

Human Ethology Newsletter

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Election Results

The results of the election for the Society's first officers are as follows:

President

Irenäus Eibl-Eibesfeldt
Max-Planck-Institut
Seewisen, West Germany

Secretary

Gail Zivin
Jefferson Medical College
Philadelphia, PA, USA

Treasurer

Herman Dienske
Primate Center
Rijswijk, Netherlands

Membership Chair

Jay Feerman
Vista Sandia Hospital
Albuquerque, NM, USA

We extend our heartiest congratulations to the new officers, and our sincere thanks to the outgoing members of the Executive Board for their leadership efforts and for the selection of the slate from which the new officers were elected. Thanks are also in order for the other candidates for office, Grazzia Attilli, Stephen Heisel, and John Ross, for their support and willingness to serve.

The new officers were elected by votes cast by 40% of the Society's membership, a strong show of involvement. The officers clearly reflect the nature of the society as an international one and an interdisciplinary one — they are, respectively, an anthropologist, a psychologist, a zoologist, and a psychiatrist.

Balloting for vice-presidents will be conducted through the *Newsletter* when the number and responsibilities have been established by the officers.

Below is a statement by President Eibl-Eibesfeldt, requested by the editor for this issue.

ON THE AIMS OF OUR ORGANIZATION

by Dr. I. Eibl-Eibesfeldt, Max-Planck-Institut,
Seewisen, West Germany

What is the position of our new field within the behavioral sciences and what do we consider to be our mission — what are the basic ideas that guide our research?

Asking such questions in the plural already causes me some feelings of unrest. There is not one opinion to be expressed for the members of our society. There is and hopefully remains a refreshing plurality of opinions, keeping up the spirit of our discussions. Still, I think there are some basic points of agreement, which could justify a "we," and if one sees one or the other problem in a different perspective, accept the "we" as plural of modesty (and not of majesty).

Amongst others I am sure that our efforts aim toward a better understanding of man's conduct. But how in particular do we perceive our specific approach and contribution? A number of comments in previous issues have discussed this question. A short historical survey might help to further evaluate our present situation and the prospects for our near future.

In 1935, just fifty years ago, Konrad Lorenz published "Der Kumpan in der Umwelt des Vogels" (*Journal f. Ornithologie*, 83, 137-413). It paved the way to an "Objectivistic Study of Instinct" as Niko Tinbergen

expressed it in 1951. The publication proved a turning point for the behavioral Sciences. The contribution was, of course, founded upon the findings of important precursors like Charles Darwin and Jakob von Uexkull to whom Lorenz dedicated the paper. But besides presenting a number of new and important discoveries like the phenomenon of imprinting — it demonstrated a new way of approach and laid the foundations for the concepts of the innate releasing mechanisms, the template, the releaser and the fixed action pattern. Lorenz emphasized the importance of the comparative approach, confirming Charles Darwin's and Oskar Heinroth's finding that movement patterns could be compared like morphological structures and were thus useful characteristics for taxonomic purposes. But it is in particular the integrative aspect which made Lorenz' paper so important: It provided a layout for a research program later aptly defined as Ethology — the biology of behavior. Biology up till then had become discredited in behavioral sciences, since important representatives attributed the adaptedness of innate responses, the "instincts," to some vitalistic guiding principles, and there further attempts to explain the facts stopped. It was partly in response to this attitude, that behaviorism set itself off in contrast, by focusing on an experimental approach. The discovery of the conditioned response had raised their hope that all behaviors above the level of simple reflexes were the result of

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Continued from page 1

conditioning, learning being the organizing principle and conditioned responses the building blocks of behavior, comparable to the atoms of physics. It was a wise restriction at that time and behaviorism contributed enormously to the advancement of behavioral sciences. It was only when Watsonian Behaviorism went to the extreme of declaring the *tabula rasa* concept as their doctrine, neglecting genetics and phylogeny, that the self-imposed restriction became a spiritual shackle.

But there are certainly a great number of psychologists raised in the behavioristic tradition, that remained open to other interpretations and some like Eckhardt Hess became active promoters of Ethology, once they had realized the limitations of the traditional approach, or Verplanck, who was one of the first visitors of the Lorenzian group from overseas in the early 1950s.

But when Ethology grew up in the early fifties there was of course also opposition, and there have been till now some misconceptions about the consequences of an ethological approach which should be considered.

The discussion culminated in Danny Lehrman's "Critique of Konrad Lorenz' Theory of Instinctive Behavior" (*Quart. Rev. Biology*, 28, 337-363, 1953). The factual critique centered on two points: Lehrman argued that Lorenz had defined "instinctive" only in negative terms as 'all that is not learned'. — And in this he indeed touched a sore spot, challenging Lorenz to reconsider his concepts. In addition, Lehrman argued that the deprivation experiments of the ethologist were of little value, since one could never deprive the growing organisms of all possible sources of stimulation. It would always grow up in an environment exerting an influence upon the organism. Lorenz replied, true, but one should never intend to! What are we encountering and what needs to be explained is the very fact of adaptation. Adaptations depict facets of the environment toward which the behavior-structure in question is adapted. And in order that adaptedness occurs, an interaction between the adapted system and the environmental "mould" toward which the behavior or structure fits like a cast to or mould must have taken place once — otherwise one would have to accept a sort of prestabilized harmony. We know that there are several clearly distinguished ways of adapting. Adaptation can occur during phylogeny by a sort of trial and error learning via mutation and selection, fitting phenotypes being selected and thus their genome being passed on. In contrast to such phylogenetic adaptation individual and cultural adaptation in its essence is based on learning. Lorenz in this context spoke of two distinguishable processes of information-acquisition. During phylogenetic adaptation information is stored in the genome of the organism, to be decoded during ontogeny. Adaptive modifications of behavior by learning are processes of information acquisition in which the central nervous system stores the individually acquired information in a manner not yet fully understood. We can now construe a deprivation experiment in such a way as to deprive the individual of specific information relating to a specific level of adaptation. Should it, nonetheless, show the adaptive pattern under examination, we can say that this specific adaptedness must be the result of phylogeny — and thus 'innate' can be positively defined as 'phylogenetically adapted.'

Should, for instance, a bird raised from egg onward in a soundproof chamber in complete social isolation sing none-

theless its species-specific melodies, this would prove that the information concerning the melody and patterning of the song must have been encoded in the bird's genome. Melody and patterning of the song therefore could be labelled as being phylogenetically adapted. And this would even hold true, if one should find that, at a lower level of integration, learned precursors had contributed in some way. Were one, for example, to demonstrate that the coordination of antagonistic muscles involved in singing comes about by learning, this would not invalidate our statement, which refers to the specific level of singing. Many — sometimes quite radical — deprivation experiments have meanwhile demonstrated the validity of the concept, and I hope it does not need more drastic experiments, like those performed by Fentress, to convince our opponents, that there do exist innate abilities to perform and to perceive.

We have to assume in all such cases, that the neuronal networks and the wiring with receptors and effectors responsible for the specific ability grows to functional maturity according to the blueprint encoded in the genome. The often-heard argument that we can never separate the contribution of the environment and the genes simply does not stand critical examination.

We are, of course, well aware that the deprivation experiment is just one important step toward an understanding of behavioral development and that detailed studies on the embryogenesis and ontogeny of behavior are needed. The concepts and methods of ethology are nowadays generally accepted. In fact, many students of behavior with a traditional background of behaviorism applied the experimental skills which were superbly developed in this discipline to test ethological concepts. Sackett's study of the capacity of Rhesus monkeys raised in social isolation to recognize threat expression is one good example. By using Skinnerian methods he proved the value of the concept of the Innate Releasing Mechanism. There are, of course, constantly revisions of the ethological concepts documenting the progress of research. The field successfully fanned out in a number of directions, since the question why organisms behave the way they do can be answered in different ways (N. Tinbergen, 1951, 1963) depending on whether one is interested in the immediate causation — the ontogeny, the phylogeny, or the question in which way a behavior contributes to fitness. Rapid progress has recently taken place in the field of neuroethology and sociobiology. And promising advances have been achieved in the study of brain chemistry as related to behavior. Sociobiology as a new successful branch employs an ecological approach with population genetics for the study of fitness.

