

HUMAN ETHOLOGY NEWSLETTER

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THANKS!!!

The most important item in this issue of the Newsletter is the expression of our gratitude to the outgoing editor, Joan Lockard. Joan has made an enormous investment of time and energy in the Newsletter and in the leadership she has provided the Society for so long. Most of us have little idea of the demands of the role she assumed, a role that often brings little more reward than knowing the job is being done well. We owe Joan a great debt for the terrific job she has done. She will take a well-earned rest from her work as editor, but we can take comfort in knowing that she will remain an influential member of the Society.

New Board Members

The following persons have been elected to two-year terms on the Executive Board:

Judith L. Hand, Biology and Animal Behavior.

Barbara C.L. Hold-Cavell, Developmental Psychology.

Ian Vine, Philosophy and Psychology

Congratulations to these new and returning Board members, who join current Board members Nicholas Blurton Jones, Susan Essock-Vitale, Alan Fogel, and Albert Somit. And many thanks to the Board members whose term has expired Michael McGuire, Esther Thelen, and Ronald Weigel.

DUES

Please note the date on your mailing label. If it is '83, you have not renewed your membership for '84. A membership blank will be found at the end of this issue.

ISHE Summer Meeting

ISHE is meeting with the Animal Behavior society August 13-17 at Eastern Washington University in Cheney, WA. The deadline for receipt of abstracts is April 7. Please note that you must be, or be sponsored by an ABS member.

The ISHE Business Meeting is tentatively scheduled for Wednesday evening after the banquet. An invited paper session on human ethology is tentatively scheduled for Tuesday afternoon, and contributed human ethology papers for Wednesday afternoon.

A conversation with ABS Program Officer Lee Drickamer leads me to look forward to a very interesting meeting.

Changes in the Newsletter

You will note some superficial changes in the Newsletter with this issue. This is the inevitable result of a change of editors and the accompanying change in resources available for producing the Newsletter. These changes may continue as I explore methods of improving the product and the economy and efficiency of producing it. Any submissions which are of suitable quality for direct reproduction will be greatly appreciated, as the result is a saving of typing and proofing time.

Human ethology Abstracts V: Available

The fifth edition of Human ethology Abstracts, by Wade Mackey, is scheduled for publication approximately as you read this. The abstracts, a complete issue of Man-Environment Systems is available to non-subscribers. Send a check for \$3.00 for HEA V or \$17.50 for all five editions, postpaid, to:

The Association for the Study of
Man-Environment Relations (ASMER)
P.O. BOX 57
Orangeburg, NY 10962

Thanks to Wade for what I know from experience to be a lot of work.

Human Ethology Abstract VI

Esther Thelen will be the editor of Human Ethology Abstracts VI. Please send her any papers you would like included, particularly unpublished work that may not be widely available. If the manuscript does not contain an abstract, your writing one would be very helpful. She would also welcome suggestions regarding sources of literature, format and organization of the abstracts, etc. Her address is:

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FILM REVIEWS

Biological Signals in Mother-Child-Interaction

Maternity Leave from an ethological standpoint. A film for educational purposes at high schools and universities. (1982)

Young parents with their first child usually have to cope alone with the daily routine of infant care.

The film shows that infant care is a mutual relationship between partners. The relationship is demonstrated clearly in the areas of mimic, acoustic and gesticulatory signals. The infant shows what he needs and feels at different ages directly after the birth and under normal routine care in the family.

In such an open relationship the infant quickly develops a wide repertoire of abilities and expressions.

The film presents psychological and biological knowledge in the areas of communication, learning abilities and inborn requirements, thus giving suggestions towards achieving a better understanding with an infant.

(Projection time; 20 minutes. Gage: 16 mm Video-tape: VHS;
Awarded: "outstanding film" in "Medikinale 82")

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Germany

My baby - A person to be taken seriously.

(Suggestions towards achieving a better understanding with an infant.) (1981)

At over half of all confinements the mother is carrying her first child. Young parents with their first child usually have to cope alone with the daily routine of infant care. This is unfortunate, since a child makes its largest developmental advances during its first 6 months of life.

This film offers the necessary information to enable the parents to accept their child as a human being, in whom inherent desires and abilities are to be found, far greater than just the necessities of eating and sleeping.

The film shows that infant care is not a one-way process, but is a mutual relationship between partners. The relationship is demonstrated clearly in the areas of mimic, acoustic and gesticulatory signals. The infant shows what he needs and feels at different ages - directly after the birth, and under normal routine care in the family.

