Human Ethology Newsletter

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Contents

Newsletter Submissions

Anything which might be of interest to ISHE members is welcome: society matters, suggestions for Forum topics, Mini Communications, Current literature and films, and material for the Bulletin Board such as announcements of meetings, sabbatical oportunities, 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 collum 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.

TRAINING PROGRAMS IN HUMAN ETHOLOGY

With the September 1987 issue of the Human Ethology Newsletter a questionnaire on training programs in Human Ethology was sent out to all members. Since reactions came back at a slow but steady rate, we waited longer than anticipated with publishing the material.

The information is organised in the same format that was used in the 1985 graduate programs booklet published by the Animal Behavior Society Education Committee. The material is ordered by Country in alphabetical order. For each Country or State the information is presented separately for each institution. The following lay-out is used consistently:

COUNTRY

State

Institution Name.
Department Name.
(postal code) City, State (postal code)[1].
Country.
Department chairman. Phone[2].
Degrees offered. 1987 Graduate enrollment.
Person to contact for admissions/inquiries.
If training program is lacking, are postdoctoral fellows in human ethology accepted?

The following information is presented per institution for each current faculty member with interests in human ethology.

Name. Acadamic Rank.
Highest degree. Awarding institution. Year awarded.
Office phone.
General Research areas (up to 5).
Specific Research Specialities.
Age range interests.
Cultures/Societies studied.
Non-human studies (optional).

1. In the Anglo-American countries the postal code comes after the State, whereas in the continental European countries it is placed before the City.

2. National callers have to dial a 0 before the number between brackets. International callers have to dial the number for calling abroad, wait for a signal and dial the country number before the number between brackets.]

The Human Ethology Newsletter is supported in part by the Dobberke Foundation, Amsterdam, Netherlands.

The idea to compile and publish the training programs in Human Ethology came from Randolph Nesse. William Bailey and Michael McGuire helped in designing the lay-out of the questionnaire and of the printed material. The same information will be published in the journal *Ethology and Sociobiology*. Comments and syggestions for the lay-out of future questionnaires concerned mainly the listing of subject areas: these were found ambiguous and arbitrary. Furthermore, numbering them would make it easier to fill in the questionnaire form. These comments are correct. The subject listing was generated from the descriptions members provided for the ISHE directory and was simply printed in alphabetical order. With the next update we may try to produce a more systematic subject listing.

AUSTRALIA

Victoria

Monash University
Department of Psychology
Melbourne, Victoria 3168
Australia
Prof. R.H. Day (3) 565-4000
DEGREES: MSc., Ph.D. ENROLLMENT: 1
CONTACT: Dr. D.M. Thomson

Dr. Stella Crossley — Senior Lecturer
D.Phil. — Animal Behav.Unit, Oxford, U.K. — 1964
(3) 565-3959
Children; Attachment; Autism; Down's syndrome; Sibling relationships
All 2-6 years
Australian = mixed culture

CANADA

Ontario

University of Western Ontario
Psychology
London, N6A 5C2
Canada
W.J.McClelland (519) 661-2066

J.P. Rushton — Prof.
Ph.D. — London — 1973
Psychology; Development; Personality; Twins; Altruism

WEST GERMANY

Max-Planck-Institut
Forschungsstelle für Humanethologie
D-8131 Seewiesen
Germany
I. Eibl-Eibesfeldt (8157) 29-385
DEGREES: Diplom.Biologe; Dr.rer.nat., Dr. med.
CONTACT: Karl Grammer-Wulf Schiefenhövel

I. Eibl-Eibesfeldt — Professor
LMU- — München — 1969
(8257) 29-385
Culture; Communications
Prenatal; Neonatal; Infancy; Preschool; Childhood; Adolescence; Adulthood; Aging; Life-span
Yanomame; Himba; Bushmen; Eipo; Bali; Trebrianel

Karl Grammer — Wiss. Assistent
Dr. rer. nat. — Ludwig-Maximilian Universität München — 1982
(8157) 29-408
Appearence; Communications; Sociobiology; Ecology
Courtship, social problem solving
Preschool; Childhood; Adolescence

Margret Schleidt — scientific assistent
Dr. rer. nat. — Univ. of Freiburg — 1955
(8157) 29-404
Emotions; Communications; Social beh.; Culture; Motivation
Odour, time structure in connection to behaviour, mimic
Birth to death
Industrialized and non-industrialized cultures
Higher apes concerning the above research areas

ITALY

Universita 'della Calabria
Dept. Scienze Dell'Educazione
87030 Rende (Cs)
Italy
Prof. P.A. Bertacchini (984) 393358/391853
CONTACT: Prof. G. Trebisacce
Post-doctoral fellows accepted

M.L. Genta — Professore associato
Specialization in Psychology — Milano Univ. — 1975
Communications; Parents; Primatology; Social behavior; Sociobiology
Mother-infant early communication in prematures and full-term infants
Neonatal; Infancy
Middle SES mother-infant dyads (Southern Italy)

Angelo Tartabini — Prof. Stabilizzato
Laurea — Camerino University — 1970
Primatology; Development; Parents; Social organization
Parent-child interaction in rhesus monkeys
Neonatal; Infancy
Mother-infant rejection in groups of rhesus monkeys

NETHERLANDS

Paedological Institute of the City of Amsterdam
Dept. of Research & Development
1076 CV Amsterdam
Netherlands
Dr. F.X. Plooij (20) 6643321
CONTACT: F.X. Plooij
Post-doctoral fellows accepted

Frans X. Plooij
Ph.D. University of Groningen, Netherlands 1980
(20) 6643321
Development; (mental) Health; Parents; Attachment; Peer-

peer relations
Control System Theory, developmental reorganisations, regressions, stress
Infancy; Preschool; Childhood
Dutch
Behavioural development and mother-infant relations in free-living chimpanzees

Catholic University of Nijmegen

Dept. of Comparative and Physiological Psychology
6500 HE Nijmegen
The Netherlands
Prof. J.M.H. Vossen (80) 512544
DEGREES: M.Sc. ENROLLMENT: 23
Post-doctoral fellows accepted

P.J.A. Timmermans Ass. Professor
Dr. University of Nijmegen 1978
Development; Mental Health; Parents
Non-human primates: the causes of phobic behaviour

Free University

Department of Human Genetics
Amsterdam
Netherlands
A. Eriksson (20) 548-2764
CONTACT: Jan Wind

Jan Wind Lecturer
MD., Ph.D. Free Univ. 1960, 1970
(20) 548-2764
Antropol. (phys).; Evol. (paleo anth.); Sociobiology; Mother-child interaction
Origins of speech during evolution
E. African cultures

UNITED KINGDOM

University of Sheffield

Department of Psychology
Sheffield, Yorkshire S10 2TN
U.K.
Dr. P.K. Smith (724) 768555 ext. 6548
DEGREES: Ph.D. ENROLLMENT: 2 (total graduate school c-20)
CONTACT: Dr. C.P. Spencer
Post-doctoral fellows accepted

Dr. P.K. Smith Reader
Ph.D. University of Sheffield 1970
(742) 768555 ext. 6548
Play; Social development; Grandparents; Aggression; Observation
Play Behaviour
Preschool; Childhood; Infancy
U.K.