In the early sixties the time was ripe to apply ethological theory and methodology to the study of man. In England and the U.S.A. ethological studies of child behavior began. On the European continent efforts were undertaken in similar directions. In addition research on the deaf and blind born was started as well as a project of cross-cultural research with longitudinal studies on cultures with different subsistence strategies and thus in a model representing different stages of cultural evolution (Eibl-Eibesfeldt, 1979, 1984).

By now Human Ethology is a well established field defined as the Biology of Human Behavior. It covers the investigation of the proximate causes as well as the ultimate causes and it deals with the study of ontogeny and phylogeny of human behavior. The question as to how a

pattern contributes to fitness is asked for cultural and phylogenetically evolved patterns alike. Methodologically the new discipline uses the research strategies developed in ethology. Ethological documentation, description and experimentation are, however, fitted to the special demands of the research subject and this means that the methods developed in the neighboring disciplines (psychology, anthropology, etc.) are incorporated. We collect interviews, tape cross-culturally "naturally" occurring conversations and other types of verbal interactions. In fact, a new branch of linguistics labelled Etholinguistics (Eibl-Eibesfeldt, 1979, 1984), is about to develop. Certainly Human Ethology is not the study of speechless man. On the contrary! Since we found that nonverbal and verbal interaction alike are structured by a universal rule system, the investigation of verbal interactions constitutes a focal part of interest of human ethologists. And so do all other manifestations of culture. Amongst others we like to know how cultural patterns (rituals, marriage rules, residential patterns and the like) contribute to fitness. Human ethologists, furthermore, are not just interested in the basic animal-like heritage, as some assume. Our phylogenetic heritage constitutes of course a focal point of interest, but it must be pointed out that the equation: phylogenetically adapted = animal heritage is basically false, since many of our inborn traits are specific for homo sapiens only, such as structural and behavioral adaptations underlying our capacity to acquire speech.

The idea that human behavior is programmed in part by phylogenetic adaptations still meets some resistance, the fear being that any acceptance would lead to a fatalistic attitude. As if ethologists had never emphasized that they, too, consider man as the cultural being by nature, capable of imposing cultural control upon any phylogenetic trait. We know after all that our sexual impulses can be efficiently controlled, even though innate mechanisms of motivation play a significant role in arousal. Nor does the fact that our social behavior is controlled by a universal rule system — a grammar of social behavior — degrade us to beings who like railways, follow only a given track. An analogy may serve to make my point: When we speak we have to obey the grammatical rules of our language, which allow no deviation. And the terms we use are generally well defined. Nonetheless, there is no doubt that within these grammar-rules statements can be made which nobody ever made before, and poems can be rhymed which are and will forever be unique. Rule systems serve to create order and thus provide freedom on a higher level of integration.

All in all, our attempts aim at a better understanding of ourselves, and in order to achieve this, we need interdisciplinary cooperation. Human behavior is so rich and diversified in its expressions, that no single discipline could ever hope to tackle the task alone. Human Ethology does not intend, therefore, to "cannibalize" at any time any other discipline, to use a famous expression.

We need the different approaches and discussions which prevent us from getting one-sided and narrow against better insight. Human Ethology has introduced amongst others the phylogenetic dimension into the discussion. And this includes the concern about the future of man. We see more clearly perhaps than other disciplines how evolution works. But certainly we are not alone in this concern and need the openness to consider ideas and interpretations coming from different approaches. In July 1986 we have the

pleasure of hosting the Fifth International Congress on Human Ethology. I think we should agree to be and stay an open society, open to the ideas of others.

Literature:

- Eibl-Eibesfeldt, I. (1979): Human Ethology: Concepts and Implications for the Science of Man. *The Behavioral and Brain Sciences*, 2, 1-57.
 (1984): *Die Biologie des menschlichen Verhaltens - Grundriss der Humanethologie*. München (Piper)
 Lorenz, K. (1935): Der Kumpan in der Umwelt des Vogles. *J.f. Ornithologie*, 83, 137-413.
 (1953): *Theory of Instinctive Behavior*. *Quart. Rev. Biology*, 28, 337-363.
 Tinbergen, N. (1951): *The Study of Instinct*. London (Oxford U.P.). (1963): *The Herring Gull's World. A Study of the Social Behaviour of Birds*. London (Collins).

Book Review

Political Behavior and Judicial Behavior, Volume II.
 Lanham, MD: University Press of America, 1985, 352 pp.
 \$28.50 (hb); \$15.25 (pb). By Glendon Schubert

Reviewed by Steven A. Peterson
 Alfred University

This specialized volume will be of the greatest interest to readers of the *Human Ethology Newsletter* for its observational methodology and its use of ethological and physiological concepts to explain judicial decision-making behavior. At the outset, the prospective reader should be forewarned that the work is formidable and challenging. For those who persevere, there are rewards to that enterprise, however.

To begin, I must note that while the audience for this volume is alleged to be adult laymen, college students, and adult professionals, such is not really accurate. The lay reader will be overwhelmed as will most students — except graduate students. Hence, the real audience seems actually limited to professionals in the areas covered by the book. For these readers, this will be a valuable piece.

The book itself is largely a report of data analysis, based upon a sample of Swiss Supreme Court judges and clerks (although there is also some examination of South African judges). Two major theoretical orientations are discussed in the first chapter: (a) subculture ("consociational") theory and (b) biosocial theory. The former refers to the political impact on states of the existence of quite distinct subcultures (e.g., Switzerland with German, French, and Italian subcultures). The latter focuses on political effects of psychobiology, emotion, and nonverbal communication.

The second chapter deals with the research design and more narrow theoretical approaches. Data were gathered via interviews, direct observation, and actual decisions. Interviews yielded information on social background and psychological and political orientations. Observation of courts in public decision-making produced data about the nature of interactions within the groups (the interactions were assessed by a modification of Bales' scheme). One

variable derived from observation was an index of "arousal," defined as level of physiological excitation or agitation. Decisions rendered by federal tribunals were coded to indicate how judges actually voted. Hence, it is possible with this data set to explore the relative effects of political views, psychological orientations, subcultural differences, group interaction processes, and physiological factors on actual decision-making behavior by a political elite.

Chapter 3 begins the detailed data analysis. Schubert describes the demographic attributes of judges and clerks. He examines the interrelationships among these via a correlation matrix, smallest space analysis, and factor analysis — rigorous statistical work not for the uninitiated.

The fourth chapter explores the attitudes and orientations of the subjects. In chapter 5, multivariate analysis is undertaken to uncover the pattern of interrelations among these variables. Once more, smallest space analysis and factor analysis produced a series of "clusters" of orientations, which indicate the nature of ideological differences among the jurists.

Chapter 6 goes on to look at observed interactions on the judicial tribunals. Schubert summarizes factors related to both initiating and receiving interactions with and from fellow judges.

Chapter 7 speaks to actual decisions rendered by the judges. Decisions were coded as liberal, neutral, or conservative. Other decision-related variables (e.g., dissent behavior) are also described and tabulated. Chapters 8 and 9 continue the exploration of the roots of decision-making behavior of the tribunals, employing multivariate techniques. The book culminates with a series of path analyses which schematize the interrelationships among variables which predict decision-making.