In such an open relationship the infant quickly develops a wide repertoire of abilities and expressions. The film presents psychological and biological knowledge in the areas of communication, learning ability and inborn requirements. The film ends with a short summary in which the possibilities on infants' guidance are emphasized.

(Projection time: 45 minutes. Gage: 16 mm Sound: magnet-band)

Michael Morath

Correction

In Ian Vine's book review in the December 1983 issue, "face-value dichotomy" (16th line for the bottom of p.6) should read "fact-value dichotomy."

CURRENT LITERATURE

Please send information for this section to the editor.

Articles and Chapters

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Intramural activity at NICHD

In spite of scarce resources developmental psychology is increasingly supported in the Intramural Program at NIH. Steven Suomi has recently been appointed Director of the newly formed Laboratory of Comparative ethology in NICHD. Support for his appointment includes research facilities and positions from NIMH. The Laboratory will include the animal studies Steve formerly directed at the University of Wisconsin and a section on human studies called The Child and Family Research Section (the section formerly headed by Leon Yarrow and currently by Frank Federsen). A third section, called The Brain and Behavior Section is headed by Dr. David Symmes. These changes reflect the general trend at NIH toward increased commitment to animal models and biological explanatory mechanisms and a more serious effort to do comparative studies investigating similar problems in animals and humans. (From the Newsletter of APA's division on Developmental Psychology.)

1984 INTERNATIONAL PRIZE

The Fyssen Foundation's general aim is "to encourage all forms of scientific inquiry into cognitive mechanisms, including thought and reasoning, underlying animal and human behaviour, into their biological and cultural bases, and into their phylogenetic and ontogenetic development."

For this purpose, a substantial INTERNATIONAL SCIENTIFIC PRIZE shall be given for a major contribution to the profess of knowledge in the fields of research supported by the Foundation such as ethology, paleontology, archaeology, anthropology, psychology, logic and the neurosciences. It was awarded in 1980 to Professor Andre Leroi-Gourhan, in 1981 to Profession William H. Thorpe, in 1982 to Professor Vernon B. Mountcastle and in 1983 to Professor Harold C. Conklin.

Disciplines considered for the 1984 Prize: Cognitive Psychology and Epistemology.

The nominations should include: a curriculum vitae of the nominee, a list of his/her publications, and a summary (four pages maximum) of the research work upon which the nomination is based.

Nominations for the 1984 Prize of the Fyssen Foundation should be sent in 15 copies to the Secretariat of the Foundation, 194, rue de Rivoli, 75001 Paris.

Date of receipt of nominations: 1st September 1984.

Comparative Psychology Meeting

The Second Annual Meeting of the International Society for Comparative Psychology (ISCP) will be held in Acapulco, Mexico, on September 2-7, 1984. It will be held in conjunction with the XXIII International Congress of Psychology. Symposia will include sessions on Animal Cognition; Behavioral Research in Captive Settings: Behavior Genetics; Cognitive Behavior of Marine Mammals; Invertebrate Behavior; and a session on the history of Comparative Psychology. Contributed papers should be sent to E.J. Wyers, SUNY at Stony Brook, New York, 11974, USA, or to J. Galef, McMaster Univ., Hamilton, Ontario, Canada CNL8S4K1. Registration forms can also be obtained from E.J. Wyers. The organizers of the various symposia in the program are as follows:

<u>Session Topic</u>	<u>Organizers</u>
Invertebrate Behavior	Sally Haralson, California State Univ., Long Beach and John Haralson, California State Univ., Los Angeles, CA, USA.
Animal Cognition	Herbert Roitblatt, Columbia Univ., NY, USA.
History of Comparative Psychology	Tom Cadwallader, Indiana State Univ., Terre Haute, IN, USA and Charles Tolman, Univ. British Columbia, Victoria, BC, Canada.
Behavioral Research in Captive Settings	Gary Greenberg, Wichita State Univ., Wichita, KS, USA.
Cognitive Behavior of Marine Mammals	Ronald Schusterman, California State Univ., Haywood, CA, USA, and Louis Herman, Univ. of Hawaii, Honolulu, Hawaii, USA.
Behavioral Genetics	Jerry Hirsch, Univ. Illinois, Champaign, IL, USA.
ISCP Business Meeting	Ethel Tobach & Everett J. Wyers.

Behavior and general laws: a note

Does behavioral research constitute science of the first order? What are the patterns of individual and interindividual interactions within and between species that contribute to and maintain genetic differentiation of populations? A recent paper shows that demographic models incorporating "active behaviour" are better predictors of species abundance than models which assume that the "behavioural vector" is random. Similar to earlier work (e.g., Anderson, et al., 1982), Taylor, et al. (1983) attempt to account for fluctuations in the relationship between population mean density and variance. However, the recent paper treats populations as "dynamic", with immigration and emigration determined not by "environmental and demographic stochasticity" but by species-typical spacing behavior selected to optimize "fitness" in varying competitive regimes. Thus, as Taylor, et al. (1983) conclude, populations as "static 'patches' are rare".