Kevin J. Connolly Professor
Ph.D. University of London 1969
(742) 768555 ext. 6544
Develop Motor; Genetics; Handicap; Reproduction; Social organisation
Hand function and skill, motor coordination; genetics and evolution of behaviour; infertility; physical handicap
Infancy; Preschool; Childhood
Britain, Western Highlands Province PNG, Chinese
My work on behaviour genetics is with Drosophila.

Lancashire Polytechnic

School of Psychology
Preston, Lancashire PR1 2TQ
U.K.
Mr. P.M. Young (772) 22141
DEGREES: M.Phil/Ph.D. by research
ENROLLMENT: 0
CONTACT: Dr. J. Archer
Postdoctoral fellows accepted

John Archer Principal lecturer
Ph.D. University of Bristol (U.K.) 1969
(772) 22141 ext. 2259
Gender; Dominance (aggression); Social behaviour; Development (social)
Aggression (naturalistic approaches/in humans and animals).
Gender differenses (observations + interviews)
Childhood; Adolescence; Adulthood
Western culture
Animal aggression

UNITED STATES OF AMERICA

California

University of California, Davis

Psychology Department
Davis, California 95616
U.S.A.
Dr. A. Harrison (916) 752-1880
CONTACT: Bill Antaramian

G. Mitchell Professor
Ph.D. Univ. of Wisconsin 1966
(916) 752-6532
Primatology; Development; Gender; Soc. Org.; Parents
Primate behavior; Zoo research; Sex difference
Infancy; Preschool; Childhood; Life-span
U.S.A.
Human-animal interactions in zoos

University of California, Los Angeles

Anthropology
Los Angeles, California 90024
Prof. Allen Johnson (213) 825-52511
DEGREES: No, but biological- or cultural Anthr. can lead to specialisation that is in effect human ethology/sociobiology/behavioral ecology
ENROLLMENT: 23
CONTACT: Ms. Anne Walters
Post-doctoral fellows accepted

Michael J. Raleigh Associate Professor
Ph.D. U.C. Berkeley 1977
(213) 825-0565
Anthropology-physical; Dominance (leaderschip, aggression); Mental health (psychiatry); Neuroscience (ethology); Primatology
Biological cause and consequences of dominance; animal mo-

dels of psychiatric disorders
Adulthood; Adolescent
N/A
Vervet monkeys

Joan B. Silk — Asst. Prof.
Ph.D. — University of California, Davis — 1981
(213) 825-2655
Phys. anthropol.; Reproduction; Evolution; Social behavior; Primatology
Reproductive strategies
Life-span; Adulthood; Infancy
Nonhuman primates, (macaques, baboons, chimpanzees)

Nadine Ruth Peacock — Assistant Professor
Ph.D. — Harvard University — 1985
(213) 206-3306
Anthropology-Biological; Methodology-observation; Reproduction; Endocrinology; Gender
Foraging societies, sex differences, reproductive ecology, behavioral physiology
Life-span
Efe pygmies (Zaire), Lese horticulturalists (Zaire)

Robert C. Bailey — Asst. Professor
Ph.D. — Harvard University — 1985
213-206-3307
Sociobiology; Demography; Sex differences; Mate selection; Observation methods
Socioecology of foraging peoples. Comparative demography of African populations. Growth patterns of African pygmies.
All ages
Efe Pygmies of Northeastern Zaire
Field studies of the behavioral ecology of squirrel monkeys in the Upper Amazon.

N. Blurton Jones — Professor
Ph.D. — Oxford — 1964
(213) 825-8315
Behavioral Ecology; Development; Parent-offspring; Economics (resource acquisition and -distribution); Methodology (computers and observation)
Birth spacing and costs of children in foraging societies. Parent-child interaction, mortality and child care.
Children; Grandmothers
!Kung, Hadza, U.K.

University of California at Los Angeles
Psychiatry/Biobehavioral sciences
Los Angeles, California 90024
U.S.A.
L.J. West, M.D. (213) 825-0705
DEGREES: NA: M.D. is only degree offered in medical school ENROLLMENT: 4
Post-doctoral fellows accepted

Michael T. McGuire — Professor
M.D. — University. of Rochester, NY. — 1960
(213) 825-0705
Communication, Neuroscience; Social Behavior
Psychiatry, Physiology
All ages
NA
Vervet monkeys, study behavior-physiology interactions

Hawaii

University of Hawaii at Manoa
Political Science
Honolulu, HI (Hawaii) 96822
U.S.A.

Glendon Schubert — University professor
Ph.D. — Syracuse University — 1948
Communications; Dominance; Neuroscience; Culture; Sex differences
Political Science
Life-span; Aging; Adulthood
American, Canadian, Australian, Swiss, South African

Illinois

Northern Illinois University
Political Science
DeKalb, Illinois 60115
U.S.A.
Clark Neher (815) 753-1011
DEGREES: None - MA + Phd. in Politics and the life sciences
CONTACT: Dr. Brantly Womack
Post-doctoral fellows accepted

Thomas C. Wiegele — Professor
Ph.D. — Univ. of Pennsylvania — 1967
(815) 753-9675
Political science; environment
Social impacts of biotechnology
Life-span
U.S.

Iowa

Coe College
Dept. of Psychology
Cedar Rapids, IOWA 52402
U.S.A.

Fredrickson, Lowry C. — Professor
Ph.D. — Univ. of Iowa — 1967
(319) 399-8709
Development; Evolution; Parents; Social behavior; Social organization
Preschool child: with emphasis on low socio-economic families
Preschool; Infancy; Childhood
U.S.A. rural-urban

Michigan

The University of Michigan
Evolution and Human Behavior Program
Ann Arbor, Michigan 48109-1070
United States
Progr. Coord.: R. Nesse, M.D. (313) 936-2526
DEGREES: Individualized interdepartmental degree program - participating departments are Psychology, Biology, and Anthropology
Post-doctoral fellows accepted

David Buss — Associate Professor
Ph.D. — University of California-Berkeley — 1981
(313) 747-3953
Social Behav.; Personality; Sex differ; Dominance; Mate Selection
Sex differences, social conflict, human mating selection
Adulthood; Adolescence; Life-span
33 cultures, including African, Asian, South American, European

Randolph M. Nesse — Associate Professor
M.D. — Univ. of Michigan — 1974
(313) 764-5348
Psychiatry; Personality; Cooperation
Anxiety and mood disorders
Adults; Children

Barbara Smuts — Assistant Professor
Ph.D. — Stanford Univ. — 1982
(313) 747-3931
Primatology; Reproduction; Social Behav.; Development; Emotions
Mate selection; friendship; long-term bonds
Adulthood; Lifespan
Species: Baboons; chimpanzees; bottlenosed dolphins. Focus: dynamics & evolutionary significance of long-term relationships.

