

Human Ethology Newsletter

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Newsletter Submissions

Anything which might be of interest to ISHE members is welcome: society matters, suggestions for Forum topics, Growing Points, Mini Communications, Current literature and films, and material for the Bulletin Board such as announcements of meetings, sabbatical opportunities, employment opportunities, etc., should be sent to the Editor.

Suggestions for books to review, or reviews, should be sent to the nearest Book Review Editor dealing with the language concerned. A list of the book review editors is printed in the column inside the backpage.

Submissions in any legible format are acceptable as long as these are in English. Floppy disks containing Wordperfect files produced on an IBM-PC (compatible), or ASCII files can be processed as well and are in fact preferred, because they lower the production costs.

Submission deadlines are as follows: the material should have reached the editor in Amsterdam before February 15, May 15, August 15, or November 15 for inclusion in the next issue of March, June, September, or December, respectively.

CHANGE OF DATE 1989 MEETING

The 1989 meeting of the INTERNATIONAL SOCIETY FOR HUMAN ETHOLOGY will be held one month later than originally planned in Edinburgh, Scotland from the 31st of July to the 4th inclusive of August 1989. This will enable members to attend the International Ethological Congress in Utrecht, The Netherlands (see Bulletin Board) as well.

The venue will be the Pollack Halls of residence of the University, which are situated at the edge of Holyrood Park, very close to the city centre. The format will be to have some plenary sessions in the mornings, with workshops/papers in the afternoons. Various excursions will also be provided for some light relief. All those who wish to attend should get in touch with one of the organising committee named below. You will see that as well as normal addresses EMAIL numbers are given. It would be very helpful if those who wish to give papers or to lead workshops could send outlines of their proposals by EMAIL if possible to save typing out the outline again.

Rooms at Pollack Halls will cost about 16 pounds sterling for bed and breakfast, and lunches or evening meals may be taken there if ordered in advance. There will also be a conference fee to cover the cost of hiring meeting rooms and administration. Please contact as soon as possible;

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BALLOT ON NEWSLETTER EDITORSHIP

See Bulletin Board.

GROWING POINTS

The objective of this section is to stimulate discussion on "Growing points in Human Ethology". A few examples of the growing points mentioned in the last plenary session at the 1986 Tutzing conference are:

1. The history of human ethology has to be written in order to guarantee the spread of ideas without loss in translation.
2. Behaviour genetics.
3. The study of ontogeny.
4. A focus on the practical relevance and benefits of the ethological approach in various fields of application.

The following contribution concerns example 4. If you wish to comment, send your contribution directly to the editor.

The Quest for Family Patterns of Interaction

by: Lars Wichstrøm, Department of Behavioral Sciences in Medicine, University of Oslo, P.O. Box 1111, 0317 Oslo 3, Norway.

Susan Weiss edited the English translation of this article.

In this decade, cybernetics and its parent discipline, systems theory, have evolved as two dominant perspectives in the field of family interaction and psychopathology (Keeney, 1982, 1983; Bateson, 1972; Hoffman, 1981). In the March issue of this newsletter, Ricarda Müssig reflected upon the possible importance of this field to human ethology, as seen from a therapist's point of view. I have read her thoughts with great interest, being especially intrigued by her illustrative case examples. Because I am a researcher in the field of family dynamics (as well as being a family therapist), my scope is somewhat different from hers. As requested by Frans Plooij, I will try to complement the picture given by Müssig by presenting some thoughts on the scientific and methodological issues of cybernetics and systems theory and by describing the means my colleagues and I used in our own research to try to solve problems related to cybernetics. Although family life is the focus in this article, the problems addressed are common to all social systems. I hope, therefore, that this presentation will be valuable to researchers and practitioners in other fields, as well.

The cybernetics perspective

The cybernetics epistemology as applied to psychology has evolved from the early anthropological and philosophical works of Gregory Bateson (Bateson, 1958, 1972, 1979), through his co-workers' and students' application of his ideas on communication, psychiatry, and human interaction (Bateson, Jackson, Haley & Weakland, 1958; Watzlawick, Beavin & Jackson, 1967; Haley, 1976), into the second-order-cybernetics movement of family therapy (Selvini-Palazzoli, Boscolo, Cecchin & Prata, 1978, 1980; Penn, 1982; Andersen, 1987). In this process, many older models of systems functioning have been discarded, such as the notions of the homeostat (Watzlawick et al., 1967), morphogenesis (Speer, 1970), and double-bind communication (Sluzki & Ransom, 1976). In its present form, cybernetics may best be described as a philosophy of living systems. Psychology rarely creates its own models but, instead, borrows from other fields, preferably fields that are well established or in rapid

hydraulic pump to the formulation of psychoanalytic theory should be obvious (viz. 2nd law of thermodynamics). The tendency to be influenced by other fields also applies to present-day cybernetics. The most encompassing and solid presentation of second-order cybernetics, as perceived by family therapists, comes from two biologists (Maturana & Varela, 1982). Their main idea may be summarized as follows: The behavior of an organism may be understood from its coevolutionary development. The behavior of two organisms living in proximity will become coordinated. The system is then defined by the properties of the coordination of this coordination of behavior. If this coordination of coordination stops, the system will die. Additionally, the behavior of living systems may be explained only by its structure — and not by the influence of external agents. The description of a system is constituted by the observer, and therefore, no objective measurement is possible.

I have three main points to make concerning the application of this epistemology to family therapy:

1. Second-order cybernetics is formulated within the field of biology; most of the examples of the adequacy of cybernetics, as well as its metaphors, come from the functioning of cells or animal organs. It is not necessarily true, however, that social systems share the vital features of biological systems. It may be that modifications of the cybernetic theory have to be made according to the characteristics of behavioral systems.
2. Cybernetics is still a metatheory; it is a theory about theories. Specific theories that fit the cybernetics metatheory have to be made for each subject of study. The theory and models of biology cannot be transferred to the field of family life, or even chimp life, without a reductionistic position's being taken.
3. Cybernetic family therapy and theory currently are based on the assumption, often resembling an axiomatic truth, that families act according to rules and/or interactional patterns. This assumption, however, is an empirical question not yet tested.

In the following discussion, I will address some of the questions inherent in this last point, namely, Is family behavior patterned? And, if so: What patterns exist? The point of departure will be some of our own work that is directed toward the question of the etiological role of communication and of patterns of interaction in the family in relation to the development of schizophrenia.

Several family therapists have described families with a schizophrenic offspring as having highly deviant communication and as being organized in a way that elicits symptomatic behavior. According to these authors (Haley, 1959; Selvini-Palazzoli et al., 1978), schizophrenia is best understood as a "normal" reaction to an atypical environment and not as a reaction to intrapsychic conflicts.

The aspect of communication we tried to measure was that of **relationship control**. This feature is defined as "an utterance containing a position to the question: Who is going to decide what shall be done in this system?" Communication having this aspect of relationship control is named "maneuver" (Sluzki & Beavin, 1977).

Four maneuvers are identified: The **one-up** maneuver is a bid for gaining control. This maneuver implies the metamesage, "I am going to decide what we shall do." The **one-down** maneuver is just the opposite; the person using it implies that he is **not** going to take control. By using the **one-across** maneuver a person defines the relationship to the other person(s) as

equal, both having the right to control. The **one-out** maneuver differs from the other three in that the person defines the relationship as non-existent, that is, he or she is answering the question of control by refusing the issue totally. This refusal is accomplished through paradoxical or self-disqualifying messages often referred to as double-bind communication, communication deviance (Wynne & Singer, 1963), or egocentricity (Blakar, 1981).

