

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

1989 MEETING

The 1989 meeting of the INTERNATIONAL SOCIETY FOR HUMAN ETHOLOGY will take place in Edinburgh, Scotland from the 3rd. to the 7th. inclusive of July 1989. 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.

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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.

Ethology and Disturbed Behaviour in children

by: John Richer, Paediatrics, John Radcliffe Hospital, Oxford.

Paper presented at the BPS London Conference, 18th December 1987, in the Symposium: Ethological Contributions to Psychology.

The association of ethology with the study of disturbed behaviour has not had an uncontroversial history. Many psychologists and psychiatrists have greeted attempts to apply ethological ideas to disturbed behaviour with strong criticism, derision and dismissal. Sometimes this reaction has been deserved. Let me give three examples:

1. Writing in the American Journal of Psychiatry in 1974, Jonas, a psychiatrist, speculates on (I quote his title) "Some evolutionary mechanisms of neurotic behaviour". He tries, for example, to relate obsessive compulsive behaviour to food hoarding in animals, and the formation of stomach ulcers to the decoy behaviour of ejecting the stomach lining by the sea cucumber. Crass extrapolations to human behaviour of ideas relevant to another species have been rightly criticised by non ethologists and ethologists alike.

2. Many ethologists, concerned at the lack of good descriptions of human behaviour, produced long lists of behaviour elements, but not a lot more. To ethologists, who recognised their necessity, these lists were interesting and useful, to others they were boring and apparently a statement of the obvious.

3. Similarly, when some ethologists, especially writing in popular books, redescribed well known everyday behaviour in biological terms and went little further, this was also greeted with yawns or irritation. Irritation because the authors seemed not to be acknowledging the value of work in other fields, and were seen as implying that ethological approaches were the only way to study behaviour, which is not so.

Research approaches are dictated by the research problems.

However, ethological approaches have proved very fruitful, and it is worthwhile examining their contribution to understanding children's disturbed behaviour, in particular the use of the bio-

logical or evolutionary perspective, and the use of prolonged open minded observation of everyday behaviour which is then described in publically observable terms.

Attachment theory and work on children with autism are two well known examples of the use of ethological approaches, but the application is much wider.

For instance motivational conflict behaviour has been well researched by ethologists for decades, surprisingly it has hardly been applied to disturbed behaviour in humans. This may be partly because motivational analysis itself did not fit easily with psychological thinking, it was perhaps seen as too close to untestable psychoanalytical ideas, or perhaps evidence for the existence of a particular motivational system was not appreciated and even seen as suspect. Yet the procedures of motivational analysis are well established viz. the behaviours are observed for temporal contiguity, and for communality of causation and function. From that underlying motivational systems are deduced.

The motivational system which is central to the understanding of disturbed behaviour is fear, which has also variously been called timidity, frustration, insecurity, avoidance or flight. It is defined by its behaviours which include: move away from the other individual, orienting away, gaze averting, covering the ears or eyes, hanging the head down, defensive postures such as pulling the chin in or hunching or holding the arm over the face, freezing, and an expression I call fear grin which is different from a smile. These behaviours take the child away from the other individual, reduce stimulus input and/or reduce output, and generally reduce the probability of an interaction or are expressions or postures regularly associated with that.

When this fear is active at the same time as other systems, such as attachment, affiliative or aggressive motivations, behaviour from only one system may be seen — may "win out" as it were. When this is not the case the resulting conflict can take many forms, which include the following — all well described in standard ethology textbooks (e.g. Hinde, 1970).

Alternation, Simultaneous, Compromise, Displacement activities, Overintensity (shorter latency, attention to partial cues, shorter duration, higher motor intensity), Redirected, Regressive.