Richard Wrangham — Associate Professor
Ph.D. — Cambridge Univ., England — 1975
(313) 764-7154
Primatology; Social Behav.; Anthropology; Social Organizations; Behavioral Ecology
Group studies in primates & humans; diet and social organization in nonhuman animals; evolution of inter-group relationships in nonhuman animals and humans
Lifespan;
Walese, Zaire
Foraging strategies, social organization, and communication in wild chimpanzees

New Mexico

University of New Mexico

Department of Anthropology
Albuquerque, NM 87131
U.S.A.
Karl Schwerin(505) 277-4524
DEGREES: Ph.D. — ENROLLMENT: 11 (Biosocial Anthropology)
CONTACT: Jane B. Lancaster

Jane B. Lancaster — Professor
Ph.D. — University of California, Berkeley — 1967
(505) 277-4323
Reproduction; Life-span; Parental investment; Primatology; Human evolution
Evolution of human reproductive strategies: mate choice and parental investment
Life span; Adolescence; Adulthood
Humans in Albuquerque
Vervet monkeys, Zambia

James S. Chisholm — Assoc. Prof.
Ph.D. — Rutgers — 1978
(505) 277-5005
Anthropology; Culture; Development; Evolution; Parents
Parental investment theory, life history theory, child health and development
Prenatal; Neonatal; Life-span
Navajo, Aboriginal Australians

Hillard S. Kaplan — Assistant Professor
Ph.D. — University of Utah — 1983
(505) 277-1541
Resource acquisition & distribution; Cooperation; Parental investment; gender; Human evolution
Evolution of cooperation, parental investment and sex roles among hunter-gatherers and foragers-agriculturalists
Life-span; Infancy through adulthood
Ache foragers in Paraguay and Machiguenga, Yuminahua and Piro Indians in Peru

FORUM

The Politics of Conflict Versus an Ethology of Harmony?

by Ian Vine, Interdisciplinary Human Studies, University of Bradford, Bradford BD7 1DP, England.

Reading L.F. Lowenstein's FORUM contribution on the prerequisites for world peace (*Human Ethology Newsletter*, Dec. 1987: discussion of the "Statement on Violence" in the June 1987 issue), I was struck by his claim that we almost passively accept on an international scale the aggressive conflicts that we do not accept within our own liberal societies. What we lack and require, he suggests, is some authority with the power to exert effective control supra-nationally. This would need widespread commitment to an appropriate global body, taking precedence over national or other partisan loyalties. Moreover, nations not directly involved in a given conflict would have to see its solution as their own joint responsibility. The first step would involve obliging warring nations to stop, and the second would be to provide mediation.

Lowenstein offers some specific proposals about how to conduct negotiations once mediation is under way. Yet the first priority is to separate each side's military forces, and here all he can suggest is deploying precisely that international police force that we have failed to create. Surely we must start by considering just why nations will *not* create such an authority — or in effect why the United Nations is little more than a talking-shop? And the real starting point for ourselves is whether an ethological perspective gives any special insights into its failure? Here we immediately encounter the basic problem of political ethology — that of scale.

Ethology offers us tools for understanding the behaviour of individuals who are socialized into small and primarily face-to-face groups, and acquire modes of social adjustment which tend to restrain interpersonal conflict and destructive violence. Animal models primarily invoke only very simple mechanisms for reacting at the inter-group level, based largely on concepts like territorial attachment and xenophobic reactions to

strangers. In the absence of anything much like organized and sustained political warfare in the non-human animal kingdom, there has been little impetus for much complex theorizing about inter-group relations. Critical reactions against the simplistic extrapolations made by Lorenz, Ardrey, and other 'pop' ethologizers rightly discredited such endeavours.

Contributors to Reynolds, Falger & Vine (1987) have attempted to advance the theoretical frontiers somewhat further, within a broadly sociobiological perspective. In our Introduction we pointed to the distinctive human capacity to extend the in-groups we identify with beyond close kith and kin — by means of conceptual abstractions. But we also noted that "in the daily practices of most of us, the extension of social identity does tend to stop somewhere" (p.xix). This is partly determined by the immediate context, but significantly by our culture's socio-economic history. Several authors suggested tentatively that loyalties towards more inclusive social groupings tend to be more fragile than those to smaller ones which reflect sustained and intimate face-to-face relationships amongst persons whose adaptive behaviours are highly interdependent. Given our evolutionary development within such primary groupings, such biases in favour of smaller in-groups could have been actively selected for. Alternatively, it could be that identifications with large groupings simply over-tax our cognitive — or more probably our affective — mental apparatus.

Further study of these issues, and of related ones concerning how social identification phenomena are linked with our basic motivations and capacities like sympathy for others, may offer insights which can contribute to a practical optimization of inter-group relations. Yet from the clues already available, they may not point at all in the direction of world government or international military forces. If our priority is to maximize in-group harmony, co-operation, and moral or material equality, it may well be that nation-states are already far too large. In relative terms our modern societies may be marked by shared norms and social order internally. But many of them are far indeed from that ideal. Inter-group conflict and coercive exploitation can take on very substantial proportions within societal boundaries, as the most casual glance at countries like Israel, South Africa, and Northern Ireland reveals.

Inter-group conflicts at all levels usually hinge upon issues of relative power. Here ethologically rooted theories might offer constructive proposals for minimizing and resolving disputes between neighbouring groups at, say, the village level. If there was the political will for societies to reduce central authority, and move towards de-centralized communities, that input might be important. But having allowed the emergence of vast nation-states, with the central power to mount nationalistic aggressive adventures against each other, we have moved into a realm of politico-economic phenomena far removed from the constraints of intimate face-to-face relationships. The United Nations is largely ineffective because the great world powers are not willing to forego their disproportionate influence on international affairs. They might like some relatively neutral intervention to separate Iran and Iraq. Yet would the U.S.A. want a settlement of that or any other international dispute that weakened its own balance of power with the U.S.S.R.? Would the latter accept any world force strong enough to override its own perceived interests?

I see no serious prospect of the most powerful nations allowing creation of a political authority that could actually oblige them to surrender any of their international hegemony — e.g. to prevent their interference in the affairs of Nicaragua or Afghanistan. Nor indeed would I welcome any new military superpower force which they were prepared to tolerate — because that would have to be one which each thought they could manipulate in their own partisan interests. Even if it restricted the direct loss of life through international wars, it would as surely sustain the kinds of exploitative international relations which indirectly create the levels of misery and early death that are rife in the Third World already. Perhaps the one way in which ethology can offer a general input to the problem of international conflict is through helping to highlight the pervasiveness of exploitative social realtions — whether overtly coercive or not. We can also contribute to the understanding and promotion of the social strategies by which manipulative deceptions and exploitative aims can be resisted by their victims, and whereby the inequalities of power which generate conflict can be reduced.

If ethologists have a distinctive contribution to make in the political sphere, it is surely likely to be most potent at the small-group level. It seems most unlikely that the future of our species can be directed progressively by benevolent individuals and groups gaining control of the international political hights. Although it must be a long-term and even remote hope, we might just do it by taking steps to reduce the functional scale of human social affairs in as many spheres as is practical. The slogan 'small is beautiful' may not yet have grabbed the public imagination sufficiently in appropriate ways — but that is partly because its relevance to group relations remains largely unrecognized. Perhaps it is time for ethologists and ecologists to join forces and provide the scientific base for new political endeavours?

Reference:

Reynolds, V., Falger, V.S.E. & Vine, I. (eds) (1987). *The Sociobiology of Ethnocentrism: Evolutionary Dimensions of Xenophobia, Discrimination, Racism and Nationalism.* London: Croom Helm, and Athens, GA: University of Georgia Press.

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).

The Undergraduate Course in Child Psychology: a Lecture on Ethology

by: William T. Bailey, Psychology Department, Tulane University New Orleans, LA 70118 USA.

A number of years back we ran several articles in the Newsletter dealing with individual member's course outlines, reading lists, etc. from their "ethologically" oriented lectures and courses. My comments this month concern the lecture on "Human ethology and the ethological approach to the study of human behavior and development" which I give to my students in my Child Psychology course when we are dealing with theories of development.

