and legal institutions and behavior. Most chapters of this book settle for one or the other of these available options; a few attempt both.

Most of the authors are concerned with the extent to which human biology, as a direct or indirect subset of primate [or mammalian, or vertebrate, or animal] biology, exerts a major influence upon legal behavior, as an aspect of law [viewed as a key component of human culture]. Most participants are relatively enthusiastic advocates of an enhanced role for biological theory and knowledge in legal studies and behavior; only two—one a professor of biology and the other a professor of law, both Swiss—take a much more skeptical stance regarding the possibilities of integrating biology and law.

It is, no doubt, a coincidence that twenty years earlier Donald Campbell (as a psychologist), Richard Schwartz (then as a sociologist), and co-editor of this volume Paul Bohannan (as an anthropologist) all knew each other personally as faculty members of Northwestern University. It is almost certainly not a coincidence that Schwartz (who left Northwestern to become the first social scientist dean of a major law school, at SUNY-Buffalo) and E. Adamson Hoebel (who for many decades has been deemed American's leading theoretical anthropologist of law) both were in a position to invoke exceptionally broad interdisciplinary and socially scientific conceptions of "law" for their analyses here.

The best of the individual chapters is the one by Campbell, who succeeds in laying a groundwork for the kind of transactional biocultural analysis that the conference was intended to promote. Ad Hoebel's chapter also does an excellent job in discussing the interfaces between anthropological and evolutionary theory.

### 1.

Campbell begins with a discussion of ultrasociality, in which he takes much more empathetic (and in regard to conventional sociobiology, iconoclastic) position in favor of group selection theory than most readers of this *Newsletter* will be accustomed to suffer gladly. But his "perspective on human social evolution is more loyal to the details of biological evolution than are current overemphases on kinselection theory which by omission imply that human ultrasociality can be explained by the same evolutionary mechanisms that explain the social insects" (p. 161); and he

adds that "Emphasis on group selection is central to my argument" (and cf. Schubert, 1981A: 196-196, 204, 208-210). Campbell proposes four principal mechanisms of social control: mutual monitoring; internalized restraint; legal control; and market mechanisms. Of these, the first two have been little recognized as important to most analyses of social control—which have tended instead to focus upon the interplay between law and the market. Campbell, however, considers internalized restraint as "traditionally achieved through religion and the awe-and-fear-inspired morality accompanying it [to have] been the central focus of my major contribution to sociobiology" (p. 168; and cf. Schubert, 1986A).

Ad Hoebel concedes that "biology imposes limitations on what may be culturally achieved; [and] more than that, it mechanically controls much of the essentially organic field of individual behavior (neurological, metabolic, reproductive etc.)" (p.32). He defines law (P.31) as "a cultural phenomenon . . . developed as an adaptive mechanism for the maintenance (effective survival) of the individuals, subgroups and the entity that constitute a society." He discusses (pp. 28-29) why evolutionary theory and both social ethology and primatology were delayed for almost a century before (finally, in the 1950's) they began to have an important impact on both American and British anthropological study. He remarks (p.30) that "Sociobiology is in bad repute . . . [and] repugnance to sociobiology rests on its proclivity to reject circumspection of its field while making innumerable assumptions about aspects of reality outside the fields of biology and ethology of insects and lower [sic] orders of animals . . . . [Furthermore,] modern genetics is radically different from the kind described by Wilson . . . [and] sociobiology omits any reference to the complications of modern evolutionary theory."