The book is challenging; the author uncompromising. Its methodological rigor is what one would expect from its author. The contributions are noteworthy. First, there is the examination of **actual behavior** of judges (actual observed behavior is too seldom examined by political scientists). Second, the use of biological concepts (such as arousal) is very interesting, although, as the author himself notes, not without conceptual and measurement problems. Third, actual, directly assessed measures of attitudes (e.g., liberalism or conservatism) are used to predict votes — not attitudes inferred from the judges' votes.

While one could quibble here or there with methods used or interpretations made by the author, the conclusions are soundly based on firm, empirical foundations. It would have been an easier task to read this volume had there been summaries at the end of each chapter as well as a concluding summation and discussion. However, these rank as rather minor cavils. For those interested in the specific issues addressed, this book will reward the reader for the effort demanded by the author.

Book Review

The development of expressive behavior. *Biology-environment interactions.*

Gail Zivin (Ed.), Orlando, FL: Academic, 1985, 368 pages.

Reviewed by Carol K. Sigelman

Eastern Kentucky University

The Development of Expressive Behavior is an edited collection of original papers that had its roots in a joint symposium of the International Congress of Primatology and the International Society of Human Ethology. It is indeed about development and about expressive behavior as it is shaped by biology and environment, yet it does more than its title portends. As indicated in the preface, the book aims at breaking down a number of simplistic dichotomies. The dichotomies that are challenged include not only biology vs. environment but human vs. nonhuman, emotion vs. cognition, internal state vs. external behavior, spontaneous expression vs. instrumental act. The goal is laudable, and it is largely achieved. It becomes abundantly clear that expressive behaviors are not merely spontaneous and direct reflections of internal state, that emotion and expression involve complex interplays between internal state, overt behavior, cognitive appraisal, and situation. Moreover, the authors do what it is high time to do with the interaction between nature and nurture: they do not merely assert its existence, they describe the dynamics of that interaction as it affects specific expressive behaviors.

In the first of two sections, Zivin introduces key concepts and major issues; Montgomery carefully analyzes Darwin's perspective on expressive behavior; and noted animal behaviorists (Smith; Gouzoules, Gouzoules, and Marler; Hinde; and Mason) explore the nature of expressive behavior in animals, primarily primates, paying some attention to both ontogeny and phylogeny. The animal papers, by building arguments and reviewing research, demonstrate effectively that expressive behaviors have referents other than internal states (as when alarm calls signal what kind of predator is near and therefore how best to hide); that they have instrumental as well as expressive functions (e.g., when they are used selectively to manipulate others); that the recipient's appraisal of the situation and the signal plays a key role in communication; and that experience shapes appraisals of situations and the functions served by expressive behaviors whose forms are largely biologically-based. It becomes obvious that presumably simple and spontaneous expressions are anything but simple, and are often purposive rather than automatic. The lines between animal communication and human communication blur beautifully.

Some strikingly similar themes emerge in the second part of the book, which focuses on the development of expression in humans. Despite the fact that animal researchers tend to emphasize behavior and its communicative functions, while child developmentalists tend to emphasize felt emotion, both groups grapple with linkages and discrepancies between internal state and overt behavior and with relationships between biology and environment. Collectively, the human development chapters elaborate on the general theme that links between states and expressive behaviors become looser with age, so that quite early in life,

Renewals

If your mailing label date is earlier than 1985, you need to renew your membership.

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

for example, children can hold back tears until an audience is available, use expressive behaviors instrumentally, and disguise their true feelings (especially Lewis and Michalson, who for some reason are placed in Part I, and Malatesta). Moreover, they review a wide range of research regarding the early socialization of emotional expression by parents, as when parents selectively reinforce positive emotional expressions and communicate cultural rules for displaying emotions (especially chapters by Malatesta and Cole); the infant's use of cues from other people to appraise ambiguous situations (especially Feinman); and the development of the ability to interpret signals (Dolgin and Azmitia). In addition, both Thelen and Fogel make useful contributions by proposing specific mechanisms through which biologically-based motor components may be consolidated into more complex behaviors serving different functions at different points in development. From these chapters emerge some clear notions of how biological givens and social learning are integrated to produce more flexible and intentional expressive behavior.

The authors are not hesitant to take stands. As a result, the book contains a number of stimulating theoretical arguments and more than a few differences of opinion. For example, Lewis and Michalson argue that very early in infancy expressive behaviors are disconnected from internal states (as when a smile is evoked by general excitation rather than by a pleasurable state). Only later do state and expression become connected, only to become disconnected again still later. Interestingly, Mason offers a similar argument based on primate research. By contrast, Malatesta argues that states and expressions are initially highly associated, though she agrees that they later become more independent.

In the end — and despite some contrasts between the “animal” part and the “human” part — the book has more coherence than most edited collections, partly because the papers are well-chosen and often do speak to a few core issues, and partly because Zivin does us the great service of introducing each chapter and highlighting its major messages, its relationship to other chapters, and even its peculiar usages of terms. All things considered, it is a well-conceived, stimulating, and important work that conveys the progress that has been made in conceptualizing and studying aspects of emotional expression. A word on what it is not. Without Cole's chapter, there would be virtually no attention to development beyond infancy. There is virtually no new data reported; readers familiar with the previous work of some of the authors may find little to appreciate in their chapters besides some integrative literature reviewing. With the exception of Mason, the animal behaviorists are more concerned with the nature of expressive behavior than with developmental issues. Finally, there is far more attention to ontogeny than to phylogeny, though Smith, Hinde, Fogel, and others raise some interesting issues about mechanisms of selection and the adaptive significance of expressive behavior. So, the book does relatively little with some topics, but it provides considerable insight into the topics it does address.

Book Review

Beyond Sociobiology

by John D. Baldwin & Janice I. Baldwin. New York: Elsevier, 1981.

Reviewed by Wade C. Mackey

Iowa Wesleyan University

It is the better part of fairness and courtesy, if not wisdom, to review a book on its own terms and by its own goals. However, let me digress from that more courteous point and review the book from my own point of view as a human ethologist.

BEYOND SOCIOBIOLOGY is aimed at a much wider readership than that of human ethologists, but it does offer much for us to contemplate. In gist, **BEYOND SOCIOBIOLOGY**, as the title suggests, takes the discipline of sociobiology to task for alleged deficiencies. Sociobiology is accused of biasing its analysis toward phylogenetic bases of behavior at the expense of examining ontogenetic bases of behavior (Chapters 1 and 3). To right that imbalance of perspective, Baldwin and Baldwin offer an approach that they feel is more even-handed in the approach to analyzing behavior. That approach is entitled “Balanced Biosocial Theory.”

Their brief is then presented for the benefits of investigating the development of behavior from both a long term evolutionary benchmark as well as from the individual's life-space of ecologies, kinships, rewards, and punishments. A shadow of a strawman hovers here in that the sociobiologists that I know seem perfectly content in letting other disciplines handle the short term vicissitudes of group specific phenomena. The biography of any one individual is likewise amiably left to biographers from other academic tribes. The focus of the sociobiologists' interests is genuinely more on central tendency of traits (why they exist at all) and upon that portion of differences in behavior within a taxon which is attributable to genetic differences. Everything else to them seems to be error variance or nuisance complexity. Given the misplaced emphasis on what sociobiologists want to do, an alternate title for the book could have avoided a needless and distracting commentary on the subject matter of sociobiology.

Strawmen aside, Baldwin and Baldwin provide a very readable account and useful service with their “balanced biosocial theory” by reaffirming the complexities, integrations, and multiple levels of behaviors. Chapters 4-6 provide a solid background on traditional and current approaches to the will-of-the-wisp concept “learning.” Baldwin and Baldwin then very systematically and clearly explore how “learning” plugs into both evolutionary theory and adaptation-by-the-individual to the (social) environment.