To allow the computerized measuring of relationship control, a cybernetic relationship coding (CRC) system was constructed (Wichstrøm, Holte & Eilertsen, 1987a,b). Traditionally, researchers in the field of family interaction have restricted themselves to measuring single behavioral events. We, however, wanted to identify **patterns** of communication. "Pattern" is defined here as "a stable interchange of behavior between persons that is not due merely to frequencies of behaviors." For example, in a simplified system of two persons (A and B), A may use a lot of one-up maneuvers and B a lot of one-down maneuvers. It may look as if they had a complementary relationship. However, A uses one-up regardless of B's behavior and vice versa. Therefore, A's behavior does not influence B, and their behavior cannot be explained in terms of the relationship but, rather, in terms of personal characteristics of A and B. A true pattern emerges if the behavior of A alters the likelihood of B's responses and B's reaction in turn influences A's behavior. An even more complicated picture emerges if B is dependent upon his or her own previous behavior as well as on A's current behavior. We will not deal with this problem here but will just mention that it is possible to identify the factor of previous behavior and isolate it.

With respect to relational communication, Bateson (1958) described in his anthropological work from New Guinea two interactional patterns. One of these patterns is **symmetry**, in which all persons in the group are exchanging similar maneuvers, e.g., one-up maneuvers that result in an escalating run towards gaining control. The other pattern is **complementarity**, in which one person is taking the one-up position and the other a one-down position.

The CRC system contains four maneuvers, each of which can be reacted to by the same four maneuvers, making 16 stimulus/response units possible. Each of these units in turn may be reacted to with the four different maneuvers. The A-B-A chain of behaviors then has 64 possibilities, and so on. With this accelerating number of patterns possible, one rapidly runs short of data, which means that to be able to measure patterns in a reliable way, one has to undertake extended observations that involve thousands of maneuvers from each family.

The study

Families containing mother, father, and offspring were studied. They were divided into three groups according to the respective diagnoses pertinent to the offspring, i.e., normals, severely psychiatrically disturbed, and schizophrenics (N=21). To ensure that enough utterances were made by each person, naturalistic observation was excluded, and a standard conflict situation was adopted as the observational situation. The communication of the family was videotaped and analyzed by the CRC system. The coded analysis was done by three independent assistants (interrater reliability .80). The results clearly distinguished the families with the schizophrenic offspring from the others. The behavior of the schizophrenic offspring was highly dependent upon their parents' previous behavior, while the parents, in turn, were non-dependent upon their schizophrenic offspring's previous behavior. In the other families, all members were moderately dependent upon one another. It is important to note that

no differences were found between groups in the total quantity of each maneuver. Consequently, the differences in patterns of relationship control cannot be attributed to the mere behavior of the subjects. The differences can be explained only by the **relationship** between family members.

Discussion

It is often claimed by family therapists that the respective family systems of which severely disturbed psychiatric patients are a part are either rigid or chaotic. In our definition, a rigid family would be one in which the behavior is highly predictable. For example, if the father announces that he is going to decide what the family should do, the other family members respond by opposing his intention, claiming that they should decide; the father then responds by refusing to accept this approach. In a chaotic family, on the other hand, one behavior does not affect another, or the impact of a certain type of maneuver on the behavior of other members is constantly shifting. Our data indicate that this rigid-or-chaotic scheme is too simplistic. For example, the **direction** of the interaction may be a critical variable. In one direction, the interaction may be rigid (the schizophrenic person's reaction to his or her parents), while in the opposite direction, the pattern may be chaotic (the behavior of the parents of the schizophrenic person, which is not a reaction to their offspring's previous behavior).

The actual finding of this study may or may not be important to readers of this newsletter. However, the general methodological approach does have a wider application, I believe. Researchers on human behavior — in a variety of fields — often conclude that their data indicate that "this group of individuals," "this community," or "this system" shows a particular pattern of behavior (or follows a specific rule). I will dare to say that for the most part such statements are based on the observation of single events (e.g., a certain type of behavior) that are aggregated into the system level. Such statements, therefore, are valid only as descriptions of the members of a system and not as descriptions of the system itself. The process of observing, coding, and working out complicated mathematical models for the enormous amount of data needed in this kind of study is a painstaking and laborious one. Unfortunately, it is obligatory if one wants to make statements about the interactional patterns of a system.

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MINI COMMUNICATIONS

The objective of this section is short empirical or theoretical papers which inform and would benefit from the input of peers. If readers wish to comment, write directly to the author(s).

Do r/K Reproductive Strategies Apply to Human Differences?

by: J. Philippe Rushton, Department of Psychology, University of Western Ontario, London, Ontario N6A 5C2, Canada.

The symbols r and K originate in the mathematics of population biology and refer to two ends of a continuum in which a compensatory exchange occurs between gamete production (the r -strategy) and parental care (the K -strategy). Both across and within species, r and K strategists differ in a suite of correlated characteristics including litter size, birth spacing, speed of physical maturation, sexual precocity, longevity, energetic efficiency, encephalization, degree of social organization and altruism (Eisenberg, 1981; Wilson, 1975). Primates are all relatively K -strategists, and humans are the most K of all (Lovejoy, 1981). What has been proposed, however, is that some people are genetically more K than others (Rushton, 1985, 1988a).

Generalizing from the animal literature, the more K a person is, the more likely he or she is expected to come from an intact family, with more intensive parental care, with fewer and more widely spaced offspring, and with a lowered incidence of multiple birthing and infant mortality. K 's are expected to have a longer gestation period, a higher birthweight, a more delayed sexual maturation, a lower sex drive, and a longer life. Moreover, the K person is postulated to be more intelligent, altruistic, law-abiding and behaviorally restrained. Thus diverse organismic characteristics, not otherwise relatable, are presumed to covary along the K dimension.

Evidence for the expected covariation among the K attributes has been found in several studies. For example, Rushton (1987a) contrasted the characteristics of the mothers of dizygotic twins who, because they produce more than one egg at a time can be considered to represent the r -strategy, with the mothers of singletons representing the K -strategy. As expected, the former were found to have a lower age of menarche, a shorter menstrual cycle, a higher number of marriages, a higher rate of coitus, a greater fecundity, more wasted pregnancies, an earlier menopause, and an earlier mortality. In another domain, Ellis (1988) contrasted the characteristics of criminals who, because they are lower in altruism and social organization can be considered to represent the r -strategy, with the general population representing the K -strategy. The former were found to have shorter gestation periods (more premature births), a more rapid development to sexual functioning, a greater copulatory rate outside the bonded relationships (or at least a preference for such), less stable bonding, lower parental investment in offspring (as evidenced by higher rates of child abandonment, neglect and abuse), and a shorter life expectancy.

Additional evidence for r/K theory comes from the comparison of human populations known to differ in gamete production, namely, lower socioeconomic higher socioeconomic, and Negroids Caucasoids Mongoloids. (While the monozygotic twinning rate is nearly constant at about 3 1/2 per 1,000 in all groups, dizygotic twinning (caused by the release of two eggs at once and representing the r -strategy) occurs more frequently among

lower than among upper SES women in both European and African samples, and the rate per 1,000 births among Mongoloids is 4; among Caucasoids, 8; and among negroids, 16 (Bulmer, 1970).

To examine whether this pattern of population differences occurred in other aspects of reproductive effort, Rushton and Bogaert (1987) compiled a review of the literature and carried out novel analyses of data from the Kinsey Institute for Sex Research. The predicted pattern of racial differences was consistently observed with estimates made of intercourse frequencies (premarital, marital, extramarital), developmental precocity (age at first intercourse, age at first pregnancy, number of pregnancies per unit of time), primary sexual characteristics (salient voice, muscularity, buttocks, breasts), and biologic control of behavior (menstrual cycle length, periodicity of sexual response, predictability of life history from onset of puberty), as well as in androgen levels and sexual attitudes. These differences do not appear to be due to social class since non-college educated whites scored more *K* than elite groups of college educated blacks (Rushton & Bogaert, 1988; see also Weinberg & Williams, 1988). Within the Caucasian population, social class differences in sexual behavior also occur which parallel the dizygotic twinning frequency (Rushton & Bogaert, 1988; Weinrich, 1977).