In that regard, it is notable that this symposium both as a conference and in its published form was in process at the very time when prodigious interest and activity in cultural and social cultural evolutionary theory were just getting underway. Perhaps for that reason Hoebel and the rest of the volume alike appear innocent of the importance of the impending explosion in models and theories of non-biological evolution. Hoebel and Markl both mention Lumsden and Wilson's first book (1981), but that and a paper by Boyd and Richerson (1980) are the only such relevant references in the entire book; completely absent from the list of references are such prior events as Cavalli-Sforza and Feldman (1981); various articles in the *Journal of Social and Biological Structures* (Webster and Goodwin, 1982; Baer and McEachron, 1982; McEachron and Baer, 1982); and the first Lumsden and Wilson symposium (1982), in *The Behavioral and Brain Sciences*. To that list I should add Corning (1983) the second Lumsden and Wilson Book (1983); the second Lumsden and Wilson symposium, in *Politics and the Life Sciences* (1984); the Boyd and Richerson book (1985); an article by Lumsden and Wilson (1985) in *JSBS*; and a Wilson Symposium (on "The Creative Mind") in press in *JSBS*.

## II.

Schwartz' chapter is very strong on sociology of law, but correspondingly weak on how to interfact law with biology. He emphasizes internalized restraints as a mode of social control, including (pp. 24-25) the importance of

learning and the socialization experiences of play groups of children, as a biocultural process for the inculcation of legal morality (and cf. Barner-Barry, 1981, 1982), drawing on the work of Piaget (and cf. Reh binder at p.44; and see Peterson and Somit, 1982).

Bohannon presents an incisive biosocial behavioral discussion of aggression, as a prelude to remarks about law that are narrowly constrained to its relationship to the control of aggression by reducing its physical manifestation or coping with its consequences, after which he acknowledges (p. 158) that "so far scholars and practitioners of law have paid little attention to the biological dimensions of aggression" (but see Jeffery, 1979). He says virtually nothing about how law has evolved, or how it might do so in relation to what (as noted above) already was emerging by 1983 as a burgeoning interest in cultural evolutionary theory.

Masters discusses the bioeconometric and socioeconomic theoretical models, which he uses to construct a typology in terms of which to classify leading political philosophers of two outstanding eras of Western "political thought" (Athens two and a half millenia ago, and Western Europe two to three centuries ago) to demonstrate the anaology that (p. 186): "Although the vocabulary differs, the issues posed by social biology are thus fundamentally similar to the traditional questions in Western political philosophy [a finding that brings to mind Jim March's (1956) discussion of whether "an umbrella corresponds with, more than it differs from, a blackboard," not to mention mathematician C. L. Dodgson's disquisition on why a raven is like a writing-desk]. The analysis of 'human nature,' once approached by observation and insight, can now also be illuminated by scientific research in evolutionary biology." He concludes by suggesting "three broad reasons for developing the linkages between biology and political"—"science" is what he says; but he clearly makes no attempt to do that at all; his linkages are political philosophy, which at best is no more than one subfield of modern political science. And Masters makes no attempt to relate his discussions to any question of law, to say nothing of the evolution of law, unless one is to indulge in the (demonstrably, quite false) presumption that "law" and "the state" are identical, not only to each other but to political philosophy; and further that cultural evolution is just another synonym for history.

Bartley Hoebel, Adamson's son, is a rat psychologist who discusses brain peptides, in an annoyingly confiding style (i.e., we have found this; we have learned that; we can tell you [something else] reminiscent of that of TV sports commentators on competitive golf, or bowling. He presents major sections on activation and arousal without ever mentioning (or indicating awareness of) Pribram and McGuiness (1975) or the work of the Laceys (e.g., 1963, 1970) or such leading research monographs as Grings and Dawson (1978) or even a single reference to the leading journal in the field, *The Behavioral and Brain Sciences*, which had already published five complete volumes by the time Hoebel's chapter appeared. He ignores also Lionel Tiger's *Optimism: The Biology of Hope* (1979), a book that attempts to relate brain peptides to the question of how hominid and human social behavior evolved, and whose author is at Rutgers barely 25 miles from Hoebel's own shop at Princeton. Hoebel discusses such pharmacologies as systolic beta-blockers (p. 117) as though nothing were