So far, so good, if the human condition had been omitted from the book, I would have little over which to be discomforted. But humans are included (Chapters 8 and 9) and therein lies the problem for human ethologists. Humans, by being human, do possess that most messy of intervening variables: “CULTURE.” “Culture” is not just an overlay or added patina veneered onto cerebral catarrhines, nor is it merely eating habits and vocabulary. “Culture” is the vehicle by which humans organize, maintain, and power

XXth International Ethological Conference

If you're planning ahead, it's August 7-16, 1987.
Madison, Wisconsin, USA.

their images of the world. "Culture" is an important, pervasive variable in determining human behavior. But only pages 238, 255-260 of **BEYOND SOCIOBIOLOGY** address culture in a serious manner. Baldwin and Baldwin really do not come to grips with cultural relativity, and, while I do not want to equate quantity with insight, let's look at their index for four items: culture, baboon, chimpanzee, and squirrel monkey.

"Culture": (pages) 223, 234, 236, 238-239, 255-260.

"Baboon": (pages) 6-10, 23, 27-30, 84, 106, 110, 118, 129, 133, 135-138, 140, 156-157, 163, 170-171, 176-177, 219.

"Chimpanzee": (pages) 18, 40, 55, 78-79, 99-100, 102-103, 106, 116-117, 124-125, 135-139, 142, 152, 155, 163, 170, 176-177, 198-199, 219.

"Squirrel monkey": (pages) 5, 35, 54, 76, 80-81, 85, 98, 151, 157, 162, 172, 176, 219.

"Culture" gets a very short shrift. The graybeards of culture are not referenced, e.g., Mead, Benedict, Kroeber, Radcliffe-Brown, Tyler. The current anthropologists are equally ignored, e.g., the Narolls, Murdock, Whyte, the Rhoners, the Embers, Barry, and Leach. Harris has but one citation and it really is not the most appropriate source. The two anthropologists who best understand the problems of merging "ethnographic dazzle" with "species-characteristic behavior" — Robin Fox and Lionel Tiger — are used only as proscriptive examples (p. 8).

Even yet, it is difficult to criticize Baldwin and Baldwin for what is a mainstream omission in the behavioral sciences. "Primates" — which really translates to catarrhines — and middle-class Western society (especially lab. schools) have absorbed huge dollops of the scholarly limelight in the behavioral sciences in general and human ethology in particular.

Accordingly, the human data in **BEYOND SOCIOBIOLOGY** are quietly biased toward the subjects of American sociology and American psychology. While these samples are certainly interesting in their own right, they do not begin to exhaust the interests of human ethologists.

Equally important, the scientists from one culture are very prone to the unconscious and refracting effects of ethnocentrism as they view the behavior of other people from other worldviews. As T.S. Kuhn looked at "paradigms," human ethologists simply have to look at "culture."

In conclusion, **BEYOND SOCIOBIOLOGY** serves as a well-grounded and fundamentally sound introduction to the investigation of the development of behavior as long as humans are not the subject matter. When humans are discussed, the imbalance that occurs is not the one within the nature-nurture debate, but the imbalance concerning the emphasis upon the Western worldview at the expense of the rest of the citizens of the world's community of cultures.

Book Review

Gorillas in the Mist

By Dian Fossey. Harmondsworth, Middlesex: Penguin, 1985, 282 pp. Paper, 4.95 (U.K.)

Reviewed by Brenda M. Smith

Dept. of Psychology, University of Stirling, Stirling FK9 4LA, Scotland

In reviewing this book it is difficult to avoid drawing two comparisons; firstly with the hardback edition, and secondly with Jane Goodall's *In the Shadow of Man*. Goodall and Fossey are remarkable women who have expanded knowledge of two of our nearest relatives, the chimpanzee and the gorilla. The commonalities between the two women are notable inasmuch as both entered primatology without formal academic training in the discipline and both were proteges of Louis Leakey who assigned them to the demanding and sometimes dangerous task of finding out as much as possible about Africa's great apes. Leakey's judgement was not misplaced. Gombe and Karisoke are outstanding ongoing memorials to the spirit of these two determined women.

With so much shared ground it is not surprising that both books follow a similar format, beginning with the authors' desire to study African wildlife, their fortuitous friendship with Leakey, and descriptions of setting up camp and finding apes to observe. Gradually the reader is then led into more detailed chapters describing the intimacies of great ape social life. However, there are a number of contrasts, the main one being that Fossey sets out to put across a definite 'message' — the need for direct action in the conservation of gorillas and their habitat.

The early chapters deal almost exclusively with the ecology and topography of the study area, and provide information about the analysis of dung, nesting, feeding, and vocalizations. It is only later that we begin to read about gorillas themselves. Chapter 4, the longest in the book, recounts 13 years in the life of Group 5. The development of youngsters, the transfer of females, the death by natural causes of infants and adults, and two possible cases of infanticide are described in illuminating detail. Throughout, the personalities of individuals emerge, and the importance of family bonds is emphasized.

A poignant chapter focuses on the fate of two young females captured by Rwandan officials for export to a European zoo. Their capture cost the lives of approximately 16 other gorillas who died attempting to defend their young. Fossey intervened and nursed the ailing infants back to health, intending to release them back into the wild. However, she reluctantly had to hand over the infants when officials threatened to capture yet another infant. Sadly, the orphans lived only 10 years in captivity. This chapter highlights the almost impossible task which faced conversationists prior to the ban on export of endangered species such as gorillas.

Another chapter describes the natural demise of groups following the deaths of their respective silverbacks. The ensuing inter-group transfers highlight in stark contrast the costs and benefits of being a male gorilla. Other chapters concentrate on the development and later decline of Group 4. We are introduced to Digit, the lovable gorilla whose face

International Primatological Society, 1986 Meeting

The XIth Congress of IPS will be held from 20 to 25 July, 1986 at the Central Lecture Halls (ZHG) of the University of Gottingen, Nikolausbergerweg 9c, Gottingen, FR Germany.

The language of the Congress will be English.

Note that this meeting immediately precedes the Human Ethology Meeting.

was displayed worldwide on a poster designed to attract tourists to Rwanda. Shortly after siring his first infant, Digit suffered an undignified death at the hands of poachers. His body bore multiple stab wounds and his head and hands were hacked off. His death was not in vain, however, since his suffering allowed the rest of the group to escape. In his memory, the Digit Fund was launched and the monies were used solely for antipoacher patrols. The need for such patrols was shown 6 months later when two adults from Group 4 were shot dead trying to defend an infant (who subsequently died) from poachers. Within the first 18 months of the funded patrols, 4,000 traps were destroyed.

The book ends on a positive note: Chapter 12 describes the formation of a new family and presents a final appeal for active conservation of the rainforest and thereby, the gorilla. Fossey condemns armchair approaches to conservation in Africa, and whilst recognizing the financial rewards of tourism, appeals for more basic active conservation methods such as patrols, adequate and consistent law enforcement on poaching, and strong safeguards for the limited habitat of endangered species.

This book is not only about gorillas, but about Fossey herself. The vivid descriptions of the unpleasant aspects of field work are a refreshing antidote to those authors who, apparently without difficulty, enter the field and habituate wild primates. Fossey's dramatic escape to Uganda in 1967 epitomises her resourcefulness and determination. Elsewhere, she unashamedly describes the interpersonal disasters which occurred in the early days between herself and her student assistants. At first one suspects that Fossey must have been to blame, given the number of failures she describes. However, when she talks with such admiration for three particular students, a possible reason for the earlier difficulties emerges — simply Fossey's overwhelming commitment to the mountains and the gorillas. Academic, social, or financial rewards, and even at times physical necessities such as eating, seem not to concern her so much as the welfare of the gorillas.