The pattern of racial differences observed to occur in sexual behavior has also been found to exist on numerous other indices of *K*. Across ages, samples, countries, and time periods, measures made of health (infant mortality, illness, longevity), brain size and intelligence (cranial capacity, brain weight, test scores), maturation rate (age to hold head erect, age to walk alone, age of death), social organization (marital stability, mental disorder, law abidingness), and temperament (activity level, anxiety, sociability), all suggest that, on average, Mongoloids are more *K* than Caucasoids, who, in turn, are more *K* than Negroids (see Rushton, 1988a, 1988b; for a critique, see Zuckerman & Brody, 1988).

Recently conducted studies have extended the data in favor of *r/K* theory. Thus Mazmanian (1987) found that numerous life-history variables were heritable in a sample of 7,620 Australian twins, and Bogaert (1987) found that though the magnitude of the effects were small, many life history variables were related to each other and cohered in a pattern interpretable as an *r/K* dimension, even within the restricted range of a Canadian university sample.

Further research suggests that *r/K* attributes underlie individual and social class differences in health and longevity (Rushton, 1987b). For example, Black (1980) examined mortality rates in Britain from 1930 to 1980 and found that while everyone was living longer, the professional classes had gained more years than semi-skilled and unskilled workers. In 1930, people in the lowest social class had a 23 per cent greater chance of dying at every age than people in the highest social class. By 1970, this excess risk had grown to 61 percent. A decade later, it had jumped to 150 percent. The increasing correlation of health and social class presents an apparent paradox, for a National Health System has long existed in Britain to minimize inequalities in health-related services. The paradox is resolved from the gene-based perspective being presented here, however, when it is appreciated that with the removal of major environmental barriers to health the variance accounted for by genetic factors must increase (Scriver, 1984). In line with theoretical expectation, large scale adaptation studies consistently show genetic influences on all causes of death (Sorensen, Nielsen, Andersen & Teasdale, 1988). It would appear that individual differences in human life-history traits may belong

in a broader evolutionary context that has been considered to date.

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BOOK REVIEWS

Cognition, Language & Consciousness: Integrative Levels, The T.C. Schneirla Conference Series, Volume 2.

Hillsdale, New Jersey and London: Lawrence Erlbaum Associates, Publishers, 301 pages, 1987. Edited by Gary Greenberg and Ethel Tobach.

Reviewed by Gerard G. Neuman

Institute for Psychodynamics and Origins of Mind, La Jolla, California, U.S.A.

This book adds little glory to T.C. Schneirla, to whose memory and attempts at creating a valid science based on the model of Integrative Levels, the second T.C. Schneirla Conference was devoted. The contributions are very uneven, most of the time only tangentially, if at all, related to the focus of the Conference. The book itself, consisting of these papers given at the Conference, is poorly edited.

After reading the book, which had enticed me by the timely and very important subject matter, I took the occasion to go back to Schneirla's papers on the subject in the early 1950s, only to find that he was far ahead in his concepts, compared to his present followers and students. His presentations were clear, well thought out, and written in good simple English style. The task of building on his ideas is a difficult one as there seems so little room left between the dangers he saw in "reductionism to the physical sciences" on the one hand and the dangers of "vitalism" and/or "anthropomorphism" on the other. He prepared to build a science on the more subtle interaction of built in drives (he eschewed the concept of instincts) with the demands of the "Umwelt" (environment), to make for the best forms of adaptation.

His theory of levels also seemed to be built on a subtle interaction of neurobiologically developmental levels of differentiation (he mentions Sherrington) and meta levels of integrative concepts.

Since in the contributions included here, the biology of the brain and central nervous system has practically dropped out, the conceptual aspects of the Integrative Levels have no footing and therefore either develop into vaguely coherent linguistic integration, if at all mentioned, or seem to be dragged in as red herrings in order to seemingly relate to the Conference — certainly not as the foci of their research. To the interested contributors who consulted her, Ethel Tobach tried to convey the idea of levels, but as becomes obvious from her own paper in this volume, the essence of the ideas have evaporated and we are left with wishful semantics.

Not mentioned are present scientists who could be of help, such as Paul MacLean and his concept of the triune brain, Ernest Mayer who, while not a vitalist himself, tries to maintain that

repeated in his recent book, *Toward a New Philosophy of Biology: Observations of an Evolutionist*. S.J. Gould is mentioned but not very decisively. There is little mention of a new form of reductionism, namely the overwhelming interest in cell biology and the deciphering of the genetic code language, which to present day scientists seems to promise the answer to all our problems. Schneirla would have found it difficult to integrate these millions of computer particles into levels. But these are subject matters for another symposium.

Let us look at the papers themselves. Of the fifteen papers dealing in very diverse subject matters, often far from "comparative psychology," I found the best to be Charles Tolman's *Human Evolution and the Comparative Psychology of Levels*. Tolman traces the prehistoric development of man from the earliest beginnings to the present time, using the finds and findings of more recent prehistorians. His levels are based on a rather ingenious model by Frederick Engels, developed in his *Ape to Man*, published in 1876 — ingenious because Engels based his concept of the development of "labor" on the development from the use of the hand to the use of tools. Tolman mentions in passing V.I. Kochetkova who, with her *Palaeoneurology*, could provide a more important link in the progressive development of "levels of human functioning" by adding the necessary ingredients of the underlying neurology. All in all, anthropologist Tolman's contribution is enormous when compared with the fears of his colleagues to "interpret" the fossil findings beyond geologic-like appropriateness.

I also found Roger S. Fouts' paper on *Chimpanzee Signing and Emergent Levels* a good summary of research related to teaching language to apes. We learn about his successes as well as those of Premack's and the Gardners'. Taken in combination with the very interesting paper of Irene Pepperberg, *Interspecies Communication: A Tool for Assessing Conceptual Abilities in the African Grey Parrot*, I wonder whether there is not a new form of anthropomorphism creeping in when these researchers so fervently hope that these animals could talk and understand more like human beings or, shall we say, themselves? "If you can get attention and playful exercise in making human-species-like sounds, who needs to worry about deeper meanings" we can imagine the Pepperberg parrot "thinking". Maybe we are just as lonesome in our way as the parrot in his and in our quest resemble "Why can't a woman be more like a man?" (Professor Higgins of *My Fair Lady*.)

We have the parrot think in terms of our own experience. What is overlooked is the developmental level of the ape and avian brain and central nervous system as compared with the human. When it may become functional to think and talk in propositional terms for the sake of his own species' development, the chimp and the parrot, over hundreds and thousands of years, may develop these faculties and teach them to their youngsters. By the way, more luck might have been had by including papers on the language experiments with dolphins.

Gerard Piel in his short introductory paper, *Each Animal in its Own Psychological Setting* makes this point, as implied in his title. Unfortunately, looking at the rest of the field, "comparative" as comparative psychology still seems to mean: "How comparatively close to us are the subjects under study?" (Egocentricity supported by underlying narcissism.)