known or relevant about their often pernicious side-effects (such as chronic low blood pressure). Such half truths may suffice for laboratory research, but they do not for human in vivo ingestion of the drugs promoted so euphemistically. His chapter promotes also many hypotheses, but none that are tested with human data; and in any case he makes no attempt to relate his discussion to the evolution of law, other than an oblique reference on his last page (p. 128) where he says he is "simply suggesting" that if the senior co-editor of the symposium, Margaret Gruter, is "right about opiates playing a role in law abiding behavior" then his preceding discussion of peptides might be relevant to understanding the brain mechanisms. This makes Gruter's reciprocal reliance on B. Hoebel's chapter (and see the quotation in my conclusion, below, about a linear progression from the brain and its manifold chemical and neurological mechanisms, to the most elaborate of legal institutions) an empty set of observations — at least, so far as this book is concerned.

### III.

The other five "biological" chapters have much less to offer. Jane Goodall is said to have been precluded from attending the conference because she was busy "in the field in Gombe" (by which was probably meant her home in Nairobi, by that time); but in any case her chapter is a rehash of observations and anecdotes about chimpanzees completely familiar to any reader of *National Geographic*. Itani proffers a monumentally atheoretical discussion of the inhumanity of non-human primates toward their respective conspecifics. Paul MacLean reports yet another variation on what has become, for him, a well worn theme, with nothing new in the basic triune brain model that he had initially proposed more than a generation earlier; nothing that relates his discussion to the evolution of law (unless the scent-marking of territory by canids and fields be deemed an example of that); and with claims such as that the "forebrain" plays an essential role in the display of power involved in establishing and defending territory, which seems to be contradicted by co-editor Bohannon's conclusion that "apparently no brain function is associated simply with one specific brain part."

Markl and Alexander are paired (to indulge in a political term) as though to exemplify cold and hot running biologists (in relation to the promise of sociobiology for affecting law), in an analogy to legal realism's allusion to the ready availability (for purposes of legal advice) of hot-running and cold-running lawyers. Markl states, for example, that no other animal than man can be assumed to display legal behavior, because laws are constructs of the human mind which **must be verbalized** to become effective (p. 90); but the co-editors (p. 131) present (via Boehm's summary report) the case of a female baboon, caught in the act of breaking the Seventh Commandment, who acted as though "something similar to rules and punishment would appear to be present," and except in that characterization of her behavior, patently without benefit otherwise of human language. Markl argues also (p. 90 et seq.) that it is methodologically impossible to distinguish between biological and cultural "factors" in human behavior. But neither he nor anyone else in this symposium mentions either Geist (1978) or Waddington (1957); so in effect Markl disputes the possibility of the epigenetic analysis to which Waddington devoted a major part of his professional life and work (and see Schubert, 1981B, and 1985). Markl can

see little that he "can suggest with much confidence as an evolutionary biologist's contribution to the understanding of legal behavior in man" (p. 100). Alexander, a leading entomologist/human sociobiologist and a forthright "realist" about insect/human selfishness (p. 107), as well as an avowed anti-moralist (p. 110), asserts—and speaking now of humans rather than of social insects—that "There are good reasons for supposing that normal lifetimes include **no other kind of effort**" than reproductive (p. 102; emphasis added). This is quite a strong statement of the sociobiological position, and one that is quite exhausting to contemplate as the way to spend a normal life, for any adult human male other than a Rhinestone Cowboy.

Co-editor Gruter's chapter uses Ehrlich's pre-Darwinian (and therefore also, of course, pre-Marxian and pre-Freudian) concept of "law" as a frame of reference for making relationships with contemporary biosocial behavior—the opposite tactic, as it were, from Masters' strategy. Reh binder confines himself to an exploration of the legal concept of "the sense of justice." The chapter by American primatologist Boehm deals mostly with his entirely speculative discussion of eight hypotheses about the evolutionary development of "morality" among hominids. He explains (p. 135) that he is "concentrating on politics"; but I see no evidence in the chapter that he has attempted to do that (and cf. Schubert, 1983, 1986B). He defines "politics" as a behavior taking place within small groups, in terms of leadership and conflict management; and he finds "a straight line development of conflict interference into conflict management, as the original basis of morality" (and see below). But he makes no assumptions about the degree of consanguinity (which was probably very high) in such groups; and his analysis is entirely inferential and conjectural, rather than empirical.