Thus, like Goodall, Fossey has attempted to share with her readers her love for wild apes. Unfortunately, she does not have an easy writing style, and fails to capture the imagination with quite the same vividness as Goodall. However, her flag-flying for conservation is vitally important, although the book is more likely to appeal to those already committed to gorillas and their conservation, rather than to a more general readership. On that assumption, despite the text, maps, index, and bibliography of some 480 references being identical in both the hardbound and softbound editions, the loss of seven extensive appendices and 64 pages of photographs in the paperback edition, does not make up for the financial saving of 6 (U.K.). Even in these days of rising book prices, "going cheap" is not to be recommended in this case.

An Afterthought on "Defining Human Nature"

Eliezer G. Hammerstein
University of Haifa

John Ross' response (HEN 4/6:3) to I. Vine's proposal (4/4) left me wondering: Both mention for instance "bipedalism," while what distinguishes Man from ducks, ostriches from kangaroos is our bipeds upright body

posture! This again, on one side is an integrated array of adaptations of the verbebrate — mammalian-primate physique, on the other — anatomically and evolutionarily — the precursor of further human peculiarities as free handiness and speech. As to "feeding and breeding," I remember dimly having heard somewhere that it is not these animal characteristics as such, but the exact ways and means of their pursuit which create the unique combination of behavioral traits typical for any species. "Lack of true territorial behavior" — on what data J.R. bases this remark? Otto Koenig et al. have shown the opposite; I could add observations and photos from kibutz children houses which even allow the assumption that basic reactions of this behavior are inborn. "Religion" certainly is a typical human trait; but what affects the inclusive fitness of populations in their environments is not their having a religion per se, but the normative behaviors prescribed by their particular denomination and the measure in which these are observed.

I refer to just four out of two dozen "traits" mentioned by Ross, and momentarily resist the temptation to add a couple more of my own, because I can't imagine Human Nature being defined by a list. If indeed there is such a thing, to the best of my limited understanding this constitutes a **hierarchy of interacting natural and typical-cultural traits**, from the physical via the developmental to the behavioral on its various levels. For operational convenience it could well be constructed around a "core of general dispositional" ones as Vine proposes; but publishing random mixtures of sloppily defined candidates for the title "natural human trait" — merely illustrates the saying of the sages: "He who wants to embrace too much — holds nothing."

Thoughts on the CNS Control of Human Behavior

John A. Ross
St. Lawrence University, Canton, N.Y. 13617

At the 1985 meetings of the Animal Behavior Society there was a day devoted to a discussion of ethology as it relates to psychiatric problems. The papers were interesting and well presented. However, after the official session there was a general discussion of this type of work by everyone who wished to participate.

I am very poor at making oral comments at a public forum, so I would like to make two comments about that discussion here. First, some individuals were worried about the findings, such as reported in this meeting, were not being paid attention to by medical professionals and incorporated into their practices. I wonder how many in that room actually live the results that they were presenting. That is, did those who spoke go to a House of Worship within the next month? If so why? Did they because it is a well engrained behavior, or did they do so because they have a belief in a God that transcends their belief in their research? I do not believe that that is a trivial question. As has been stated within the philosophy of science, the adherents of the new position only hold sway over a research area when the adherents of the old position have passed out of the research area (Kuhn, T.S., *The Structure of Scientific Revolution*, 2 ed, U Chicago Press, Chicago, 1970). It is very difficult, if not impossible, for a person who has been practicing one theory or frame of reference to suddenly change to another, even though it may appear to explain the data much more

efficiently. My reason for saying so relates to the second point.

Point two. We assume that we are intelligent and highly rational animals who have a superior neocortex which we use to guide our behavior. I know of no evidence to support that idea as it relates to our day to day functioning. During the day's discussions there were several references to the work of P.D. MacLean and his tripartite brain model. Personally, I am not happy with that model and prefer to use that of J. Altman (*Organic Foundations of Animal Behavior*, Holt, Rhinehart & Winston, N.Y., 1966) in which the lowest part that controls vital functions, posture and balance is the spinal-medullary system. The next higher is the paleocephalon and controls the motivations, drives, affects, call them what you may, that are involved in the "push" behind most of the behavior of a vertebrate. This is the system that drives the organism to find food or sex partner, and defends the organism against the perils of predation, the ingestion of bad tasting or smelling substances and away from painful stimuli. This is the system that can learn through classical conditioning — as demonstrated by the fact that a frog will eat only one stinging bee and will then not attack another black and yellow striped insect. Thus even the harmless hoverfly is safe from the predation of the frog and bird. This is about the same as MacLean's reptilian brain. Again I do not believe that this is trivial because I believe that much of the affect that controls human behavior is also either modeled from parental behavior or is classically conditioned while interacting with the environment. In either case, the paleocephalon is the neural system that will be thus conditioned and will guide our behavior in the future.

I do not deny that we have a large neocortex overlying our paleocephalon. Our neencephalic system, MacLean's mammalian brain, includes those pieces of sensory anatomy and information that go to the neencephalon from vision, audition and touch, our neocortex and our pyramidal motor system for precise and detailed motor control. This system acts in such a way that we are able to analyze unique stimulus configurations and respond to them appropriately — they are not the neural systems that control our everyday thoughts and actions. This is the system which is involved in interpreting novel patterns of visual, auditory and tactile pattern information and making an appropriate and novel response to that information. This is the system which can analyze racial, or whatever, prejudice. The paleocephalon is the system which will make you act with that form of prejudice.

Thus my original question. If the paleocephalon drives you to go to a House of Worship because you believe in the life ever after, etc., then the paleocephalon will have to hold two disparate motives at the same time. One that you are here because of some divine action, and one because of an evolutionary process. These need not conflict, but it is rather like being a creationist and an evolutionist at the same time. All of the Galileos of the world have the same problem — trying to get the nonbelievers to convince their paleocephalon that the world does travel around the sun and to act accordingly. In this instance it is essential to convince "them" that there are evolved behavior patterns in humans, and until we accept it, at the paleocephalic level, we are going to be doing ourselves a disservice. As one man said during the discussion, some of his acquaintances do not even believe that they are animals. We have a long way to go. This is the time to realize the problem, but not to become dis-

couraged.

One of the ways to start to surmount these problems is through education. But if you look at the biological information fed to primary and secondary students, and what the college level texts say about our behavioral evolution, you soon realize that we have a very long way to go before there is going to be general understanding and, then acceptance. Keep up the good work!

Conference Report/Book Note

During the 5th Annual Meeting of the European Association for Behavioral Therapy (EABT) a particular conference on "Kinder mit speziellen Problemen - pädagogisch-therapeutische Hilfen (Children with special problems - educational and therapeutic interventions)" was held in Munich (FRG), from August 30 to September 1, 1985. Diagnostic and therapeutic concepts, training, and research programs were presented and discussed. They combined to a well-based interdisciplinary framework.

Following are a few topics which might be of interest to human ethologists: Training programs emphasized motivational aspects and interconnection to natural behavioral contexts and spontaneous rhythms. The role of parents received much attention; how do parents of handicapped children handle feelings of guilt and responsibility, their own theories about their child's handicap, and the diagnostic labels professionals tell them? How can the parents' natural social abilities be encouraged and reinforced? In autistic children it was found that their repertoire of emotional expressions is not substantially different from that of normal children; however, as they have severe difficulties in recognizing complex schemata (as faces, vocal patterns) their limitations in detecting emotional expression bring about other deficits.