Autism

One of the main examples of the use of motivational conflict ideas is the work on autistic children by the Tinbergens and myself (Tinbergen & Tinbergen, 1971, 1983; Richer & Nicoll, 1972; Richer 1983). In the early 1970s, working independently, but each using ethological ideas, we came to similar conclusions about the nature of autistic children's social behaviour. We argued that autistic children showed a predominance of avoidance behaviour which when in competition with other types of behaviour, showed itself in motivational conflict behaviour. The inference was, and is, that autistic children were more often and more strongly avoidance motivated than non autistic children, and this had an inhibitory effect on affiliative, attachment and aggressive motivations (as well as on exploration and play). The characteristically autistic social behaviour observed was motivational conflict behaviour.

This position was often misunderstood, most often, it seemed, in specialist centres, partly because of poor explication and overclaiming about the therapeutic power of its implications, but more importantly because the nature and diversity of motivational conflict behaviour was not well understood by many psychologists and psychiatrists, and because it seemed to them that emphasis on social behaviour, and especially on social avoidance or fear, must represent a return to the bad old days of blaming

parents. These misunderstandings were unfortunate as they inhibited useful discussion.

Once the description in motivational conflict terms was made, the next question concerned causal factors. What factors increase avoidance behaviour, what factors increase various types of approach behaviour? In therapy we would clearly want to use that which increased approach and not do that which increased avoidance.

The difficulty or unpredictability of the activity is crucial. Autistic children generally have a very low frustration tolerance in social situations, and small uncertainties precipitate avoidance behaviour. This clearly implies the need for structure, errorless learning, and so on in treatment.

A second factor is the nature of the other person's behaviour towards the child, a factor which has not been embraced at all by the conventional view of autism which see cognitive deficits as crucial. The effects of someone's behaviour on an autistic child can be most economically understood by considering a dimension of social demand or intrusiveness.

Briefly, low social demand, is where the person is not looking much at the child, not reacting much sociably, not leaving long pauses pregnant with the expectation of a response from the child. Medium social demand is ordinary sociable behaviour as one might see in friendly conversation. High social demand is where there is much gaze fixation and many social signals directed to the child, and where there is strong pressure for a response from the child, which is sustained for a long time. It may turn out that to put all this on one dimension is misleading. However, that will not alter the empirical finding that low and high social demand are more likely to lead to some type of social approach, whereas medium social demand is more likely to lead to avoidance. Prescriptively, we can say that one should behave towards an autistic child either in a low demand way so that avoidance is not precipitated, or in a high demand way such that the child stops or reduces avoiding and starts approaching. This is not as tautological as it sounds. The empirical point is that social approach behaviour is bimodally distributed, being greatest at either end of this putative dimension of social demand or intrusion. The exact changeover point from approach to avoidance with increasing demand is variable and depends on the child's state and the predictability of the activity. The more predictable or easy the activity, the more social demand the child can tolerate without showing avoidance. Rough and tumble play is one such easy activity and an adult can gaze fixate, smile, and be otherwise socially demanding and still get a sociable response from the child.

These findings point to clear treatment prescriptions, namely that as well as engaging in well structured activities with a child, the adult's behaviour should either be of low or of high social demand. Ordinary friendly behaviour is very likely to provoke avoidance, and indeed to help maintain it, as social encounters continually end with the child still avoiding, thereby reinforcing his tendency to do so in future, despite the objective social environment being "normal" (Richer & Richards, 1975; Richer, 1983).

I have argued elsewhere (Richer, 1978) that autistic children's predominant avoidance directly leads to their particularly strong avoidance of conversations, verbal and non verbal, and so to constraints on what Newson & Newson (1975) amongst others have termed, the negotiation of shared understandings. It contributes to their poor acquisition of language and other social skills, indeed of their culture. So we should predict that reducing an autistic child's predominant social avoidance would have beneficial effects on the central problems of language and social skill and relationships.