Most of the remaining papers only relate tangentially to the subject and don't seem to make too many important new points in their own right. Bernard J. Baars talks about some aspects of artificial intelligence research; a few papers deal in the linguistic research area and are either supportive or critical of the assumed leader of the field, Chomsky. The philosopher, Allen, in his *Materialism and Reductionism in the Study of Animal*

Consciousness tries to help out through introducing more logical clarity into the "level" thinkers but unfortunately, as he himself admits, as an outsider he was not imbued with Schneirla's essences.

The two papers by the Vromans (Leo and Georgine) only relate tangentially. Leo's philosophical contemplation seemed somewhat incoherent and when he ends his paper with the question, "Now tell me: should I withdraw the poem?" I would answer, "Yes." Georgine uses the findings of aphasia as a model for the levels. While there are functional consequences of an organic brain syndrome, I feel it is misleading to draw too close an analogy, as the developmental implications are grossly distorted.

I could not see why the last three papers under the subtitle, *Part III: Epilogue*, became the epilogue to the book rather than the prologue. As an opening they might have helped to give some structure to this volume, at least some attempted direction for this publication.

Compared with many of their earlier contributions, Tobach, Aronson and Freeberg seemed unenthusiastic and may have felt insufficiently inspired to carry the flag for the development of Schneirla's new science. Maybe they sense the *Zeitgeist* is not exactly with them, although it is so very much needed. Even though ethologists are somewhat undeservedly flawed by Schneirla's dislike of "releasers" they don't seem to be included in the Conference. As most of the "classical" animal studies cited are from the twenties and thirties, maybe new ethological flag bearers can give leadership to this field.

What positive value may this book serve? There are two or three articles mentioned in the review which may be useful in the classroom; excerpting those would be recommended. As a text book, I don't believe it has enough to recommend it. I found it valuable in raising the important question in this so important, but fairly orphaned field.

The Evolution of Human Behavior: Primate Models.

State University of New York Press, Albany, 1987, xvi and 299 pp., \$14.95 paper, \$39.50 cloth. Edited by Warren G. Kinzey.

Reviewed by Craig Bielert.

Psychology Dept., State University of New York at Oneonta, Oneonta, NY 13820-1366.

Models have found a certain amount of popular use in the field of anthropology. Non-human primates have served anatomical ends quite well as stand-ins for *Homo sapiens sapiens*, and since bones fossilize, our understanding of our own evolutionary past has also benefited greatly from crosstaxa studies. Their use at a behavioral level is somewhat more problematic since behavior does not fossilize. Ethologists have, however, employed non-human species as models. Konrad Lorenz, in his preface to the University of Chicago Press edition of Charles Darwin's *The Expression of Emotions in Man and Animals* states, "It is quite apparent that Darwin was aware that behavior patterns are just as conservatively and reliably characters of species as are the bones, teeth or any other bodily structures. Similarities in inherited behavior unite the members of a species, genus, or even larger taxonomic units in exactly the same way in which bodily characters do so." Although accurate and logical, in the specific case of behavior, the efforts at extension have not always been completely successful. Lord Solley Zuckerman's book, *The Social Life of Monkeys and Apes*, stands as a splendid example of how the natural environment of a species must serve as the

frame for understanding its behavior. With this in consideration, a little over twenty-five years ago Sherwood Washburn organized a Wenner-Grenn conference, "The Social Life of Early Man" aimed at reconstructing early hominid behavior. In his introduction to the present volume, Warren Kinzey points to this effort as the first systematic attempt to put primate studies in the perspective of human evolution. In 1965, Irven DeVore, one of Washburn's proteges, edited the volume, *Primate Behavior: Field Studies of Monkeys and Apes*. Out of the twenty-one contributors to this volume, eight were anthropologists. Since the mid-sixties there has been a veritable explosion in the published work from primate field studies (Southwick and Smith, 1986). Kinzey states that a readdressing of the question of why anthropologists should be concerned about non-human primates occurred at a symposium of the American Anthropological Association in November, 1983. The present volume is an outcome of that effort and includes an additional contribution by Jon Marks and a concluding chapter by Irven DeVore and John Tooby intended to provide a synthesis and address the broader issue of the process of anthropological modeling.

The volume succeeds in providing a rich resource and should provide interested readers with many stimulating ideas. The savannah baboon receives its appropriate due in a chapter by Shirley Strum, but in addition, howler monkeys and pygmy chimpanzees have their cases presented. The topics of gathering and monogamy are also addressed, and Richard Wrangham provides a fine chapter on the significance of African apes for the reconstructing of human social evolution.

The book is divided into four sections: I. Behavioral Innovations — with chapters by Nancy Tanner and Richard Potts; II. Primate-Derived Models — with contributions by Richard Wrangham, Randall Susman, Warren Kinzey, Carolyn Crockett, and a joint one by Shirley Strum and William Mitchell; III. Paleocological Models — with coverages by Jon Marks and Robert Sussman; IV. Theoretical Issues — with the concluding overview by John Tooby and Irven DeVore.

The book would certainly be appropriate to those whose focus is human ethology. There are certainly problems, however, connected with using models and attempting to ask functional questions about behavior patterns. As was recently pointed out by Robert Hinde (P. 17) (1987), "When researchers ask, 'What was this behavior for?', we could often more appropriately ask, 'What was this behavior for in the "environment of evolutionary adaptedness?" — that is, in the environment to which characteristics of our species became adapted.'" Reflective of the appropriate consideration this type of problem has been given is the use of terms such as "CA" for common ancestors in Richard Wrangham's paper and his suggestion that one should possibly focus upon phylogenetically conservation traits (which are viewed as parts of an "ancestral suite"). Certainly the models generated today are going to reflect the situation of today insofar as they are dependent upon basic data from field situations. It is perhaps appropriate to point out that this can present problems. In a recent paper, Rowell and Chism (1987) appropriately demonstrated that not all generalizations are actually supportable by data. They, as a consequence, do not think it is possible to infer social systems or mating patterns of extinct species from the degree of sexual dimorphism shown by particular fossils or fossil assemblages.

This is the second volume in the SUNY series in primatology that I have reviewed. I am impressed by the quality of the series and believe it will be one that people interested in human ethology may wish to follow. The price is reasonable and the content is high quality. I recommend the volume and commend those involved with its production.

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- Zuckerman, S. (1932), *The Social Life of Monkeys and Apes*, London, Kegan Paul.

Human Evolution, An Introduction for the Behavioural Sciences

London: Routledge & Kegan Paul, 1987. ISBN 0710203268 (hardback) £40 or ISBN 0710213816 (paperback) £13.95. Pp. xx + 374. By Graham Richards.

Reviewed by Ian Vine.

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Few, if any, ethologists entertain serious doubts about the correctness of an evolutionary — and more-or-less Darwinian — account of the origins and transformations of basic life-forms. And we see our own species as having evolved from the primate stock without any truly radical discontinuity or external intervention. Richards essentially takes this much for granted, with little more than passing reference to fundamentally dissident voices. That was probably a wise choice, at least in respect of evolution in general — although even here, brief accounts of, say, Piaget's non-orthodox evolutionary theorizing would have been useful. And since the author is alert to the role of wishful thinking and myth-making in attempts to reconstruct our own evolutionary past, he could have given more prominence to those who are strongly skeptical about evolutionary orthodoxy on properly scientific grounds. (I am reminded of a trenchant exposé which Anthony Ostric presented to the IXth International Congress of Anthropological and Ethnological Sciences at Chicago in 1973. This documented shows effectively how the most eminent authorities have concealed our ignorance about fundamental questions like the origins of life, the emergence of major life-forms in pre-Cambrian times, and not least hominid evolution itself.)