### IV.

The subtitle of this book is "The Evolution of Law", but I think that describes very poorly what is discussed in the chapters reviewed here. The editors, in a brief epilog, superimpose on the materials at hand a linear evolution sequence of the phylogeny of law not manifest in the preceding chapters, stating that "It seems to us that a fairly clear path is open: a continuum from the brain and the manifold chemical and neurological mechanisms within each human individual all the way to the most elaborate legal institutions." They may have seen that in their mind's eye; but I find nothing remotely like it in this book.

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- Tremblay, Richard E. Smiling fathers and serious mothers: social interactions with "aggressive" and "non aggressive" boys
- Unzer, Lothar. Competence in the second year of life
- Vanger, P., & Ellgring, Heiner. Minor nonverbal cues in the recognition of affect
- Vine, Ian. The ethology of consciousness - some implications of a sociobiological analysis of the human self-system
- Vollstedt, Ralph. The dynamics of social problem solving strategies
- Vrugt, Anneke. Nonverbal indicators of the 'fundamental' dominance or status difference between men and women
- Wawra, Monika. Vigilance in Homo sapiens
- Warzinek, Christian. Human sperm competition
- Weisfeld, G.E., & Laehn, T.L. Eye gaze and posture related to arrogation of a resource and dominant personality
- Wiessner, Pauline. Gender roles and their impact on family stability: a case study among the Enga

Wind, Jan. Children's speech and empathical parental facial movements

Zivin, Gail. Strategies for identifying innate communicative behaviors in humans

Zumpe, D., & Michael, R. Annual rhythms in spouse abuse

**BULLETIN BOARD**

**Human Ethology Abstracts VI is available**

HEA VI. is available from the Association for the Study of Man - Environment Relations (ASMER), P.O. Box 57, Orangeburg, New York 10962 USA. A single issue is \$6. The complete series of all HE Abstracts and Bibliographies (10 in all) is available for \$22.50. Prices are prepaid and postpaid.

ASMER publishes *Man-Environment Systems*.

**Comment**

George Collier, Rutgers University, on biopsychology's drift toward "neuroscience": "One of these days, though, the question will have to be asked, 'What behavior are you explaining?' Certainly an answer in terms of S-R associations forgets the labor that multimillions of years life spent evolving complex strategies to ensure fitness. To quote Herman J. Mueller, speaking on Darwin's one hundredth centennial, 'One hundred years without Darwin is enough!' Wiring and plumbing may be fun, but function is central." (Collier, G.C., (1986). On contemplating my label. *Comparative Psychology Newsletter*, 6(2), 1-3.)

**1987 Meeting of ISHE**

The primary meeting of ISHE for 1987 will be with the Animal Behavior Society at Williams College in Williamstown, Massachusetts, USA. Dates are June 21-26. HEN will carry the call for papers when it is received. Applications for ABS membership are available from the HEN editor or from H. Jane Brockman, Zoology Dept., University of Florida, Gainesville, FL 32611 USA.

(Members: Please photocopy this application and send it to prospective members. A sample issue of the *Newsletter* is available on request. You may also wish to send a copy with each reprint you mail out.)

**INTERNATIONAL SOCIETY FOR HUMAN ETHOLOGY  
Membership and Newsletter**

The ISHE was formed with the goal of promoting ethological perspectives on the study of human behavior. It encourages empirical research that addresses the questions of individual development, environmental, ecological and social processes which elicit and support certain behavior patterns, the function and significance of behavior, and comparative and evolutionary problems. The Society has elected officers and a number of committees, publishes a quarterly Newsletter, collates an annual selection of human ethology abstracts, and meets annually, either independently or in conjunction with the Animal Behavior Society, the International Primatological Society or another major society.