The contributions of this conference will be published. A book review will be presented in HEN in early 1986.

Kindertherapie. Interdisziplinäre Beiträge aus Forschung und Praxis (Child Psychotherapy. Interdisciplinary contributions of research and praxis). Otto SPECK, Franz PETERANDER & Paul INNERHOFER (eds), Ernst Reinhardt Verlag, München & Basel, 1986.

CURRENT LITERATURE

This section of the *Newsletter* is assembled by the editor from reader submissions, *Current Contents*, and other sources. *Newsletter* readers can make this section more useful by sending references to their latest work, or to relevant publications by others which they have come across. It would be very helpful if the submissions were accompanied by a short summary, perhaps a sentence or two.

Papers presented at the June 1985 meeting, Raleigh, NC

William T. Bailey: Further elaboration on affinity theory: Ontogeny, mechanism and manifestation.

Theodore Horvath and Laura A. Fenton: Physical attractiveness: Does baby lead a sheltered life?

Irwin Silverman, Judith Spiegel and Deborah Parker: Differential patterns of parenting for birth children and adoptees.

William E. Addison: Dominance behavior and social organization in a group of preschool children.

Karl L. Wuensch and G.J. Gammon: Use of the Delmel human sociobiological questionnaire in a college population.

Esther Ivery and Larry Stettner: Human smiling: Different forms and their signal functions.

Robert R. Provine: Human yawning as stereotyped action pattern and releasing stimulus.

Bubba Nicholson: A market selection model of evolution and evolved behavior.

Harold A. Herzog, Jr.: The coverage of ethology and sociobiology in introductory texts.

Sarah L. Friedman, Karen C. Barrett, Malcolm Watson, Dennie P. Wolf, and Jacqueline Kane: The influence of maternal bipolar depression and behavior on children's play.

Articles, Chapters & Books

Babchuk, W.A., Hames, R.B., & Thompson, R.A. (1985). Sex differences in the recognition of infant facial expressions of emotion: The primary caretaker hypothesis. *Ethology and Sociobiology*, 6, 89-102. (Raymond B. Hames, Univ. Nebraska, Dept. Anthropology, Lincoln, NE 68588, USA).

Baron, J. (1985). Does rape contribute to reproductive success? Evaluation of sociobiological views of rape. *International Journal of Women's Studies*, 8, 266-277.

Beardmore, J.A., & Karimi-Booshehri, F. (1983). ABO genes are differentially distributed in socio-economic groups in England. *Nature*, 303, 522-524.

Brown, J.L., & Pimm, S.L. (1985). The origins of helping: The role of variability in reproduction potential. *Journal of Theoretical Biology*, 112, 465-477.

Caulfield, M.D. (1985). Sexuality in human evolution: What is "natural" in sex?

Cutler, W.B., Preti, G., Huggins, G.R., Erickson, B., & Garcia, C.R. (1985). Sexual behavior frequency and biphasic ovulatory type menstrual cycles. *Physiology and Behavior*, 34, 805-810.

de Rios, M.D., & Hayden, B. (1985). Odorous differentiation and variability in the sexual division of labor among hunter/gatherers. *Journal of Human Evolution*, 14, 219-228.

Dickie, J.R. (1985, April). Infants' effects in context: The mother-father-infant triad. Paper presented at the biennial meeting of SRCD, Toronto. Hope College, Holland, Mich. 49423.

Dobkinderios, M., & Hayden, B. (1985). Odorous differentiation and variability in the sexual division of labor among hunter gatherers. *Journal of Human Evolution*, 14, 219-228. California State University, Fullerton, CA 92634.

Dolgin, K.G. (1985). An action-theory perspective of the tool-using capacities of chimpanzees and human infants. In M. Frese, & J. Sabini (Eds.). *Goal directed behavior: The concept of action in psychology*. Hillsdale, NJ: Lawrence Erlbaum Assoc.

Ehrhardt, A.A. (1984). Gender differences: A biosocial perspective. *Nebraska Symposium on Motivation*, 32, 37-58.

Ellyson, S.L., & Dovidio, J.F. (Eds.). (1985). *Power, dominance, and nonverbal behavior*. New York: Springer-Verlag New York, Inc.

Fagot, B.I. (1985). A cautionary note: Parents' socialization of boys and girls. *Sex Roles*, 12, 471-476. (Oregon Social Learning Center, 207 E. 5th Ave., Suite 202, Eugene, OR 97401). Documents relative effects of observers over time, differential for boys and girls.

Green, S.K., & Sandos, P. (1983). Perceptions of male and female initiators of relationships. *Sex Roles*, 9, 849-852.

Groves, C.P., & Pi, J.S., (1985). From ape's nest to human fix-point. *Man*, 20, 22-47.

Harrigan, J.A. (1985). Self-touching as an indicator of underlying affect and language processes. *Social Science & Medicine*, 20, 1161-1176. University of Cincinnati, Dept. of Family Medicine, 231 Bethesda Ave., Cincinnati, OH 45267.

Harvey, P.H. & Clutton-Brock, T.H. (1985). Life history variations in primates. *Evolution*, 39, 559-581.

Hill, J. (1985). Prestige and reproductive success in man: A reply to Hillard Kaplan. *Ethology and Sociobiology*, 6, 119-120. 108 A Goldhurst Terr, London NW6, England

Hinde, R.A. (1985). Was "The expression of the emotions" a misleading phrase? *Animal Behaviour*, 33, 985-992. (Medical Research Council Unit on the Development and Integration of Behaviour, Madingly, Cambridge, CB3, 8AA, U.K.).

Hooley, J.M. (1985). Expressed emotion: A review of the critical literature. *Clinical Psychology Review*, 5, 119-140. Suny Stony Brook, Dept. of Psychology, Stony Brook, NY 11794.

James, W.H. (1985). Sex ratio, dominance status and maternal hormone levels at the time of conception. *Journal of Theoretical Biology*, 114, 505-510.

Jeffreys, A.J., Wilson, V., & Thein, S.L. (1985). Individual-specific 'fingerprints' of human DNA. *Nature*, 316, 76-79.

Kaplan, H. (1985). Prestige and reproductive success in man: A commentary. *Ethology and Sociobiology*, 6, 115-118. Univ. Utah, Dept. Anthropol., Stewart Bldg., Salt Lake City, UT, 84112, USA)

Krohn, R. (1985). Is sociobiology a political or a research program? *Canadian Review of Sociology and Anthropology*, 22, 226-232.

Kudoh, T., & Matsumoto, D. (1985). Cross-cultural examination of the semantic dimensions of body postures. *Journal of Personality and Social Psychology*, 18, 1440-1446. Univ. California Berkeley, Psychology Clinic, 2205 Tolman Hall, Berkeley, CA 94720.

Lefebvre, L. (1985). Parent offspring food sharing — a statistical test of the early weaning hypothesis. *Journal of Human Evolution*, 14, 255-262. McGill University, Dept. of Biology, 1205 AV Docteur Penfield, Montreal, Quebec, Canada H3A1B1.