Almost the only quasi-certainty about human evolution is that it did happen, and in at least partially Darwinian ways. The hominid fossil record is broadly coherent, although the fossil "void" from about 10 to 4 million years ago leaves our descent from Miocene apes distinctly vague. The genetic redating of our split from the pongids to some 5MBP is now a crucial point of reference, of course. But when we try to put flesh on the hominid bones — to document the what, when, and why for principal speciations and other changes — virtually every detail is

from often very fragmentary or indirect evidence; awkward data threaten almost every theory; and new or re-examined finds make the dominant reconstruction of one day into the theoretical relic of the next. No doubt this is one reason why many behavioural scientists shy away from what paleontologists, archaeologists, and others can tell us about our origins — and about the significance of our past for making better sense of our contemporary natures as human animals.

Although he scarcely refers to ethology as such — and regrettably ignores major figures like Eibl-Eibesfeldt or Hinde — Richards does believe that psychologists and other behavioural scientists need an evolutionary perspective on our species' behaviour. Over 300 pages of text, and over 600 references, bring together a wealth of useful information about most topics concerning our own evolution. He concentrates on what we can infer from the available bones and stones themselves regarding evolutionary sequences, lifestyles and selection pressures, how adaptive innovations emerged, and the uses to which they were put. As a psychologist, Richards has undertaken the onerous task of sifting through a great diversity of sometimes esoteric and difficult reports and theories — in order to highlight the behavioural significance of hominid evolutionary "advances". What he has not done, for the most part, is to resolve all the disputes and uncertainties. Anyone hoping for a tidy and definitive synthesis of everything that evolutionary researches might tell us about ourselves will be disappointed by this volume. So what does this book actually offer to students of the behavioural sciences?

Richards' sub-title is perhaps misleading, for this is no simplified and unitary overview of the kind beginning students may be after. Throughout the text he stresses diversity of viewpoints, complexity of findings, and theoretical controversy. He aims to present arguments both pro and con each interpretation, mixing references to reviews of specialized topics with citations of recent (up to 1984) discoveries and partisan theorizing. He rarely does much more than hint at his own viewpoint. Within certain limits this is a moderately encyclopedic handbook, to which more advanced students and researchers concerned with behavioural evolution in hominids will want to refer for an indication of the state of play on any one of many topics. As far as a reviewer lacking his combination of breadth and depth of erudition can judge, he has mostly done a good job of compilation and balanced presentation within his own terms of reference.

It is perhaps too easy to point to omissions in any text. Even advanced students might wish for a glossary of unfamiliar terms from alien disciplines, or more informative captions to some of the illustrations. This reviewer's preoccupations make the failure to highlight the evolution of consciousness and awareness of one's own identity conspicuous, as is the neglect of theorists who stress the need for complex social prediction, persuasive manipulation, and maintenance of interpersonal relationship as a potent selection pressure for greater intelligence (e.g. Nicholas Humphrey, John Crook). Instead, Richards mostly keeps fairly close to attributes not too far removed from what the fossil record actually reveals. That may be a wise check on excessive speculation — but here he is unnecessarily conservative from an ethological perspective. The author gives very little attention to studies of the repertoires of even our closest primate cousins. Even the linguistic capacities of apes are covered rather summarily. Attempts to identify specific homologies do face familiar problems. Likewise, where our behavioral repertoires diverge from those of other higher primates it may be difficult to pinpoint both the precise causes and the likely stages of transition during hominid evolution. Even

so, such analyses need be no more inherently speculative than inferences from palaeontological evidence. Richard's predominant neglect of ethological material does limit the utility and comprehensiveness of his text.

The book is organized around five main chapters. The first is a primarily historical summary of evolutionary theorizing and of how views of human descent developed and shifted with the major fossil discoveries up to around 1960. The author then provides a useful chapter on the complexities of dating techniques, the current state of the data-base of fossils and artefacts, and brief treatments of both other kinds of evidence and current disputes in evolutionary theory. He then moves on to the behavioural interpretation of the physical evidence in two long chapters. Main topics covered are brain evolution; bipedalism; some major theoretical models of what drove hominid evolution (Isaac & Crader, Tanner, Hill, Lovejoy, Parker & Gibson as well as Wynn, Holloway, and Elaine Morgan); competing views of the relative roles of physical-genetic and socio-cultural evolutionary processes (including D.T. Campbell, Lumsden & Wilson, and their critics); altruism and sociobiology; and theories of the evolution of language (Hewes, Parker & Gibson, Holloway, Marshack, Jerison, Falk, and Lieberman). These surveys are selective, and some readers will find their favorite authors lift out — but on the whole the literature is sampled representatively. Inclusion of Morgan's "aquatic ape" theory may seem eccentric, but the recent European Sociobiological Society conference on this topic testifies to its increasing scientific respectability. Atypically partisan is Richards' scathing critique of sociobiology's use of the "altruism" concept. (He somewhat perversely denies anything paradoxical about its evolution — but the issues are too important to attempt to counter his position in a few sentences here.) In his final chapter, the author gives a useful summary of current knowledge of *Homo erectus*, the Neanderthals, and the eventual emergence of *Homo sapiens sapiens* — again with an emphasis on behavioural features distinctive of each.

Richards is acutely aware of how fluid the status of the many theories dealing with aspects of hominid evolution is, given the very patchy and constantly changing state of the material evidence involved. Imposing his own favoured interpretation would surely have reduced the longevity of his text, and so his restraint was probably wise (although he does have an interesting "physiomorphic" theory of hominid intelligence being prepared for publication). Although it has faults, he has produced a valuable work of reference for anyone concerned with our own evolution — including useful tables, maps and figures, and even a summary presentation of seventy-two possibilities for alternative hominid genealogies! Up-to-date findings are summarized and outdated myths are debunked within the profusion of facts and theories. And anyone attempting to assimilate the whole text should emerge both wiser and more cautious, thanks to Richards' endeavors.

The Sociobiology of Ethnocentrism: Evolutionary Dimensions of Xenophobia, Discrimination, Racism and Nationalism.

Published by The University of Georgia Press, Athens, GA, 1987. First published in England in 1986 by Croom Helm Ltd. 327 pages, including five figures, 11 tables, 41 pages of references, and a 13 page subject index. \$40.00. Edited by Vernon Reynolds, Vincent Falger, and Ian Vine.

Reviewed by Linda Mealey.

Department of Psychology, College of St. Benedict, St. Joseph, MN 56374, U.S.A.

The Sociobiology of Ethnocentrism is a collection of twelve essays and three reports contributed by participants at the January, 1985 meeting of the European Sociobiological Society. The purpose of the meeting (and of the book), was to begin a cross-disciplinary dialogue on the topic of the bases of in-group/out-group phenomena. Although there were plenty of caveats throughout the book addressing the limits of reductionism and the human potential for rational decision-making, the hope was that sociobiology might be able to contribute something useful to social scientists' understanding of the origins of inter-group conflict, and ultimately, of war. This is, I feel, a worthy goal, and one that is ripe for picking, but my suspicion is that the meeting was perhaps more successful than the book in bringing together new discussants and new ideas on this topic. The book has what I believe is a fatal flaw common to many collections which proceed from meetings, i.e., the editors have not taken care to ensure that the various chapters each contribute something unique.

The fifteen chapters, each by a different author are, at least nominally, broken down into five sections. One chapter reviews the major social science perspectives on large scale conflict; it is followed by five theoretical commentaries, three empirical reports, five discussions of the political implications of theory, and a look at the rise of German nationalism and its relationship to Social Darwinism and other views of evolution. Although I read the chapters in the order that the editors presented them, I found it hard to tell the difference between the supposed sections, and even between many of the individual chapters. There was no need for five theoretical commentaries nor for five discussions of the political implications of theory when one or two chapters would have sufficed. Among those ideas presented in overkill were: concepts of kin selection, the need for and evolution of cooperation in small groups (although there was substantial disagreement on the size of early human groups), the "green beard" effect, the development of fear of strangers in young children, and the well-documented social psychology phenomena of risky shift, need for affiliation, diffusion of responsibility, conformity, and the power of roles and labels. Over and over the same authors are cited, but unfortunately, none of these original theorists is a contributor to the book.