Research by Chase (1982) on behavioral spacing mechanisms enhances the results of Taylor, et al. (1983) by showing that the patterns of interindividual interaction within population sub-units (i.e., groups) may be "independent of animal type". Linear or near-linear (i.e., transitive) dominance hierarchies are an apparent outcome of "triadic interactions" among conspecifics during "hierarchy formation". In particular, Chase (1982) suggests that there is a very high likelihood of conspecifics interacting in accord with "double dominance and double subordination patterns", where "patterns" represents "behavioral sequences". Animals, then, appear to be most likely to employ behavioral sequences that lead to transitively patterned spacing mechanisms.

Since it can be shown that dominance hierarchies are virtually universal among species that live in groups where competition occurs for limited resources, it seems likely that population mean and variance will be found to be a function of behavioral "tempo" rather than "mode" (see Williamson, 1983). This view suggests that differences among species in response to varying competitive regimes (i.e., species differences in patterns of emigration and immigration) can be explained through an analysis of the variability in frequency duration, rate, intensity and combination of action patterns employed in "triadic interactions". By extension, behavior associated with conspecific spacing patterns may be analyzed from "ego's" point of view for its differential benefits and costs to "inclusive fitness" (McCleery, 1978) and may be studied as genetically "effective" components of phenotypes from which ethological isolation may result.

Recent studies with insects and primates support the "behavioral optimization" approach (McCleery, 1978), in particular, the view that "behavioral dynamics" are non-random population effects (Taylor, et al., 1983) and that "behavioral sequences" are non-randomly employed (Chase, 1982). It can be shown that variance in food (resource) distribution and abundance in time and space is associated with intensity of competition, demographic effects, behavioral patterns, linear dominance hierarchies and genetic differentiation within population sub-units (see Franks and Scovell, 1983; Hausfater, et al., 1982; Olivier, et al., 1981; Fletcher and Blum, 1983). What is required empirically is a single study that quantifies the

relationships among each of these parameters for one species, preferably in a seasonal habitat where emigration and immigration might be monitored in response to short-term fluctuations in resource availability. The prediction of population-level characteristics is expected to depend on "behavioral dynamics" in structured populations whose environmental regimes are neither too "harsh" nor too "permissive" since it is in such conditions that dominance hierarchies (or, by analogy, territories) are expected to operate as behavioral spacing mechanisms (see Wilson, 1975; 1971).

Submitted by: Clara B. Jones, Assistant Professor, Department of Psychology, College of Saint Elizabeth, Convent Station, New Jersey 07961.

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PRIMATE SOCIAL RELATIONSHIPS: AN INTEGRATED APPROACH. R. A. Hinde (Ed.), Blackwell Scientific Publications, Oxford, 1983. 384 pp. £26 hardback, £13.80 paperback.

Reviewed by James R. Anderson, Laboratoire de Psychophysiologie, Université Louis Pasteur, Strasbourg 67000, France.

Casual observation of a group of primates soon reveals much social interaction, and both variability and regularity in the distribution of interactions in time and among group members. What do these patterns mean? If individuals generally behave in order to further their inclusive fitness, this throws up challenges to scrutinise and understand such social phenomena in the short- and long-term. It is not a simple affair. For example, Hinde writes that 'the content, diversity, relative frequency and patterning and reciprocity versus complementarity of interactions may all constitute important characteristics of a relationship' (p. 19). The network of relationships within a group constitutes the group's social structure, and social structure itself is influenced by ecological and demographic variables. Furthermore, individual participation in interactions may depend on factors such as age, sex, health, past experience, who else is present, and 'personality.' Clearly, then, the task of understanding the inter-relationships of these four components of social life (individuality, interactions, relationships, social structure) in terms of development, causation, function and evolution is a formidable one, especially in the case of long-lived and behaviourally flexible primates. This book shows that the goal is attainable: properly framed questions, observations and analyses at appropriate levels can show the sociobiological significance of phenomena which at first sight might confuse, mislead, or simply fail to impress the observer of a group of primates.