Asperger's syndrome/children with timidity and obsessionality

Similar avoiding behaviour has been described from a different but related standpoint, that of attachment behaviour. In these terms autistic children's behaviour would be described as avoidant, and Main (1975) showed how this behaviour would appear transiently in a minority of (normal) one year olds briefly separated from their mothers in a strange place — the Ainsworth strange situation (Ainsworth & Wittig, 1969). This behaviour is a manifestation of insecurity, of fear, and children who show it frequently would be seen as fearful or insecure children. It is my view that autistic children may be seen as insecurely attached children who are showing the avoidant reaction to insecurity, and who in fact have the longer term maladaptive reaction of premature independence in an extreme form, to the extent that learning from others is severely constrained. This is not, of course, to say that the parents' behaviour was a significant cause of this outcome, to assert that would be seriously to misunderstand the interactive nature of development.

This analysis has two major advantages. It gives the beginnings of a coherent theoretical understanding of autism, in contrast to the lists of unconnected features which characterise most psychiatric descriptions of these children. Secondly, it has detailed treatment implications which, as I shall describe later, are more successful than current conventional techniques.

This understanding of autistic children's behaviour has led me to describe the behaviour of some other children whom I have provisionally called children with *timidity and obsessionality* (Richer, 1987). These have similarities to children variously described belonging to Asperger's syndrome (Wing, 1981), having a "semantic pragmatic disorder" (Bishop & Rosenbloom, 1987), or Mahler's (1952) symbiotic psychosis, being Newson's "demand avoidant" children (Newson, 1986), or Del Priore's Communication disordered or "Missing Link" children (del Priore, 1987).

These children share with autistic children the triad of social, "obsessional" and language features that define autism, but show them with a lesser severity. They show much less strong avoidance of their parents than autistic children, they do converse but less so than most children, they show few if any simple stereotypies and are generally less obsessional. Nevertheless they show the same avoidance dominated motivational conflict behaviour as autistic children, but the lesser frequency and intensity of their avoidance behaviours point to their fear motivation being less strong. If stressed their behaviour becomes more autistic, conversely autistic children behave more like children with timidity and obsessionality when in situations which promote sociable behaviour.

These children with timidity and obsessionality are usually referred to agencies for language delay at about 3 years old, or, when about 5 or 6 years, for odd behaviour in school. Asperger (1944), whose group did not include children with language delay, notes that his children usually get referred when they start kindergarten or school. This is probably because this more challenging/stressful environment elicits more "autistic" (and therefore noticeable) behaviour than the more secure environment of home.

Their prognosis seems much better than autistic children. Asperger (1944) gives a good social prognosis for the children in his group.

The process of improvement

Our own follow up of both types of children who have improved further support to this conception of the underlying pro-

cesses, as well as to the treatment it implies. This process we see as an improvement in the child's security, in other words a reduction of his fearfulness. As fear diminishes we would expect the child's behaviour to change from predominant avoidance to both tentative approaches and overintense approaches, before showing more ordinary approaches. This is what happens. The child changes from being attention avoiding to being extremely attention seeking, and sometimes to being more aggressive (at least from the recipient's point of view). This is sometimes seen as a deterioration, which it is not, but it makes as many if not more demands on the parents, who need to have support available.

Not only is the sequence as predicted, but so also is where it first happens. Changes take place first in those situations where the child feels most secure, namely at home with parents doing simple activities. They occur last with informal groups of peers, out of home. The street or school playground is the final frontier! Children with timidity and obsessiveness, being less fearful, are further down this road already. Disagreements occasionally develop between school and home as to the oddity and disruptiveness of the child's behaviour. These are due in part to the very different behaviour the children with timidity and obsessiveness show at home, where they generally are more secure, from that at school, where more avoidance dominated motivational conflict behaviour is seen.

As improvement progresses language and other social skills follow sometimes without specific teaching, although specific language difficulties are sometimes but not always revealed. However most children remain with a tendency to obsessiveness, but this is less, and less handicapping, than if combined with social avoidance and lack of social skill.

The classification of behaviour, not of children.