In general, the chapters in this collection are long on speculation and short on data, in addition to being terribly redundant. Most of the authors are social scientists first and sociobiologists second (if at all), and each feels the need to reintroduce the same basic material. In only three chapters do the authors present original work, and although I enjoyed these contributions the most, they do not make a strong case for the general theses the other chapters present. Russell's chapter for example, presents Monte Carlo-type simulations of the evolution of cooperation and conflict; he uses a new method, but comes to an old conclusion — that evolution of the "green beard" effect is possible. Irwin presents actual demographic and population genetic data on Eskimos which are consistent with the possible evolution of the "green beard" effect (and therefore of ethnocentrism), but there are no data on ethnocentrism itself to corroborate the supposition. Lastly, Johnson, Ratwick, and Sawyer present experimental data on the effect of kinship terms in political speeches, but interesting though the topic may be, their hypotheses were largely unsubstantiated.

A book on this subject would have been much more successful if the editors had 1) approached original theorists and 2) confined each author to a specific sub-topic of his or her own

expertise. As it is, the book's greatest strength is not its content, but its substantial bibliography. For potentially interested readers who are already well-versed with the basic premises of kin selection and of social psychology, I do not feel this book would present much of substance that is new. For those who are not familiar with one or the other of these areas, but who are interested in discovering their intersection, I highly recommend a browse followed by selective reading of the most frequently cited original papers. For those who already feel closely aligned to this inter-discipline but who haven't already purchased the book, it would probably be a good selection for the time being, since there is as of yet, only a small library on this topic. I suspect however, that it will not be too long before something much better organized supercedes it.

CURRENT LITERATURE AND FILMS

Material for this section of the newsletter should be sent directly to the editor. A sentence or two of summary would increase the value to readers.

Articles and Journals

- Archer, J. (1988). The sociobiology of bereavement: A reply to Littlefield & Rushton. *Journal of Personality & Social Psychology*, 55, 272-8. (School of Psychology, Lancashire Polytechnic, Preston, PR1 2TQ, England.)
- Borgerhoff Mulder, N. (1987). On cultural and reproductive success: Kipsigis evidence. *American Anthropologist* 89, 617-634.
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- Buss, D.M. (1988). From vigilance to violence: Tactics of mate retention in American undergraduates. *Ethology and Sociobiology*, 9, 291-317. (Although attraction and selection of mates are central to human reproduction, the retention of acquired mates is often necessary to realize the promise of reproductive effort. Several studies document 19 distinct tactics used to retain mates, and tests evolution-based hypotheses about their frequency of performance and effectiveness) (Department of Psychology, University of Michigan, Ann Arbor, Michigan 48109-1346 U.S.A.).
- Blaustein, A.R., Porter, R.H., & Breed, M.D. (1988). (Eds.). Kin recognition in animals: Empirical evidence and conceptual issues. *Behavior Genetics*, 18, 405-564. (This is a special issue of the journal containing 11 separate articles on tadpoles, bees, wasps, birds, rodents and primates).
- Porter, R.H., Balogh, R.D. & Makin, J.W. (1988). Olfactory influences on mother-infant interactions. In C. Rovee-Collier & L.P. Lipsitt (Eds.) *Advances in Infancy Research*, Vol. 5, Norwood, NJ: Ablex. (A summary of empirical research on the role of olfactory cues in the development of mother-infant recognition in humans and rodents).
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- Rushton, J.P. (1988). Race differences in behavior: A review and evolutionary analysis. *Personality and Individual Differences*, 9, 1035-1040. (Department of Psychology, University of Western Ontario, London, Ontario N6A 5C2, Canada).
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- Tellegen, A., Lykken, D.T., Bouchard, T.J. Jr., Wilcox, K.J., Segal, N.L., & Rich, (1988). Personality similarity in twins reared apart and together. *Journal of Personality and Social Psychology*, 54, 1031-1039. (Department of Psychology, University of Minnesota, Minneapolis, MN 55455, U.S.A.).
- Weinberg, M.S., & Williams, C.J. (1988). Black sexuality: A test of two theories. *Journal of Sex Research*, 25, 197-218. (Department of Sociology, Indiana University, Bloomington, Indiana 47405, U.S.A.).
- Zuckerman, M., & Brody, N. (1988). Oysters, rabbits and people: A critique of "Race differences in behavior" by J.P. Rushton. *Personality and Individual Differences*, 9, 1025-1033. (Department of Psychology, University of Delaware, Newark, DE 19716, U.S.A.).

Books

- Archer, J. & Browne, K. (Editors) (1988). *Human Aggression: Naturalistic Approaches*. London & New York: Routledge. CHAPTERS: Concepts and approaches to the study of aggression (Archer & Browne). From the laboratory to the community: studying the natural history of aggression (Archer). Laboratory experiments and the study of aggression (L. Berkowitz). Ethological approaches to the study of aggression in children (P.K. Smith). Experimental animal models of aggression: what do they say about human behavior? (D.C. & R.J. Blanchard). "A school for men": an ethnographic case study of routine violence in schooling (J. Beayon). Anger-management methods in relation to the prevention of violent behavior (K. Howells). the naturalistic context of family violence and child abuse (Browne). Studying old age abuse (M. Eastman). Violence and social work (G. Breakwell & C. Rowett). Naturalistic approaches and the future of aggression research (Archer & Browne).
- Betzig, L.L., Borgerhoff Mulder, N. & Turke, P.W. eds. (1988). *Human Reproductive Behavior: A Darwinian Perspective*. Cambridge U. Press.
- Clutton-Brock, T.H. (1988). *Reproductive Success: Studies of Individual variation in Contrasting Breeding Systems*. Chicago U. Press.

BULLETIN BOARD

Technical Editor

For a fee and reimbursement of expenses, Susan Weiss, a professional technical editor, will edit translated articles by members of the ISHE or their colleagues to improve the use of English in these texts. Address questions about this service to P.O. Box 1192, Corrales, NM 87048-1192, U.S.A.

Call for Papers

A symposium called "**BEHAVIORAL PATHOLOGY**" will be held at the INTERNATIONAL ETHOLOGICAL CONGRESS (Utrecht, The Netherlands, August 9-17, 1989) and is sponsored by ISHE. The symposium is organized by Jay R. Feierman, Membership Chair, ISHE. He writes the following.

Behavioral pathology is defined as "structurally, temporally, or contextually abnormal behavior that produces functional impairment." Papers are being sought in the following categories: Taxonomy, Mechanisms, Evolution, Development, and Pathophysiology. Papers should be of high quality and should generate principles that are applicable across species and would be of interest to nonhuman as well as human ethologists. Final selection of submitted papers and notification of contributors will be made by the ISHE officers by April 1, 1989. Please, send title, abstract, and supporting material no later than March 1, 1989 to: Jay R. Feierman, Symposium Coordinator, Presbyterian Behavioral Medicine Center, 1325 Wyoming Blvd., N.E., Albuquerque, New Mexico 87112, USA. This symposium does not preclude members of ISHE from submitting individual papers, that would not be part of the ISHE sponsored symposium, for consideration by the organizing committee of the International Ethological Congress. Instructions for doing so are printed further down this Bulletin Board. However, at the ISHE business meeting in Phoenix, AZ, USA, on November 18, 1988, it was decided that ISHE should sponsor a symposium of general interest to all ethologists, but which human ethologists might have some special insights due to our unique familiarity with our species.