Since this is an upper division course, I assume that after several years at university, the students have some general knowledge of evolution. No doubt I'm overly optimistic. I do

know that, unless they've previously taken the animal behavior course, they've never even heard of "ethology". Some of what I say to them has already appeared here in previous columns. What I present here is an expanded version of the lecture I actually give. With repitition, examples, asides, etc. this version takes about two hours of class time.

The underlying basis of the ethological approach to the study of behavior is *EVOLUTIONARY THEORY* (Darwinian, that is). **ETHOLOGY IS THE STUDY OF BEHAVIOR FROM THE VIEWPOINT OF EVOLUTION.**

The concept of the *Environment of Evolutionary Adaptedness* is essential in ethological discussion of human behavior. This is defined as the environment to which a behavior was adapted during human's evolution as a species (see Bowlby, 1982).

Even among those who wear the label there is an apparent lack of consensus as to what *Human Ethology* is and how it operates. I define Human Ethology as *the behavioral science which describes and explains human behavior from the viewpoint of evolution.* To achieve this it observes behavior across a spectrum of conditions, ranging from the most unobtrusive — where only the presence of the observer encumbers the "naturalness" of the situation, to highly controlled manipulative experiments.

Human Ethology further seeks to explain the history and occurrence of behavior. It attempts to unriddle the long range, phyletic (or evolutionary) history of how humans as a species acquired a behavior, and in addition, how a given individual developed the behavior. Finally, Human Ethology tries to determine "why". In an evolutionary sense this means establishing function — that is how the behavior, in the *environment of evolutionary adaptation,* contributed to survival and/or reproductive success. In proximal or contemporary time, Human Ethology tries to determine the mechanisms associated with the occurrence of the behavior; the conditions under which the behavior occurs — when it will occur, where it will occur, under what environmental conditions (internal as well as external).

Human Ethology is subsummed by *Ethology.* It is distinguished as that part of ethology which has as its specific subject matter human behavior. Nothing about human ethology is incompatible with ethology — as a broader discipline not restricted in its subject matter. Nor, in principle, is Human Ethology incompatible with other behavioral disciplines (e.g. anthropology, behavioral ecology, or psychology) which are more limited in breadth of field.

Most ethologists who study humans focus on either infancy and early childhood or parents and parenting. Some do however, focus on adolescent or adult behavior (other than parenting, e.g., aggression).

My suggestions as to what characterizes Human Ethology studies are of course mere restatement of Niko Tinberen's deservedly famous four principles (Tinbergen, 1963). My statement as to how we study behavior flows from his descriptions of his work.

One of the most important, classical, articles in ethology is Niko Tinbergen. (1963). On aims and methods of ethology. *Zeitschrift für Tierpsychologie, 20,* 410-433. In this seminal article, Tinbergen, who was awarded the Nobel Prize for Medicine or Physiology in 1973 for his studies of behavior, listed four essential question concerning a behavior. The questions concern the **history** and **cause** of the behavior in **evolutionary** and **contemporary** contexts. (Note, Konrad Lorenz and Karl Von Frisch shared the Nobel Prize in 1973 with Tinbergen.)

	History	Cause
Ultimate (evolution)	Phylogeny	Function
Proximate (today)	Ontogeny	Proximate Cause

The four questions are:

1. **PHYLOGENY:** why does this species solve this problem in this way? What is the species long-term history of the behavior? Phylogeny deals with species development, evolutionary acquisition of species characteristic — behavior or otherwise.

2. **FUNCTION:** in terms of the species long-range history, what is the value (survival and/or reproduction) of the behavior? Example from infant-mother attachment: function is protection. The question about function is how, in the *Environment of Evolutionary Adaptation,* behavior contributed to survival and/or reproduction. For example, Infant-mother attachment, infant needs protection in environment of evolutionary adaptation. That's why species acquired their behavior.

3. **ONTOGENY:** how did this individual grow up to be one who behaves or responds in this way? Ontogeny concerns individual development, how an individual acquired the behavior (or other characteristic). When we consider ontogeny, we're speaking about a specific individual baby, a specific mother, at a specific time.

4. **PROXIMAL CAUSE:** why did the behavior occur here and now? What is the immediate cause of the behavior. The Proximal Mechanism or Cause concerns when, how, and where the behavior occurs. Note that for proximate cause there is no specific term other than that. See also N. Blurton Jones (1972) "Characteristics of ethological studies of human behavior" in his book.

An appreciation of the difference between ultimate and proximate may help resolve the nature-nurture problem in developmental studies. This concerns the distinction between how the species acquired the behavior and how an individual acquires it.

Having some idea about survival and eventual reproduction may be an advantage for understanding behavior. For instance, infant temperament (easy and difficult) provides an example of the adaptive value of infantile characteristics, which may not be apparent under the conditions which prevail in most "modern" societies. Although there is disagreement on how to best measure temperament and what the causal and modifying phenomena are, there seems to be a consensus that some infants are "easier" than others, while some are notoriously "difficult". Most researchers and discussants have, however, been unable to explain *why* some are easy, some difficult. Wouldn't it make more sense, for example, if all babies were easy? Under modern conditions in indusstrialized economies, where in general the essential requirements for survival are available to all and where the vast environment-related swings (e.g. drought) in essential resource requirements are seldom experienced, this might seem likely. Yet, mankind has not long lived under such conditions nor do they exist for all of humanity even now. Where critical conditions are likely to fluctuate, as they have throughout so much of our existence, then it may well be adaptive for alternative stratigies (easy/difficult) to have evolved. There is some evidence supporting this position.

Supporting evidence is reported in a recently published study which investigated temperament among the Masai of east Africa (deVries, 1984). The temperament of infants was as-

sessed when they were 4-5 months old. Four months later the researchers returned to the tribe. In the interim the tribe had experienced severe ecological stress and food was in quite short supply. The investigator found that a disproportionate number of the children who had survived had initially been assessed as "difficult". It seems that when all is well, parents might prefer and respond more positively to an "easy" baby. but it may well be that when essential requirements are scarce, the difficult child — who is active and annoying, might get more attention and food and might out survive the easy babies who were cute and content — and ignored and starved! There are also many non-behavioral traits which paradoxically are survival related (e.g., sickle-cell anemia).

Before answering Tinbergen's four questions we must have a sufficient description of the behavior in question. Ethologists believe it is important to collect a lot of information about the behavior in question. We need a good general description first. Peter Medewar (quoted in Blurton Jones, 1972) noted "it is not informative to study variations of behaviour unless we know beforehand the norm from which the variants depart." We need to know a lot about "normal" or "natually occurring" behavior before we start suggesting whether what we are seeing is normal or not.

The *nature-nurture controversy* in part arises because of failure to distinguish between *adaptation* (function) and *development* (ontogeny). It may be easier to investigate, understand a behavior when we know what it is designed for (through selection), and this gives us a goal for our analysis of causation or development.

Some consideration of the concept of *naturalness* needs to be given here. In any attempt to define ethology, very early on one must deal with this concept. For many, including some ethologists, "naturalness" is an *essential* aspect of ethology. They define ethology in terms of "naturalistic observations". By this they mean unobtrusively observing — without manipulating, the behavior of an organism in its naturally occurring environment.