I have been describing these children as two separate groups. They are not. It makes more sense descriptively, theoretically and therapeutically to see them all as children with the triad of social, obsessional and language features with varying severity. The value of the ethological approach here is that it helped to point to the similarities between these children, and deduced the same processes — avoidance (or fear) dominated motivational conflict — underlying the behaviour and affecting development. In their study of a complete geographical population, Wing & Gould (1971) using mainly questionnaires, noted that certain features tended to cluster together. These were the absence or impairment of two way social interaction, non verbal communication and imagination, and a pattern of activities dominated by repetitive, stereotyped routines. They distinguished three groups of these children: (1) aloof, (2) passive and (3) active but odd, the last being like children with timidity and obsessiveness. They note that a single child can show all types of behaviour. The shortcoming of this work is that it offers not underlying processes by which this behaviour, or the movement from type to type can be understood. The value of the approach I have outlined is that it can give such an underpinning and tie these behaviours into a single simple story which also has implications for therapy.

This dimension of individual difference appeals to an ethologist for another reason, namely it does not make a sharp distinction between behaviour which is normal and that which is abnormal. In fact the concept of abnormality has little meaning to an ethologist who observes simply differences in behaviour, their causes, consequences and ontogeny. As used psychiatrically, the term abnormal connotes more a claim of competence over the individual's problems, rather than a description of behaviour.

I personally find it more useful in treatment and research to give up deciding whether a child is autistic or not, but simply call all of those whose behaviour fits, children with timidity and obsessiveness.

Behaviour problems

The behaviour of children with behaviour problems can also be redescribed in terms of motivational conflict where fear motivation is in conflict with other social approach motivations. Let me give three examples.

1. Impulsiveness, carelessness, blurring out, and the sort of teasing aggression that Manning et al. (1978) called harassment are all examples of overintense conflict behaviour. The individual responds with a too short latency and to partial cues, behaviour is of greater intensity and briefer. This can be observed in individuals of many species where the threat is sufficient to prevent unambiguous performance of an activity, but is not sufficient to cause complete avoidance.

2. Attention seeking. The identification of attention seeking depends partly on the perception of the adult involved. What is attention seeking to one will be normal sociability or curiosity to another. However, if we take attention seeking as essentially behaviour by which the child tries to get the parent's attention but which is not the start of a social activity, then attention seeking is greatest in children who would be said to be insecure on other grounds. It occurs when the parent's attention is less available to the child, when for instance the mother is busy, tired, on the telephone or talking to visitors. Incidentally, the mother's interpretation of this often is that the child is picking these times "just to annoy her". A more useful description is that some attention seeking at least is ambivalent attachment behaviour. The child's insecurity is heightened by the lesser availability of mother's attention. He responds to this by increased attachment behaviour. Because this has received repeated rebuffs in the past, there is also some motivation to avoid. This may lead to an overintense approach, or attempts to disguise the approach as a more legitimate activity.

3. Temper tantrums are a dramatic form of motivational conflict behaviour. When asked to describe a temper tantrum, most people mention the screaming, crying, banging, flailing about, dropping to the floor, the anger and so on. A few mention that the child does not seem to know what he wants. No one mentions the approach-avoidance conflict that close observation reveals. In these terms a temper tantrum is when a child shows both alternating and simultaneous conflict behaviour, — he repeatedly approaches then backs away (alternation), and often approaches with head down (simultaneous). In addition behaviour is overintense, there is perhaps regressive behaviour (falling to the floor), and re-directed aggression (the child hits himself or something). This type of temper typically occurs in young children with a parent, after the parent has frustrated the child in some way. This temper may be redescribed as motivational conflict between angry avoidance of the frustrating parent, and attachment behaviour because distressed. The closer the child is to the parent, the stronger becomes the avoidance, the further away the stronger becomes the attachment. The conflict is sometimes further heightened by the parent's reactions: the child's attachment behaviour may elicit attempts to pick up the child, which leads to the child struggling to get away, so the parent lets go, which leads to further approach and so on, round in a vicious circle.