1989 IEC Meeting

The INTERNATIONAL ETHOLOGICAL CONFERENCE will take place in UTRECHT, THE NETHERLANDS, 9-17 AUGUST 1989. The International Ethological Conference meets in alternate years and this coming summer the 21st meeting will be held. This is the only international conference of animal behaviorists which is dedicated to the integration and synthesis of all aspects of animal behavior. The Madison IEC conference in 1987 had 536 participants from 38 countries, the 1985 meeting in Toulouse, France was attended by 907 animal behaviorists from 43 countries and similar attendance is expected in 1989. This conference is open to all those who wish to attend, including students. To receive further information, please write the conference organizers: XXist International Ethological Conference, c/o QLT Convention Services, Keizersgracht 792, 1017 EC Amsterdam, The Netherlands. A call for papers and registration and housing information will be sent at the end of October.

TRAVEL GRANTS TO ATTEND THE XXist INTERNATIONAL ETHOLOGICAL CONFERENCE, UTRECHT, THE NETHERLANDS, 9-17 August 1989. The U.S. Ethological Conference Committee applied to N.S.F. for an International travel Grant to support travel to the IEC by young U.S. scientists. We have been notified that N.S.F. intends to fund this grant. We anticipate that we will be able to make 20-25 individual awards to support transportation costs for young U.S. scientists — defined as those who received their Ph.D. degree between 1984 and 1988 or who will have completed their Ph.D. by December 1989. To apply for a travel award, please submit seven (7) copies of each of the following items to Dr. Jane Brockmann, USECC Secretary, Department of Zoology, University of Florida, Gainesville, FL 326711: (a) a 1-page curriculum vitae, (b) a list of publications, (c) a copy of the abstract you will be submitting for consideration to the IEC program and (d) one or two letters of recommendation. For those who have not completed their Ph.D., the major professor should write a letter which includes an assurance that the degree will be completed by December 1989. Deadline for applications is 9 January 1989. The application will be reviewed by members of the USECC and applicants will be notified by 1 March 1989.

Call for Proposals

The Association for Politics and the Life Sciences invites proposals and nominations for the editorship of its journal *Politics and the Life Sciences*. The journal is published twice each year, and it has a broad-based list of subscribers both in the U.S. and in over twenty foreign countries. Most major U.S. university libraries subscribe.

The deadline for proposals from potential host institutions and editors is June 30, 1989. Joint proposals from more than one institution will be considered. Proposals should include descriptions of released time for the faculty editor(s), identification and qualifications of the editor(s), and financial contributions from host institutions. It is anticipated that the journal will change sites on or around July 1, 1990. Those contemplating a proposal are encouraged to telephone the present editor for further information. A fact sheet on costs is available.

Inquiries and proposals should be directed to: Thomas C. Wiegale, Editor, *Politics and the Life Sciences*, Social Science Research Institute, Northern Illinois University, DeKalb, IL 60115-2854. Telephone (815) 753-9674.

Evolution, Psychology, and Psychiatry Conference

The Evolution and Human Behavior Program at The University of Michigan at Ann Arbor hosted a conference entitled, "Evolution, Psychology, and Psychiatry," October 28-30, 1988. The conference was attended by approximately 75 persons who participated in several Symposia and paper sessions.

PROGRAM

Revised 10/24/88

Friday, 8:00 A.M. - Noon.

Personality and Human Life History Analysis

Chair: David Buss, Ph.D., The University of Michigan

Parent-Offspring Conflict and Rivalry: A Test of Freudian versus Darwinian Models

Martin Daly, Ph.D., and Margo Wilson, Ph.D., McMaster University

r/K Reproductive Strategies and the Evolution of Health, Longevity and Personality

J. Philippe Rushton, Ph.D., University of Western Ontario

Designs for Studying Genetic Life histories and Environmentally Contingent Tactics

Charles Crawford, Ph.D., Simon Fraser University

Mate Selection in the Service of Human Evolution

Leon Sloman, M.D. and Steven Sloman, M.D., Clarke Institute of Psychiatry, Toronto

Causes of Conjugal Dissolution

Laura Betzig, Ph.D., The University of Michigan

Conflict between the Sexes

David Buss, Ph.D., The University of Michigan

Friday, 1:30 - 5:00 P.M.

Conflict Resolution: Reciprocity, Coalition, Deception

Chair: Joan Lockard, University of Washington

Self-deception in Personal and Interpersonal Conflict Resolution

Joan Lockard, University of Washington

Reproductive Strategies and the Inevitability of Marital Conflict

Kevin Kerber, M.D., The University of Michigan Medical Center

The Development of Western arrogance: An Historical Perspective

James Welles, Ph.D., Orient, N.Y.

If You're Good, I'll Wait: Parent/Offspring Conflict and Spacing of Siblings

Karen E. Norberg, M.D., Children's Hospital, Boston

The Style of Conflict Resolution Seen Among Japanese Women with Depressive Disorder

Veronica Ichikawa, Ph.D., Asian Pacific Family Center, and David Godwin, M.D., Ann Arbor, Michigan

Reciprocity in Psychotherapy

Kalman Glantz, Ph.D., Cambridge, Mass., and John Pearce, M.D.

Friday, 7:00 - 9:00 P.M.

Brief Reports

Chair: Kevin Kerber, M.D., The University of Michigan

Resources and Reproductive Effort: The Positive Effect of doing relatively well

Elizabeth M. Hill, Ph.D., The University of Michigan, and M. Anne Hill, Baruch College of the City University of New York

Behavioral predictors of amitriptyline response in outpatient depressives

Alfonso Troisi, M.D., B. Bersani, A. Grispini, A. Pasini, and N. Ciani, II University of Rome, Italy

The head-legs-scheme, an IRM for basic trust between mother and child and an important organizer in the development of cognition

Ricarda Müssig, M.D., West Germany

Parental solicitude as a function of birth order, family size, and sex of child

Irwin Silverman, Ph.D., and Deborah Sutherland, York University

Evolutionary biology in psychiatry residency curriculum

Russell Gardner, Jr., M.D., University of Texas, Galveston

Explanations and implications of hand preference and relative

Nancy L. Segal, Ph.D., University of Minnesota

Parent-offspring conflict and ambivalence: clinical implications

Alan T. Lloyd, M.D., The University of Michigan

Ethology, dominance hierarchies, and group psychotherapy

Jim L. Kennedy and K. Roy MacKenzie, Yale University

Friday, 9:00 - 10:00 P.M.

Poster Session

Correlation between adiposity and preference for different colors in dolls

Peter Frost, Université Laval, Quebec

Psychoanalysis: An empirical science

Jean Baptiste Boulanger, M.D., Neurologue Psychiatre Psychanalyste, Montreal

Sex differences in ability to identify family resemblance

Randolph M. Nesse, M.D., Andrew Silverman, The University of Michigan

Three functional components of the CNS

John A. Ross, Ph.D., St. Lawrence University, New York

Toward a theory of intrapsychic conflict

Kalman Glantz, Ph.D., Cambridge, MA, and John Pearce, M.D.

Human sex ratio as a function of the woman's psychodynamics:

The mother's assessment of local resources

Wade C. Mackey, Ph.D., El Paso Community College and

Linda Mealey, Ph.D., College of St. Benedict, St. Joseph, MN

Evolution of the 100 year life-span

Paul Turke, Ph.D., The University of Michigan

Saturday 8:00 - Noon

Standards of Evidence for Testing Evolutionary Hypotheses

Chair: Randolph M. Nesse, M.D., The University of Michigan

A Deductive Approach to Psychopathology and It's Evolutionary Roots

Daniel B. Wilson, M.D., McLean Hospital

Eight Steps in the Study of the Evolutionary Significance of Anorexia Nervosa

Charles Crawford, Ph.D., and Judith Anderson, Simon Fraser University

Can We Agree on Standards for Testing Evolutionary Hypotheses?