Name \_\_\_\_\_

Address \_\_\_\_\_

Phone \_\_\_\_\_

Please list your discipline and research interests below (e.g., psychologist, socialization):

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Renewal \_\_\_\_\_ New \_\_\_\_\_

Please enclose \$10.00 U.S. (students \$5.00) for a calendar year membership and subscription to the quarterly *Human Ethology Newsletter*. You may also wish to recommend that your library subscribe. The library rate is \$10.00.

International Society for Human Ethology  
Robert M. Adams  
Department of Psychology  
Eastern Kentucky University  
Richmond, KY 40475

(Please see that checks drawn on non-U.S. accounts are easily negotiable, i.e., have routing transit or account numbers on the bottom. Otherwise, handling charges exceed the face value of the check.)

For those who have not attended an ABS meeting, they are small, informal, and inexpensive. Costs are kept low and communication high by the practice of meeting on university campuses. ABS has long been supportive of human ethology.

**XX International Ethological Conference**

Madison, WI, August 7-16, 1987. Plenary topics: history of animal behavior in North America; social influences on reproduction; cultural transmission of behavior; communication; group social structure; parent-offspring relationships; behavior genetics at the population level; applications of ethology to animal welfare. Please send inquiries to the Host, Charles Snowdon, Dept. of Psychology, University of Wisconsin, Madison, WI 53706.

**Comparative Psychology Newsletter**

Subscription to the 1986 newsletter is \$3 (in US currency). Mail to Jack Demarest, Editor, CP Newsletter, Dept. Psychology, Monmouth College, West Long Branch, N.J. 07764. Announcements, news, and articles of interest to CPists are invited. Deadlines for sending material for the newsletter are Dec. 15, March 1, June 15, Oct. 1.

**Newsletter Submissions**

Yes, please send anything which might be of interest to ISHE members: announcements of meetings, comments relevant to human ethology, suggestions for Forum topics, sabbatical opportunities, employment opportunities, anything.

Suggestions for books to review, or reviews, should be sent to European Editors William McGrew (Dept. of Psychology, University of Stirling, Stirling FK9 4LA Scotland) or Ian Vine (Interdisciplinary Human Studies, University of Bradford, Bradford, West Yorkshire, BD7 1DP, England) or to American Editor William Bailey (Dept. of Psychology, Tulane University, New Orleans, Louisiana 70118).

Submissions in any legible format are acceptable.

## CONSTITUTION

### International Society for Human Ethology

#### Article 1: Name and Incorporation

The name of the organization is "International Society for Human Ethology." It is incorporated as a nonprofit organization. This status will be maintained in accord with the laws of the United States of America.

#### Article 2: Purpose

The Society aims at promoting ethological perspectives in the scientific study of humans in all countries engaged in such research. It encourages empirical research in all fields of human behavior, with emphasis on the theoretical and methodological approach developed in the biological sciences. It aims at promoting the exchange of knowledge and opinions concerning the human ethology with all the other sciences of human behavior. It administers its funds to support this purpose.

#### Article 3: Responsibilities

The Society is entrusted with the publication of the (quarterly) Human Ethology Newsletter, the organization of its Annual Conferences, including International Congresses.

#### Article 4: Membership

Section 1. Any person interested in research on the ethology of human behavior may apply for membership. Applications are submitted to the Membership Chair, who presents the names of applicants at the next Board meeting for approval. Before approval, the applicant has the same rights and duties (i.e. dues payment) as a member. In the case of nonacceptance, all payments are fully refunded. No person shall be denied membership on grounds of sex, race, ethnic origin, nationality, religion, or political belief.

Section 2. Membership is terminated upon: (1) written resignation by the member, (2) decease, (3) failure to pay dues for two years and failure to react to a dues notice which states the warning of pending loss of membership, (4) persistent actions against the purpose and well-being of the society or which are liable to inflict damage on its reputation or the reputation of human ethology.