- LaFrance, M. (1985). Postural mirroring and intergroup relations. *Personality and Social Psychology Bulletin*, 11, 207-217. Boston College, Psychology, Chestnut Hill, MA 02167, USA.
- Malatesta, C.Z. (1985, April). Facial expressions of infants and mothers during early interaction. Paper presented in a symposium, "Emotional expressions in infants and young children," presented at the Biennial Meeting of the SRCD, Toronto.
- Maxim, P.E. (1985). Multidimensional scaling of macaque social interaction. *American Journal of Primatology*, 8, 279-288.
- Maynard Smith, J.M., (1985). Sexual selection, handicaps and true fitness. *Journal of Theoretical Biology*, 115, 1-8.
- McGrew, W.C., & Collins, D.A. (1985). Tool use by wild chimpanzees (*Pan troglodytes*) to obtain termites (*Macrotermes heus*) in the Mahale Mountains, Tanzania. *American Journal of Primatology*, 9, 47-62.
- McNeil, D. (1985). So you think gestures are nonverbal? *Psychological Review*, 92, 350-371. Univ. Chicago, Dept. Behav. Sci., Comm. Cognit. & Commun., 5848, S. Univ. Ave., Chicago, IL 60637.
- Menzies, R.J. (1985). Genetic ideology: Observations on the biologization of sociology. *Canadian Review of Sociology and Anthropology*, 22, 202-226.
- Menzies, R.J. (1985). The political agenda of sociobiology. *Canadian Review of Sociology and Anthropology*, 22, 233-235.
- Morse, S.J. (1983). Requirements for love and friendship in Australia and Brazil. *Australian Journal of Psychology*, 35, 469-476.
- Mulder, M.B., & Caro, T.M. (1985). The use of quantitative observational techniques in anthropology. *Current Anthropology*, 26, 323-336. Northwestern University, Evanston, IL 60201.
- Mykutowycz, R. (1985). Olfaction — a link with the past. *Journal of Human Evolution*, 14, 75-90.
- Nakdimen, K.A. (1984). The physiognomic basis of sexual stereotyping. *American Journal of Psychiatry*, 141, 499-503.
- Newman, J.D. (1985). The infant cry of primates: An evolutionary perspective. In B.M. Lester and C.F. Zachariah Boukdis (Eds.), *Infant Crying*, (pp. 307-324) New York: Plenum Publishing Corp. Nichhd, Comparat Ethol Lab, Bethesda, MD 20205, USA.
- Nichols, C. (1985). Sociobiology: Some probative problems. *Canadian Review of Sociology and Anthropology*, 22, 184-191.
- Orcutt, J.D., & Harvey, L.K. (1985). Deviance, rule-breaking and male dominance in conversation. *Symbolic Interaction*, 8, 15-32.
- Osman, L.M. (1982). Conformity or compliance? A study of sex differences in pedestrian behaviour. *British Journal of Social Psychology*, 21, 19-21.
- Porter, R., Cernoch, J., & Balogh, R. (1985). Odor signatures and kin recognition. *Physiology & Behavior*, 34, 445-448.
- Rossetti-Ferreira, M.C., Secaf, R.E., Blurton Jones, N.G., Farquhar-Brown, M., & MacDonald-Moore, L. (1985). Adult child and peer interaction during brief separations. *British Journal of Developmental Psychology*, 3, 163-174. (University SOA, School Philosophy & Science, Ribeirao Preto, Dept. of Psychology & Education, BR-14100 Ribeirao Preto, SP, BRAZIL)
- Rubin, Z., Peplau, L.A., & Hill, C.T. (1981). Loving and leaving: sex differences in romantic attachments. *Sex Roles*, 7, 821-834.
- Russell, D.E.H. (1984). The prevalence and seriousness of incestuous abuse: Stepfathers vs. biological fathers. *Child Abuse and Neglect*, 8, 15-22.
- Scarr, S. (1983). An evolutionary perspective on infant intelligence. In M. Lewis, (Ed.), *Origins of Intelligence* (2nd ed., pp. 191-223). New York: Plenum.
- Scherer, K.R. (1985). Vocal affect signaling — A comparative approach. In J.S. Rosenblatt, C. Beer, M.C. Busnel, & P.J.B. Slater (Eds.), *Advances in the Study of Behavior*. (pp. 189-244). Orlando, FL: Academic Press. Univ. Giessen, Dept. Psychology, D-6300 Giessen, Fed. Rep. Ger.)
- Schiefenhövel, W. (1984). Der witz als transkulturelles ästhetisches Phänomen - Versuch einer biologischen Deutung. *Mitteilungen der Anthropologischen Gesellschaft in Wien (MAGW)*, 114, 31-36.
- Schiefenhövel, W. (1982). Kindliche sexualität, tabu und schamgefühl bei "primitiven" Völkern. In Th. Hellbrugge (Ed.), *Die entwicklung der kindlichen sexualität*, (pp. 145-153. München: Urban & Schwarzenberg.
- Schiefenhövel, W. (1984). Preferential female infanticide and other mechanisms regulating population size among the Eipo. In N. Keyfitz (Ed.), *Populations and Biology: Bridge between disciplines* (pp. 169-192). Belgium: Ordina Editions.
- Schurig, V. (1985). Stages in the development of tool behavior in the chimpanzee (*Pan-Troglodytes*). In Frese, M., & Sabini, J. (Eds.) *Goal directed behavior: The concept of action in psychology*. Hillsdale, NJ: Lawrence Erlbaum Assoc.
- Shaw, R.P. (1985). Humanity's propensity for warfare: A sociobiological perspective. *Canadian Review of Sociology and Anthropology*, 22, 158-183.
- Shaw, R.P. (1985). Merging ultimate and proximate causes in sociobiological and studies of warfare. *Canadian Review of Sociology and Anthropology*, 22, 192-201.
- Shepher, J. & Reisman, J. (1985). Pornography: A sociobiological attempt at understanding. *Ethology and Sociobiology*, 6, 103-114. (Judith Reisman, American Univ., 5010 Wisconsin Ave., Washington, DC 20016, USA.)
- Smith, M.S. (1985, June). Evolutionary psychology and human development. Paper presented at the meeting of the Canadian Psychological Association, Halifax.
- Stebbins, G.L., & Ayala, F.J. (1985). The evolution of Darwinism. *Scientific American*, 253, (1), 72-82.
- Stenseth, N.C. (1985). On the evolution of cannibalism. *Journal of Theoretical Biology*, 115, 161-178. (Say you saw it here first.)

Symposium: Psychology and Sociobiology: integrating the disciplines. Chair, Dennis Krebs, Simon Fraser University, Burnaby, British Columbia, Canada.

Crawford, C. Simon Fraser University, The theory of evolution: of what value to psychology?

Thornhill, R. & Thornhill, N., Dept. of Anthropology, U. of New Mexico, An evolutionary perspective of rape.

Symons, D., Dept. of Anthropology, U. of California, Santa Barbara. If we are all Darwinians, what's the fuss about?

Fuller, J., State University of N.Y. at Binghamton. What can genes do?

Ruse, M., Dept. of History, U. of Guelph, Ontario, Canada. Sociobiology and knowledge: is evolutionary epistemology a viable option?

Turke, P.W. & Betzig, L.L. (1985). Those who can do: Wealth, status, and reproductive success on Ifaluk. *Ethology and Sociobiology*, 6, 79-88. (L.L. Betzig, Univ. Michigan, Museum Zool, Div. Insect., Ann Arbor, MI 48109, U.S.A.)

Walton, M.D. (1985). Negotiation of responsibility: judgments of blameworthiness in a natural setting. *Developmental Psychology*, 21, 725-736.

Wood, J.W., Smouse, P.E., & Long, J.C. (1985). Sex-specific dispersal patterns in two human populations of highland New Guinea. *American Naturalist*, 125, 747-768.

Yogman, M.W., Lester, B.M., & Hoffman, J. (1983). Behavioral and cardiac rhythmicity during mother-father-stranger infant social interaction. *Pediatric Research*, 17 (11).

Zihlman, A.L. (1985). Gathering stories for hunting human nature (a review essay). *Feminist Studies*, 11, 365-378.

BULLETIN BOARD

Membership/Newsletter Subscription

Membership in the International Society for Human Ethology is available for U.S. \$10.00 (\$5.00 for students) through the Newsletter editor. The newsletter is provided free to members and is sent via air mail to overseas members. Membership is for the calendar year.