Randolph M. Nesse, M.D., The University of Michigan

A Critique of Darwinian Social Science

Don Symons, Ph.D., the University of California at Santa Barbara

Rethinking Human Ethology

Laura Betzig, Ph.D., The University of Michigan

From Adaptation to Mechanism: The Role of Computational Theories

John Tooby, Ph.D. and Leda Cosmides, Ph.D., Stanford University

Comments on Standards of Evidence for Testing Evolutionary Hypotheses

William Hamilton, Ph.D., Oxford University

Saturday, 1:00 - 5:00 P.M.

Evolution, Cognitive Psychology and Artificial Intelligence

Chairs: John Tooby, Ph.D. & Leda Cosmides, Ph.D., Stanford University

Domain Specificity in Human Reasoning

Leda Cosmides, Ph.D., Stanford University

Cognitive Foundations of Sexual Attractiveness

Don Symons, Ph.D., The university of California at Davis

The Evolution of Dimorphic Risk Preferences

Joseph H. Vogel, Ph.D., University of Southern Mississippi
A.I., Cognition, and Evolution
 James Fetzer, Ph.D., The University of Minnesota at Duluth
Adaptation and the Information Landscape
 John Tooby, Ph.D., Stanford University

Sunday 8:30 A.M. - Noon

The Evolution of Mood and Anxiety

Chairs: Michael McGuire, M.D. U.C.L.A., and Alfredo Troisi, M.D., The University of Rome

Evolution, Deception, and Emotions

Jay R. Feerman, M.D., University of New Mexico

Evolution and Anxiety

Isaac Marks, M.D., Institute of Psychiatry, London, England

Mood Disorders as Communicational Propensity States

Russell Gardner, Jr., M.D., University of Texas, Galveston

Evolution of the Capacities for Mediated and Free Expression: Physiological Hypotheses and Clinical Implications

Nolan Saltzman, Ph.D., Bio Psychotherapy Institute, New York

The Biology of Mood and Family Functioning

Leon Sloman, M.D., Clarke Institute of Psychiatry, Toronto, and John S. Price, D.M., Milton Keynes General Hospital, London, England

The Ritualization of Agonistic Behavior as a Determinant of Variation in Global Self Esteem

John S. Price, D.M., Milton Keynes General Hospital, London

The persons attending the conference agreed to meet again in the United States next year, hopefully at a University with the costs at a minimum, so as to be affordable to graduate students. Future communication about next years meeting and any information of general interest about this subject can be communicated through the ISHE newsletter. All persons in attendance were encouraged to join ISHE and a complementary ISHE newsletter will be sent to persons who are not already members.

Randy Nesse, Co-Ordinator of the U.M. Evolution and Human Behavior program, was the local host. In addition to an excellently planned conference the participants spent Saturday night at a very pleasant social gathering at the host's home. The overall atmosphere at both the formal meeting and the informal gatherings was one of friendship, support, and collegiality. The meeting also was one of the first times that clinicians and basic behavioral scientists interested in the application of evolutionary theory were together at a common meeting.

BALLOT NEWSLETTER EDITORSHIP

The General Assembly (Business Meeting) voted to call for a membership vote through the Newsletter to amend the constitution. This amendment would free the selection of the Newsletter Editor from the disruption of constitutionally mandated elections and would better insure that the Editor has the special skills, resources, and commitment that are crucial to our one organ of reliable communication. The amendment was proposed with the assumption that Frans X. Plooi would continue under the terms of the amended constitution as Editor, as the sense of the meeting was gratitude for the excellent job he has been doing.

Proposed: That the newsletter editorship, officially the Vice President for Information, be not an elected, but an appointed position. The appointment is to be by vote of the Board of Officers and to be reviewed for continuation, on the basis of satisfactory performance and resources, every two years. The Editorship will continue to carry the official title of Vice President for Information.

Approved _____ Not approved _____

Please tear out and mail this ballot to Gail Zivin, ISHE Secretary, Psychiatry Dept., Jefferson Medical College, 3 Curtis Building, 1015 Walnut St., Phila. PA 19107 USA.

Membership Renewals

If the date on your mailing label is earlier than the current year, it is time to renew your membership. Renewal notices are not sent for economic reasons. No more than two warnings are given on the mailing label. Thereafter you are removed from the membership list.

Membership dues are U.S. \$10.00 (f25,00 guilders) per year (students U.S. \$5.00) and U.S. \$25.00 (f60,00 guilders) per 3 years. The library rate is twice these amounts.

Directions for payment are given on the last page of this newsletter. Payment reaching the treasurer before February 1, May 1, August 1 or November 1, will be processed in time for indication on the mailing label of the next newsletter issue.

Please, report any errors, changes of address, etc. to the editor.

Book Review Editors

William T. Bailey, American
 Dept. of Psychology, Eastern Illinois University, Charleston, IL 61920, U.S.A.

Ian Vine, English
 Interdisciplinary Human Studies,
 Un. of Bradford,
 Bradford BD7 1DP, England.

Eduardo Gudynas and Fernando G. Costa,
 Spanish/Portuguese
 c/o ASMER's Regional Office,
 Casilla Correo 13125, Montevideo, Uruguay.

Jean- Claude Rouchouse, French
 Association ADRET,
 15, Rue Blanchard,
 92260 Fontenay aux Roses, France.

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Irenäus Eibl-Eibesfeldt, Max-Planck-Institut,
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 Rijswijk, Netherlands

Membership chair

Jay Feerman
 Presbyterian Behavioral Medicine Center
 Albuquerque, NM, USA

INTERNATIONAL SOCIETY FOR HUMAN ETHOLOGY

Membership and Newsletter

The ISHE was formed with the goal of promoting ethological perspectives on the study of human behaviour. 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.

YES, I WANT TO BECOME A MEMBER OF THE INTERNATIONAL SOCIETY FOR HUMAN ETHOLOGY

Name _____ Institute _____
 Address _____ (Continental European Postal Code +) City _____
 State (+ Anglo American Postal Code) _____ Country _____
 Phone _____
 Discipline _____
 Research Interests _____

Please, send this registration form to:

International Society for Human Ethology, Frans X. Plooij, Paedological Institute of the City of Amsterdam, IJsbaanpad 9, 1076 CV Amsterdam, The Netherlands

Payment: members resident in the U.S.A., and the U.S.A. only, should send a *personal check* to:

Dr. J.R. Feierman, Membership Chair, ISHE, Presbyterian Behavioral Medicine Center

1325 Wyoming Blvd, N.E., Albuquerque, NEW MEXICO 87112, U.S.A.

Annual Membership Dues are \$10.00 U.S. (students \$5.00), including a subscription to the quarterly *Human Ethology Newsletter*. Preferably you pay once every three years at the reduced rate of \$25.00. You may also wish to recommend that your library subscribe. The library rate is \$20.00 per year or \$50.00 for three years.

All other payments should be directed to the:

Treasurer International Society for Human Ethology Dr. Herman Dienske, Primate Center, TNO, P.O. Box 5815, 2280 HV Rijswijk, The Netherlands, preferably in the form of an International Money Order in the Dutch Currency: f25,00 (guilders) per year and f60,00 (guilders) for three years, or to this bank: Algemene Bank Nederland, Breestraat 81, Leiden, the Netherlands. Account number: 56.64.00.561. The Post Giro number of this bank is: 9013.