Some researchers speak of doing "ethological" study in which they conduct "naturalistic observations." For instance, a strange man sits in the living-room, ignoring everyone and softly speaking into a microphone. Forgetting the parent's feelings, I suspect the baby must find it al *un-natural* indeed! As noted above, like Tinbergen, Lorenz, von Frisch, and many others, I believe that you can not fully understand an organism (Homo or otherwise) and its behavior unless you have some degree of control over aspects of its experiences. Yes, even good ethologists do experiments.

Gilbert Tunnell (1977) has published a remarkably good discussion of "naturalness" which I very much recommend to you. He notes that there are (at least) three dimensions of naturalness: natural behavior, natural setting, and natural treatment. The researcher's goal is to optimize naturalness; this may well require less naturalness in one dimension (e.g., setting) in order to maximize it in the others.

Final comment. *The students receive a copy of the reading list given here (which they are not actually required to read). They also get a copy of the Society membership form — which most probably throw away, but we have to keep trying!*

In addition to this "intro" lecture, I present numerous examples of "ethologically relevant" research where appropriate throughout the course. For example, Konner's (1987) findings on birth spacing among the !Kung and Wodson's (1984) comments on the newborn's being prepared by evolution for making the transition to extrauterine life when we are discussing pregnancy and birth.

I assume that many of you include some "ethological" ideas and data in yhour lectures, even when the course is in some "conventional" area of your discipline. It might be a good time for others to submit their notes, reading lists, syllabi, etc. I would appreciate any comments you might have concerning the lecture I have presented here.

References and Readings:

Bailey, W.T. From an ethologist's journal. *Human Ethology Newsletter.* (various issues)

Blurton Jones, N. (1972). Characteristics of ethological studies of human behaviour. In N. Blurton Jones (Ed.), *Ethological studies of child behaviour* (pp. 3-33).

Bowlby, J. (1957). An ethological approach to research in child development. *British Journal of medical Psychology,* 30, 230-240.

Bowlby, J. (1982). *Attachment. Vol. I. Attachment and loss* (2nd ed.). New York: Basic Books.

Charlesworth, W.R. (1986). Darwin and developmental psychology. *Human Development,* 29, 22-35.

deVries, M.W. (1984). Temperament and infant mortality among the Masai of east africa. *American Journal of Psychiatry,* 141, 1189-1194.

Hinde, R. (1982). *Ethology. Its nature and relations with other sciences.* (see Ch. 14, "Developmental psychology").

Konner, M. & Shostak, M. (1987). Timing and management of birth among the !Kung. *Cultural Anthropology,* 2, 10-28.

Tinbergen. N. (1963). On aims and methods of ethology. *Zeitschrift für Tierpsychologie,* 20, 410-433.

Tinbergen, N. (1968). *Curious naturalist.* New York: Doubleday. (originally published 1958).

Tinbergen, N. (1972). Functional Ethology and the human sciences. in N. Tinbergen, *The animal and its world* (vol. 2, pp. 200-231).

Tinbergen, N. (1972). *The animal and its world* (vol.s 1 and 2) Cambridege, MA: Harvard University Press.

Tunnell, G.B. (1977). Three dimensions of naturalness: an expanded definition of field research. *Psychological Bulletin,* 84, 426-437.

Woodson, R. (1984). Newborn behavior and the transition to extrauterine life. *Infant Behavior and Development,* 6, 139-144.

BOOK REVIEWS

Evolution as a Religion: Strange Hopes and Stranger Fears.

London and New York: Methuen, 1985. ISBN 0-416-39650-X and 39660-7. Pp. 180. By Mary Midgley.

Reviewed by Ian Vine.

Interdisciplinary Human Studies, University of Bradford, Bradford, BD7 1DP, England.

Almost by definition, most human ethologists are strongly committed to the theory of evolution. And for most of us an evolutionary perspective makes any theological explanation of the

world redundant. What Richard Dawkins calls the 'blind watchmaker' perspective can in principle explain all levels of organic complexity and adaptedness naturalistically. How then are we to react to the claim that evolutionary biology often functions as a substitute myth, quite akin to what many of us regard as irrational religious faith? Are we really being asked to believe that science is not an antidote to superstition, and that its apparent truths are just as mythical?

In fact Midgley's book is far less outrageously provocative than its title may suggest. A moment's reflection should remind us that scientific 'truth' must always be provisional and revisable by the very nature of the enterprise. And equally, no empirical fact or explanatory theory can of itself provide us with undisputable — or even tentative — values by which to direct our lives. The scientific method can generate ways of viewing the world which have demonstrated pragmatic utility on a profound scale. Nevertheless, any scientific theory, however well confirmed, is simply one way of seeing reality, and rests upon assumptions and decisions which ultimately need justifying from outside science itself. Science may give us the best explanatory meanings — in terms of cognitive prediction and control of our experience. But it is in no way a *complete* route to 'the meaning of life', since we may also seek meaning in aesthetic, moral, and other senses too. And these simply *do not compete* with science, because their scope is not that of naturalistic explanation. In all these respects, and for all its power, science is a modest endeavour. Darwin knew that well — and indeed, Midgley dedicates her book to his memory.

Midgley's opponents are all and only those evolutionists who forget such constraints, and assume a sometimes monumental arrogance about what progress in Darwinian biology can warrant. One of her main theses is actually that the Darwinian revolution itself has been incomplete. She detects persistent echoes of a Lamarckian or Spencerian conception of evolution as an 'escalator' — supposedly guaranteed to raise intelligence and the control of nature to ever greater, and in effect 'supernatural', heights. This viewpoint is one that she regards as a pernicious fantasy, most prevalent amongst some enthusiasts of genetic engineering and artificial intelligence. But there are traces of it in the dogmatic confidence of some sociobiologists too — like Edward Wilson himself. Even the pessimistic fatalism of some contemporary 'social darwinists' like Ghiselin, or existentialists like Monod, can be compared, Midgley thinks, with religious mythologies that worship death and destructive gods.

In either case an evolutionary story is pressed far beyond its rightful boundaries, and faith in it far transcends rational limits. Typically the error involves a myopic focus upon some single directional change that is supposedly optimized through natural selection, and a very anthropocentric viewpoint — one that can tempt us into realms of 'superman' mythology. Good science is, she believes, the modest and responsible science of an Einstein or Dobzhansky — informed by something very like religious awe, and fully alert to the dangers of confounding facts with values. It is in marked contrast to the attitude which trusts science itself to generate the technological fixes that will solve our human, social and ecological problems, or which one-sidedly focuses upon our individualistic and hedonistic capacities. What we actually need is to resurrect a more holistic view of ourselves, as well as a more communalistic image of both our human interrelatedness and our place and duties within the natural world at large.

These are all sentiments which I find appealing. And Midgley writes eloquently as an exponent of the no-nonsense, non-technical style of common-sense philosophizing. In a short and accessible book she raises issues that every student of evolution needs to think through carefully. Yet these assets are bought at a cost. Although there is a liberal sprinkling of names, and quotes from the history and contemporary literature of evolutionary thinking, the argument is rather short on rigorous scholarship. Those she scorns are sometimes relatively minor figures, rather dubiously representative of the scientific genres in question. In the end, the question of how pervasive or unitary the kind of blind evolutionary faith she castigates may be remains unanswered. Perhaps more seriously, there are few careful demonstrations of how myths and ideologies have actually distorted the progress of our scientific understanding of evolutionary processes, or contributed to harmful social attitudes and practices.