Section 3. Persons denied membership or whose membership is terminated may appeal to the General Assembly in person or in writing.

Section 4. Active members are those who have paid dues for the year in which a vote takes place.

#### Article 5: Nominations and Elections

Section 1. Slates of candidates for officers shall be prepared from the roll of members by the Nomination and Elections Committee which is appointed by the Board of Officers. Ordinarily the Chair of this committee is the Membership Chair. Candidates may be proposed in writing by members up to 3 months prior to the election. The Nomination and Election Committee shall present a slate with two names for each position, taking into consideration the representation of scientific disciplines, geographical region and with due regard to the proposals received in writing from the members. The Committee will ensure written consent by nominees.

Section 2. Voting may be either through the newsletter or at the General Assembly, as decided, per election, by the Board. If voting is through the newsletter, the ballots will be sent to the Chair of the Nomination and Election Committee who will tabulate and record the vote at least 30

days preceding the opening of the next meeting of the Society. At least one day preceding the General Assembly of the Society, the Nomination and Election Committee will meet to review and ratify the balloting. This may be done by mail and/or telephone if, in any year, the Committee is unable to meet. A simple majority of mail votes cast (50% + 1) will constitute election for all offices.

Section 3. The newly elected officers will assume their positions as the last item of business at the meeting of the General Assembly or the first of January of the next year, whichever is first after the ratification of the balloting.

Section 4. Should the office of President become vacant, the Vice President shall become President and serve the remainder of the unexpired term. Should any other office become vacant, the Board of officers shall, by majority, vote to elect a member to serve in an interim capacity until a replacement can be elected.

Section 5. An Officer who is found to carry out the duties of office in a manner counter to the interests of the Society may be removed from office after proper hearing and response by written vote of three-fourths of the board members.

#### Article 6: Officers

Section 1. The Board of Officers consists of the President, the Vice President, the Vice President for Information (who is the Editor of the newsletter), the Secretary, the Treasurer, and the Membership Chair. Their scientific disciplines and nationalities should be as diverse as possible with President and Vice President from different continents, if possible. Candidates for officers should be solicited in the newsletter at least 6 months before election. Officers are elected by active members for a period of three years. Retiring officers are eligible for reelection. In order to maintain continuity, it should be attempted to replace no more than half of the officers each term.

Section 2. The posts will rotate to create three overlapping periods of 3 year terms\*.

Section 3. The president represents the Society in official matters, acts as its speaker, and initiates and coordinates the activities of the Society. He or she presides at the Board Meeting and the General Assembly. She or he answers any requests or complaints and brings these to the attention of the Board of Officers.

Section 4. The Vice President is responsible for seeking invitations for the annual meetings and for the quality of its scientific program. The Vice President shall substitute for the President when necessary.

Section 5. The Vice President for Information is the Newsletter Editor who is responsible for the preparation and mailing of the Society's quarterly newsletter. She or he keeps an updated record of the membership list for newsletter mailing.

Section 6. The Secretary is the executive link between membership and the Board and is responsible for the correspondence of the Society. He or she must be informed about the activities of all officers and possible committees. The Secretary prepares the agenda and keeps the minutes of Board meetings and the General Assembly and is responsible for distribution of these and of other matters that come to his or her attention, typically through the newsletter. She or he prepares the Annual Report.

Section 7. The Treasurer is responsible for the receipts and disbursements of the Society's money, for an accurate bookkeeping of these, and for consultation with anyone

keeping a Society operating account. She or he informs the Vice President for Information on the status of dues payment by each member so that an accurate mailing list is maintained for the newsletter.

Section 8. The Membership Chair actively attempts to increase membership from the various scientific disciplines for which human ethology is of importance. Unless otherwise specified by the Board, he or she organizes nominations for officers and written voting practices. She or he accepts applications for membership and resignations and informs the Vice President for Information and Treasurer.