The usual advice of behaviour modifiers is to ignore tempers, since, they simplistically argue, paying attention to the child only reinforces the temper. This advice is certainly often effective but it is only half the story and is, in any case, sometimes impractical.

cal when a child is wrecking the home or injuring himself. From the analysis I have offered there emerge two possible ways of handling a temper. The aim must be to break the vicious circle of the parent child interaction, and reduce the intensity of the motivational conflict. This can be done by reacting only to either the avoidance or the approach. In other words, either by leaving the child to himself and so behaving that he cannot approach, or by holding the child so that he cannot leave until he relaxes. Either is valid and a parent may choose leaving on one occasion, and holding on another. Holding is more daunting for parents at first, but it frequently improves the parent child relationship faster than leaving.

Holding

Holding has also been advocated as part of the treatment for autistic children, who are frequently in a state of avoidance dominated motivational conflict as I described earlier. In the early stages of treatment, autistic children often need only to be picked up to start struggling to get way. The parent continues to hold through the child's struggling and raging, until he properly relaxes, which is sometimes preceded by crying. An early benefit of holding is that the child no longer shuns physical contact for most of the time, so ordinary cuddling is possible. At this point many parents reserve holding for when their child is in a temper or overactive or upset.

Holding is an example of the high intrusion that I mentioned earlier which leads to more sociable behaviour in autistic children. It may be conceptualised in many ways. In attachment theory terms, the ambivalence autistic children show about contact and seeking comfort when under any but the greatest stress, means that their parents are prevented from comforting them. This only maintains their insecurity and avoidance of being comforted. Holding becomes therefore an "insistence on comforting". The child discovers that despite his raging and struggling, his parent is still in control, can be depended on, and still loves him. This gives security and reduces premature independence. At the end of a best holding session the child's behaviour, in the way he stares at his parent, is reminiscent of the behaviour of infants in the first four months of life when in the stage of intense concentration on, and interaction with, their mothers — what Trevarthen (1980) calls primary intersubjectivity.

Two studies have so far been published of treatment programmes with autistic children in which holding plays a major part. Both report the disappearance of autistic behaviour in some children, considerable improvement in others, but no improvement in about a quarter.

Zappella (1987) treated 50 autistic children (mean age 6 years 6 months, range 3 to 16 years) with therapy involving the whole family and including holding as the major component. He found that 6 (12%) became entirely normal within 2 years (sometimes 1), 9 (18%) lost all autistic behaviour, and their IQ increased but they remained with some mental handicap or other disability. 22 (44%) of the children showed marked or moderate improvement, but 13 (26%) showed no clear improvement, most of these showed clear signs of cerebral dysfunction. No child deteriorated. These results were confirmed at follow up between 6 months to 3 years after treatment ended.

The results of Prekop (1984) in Germany show a similar picture. She found no adverse effects of holding in a group of 104 autistic/Asperger's children with an average age of 7 years 8 months (range 10 months to 26 years). 13 (12%) children lost their "symptoms" completely (aged between 1,5 and 7,5 years), 19 (18%) showed significant improvement. Comparing children with Asperger's syndrome, Kanner's syndrome and autism with

brain damage, the percentage of children improved was greatest in Asperger's and least in children with autism and brain damage. This agrees with Zappella's finding that these latter children are least likely to show long term benefit from holding.

Prekop also compared treated children with a control group whose parents had refused holding but who were matched for age, diagnosis and schooling. On all her measures the holding group improved more.

Conclusions

Using ethological approaches in the study and treatment of disturbed behaviour in children, has several advantages. It offers new insights into the processes underlying disturbed behaviour, it suggests treatments and, as importantly, embeds treatments in a coherent theoretical framework which allows their rational use and enables progress to be predicted. It coherently links previously separated conditions, and tends to bypass problems of classification of children and substitute classifications of behaviour and underlying processes. It is firmly rooted in publically observable behaviour which improves communication amongst professionals and between professionals and parents. And it is rooted in biological theory which links it closely to the post paradigmatic sciences.