Without such analyses one is left wondering just how much the ideological superstructures which some evolutionists have erected on top of their more empirical work really matter after all? Midgley is by no means in the same blinkered camp as enemies of 'biological determinism' like Rose, Kamin & Lewontin *(Not in our Genes)*. Yet the relatively superficial analyses here are vulnerable because her book is not visibly free from some of their errors of over-interpretation and bias. Her case cannot, therefore, be taken as gospel-truth. But then she would surely not *want* anyone, approaching this thought-provoking volume in a properly scientific spirit, to take it as *that* anyway. It is not the last word on evolutionary myth-making, yet *Evolution as a Religion* is a lively cautionary tale.

CURRENT LITERATURE

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

Anand, K.J.S., & Hickey, P.R. (1987). Pain and its effects in the human neonate and fetus. *New England Journal of Medicine*, 317, 1321-1329.

Bloom, L., & Capatides, J.B. (1987). Expression of affect and the emergence of language. *Child Development*, 58, 1513-1522.

Borgerhoff Mulder, M. (1987). Adaptation and evolutionary approaches to anthropology. *Man*, 22, 25-41.

Bridges, L.J., Connell, J.P., & Belsky, J. (1988). Similarities and differences in infant-mother and infant-father interaction in the Strange Situation: a component process analysis. *Developmental Psychology*, 24, 92-100. (The data provide for Ethological Theory concerning fathers and children. Fathers are more often a source of social affiliation while mothers are the primary source of protection and security).

Chow, S.L. (1988). Significance test or effect size? *Psychological Bulletin*, 103, 105-110.

Cooper, W.S. (1987). Decision theory as a branch of evolutionary theory: a biological derivation of the savage axioms. *Psychological Review*, 94, 395-411.

Eberhard, W.G. (1987). Runaway sexual selection. *Natural History*, 96(12), 4, 6, 8.

Edelstein, S.J. (1987). An alternative paradigm for hominoid

evolution. *Human Evolution*, 2, 169-174.

Findlay, C.S., & Lumsden, C.J. (1988). The creative mind: Toward an evolutionary theory of discovery and innovation (with commentaries and response). *Journal of Social and Biological Structures*, 11, 1-189. (Sociobiology Research Group, Medical Sciences Building, Room 7313, Unoversity of Toronto, Toronto, Ontario, M5S 1A8, Canada).

Gelman, S.A., & Markman, E.M. (1987). Young children's inductions from natural kinds: the role of categories and appearances. *Child Development*, 58, 1532-1541.

Gopnick, A., & Meltzoff, A. (1987). The development of categorization in the second year and its relation to other cognitive and linguistic developments. *Child Development*, 58, 1523-1531.

Gould, S.J. (1987). Freud's phylogenetic fantasy. *Natural History*, 96(12), 10, 14, 16, 18-19.

Grieser, D.L., & Kuhn, P.K. (1988). Maternal speech to infants in a tonal language: support for universal prosodic features in motherese. *Developmental Psychology*, 24, 14-20. (The "pattern of results for Mandarin motherese is similar to that reported in other languages and suggests that motherese may exhibit universal prosodic features.")

Grossman, F.K., Pollack, W.S., & Golding, E. (1988). Fathers and children: predicting the quality and quantity of fathering. *Developmental Psychology*, 24, 82-91. (suggests fathers' and mothers' parenting "can best be explained by the concepts of complementarity and identification.")

Johnson, J.A. (1987). Dominance rank in juvenile olive baboons, *Papio anubis:* the influence of gender, size, maternal rank, and orphaning. *Animal Behaviour*, 35, 1694-1708.

Konner, M., & Shostak, M. (1987). Timing and management of birth among the !Kung: biocultural interaction in reproductive adaptation. *Cultural Anthropology*, 2, 11-23.

Lee, P.C. (1987). Nutrition, fertility, and maternal investment in primates. *Journal of Zoology*, 213, 409-422.

Litwak, E., & Kulis, S. (1987). Technology, proximity, and measures of kin support. *Journal of Marriage and the Family*, 49, 649-661.

Loehle, C. (1987). Hypothesis testing in ecology: psychological aspects and the importance of theory maturation. *Quarterly Review of Biology*, 62, 397-409.

Mednick, S.A., Brennan, P., & Kendel, E. (1988). Predispositions to violence. *Aggressive Behavior*, 14, 25-34. (Social Science Research Institute, University of Southern California, Los Angeles, CA 90089-1111, USA).

Oliveri, M.E., & Reiss, D. (1987). Social networks of family members: distinctive roles of mothers and fathers. *Sex Roles*, 17, 719-736.

Papousek, M., Papousek, H., & Haekel, M. (1987). Didactic adjustments in fathers' and mothers' speech to their 3-month-old infants. *Journal of Psycholinguistic Research*, 16, 491-56. (Findings favor "the assumption that baby talk is a part of a species-specific didactic support to infant communicative development.")

Parker, J.G., & Asher, S.R. (1987). Peer relations and later personal adjustment: are low-accepted children at risk? *Psychological Bulletin*, 102, 357-389.

Plomin, R. (1987). Why are children in the same family so different from one another? *Behavior and Brain Sciences*, 10, 1-60.

Robinson, S.R., & Smotherman, W.P. (1987). Environmental determinants of behaviour in the rat fetus. I. The emergence of synchronous movement. *Animal Behaviour*, 35, 1652-1662.

Rushton, J.P. (1988). Epigenetic rules in moral development: Distal-proximal approaches to altruism and aggression. *Aggressive Behavior*, 14, 35-50. (Dept. of Psychology, University of Western Ontario, London, Ontario, N6A 5C2, Canada).

Rushton, J.P., & Nicholson, I.R. (1988). Genetic similarity theory, intelligence, and human mate choice. *Ethology and Sociobiology*, 9, 45-57.

Russell, G., & Russell, A. (1987). Mother-child and father-child relationships in middle childhood. *Child Development*, 58, 1573-1585.

Savin-Williams, Ritch C. (1987). An ethological perspective on homosexuality during adolescence. *Journal of Adolescent Research*, 2, 283-302.

Sherry, D.F., & Schacter, D.L. (1987). The evolution of multiple memory systems. *Psychological Review*, 94, 439-454.

Sternberg, R.J. (1987). Liking versus loving: a comparative evaluation of theories. *Psychological Bulletin*, 102, 331-345.

Waldman, B. (1987). Mechanisms of kin recognition. *Journal of Theoretical Biology*, 128, 159-185.

Winkler, D.W. (1987). A general model for parental care. *American Naturalist*, 130, 526-543.

***Child Development*, 58(6), Special section on psychobiological studies of stress and coping. 1987.**

1403. Gunnar, M.R. Psychobiological studies of stress and coping: introduction.

1408. Levine, S., Wiener, S.G., Coe, C.L., Bayart, F.E.S., & Hayashi, K.T. Primate vocalization: a psychobiological approach.

1420. Coe, C.L., Rosenberg, L.T., Fischer, M., & Levine, S. Psychological factors capable of preventing the inhibition of antibody responses in separated infant monkies.

1431. Schanberg, S.M., & Field, T.M. Sensory deprivation stress and supplemental stimulation in the rat pup and preterm human neonate.

1448. Gunnar, M.R., Isensee, J., & Fust, L.S. Adrenocortical activity and the Brazelton neonatal Assessment Scale: moderating effects of the newborn's biomedical status.