Most of the thirteen chapters consist of an introductory section by Hinde followed by several sections to illustrate the subject matter of that chapter, based on observations of caged and free-ranging rhesus monkeys (at Madingley, Cambridge and Cayo Santiago, respectively), or wild vervet monkeys (Kenya) and savannah baboons (Kenya, Tanzania and South Africa). These contributions vary in length from 2 to 8 pages, and each can stand independently as a research report or as a theoretical overview. In this respect the book resembles a densely packed conference proceedings, but with the advantage of liberal cross-references to particularly relevant sections. Because of the book's density and diversity readers will probably select particular sections as they are required, rather than work through it from cover to cover.

Only some of the contributions are mentioned here to illustrate the contents. COLVIN shows that while peer-relationships among young rhesus males are based on a limited set of interactions such as aggression and various forms of play, sibling-relationships and 'strong' and 'weak' peer-relationships are differentially reflected in the complementarity-reciprocity of the interactions. It seems reasonable to talk of 'friendships' among peers. BERMAN finds that the young infant's social network largely reflects that of the mother, with later extension occurring through a process of differentiation. SMUTS later presents evidence for the existence of persisting 'special relationships' in adult male and female olive baboons, a finding which is nicely complemented by RASMUSSEN's observations of higher receptivity and proceptivity by female yellow baboons during consortships with males who also prefer them in nonsexual contexts than during consortships with other males.

Grooming relationships often come under analysis, and two sections present models to account for patterns observed in primate groups: SEYFARTH hypothesizes that high-ranking individuals are attractive as grooming partners and that competition for access to them results in grooming between adjacently ranking individuals, while COLVIN suggests a more positive attraction to others of neighbouring rank.

Dominance rank, largely deriving from that of the mother, and kinship relations are strong determinants of partners, interaction patterns, and relationships (e.g., CHAPAIS, DATTA). These factors may also play a role in the dispersal of males from the natal group, which tends to occur later in macaque males of high rank than in subordinates, possibly due in part to weaker peer-group bonds in the latter (COLVIN). The choice of group into which a male immigrates may be influenced by the nature of intergroup encounters, which are in turn influenced by ecological and demographic factors possibly including whether or not the groups share relatives (CHENEY, LEE).

Chapter 12 focuses on ultimate explanatory factors, with HINDE clarifying sociobiological principles which provide a framework in which to view the data presented throughout the book. WRANGHAM presents his view of the evolution of group life in primates in which female-bonded groups are a basic strategy to improve the individual members' exploitation of resources and in which males figure as secondary rather than central characters. Other sections provide evidence of increased fitness accruing to individuals of high rank, those forming alliances, and those in 'special relationships.'

The book is subtitled 'An Integrated Approach,' which is apt in a number of ways. Almost all of the contributors have been based at one time or another at Madingley, Cambridge. Ten University of Cambridge Ph.D. theses dating between 1974 and 1982 appear in the references, and eight of the authors of the theses contribute between one and eight sections each to the volume, often drawing on data from the thesis research. Containing contributions too by other Cambridge researchers, the book represents an integrated statement of this group's evolving approach to primate social behaviour. Of the sixteen other theses on primates which are cited, eleven are dated 1981 and 1982. In addition, a number of important sociobiological articles on primates which have been published within the last 5 years are described and placed in context, making the book a concentrated source of recent findings and current hypotheses in primate sociobiology.

The degree of integration is acknowledged to be limited by the concentration for data on the multi-male group-living rhesus, baboons and vervets (HINDE, LEE). DUNBAR's comparison of the social systems of Hamadryas and gelada baboons is therefore refreshing, as he shows how superficially similar structures (based on the one-male unit) derive from quite different strategies and dynamics among the group-members. HARCOURT and STEWART then point out that female-female bonds are clearly not the same in cercopithecids as in pongids in which female emigration from the natal group is common. Therefore, while the principles of approaching social relationships are applicable to species with very different social structures, and in the end humans and elephants are considered, the relative importance of specific aspects have yet to be clarified for different systems. One wonders, for example, about the importance of dominance in intragroup dynamics in families of callithricids, and how useful knowledge of dominance and kinship relations could be for understanding dispersal of group members in these species. Much work remains to be done.

Finally, with the notable exception of STEVENSON-HINDE's manipulations in the study of individual behavioural characteristics, almost all of the reported work is purely observational. It is largely left to HINDE to integrate the observational data with that from some experimental approaches to analyzing primate social mechanisms, which he sometimes does in the introductory sections. On several occasions the complementarity of the approaches seemed to be striking and exciting, and this reviewer felt it a pity that this two-pronged approach could not be pursued further. But this is hardly a criticism of an already sizeable book which, if perhaps rather advanced for most undergraduates, is probably a must for anyone doing serious research on primate social behaviour.