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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).

The following communication was first presented at the 6th Annual Meeting of the Evolution and Human Behavior Program of the University of Michigan. The author would like to encourage HEN readers to consider the selection process describe as a special case of a more general phenomena. More generally, the theory is a description of the process of selection by destructive and disruptive communications. Destructive or disruptive communications might be defined as those that result in disease or stress.

A Theory of Natural Selection by Sexually Transmitted Disease:

Survival of the Ugliest?

by: Ronald S. Immerman, M.D., 2550 Kemper Rd. Suite 302, Shaker Heights., Ohio 44120, U.S.A.

ABSTRACT

The Centers for Disease Control, Atlanta estimates that 13 million non-AIDS related sexually transmitted diseases (STDs) are occurring per year in the United States predominantly among 20 to 30 year olds. This epidemic began in the mid-1960s. These infections can result in infertility, ectopic (tubal) pregnancy an infection of the fetus and newborn. Since STDs can alter human sexual and social behaviors and attitudes and commonly result in infertility, STDs are and have been a significant influence on human social and biological evolution. The exposure to STDs is based, in part, on sexual selection. The STD-risk is influenced by the number of sexual partners, the previous sexual behavior of sexual partners and the sexual behaviors engaged in. Since sexual partnerships are established by communication, selection by STDs influences the evolution of communication systems. Communication systems, both biological and social, which increase STD-risk are selected against. Characteristics which enable the accomplishment of fertilization, but do not increase STD-risk are selected for. Fear of STDs and cognitive awareness of the STD-risk factors result in development of protective behaviors and favor the ability to delay sexual gratification. It is suggested that the balance between sexual impulse and fear of STDs has resulted in cyclic patterns in human behavior and significantly influenced human biological and social evolution.

RECENTLY THE INCIDENCE OF sexually transmitted diseases (STDs) has increased worldwide. The epidemic involves many different infectious agents and is a major public health problem significantly impairing reproductive capacity. These infections commonly result in infertility, ectopic (tubal) pregnancy and infection of the fetus and newborn.

In addition, STDs influence behavior. Public response to STDs reveal significant anxiety and concern. Epidemiological changes, increased sales of condoms and the demand for fertility clinics demonstrate that STDs influence life-style well beyond the time of the original infection.

Although only recently discussed openly, the earliest reference to STDs was in ancient China. At least since then, STDs-related anxieties have been changing sexual attitudes and influencing sexual selection. Thus, the epidemic has directly and indirectly influenced various social trends (i.e. family, fashion, religious affiliation, politics).

Selection is dependent upon communication. Thus, the natural selection of STDs influence the evolution of communication and, therefore, social organization. This paper attempts to delineate the principles and patterns of the natural selection of STDs.

RISKY BEHAVIORS

The number of sex partners and the prior sexual behavior of those partners constitute STDs-risk. Biological and behavioral aspects of risky behaviors are subject to selective pressure. After exposure, host and microbiological factors influence the disease course.

DOWNFALL OF THE TOUGH AND THE SULTRY

Social ranking is achieved by showing off physical and social assets. Higher social ranking allows for greater sexual opportunity and, therefore, increased STDs-risk. Biological and behavioral aspects used to achieve social domination are selected against by STDs. Therefore, selection by STDs is toward social equality.

Sexual displays attract sexual partners. Pheromone production, perineal skin color change, perineal swelling and body posturing are some aspects of sexual display common among mammalian females. By increasing STDs-risk, selection by STDs is against biological and behavioral sexual display and may be responsible for selection against outward signs of ovulation in the human female.