1459. Kagan, J., Reznick, J.S., & Snidman. The physiology and psychology of behavioral inhabilition in children.

1474. Bronson, G.W. Blurring the behavioral-biological distinction: a commentary.

Noteworthy articles from Child Development, 59(1). Feb. 1988.

121-134, Cassidy, J. Child-mother attachment and the self in six-year-olds.

135-146, van IJzendoorn, M.H., & Kroonenberg, P.M. Cross-cultural patterns of attachment: a meta-analysis of the Strange Situation.

157-167, Belsky, J., & Rovine, M.J. Nonmaternal care in the first year of life and the security of infant-parent attachment.

168-177, Vandell, D.L., Owen, M.T., Wilson, K.S., & Henderson, V.K. Social development in infant twins: peer and mother-child relationships.

193-196, Zeskind, P.S., & Marshall, T.R. The relation between variations in pitch and maternal perceptions of infant crying.

Books and Chapters

Archer, J. (1988). *The Behavioural Biology of Aggression.* Cambridge: Cambridge University Press.

Berman, P.W., & Pedersen, F.A. (Eds.). (1987). *Men's transitions to parenthood: longitudinal studies of early family experience.* Hillsdale, N.J.: Erlbaum.

Ciochon, R.L., & Fleagle, J.G. (Editors). (1987). *Primate evolution and human origins.* New York :Aldine de Gruyter.

Furness, R.W., & Monaghan, P. (1987). *Seabird ecology.* New York: Chapman and Hill. (some really good comments on ecology and reproductive strategy as well as reproduction and life-span development.)

Gruter, M. & Bohannan, P. (1983). *Law, biology & culture: The evolution of law.* Portola Valley, CA: Gruter Institute for Law and Behavioral Research.

Kinzey, W.G. (Ed.) (1987). *The evolution of human behaviour: Primate models.* Albany, NY: State University of New York Press.

BULLETIN BOARD

New Course at Yale Law School

Ethology of Law: The biological Bases of Legal Behavior

Professors E. Donald Elliott (Yale Law School) and Roger D. Masters (Government, Dartmouth College) will introduce a new Research Seminar on the "Ethology of Law: the Biological Bases of Legal Behavior" at the Yale Law School in the Fall term of 1988. This seminar grows out of work done with the Gruter institute for law and Behavioral Research (see page 12-13), which has previously organized a series of Colloquia and publications on the legal implications of recent developments in the life sciences.

Because this field is developing rapidly, suggestions for readings and topics that complement the description outlined below would be greatly appreciated.

Ethology of Law: the biological Bases of Legal Behavior.

2-3 units. Limited enrollment. This research seminar explores whether the life sciences (as well as economics) may deepen our understanding of law. We begin with the concept of human nature in law, and show how recent scientific research in areas such as evolutionary theory, anthropology, neurophysiology and ethology may illuminate the functions of law, but may also call into question certain of the assumptions upon which laws in various areas have traditionally been based. Authors considered include Alexander, Beckstrom, Holmes, Goodall, Gruter, Margolis, de Waal and Masters. Paper.

Correspondence may be addressed to either: Professor E. Donald Elliott, Yale Law School, Box 401A Yale Station, New Haven, CT 06520; or Professor Roger D. Masters, Chair, Department of Government, Dartmouth College, Hanover, N.H. 03755.

Report on Conference on Facial Measurement and Meaning

by Paul Ekman

Wulf Schiefenhövel and Heiner Ellgring (Max Planck, Seewiesen and München) co-chaired the third European conference, held at Ringberg Castle, lake Tegernsee, West Germany, March 14-18, bringing together researchers using the Facial Action Coding System (FACS) (Ekman & Friesen, 1976, 1978). There were 53 participants, from France, Germany, Hungary, Spain, Switzerland, the United Kingdom, Yugoslavia as well as a few from North America.

The first group of papers included experimental, social, and ethological studies. P. Ekman (University of California, San Francisco) reported not yet published findings differentiating Type A vs. Type B individuals, patients with left vs. right hemisphere brain damage, and honest vs. deceptive behavior. E. Banninger-Huber, F. Steiner & U. Moser (University of Zürich) found that different forms of smiling served to regulate the expression of anger in mixed-sex couple interactions. J. Asendorpf (Max-Planck, München) found that the timing of gaze aversion in relationship to the timing of smiling differentiated embarrassed from non-embarrassed smiles. K. Grammer (Mac-Planck, Seewiesen) examined mixed-sex encounters between strangers, finding that females control male perception of the female, exhibiting laughter to communicate either readiness or aversion depending upon the accompanying posture and body movements. W. Schiefenhövel, M. Schleidt, K. Grammer & B. Lorenz (Max-Planck, Seewiesen) examined nose wrinkling in unstaged social interactions among West-New Guineans and Trobiand Islanders, discovering a similar pattern for the occurrence and timing of this facial expression. R. Ferstl & B. Leplow (Universität Kiel) in a study of how well subjects could identify false from true feedback from facial EMG, found little support for theories which emphasize the role of facial feedback.

The next set of papers concerned expression in various art forms. W. Siegfried & H. Morishita (Max-Planck, Seewiesen) found similarities in how Europeans and Japanese interpret Kabuki facial expressions for most emotions, except that Europeans did not recognize the Kabuki "joy" expression. P. Bouissac (University of Toronto) found some consistencies in a historical and cross cultural examination of how clowns transform the face through their use of make-up. C. Sutterlin & I. Eibl-Eibesfeldt (Max-Planck, Seewiesen) offered an ethological explanation of blank facial expressions and grimace expressions shown in traditional craft and art in many cultures.

Another group of papers dealt with the perception or judgment of expression. T. Pitcairn (University of Edinburgh) explained his hypothesis that the morphology of expression is informative for the perception of only some emotions, while the dynamics of the expression are more relevant in the perception of other emotions. W. Musterle (Eberhard-Karl-Universität, Tübingen) showed a computer graphics cartoon face which is based in part on FACS, and can exhibit statically, different combinations of facial activity. H. Walbott (University of Giessen) in a series of three experiments found that facial expression dominates contextual information in determining emotion attributions, but the relative importance of the two sources also depends on how each source is presented, the relative consonance/discrepancy of the two sources, and the gender of the person depicted. P. Molnar (Szent-Gjogji, Szeged) examined skin conductance and heart rate in response to pairs of faces showing congruent or incongruent emotions, in a conditioning

paradigm.

D. Marx & M. Dietrich (Philipps-Universität, Marburg) led off the papers on the development of facial expression, in a study comparing FACS, Izard's Max, and observers emotion ratings, attempting to differentiate the facial expressions of asthmatic from nonasthamtic children. D. Bret & S. Economides (Université Lyon I) utilized the THEME system to examine temporal patterns in FACS measured facial responses of newborns during three stages of sleep. J. Iglesias, A, Loeches & J.M. Serrano (Universidad Autonoma de Madrid) examined the facial responses of 3 to 6 month infants when they viewed emotional faces, finding that infants at this age may recognize the signal value of some of the primary emotions. H. Ellgring & S. Seiler (Max-Planck, München) measured facial expression, vocalization, gestures and gaze, in 4 to 9 year old children as they watched alive or videotaped puppet play, finding that dramatic events determined the responses more than the medium of presentation. M. v. Salisch (Freie Universität Berlin) found some differences in the facial expressions shown during an argument between friends differing in closeness and in their conception of friendship. J. Ortega (Universidad Autonoma de Madrid) found three different facial expressions shown in various cries in 3 to 5 month old infants. K. Schneider, I. Josephs & D. Friedrich (Ruhr-Universität Bochum) examined the importance of the social demands of the situation in the exhibition of emotions among preschool children. L. Unzar, I. Josephs & K. Schneider (Ruhr-Universität Bochum) reported detailed information on the reliability of FACS scores, and evidence for the stability of individual differences in facial behavior shown by preschoolers.