Section 9. All officers may apply to the Treasurer for reimbursement of operating expenses. The Secretary and Newsletter Editor, and any other officer expending unusual time in Society service, may apply for and be voted honoraria by the Board of Officers.

**Article 7: Board Meetings**

The Board of Officers meets at least once a year before or during the Annual Conference. When voting, a quorum of 50% of the officers must be present. A simple majority (50% + 1) of the attending officers is required for a board vote passage. The board conducts the affairs of the Society and presents policy issues to the General Assembly.

**Article 8: General Assembly and Annual Conferences**

Section 1. The General Assembly is the gathering of all active members during which the policy of the Society is discussed. It occurs during the Annual Conference. The General Assembly votes to affirm or deny policy issues passed in Board votes. Reports on their activities to the membership are given by all officers. The General Assembly (or a vote through the newsletter) may elect new officers as specified in Article 5.

Section 2. The General Assembly determines the amount of dues, elects honorary members and decides the location of next meeting. When voting, a quorum of 10% of the active membership and a simple majority is required. Absent members may vote in written form on issues announced before the General Assembly.

Section 3. Every 3 years, the Annual Conference will be a formal International Congress. Interim Annual Conferences may be based on topic or affiliation with another Society.

**Article 9: Finances**

The financial resources of the Society consist of dues, gifts, legacies and grants made to the Society. No part of the Society's financial property shall be distributed to or used for the benefit of individual persons, except for the payment of a reasonable compensation for the costs of services to the Society.

**Article 10: Decision-Making**

Section 1. There are four primary ways that policy decisions are made in the Society. "Policy decisions" are decisions of sufficient import that they fall beyond the unilateral decision areas of the officers and committees.

Section 2. The Board of Officers may make a board decision by:

(a) a vote at a Board Meeting, as described in Article 7, or

(b) a mail vote which may be initiated by any officer, through the Secretary, who may mail out the question and who must allow a minimum of 6 weeks for response before votes are counted. Votes are returned to, counted by, and

results announced to Board members by the Secretary. Two thirds of the officers must vote for a mail vote to be official, and a vote is passed by a simple majority of the votes.

Section 3. The general membership may be called to vote on a question in either of two ways:

(a) at the annual General Assembly, as described in Article 8, or

(b) in a question from the Board announced through the newsletter, which must allow a minimum of 6 weeks for response before votes are counted. Votes are returned to, counted by, and results forwarded to the Newsletter Editor by the Secretary. The results are announced in the next issue of the newsletter. A vote is passed by a simple majority of the votes.

Section 4. The nomination and vote for the Society's officers is held as per Article 5.

**Article 11: Newsletter**

One publication of the Society is the Human Ethology Newsletter. It informs the members about all ongoing events of relevance to the members of the Society, such as meetings, decisions and questions put up for vote. It also discusses scientific matters and informs about recent publications and the progress in the field.

**Article 12: Representation**

The Society is represented in its relations with third persons by its President. In case no other person is nominated by the other members of the board, he or she is empowered to defend the interests of the Society in the courts of justice.

**Article 13: Amendments**

Alterations of the constitution require a 2/3 majority by mail vote.

**Article 14: Language**

The official language of the Society is English.

**Article 15: Dissolution**

In case of the dissolution of the Society, its assets are to be turned over to one or more associations with a charitable, educational or scientific purpose, being exempt from taxation under the laws of the United States of America. In such a case, its liabilities are dissolved with the dissolution of the Society.

**FOOTNOTE**

To initiate a staggered rotation of the three year terms, officers serving during acceptance of these Bylaws will serve the following terms from the date of the acceptance of these Bylaws: Vice President for Information 1 year; Secretary and Membership Chair 2 years; President and Treasurer 3 years; The Vice President, yet to be elected, will go out of office with the next Vice President for Information.

\_\_\_\_\_ I vote to approve the ISHE Constitution.

\_\_\_\_\_ I vote to disapprove the ISHE Constitution.

**MAIL TO:**

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U.S.A.