Current members can be aware that they should renew when the date on the mailing label is earlier than the current year.

Please note the suggestion at the top of the membership application in this issue. It's time to take some active steps toward the growth of the Society. Other suggestions regarding membership may be directed to our new Membership Chair, Jay Feerman.

Association ADRET

The Association for the Development and Diffusion of Research in Human Ethology and Human Ecology has published the latest issue of the *Bulletin of Human Ecology and Ethology*. In addition to general ethology papers are papers on family therapy, anorexia, and child psychopathology, and seven papers on child ethology.

Articles are in French with English summaries and key words. Information is available from Association ADRET, 15 Rue Blanchard, 92260 Fontenay-Aux-Roses, France.

European Sociobiological Society

A meeting will be held in Göttingen, West Germany January 18-19, 1986. The main theme will be "The Sociobiology of Reproductive and Sexual Strategies."

Details are available from Jan Wind, Institute of Human Genetics, Free University, P.O. Box 7161, 1007 MC Amsterdam, The Netherlands.

Postal Delay of June Issue

Most of the June Newsletters destined for Europe were returned after about two weeks as a result of an allegedly misplaced staple! Please contact the editor if an issue is delayed or not received. In the interim he will commit the U.S. postal regulations to memory.

1986 Animal Behavior Society Meeting

The June 8-13 meeting will be held at the University of Arizona. The host is Astrid Kodric-Brown, Ecology and Evolutionary Biology, U. of A., Tucson, AZ 85721.

The 1987 ABS meeting will be held June 21-26 at Williams College, Williamstown, MA.

International Society for Developmental Psychobiology

Contact Jane Adams, Conference Coordinator, Neurophysiology Research Laboratory, Children's Hospital Research Center, San Diego, CA 92123 for details on the conference to be held October 17-20 in Dallas, Texas.

Submissions to the Newsletter

The Newsletter is a product of the membership of the Society. Its quality will be very much a function of the degree to which members are willing to become involved.

If you have an idea, a request for ideas or information, a job opening, a desire for a sabbatical location or exchange, a suggestion, a comment on something in the Newsletter, a news item, or anything which might be of interest, send it to the Newsletter editor.

Submissions by early December should appear in the next issue. Suggestions regarding content and format are always welcome.

Association for Politics and the Life Sciences

At its annual meeting held in conjunction with that of the APSA in New Orleans, the Council of the Association for Politics and the Life Sciences elected Albert Somit (Southeastern Illinois University) as chairman of the Council, Glendon Schubert (University of Hawaii-Manoa) as vice-chairman, and Meredith Watts (University of Wisconsin-Milwaukee) as recording secretary. William Kitchin (Loyola College-Baltimore) was selected as 1986 program chairperson.

Thomas C. Wiegale (Northern Illinois University) will continue as executive director of the Association and editor of *Politics and the Life Sciences*.

On Parental Investment

An article which those studying parental investment and parent-offspring relations will find quite interesting is J. Locke-Haydon (1985), Infant-caregiver interactions in Common Marmosets (*Callithrix jacchus*); consequences of rejections and rub-offs of infants by caregivers. *Primates*, 25, 450-461. The research, per se, is quite interesting; but what I found particularly interesting was her discussion with comments on her "caregiving/care-seeking hypothesis." (Bill Bailey)

1986 Meeting

Arrangements for the July, 1986 meeting in Germany are complete. The program, the setting, and the expected participants promise an excellent meeting. Complete details are available in the June *Newsletter*.

Participants whose institutions require a letter of invitation may request one from Barbara Hold-Cavell, Max-Planck-Institut, Seewiesen, W. Germany upon acceptance of their papers.

The date of the meeting was selected to facilitate attendance at the meeting of the International Primatological Society, immediately prior to the Human Ethology meeting.

Travel Grant for ISHE Meeting Participants

Travel funds for the 1986 meeting have been requested from the National Science Foundation. The request is for \$800-\$900 each for up to 20 participants, based on economy air fare from the central U.S. to Munich.

Criteria for selection, should the funds be awarded, will include previous research accomplishments, acceptance and quality of paper to be presented, and a balance of young and experienced researchers.

Please write the *Newsletter* editor as soon as possible indicating your **intent to apply** for the travel support. Additional application materials will be requested if funds are awarded.

Grant to ISHE

The Society has received a donation of \$500 from Ms. Margaret Gruter of the Gruter Institute for Law and Behavioral Research, Portola Valley, California.

We are very grateful for these funds which will increase the flexibility of the Society's operations, including reducing the need for donated resources from individuals and institutions. We are also pleased that the Gruter Institute has seen fit to recognize the value and potential of human ethology.

Thanks are also due Michael McGuire for his role in coordinating this donation.

Ethology and Sociobiology

Subscriptions to *Ethology and Sociobiology* are available at a 20% discount to ISHE members. Member rate is \$33.60. You may send your check and statement of ISHE membership to: Elsevier Science Publishing Co., Inc., P.O. Box 1663, Grand Central Station, New York, NY 10163. Institutional subscriptions are \$84.00.

All four editors of *Ethology and Sociobiology* have been officeholders in ISHE, and most of us consider it the core journal in the field.

Aims and scope of the journal are stated as follows:

Ethology and Sociobiology will be primarily concerned with the publication of ethological and sociobiological data and theories in the form of descriptive studies, experiments, and literature reviews, or in papers dealing with theory development and refinement. As the primary focus of the journal is the human species, the aim is to foster the dissemination of scientific knowledge in ethology, sociobiology, and closely related fields, particularly as this knowledge applies to humans. Findings and theories largely concerned with nonhuman species will be acceptable to the journal provided the human implications are specified.

In addition to full length research papers, short but complete research accounts, review articles, book reviews, and letters and comments are published.

The Third T.C. Schneirla Conference Evolution of Social Behavior and Integrative Levels

**Thursday:
11/7/85** Introduction to the Concepts of Integrative Levels and Social Behavior (Lester R. Aronson; Gary Greenberg; Ethel Tobach) Ten selected papers on Conference Theme will be presented.

**Friday:
11/8/85** **A.M.:** Philosophical Issues in Hierarchies and Levels: Evolution of Social Behavior (Niles Eldredge; Marjorie Grene; Ernest Nagel; Marx Wartofsky)

P.M.: Concept of Genetic Fitness and the Evolution of Social Behavior (Peter Klopfer; Richard Levins; Richard Lewontin; Mae Wan Ho)

Evening: Stephen Jay Gould; Sarah Hrdy; B.F. Skinner

**Saturday:
11/9/85** **A.M.:** Role of Development in the Evolution of Social Behavior in Invertebrates (Thomas Alloway; Mary Jane West Eberhard; Deborah Gordon; Francesco Le Moli and A. Mori)

P.M.: The Role of Non-Reproductive Behavior Patterns in the Evolution of Social Behavior (Alison Jolly and Carolyn Ristau; William Livant; Thelma Rowell; A.F. Semiokhina)

At the American Museum of Natural History, New York City

The conference series is co-sponsored by the Wichita State University, the American Museum of Natural History, and the Graduate Center of the City University of New York.

For further information on conference registration, write:

Dr. Ethel Tobach
Curator, Comparative Psychology
American Museum of Natural History
Central Park West at 79th St.
New York, NY 10024
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The proceedings of this conference will be published by Lawrence Erlbaum Associates, Inc., 365 Broadway, Hillsdale, NY 07642.

Nominations for Editor — *Human Ethology Newsletter*

The term of the current editor expires in December, 1986. Please send nominations, including self-nominations, to the current editor. An early selection will insure a smooth transition.

Communications regarding the nature of the task would be welcomed.