K. Pataki-Schweizer (Max-Planck, Seewiesen) examined the judgments of facial expressions among Papua New Guineans who have learned English and are attending medical school. F. Schultz (Max-Planck, München) found that facial deformaties impaired the performance of posed emotions. E. Steimer & R. Krause (Universität des Saarlandes, Saarbrücken) compared the interactive behavior of schizophrenic, psychosomatic and healthy individuals, discovering a number of differences in the expressions shown by each patient group and in the behavior of the healthy individuals they interacted with. W. Friesen (University of California, San Francisco) ended the meeting with a workshop on various methodological issues in the analysis and interpretation of FACS scores.

Preliminary plans were made to coordinate the compilation of findings from various studies, and to organize a data archive in which investigators can deposit FACS scoring and videotapes. Heiner Ellgring, (Max-Planck, München) will chair a committee which will pursue these matters. Plans were also made to, prepare a volume reporting new findings on facial expression and to seek support for an international meeting of researchers using FACS in 1990.

Announcements

The **Third International Conference of the Society for Human Ecology** will be held on October 7-9, 1988 near San Francisco. Contact: Jeremy Pratt, c/o Institute for Human Ecology, Golden Gate Recreation Center, Bldg. 1055, Fort Cronkite, Sausalito, CA 94965, U.S.A.

The **2nd International Conference on incest and related problems** will be held on August 12-14, 1988, at the Gottlieb-Duttweiler Institute in Ruschlikon (Zürich), Switzerland. Contact: Virginia Klein, Co-chairperson, 18 South Cadillac Drive, Somerville, N.J. 08876, U.S.A. Or: Gabrielle Hilterbrand, Co-chairperson, Social Pedagogue at "Eltern Notruf", Spiserstrasse 16, CH-8047 Zürich, Switzerland. Tel.: (1) 363 - 3660.

The **Society for Research in Child Development** will meet in Kansas City, Missouri, U.S.A., April 27-30, 1989. Contact: Aletha C. Huston or John C. Wright, Co-chairs, Dept. of Human Development, University of Kansas, Lawrence, Kansas 66045 - 2133. Tel.: (913) 864 - 4406.

The Jean Piaget Archives Foundation announces that its 10th advanced course will be held at the University of Geneva from 10 to 14 october 1988. The theme will be: LANGUAGE AND COGNITION.

The course will deal with various aspects of language, and with the following topics specifically: language theory and acquisition; language universals; language and artificial intelligence; language and communication; neuropsychological aspects of language. One seminar will be devoted to works carried out in this field in Geneva.

This course is primarily intended as a training course for young researchers and advanced students and not as a Conference. "Posters" sessions will be organized as they were in recent years to give the participants an opportunity to make a presentation of their current work. The main speaking language this year will be English. Only a few papers will be delivered in French. Summaries in both languages will be handed out.

People interested in participating should write to the Jean Piaget Archieves (deadline for poster proposals is 15 June 1988). Registration fees amount to SF 250. Contact: Jean Piaget Archives, Rue de Saussure 6, 1211 Genève 4, Switzerland. Tel.: 209333.

Unable to Forward

Newsletter(s) of the following member(s) were returned to sender, although they paid their membership dues recently. Would anyone who knows any of them be so kind to contact and advise them to send me their new address.

John Martyniuk, 1160 NW North River Dr, # 14, Miami, FLORIDA 33136, U.S.A.

Gruter Institute for Law and Behavioral Research

The **Gruter Institute** fosters studies of **interactions between law and human behavior.** In a constructive, yet critical way, it encourages **multidisciplinary scholarship** and discussions between law and legal practice on the one hand and behavioral science based on evolutionary biology on the other. The legal and scientific scholars associated with the institute see a need for informed scientific knowledge as a foundation of jurisprudence, statute and legislation, case law and arbitration. They are convinced that this interplay of law and science will

lead to an enrichment of legal philosophy and a legal practice more aware of scientific knowledge. To this end, education — of lawyers in science and of scientists in law, and of interested persons everywhere — is a primary aim of the Institute.

Workshops, symposia, working teams and conferences have been and will be organized to carry out the aims of the Institute. Results of these efforts have been disseminated in journals, in special publications of the Institute, and in amicus curiae briefs.

A forerunner of the present Institute was the Gruter Law and Behavioral Research Fund at Stanford University Law School, started in 1974. In 1981 the Goethe Institute of San Francisco provided the funding for the Institute's First **Monterey Dunes Conference on Law and Behavioral Research.** The proceedings of this conference were published in 1982 as a special issue of the Journal of Social and Biological Structures and as a book entitled *Law, Biology, and Culture* (M. Gruter and P. Bohannan, Editors). At the same time, a German translation in a somewhat different version was published by Duncker & Humblot, Berlin (*Der Beitrag der Biologie zu Fragen von Recht und Ethik*, M. Gruter and M. Rehbinder, Editors).

The Institute was incorporated in 1983 as a non-profit, tax exempt corporation and an Advisory Board was formed. Other conferences and publications in the United States and in Germany followed, focusing on topics such as Ostracism and Affiliative Behavior. In 1986 *Ostracism: a Social and biological Phenomenon* (M. Gruter and R. Masters, Editors) was published as a special issue of the Journal of Ethology and Sociobiology and as a book by Elsevier Science Publishing Co. Again a somewhat different version was published by Duncker & Humblot, Berlin, in German langage (*Ablehnung, Meidung, Ausschluss*, M. Gruter and M. Rehbinder, Editors).

In April 1986 a workgroup has started to investigate **biological and legal issues** in connection with the new methods and techniques of reproduction. These and other contemporary areas where law has to cope with **behavioral and cultural changes** resulting from new medical technology or other enviromental factors will be explored. The group of scientists and legal scholar presently interested in this work has chosen the term **Ethology of Law** as the concept to best represent this multidisciplinary approach.

The over fifty participants at the various conferences have represented the following countries: U.S.A. Austria, Japan, Netherlands, China, West Germany, Switzerland, England, Pakistan.

These scholars, practitioners, and scientists represented the following fields of research: Law, Political Science, Biology (Evolutionary Biology, Ethology, Neurology, Psychiatry) and the Social Sciences (Anthropology, Economics, Sociology, Psychology).

The **Gruter Institute** is interested in developing contacts with scholars and other persons who would like to participate in or be informed about the institute's multidisciplinary approach to law and the behavioral sciences. You are invited to fill in and return this form to: Gruter Institute, 158 Goya Road, Portola Valley, CA.94025.

Name:_____ Mailing address: _____

Institutional affiliation: _____ _____

Please indicate (√) your field, and or areas of training:

Law _____ Criminal Justice_____

Political Science_____ Life Science_____

Anthropology_____ Ethology _____

Economics _____ History_____

Psychology_____ Psychiatry_____

Sociology_____ Other (please specify) _____

Please indicate any publications or on-going activity related to the goals and interests of the Institute.

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.

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. Oficers of the Society

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