SELECTION FOR LESS RISKY PARTNERS

Selection favors stable sex partnerships. Language, continuous sexual receptivity and pair bonding facilitate stable relationships. Learning relationship skills required increased cranial capacity as well as extended childhood and increased parental investment, thereby, selecting for the family. Continuous sexual receptivity increases the likelihood of insemination at the time of the hidden ovulation. Increased pair bonding obviously reduces the total lifetime partnerships and, therefore, STDs-risk.

SOCIAL CHANGE

Awareness that disease can result from sexual intercourse shifts sexual selection. Dominance and sexual display no longer represent reproductive fitness. Sexual selection favors minimal changes of sexual partners and prevention of social and sexual contact with risky partners. For example, limiting early sexual experience and delaying sexual intercourse until the initiation of a closed, lifetime sexual partnership (i.e. marriage) decreases transmission of STDs. Selection is for the ability to learn and to adhere to non-risky behaviors and to delay sexual gratification. Fear of STDs influences the degree of adherence to non-risky behaviors.

Fear of STDs is determined by 1) the perceived incidence, morbidity and mortality; 2) population shifts that stress social structures such as migrations, immigrations and military campaigns (STDs are among the chief, non-combatant medical problems of military forces); 3) the availability of protective medical technology (the condom is the only form of birth control that also prevents STD); and 4) drug use that impairs impulse control.

Non-risky behaviors influence both the incidence and fear of STDs. Decreased incidence reduces fear and undermines the motivation for adherence to non-risky behaviors. With decreased adherence, the incidence rises and results in greater fear which leads to greater adherence and lower incidence. Thus, STD causes cyclic social change.

SUMMARY

While many factors are involved in human evolution, STDs can rapidly reduce reproductive fitness and influence human evolution. Since exposure to STDs depends upon communication, STDs select against communications that increase sexual exposure such as dominance display and sexual display. Relationship skills such as language, continuous receptivity and pair bonding form stable relationships and are favored. Awareness of the dangers of STDs alters sexual behavior and selects for increased control over sexual impulses. Variation in awareness results in cyclic social change.

From an Ethologist's Journal

by: William T. Bailey, Department of Psychology, Eastern Illinois University, Charleston, IL 61920, U.S.A.

Children's stress at parents' divorce: implications from kinship theory.

An informal perusal of the literature on divorce indicates that children frequently experience their parents' divorce as extremely stressful. Kinship theory may provide an insight to this stress. The theory suggests that individuals are most likely to help and to receive help from those with whom they are most closely related. An implication would seem that offspring should attempt to maintain the integrity of their parents' reproduction. Since the child is most likely to be helped by those with whom he/she is most closely related, then he/she should attempt to see that as many people are closely related as possible. Full-siblings are related by .50, while half-siblings are only related by .25. It would seem advantageous, at least in terms of kinship and potential assistance, that offspring might attempt to insure that the spread of their potential relatedness with siblings be as restricted as possible. Children might try to limit their parents' mating with each other only, thus limiting the potential gene pool of their siblings to that in which they already share. Divorce related stress in children may be related to the possible dilution of their inter-relatedness with future siblings.

A further consideration of children's divorce related stress may be related to parental care. Divorce may in effect be viewed as the ultimate "weaning" which in turn may produce stress. Children may, with very good cause, view divorce as signalling an impending diminution or care/resource providing from their parents (particularly their father). The anticipation of this may well result in "reality" anxiety.

Reference:

Wallenstein, J.S. (1987). Children of divorce: report of a teenage follow-up of early latency-age children. *American Journal of Orthopsychiatry*, 57, 199-211.

BOOK REVIEWS

Neuropsychological Bases of God Beliefs.

Westport, Connecticut: Praeger, 1987. ISBN 0-275-92648-6. Pp. 164, 2 photos, 1 drawing, no tables. Price US\$ 39.95. By M. Persinger.

Reviewed by Linda Mealey.

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Poetry and Generalities.

"The Bible, Koran, and Book of the Dead are pages of absolute nonsense. They contain arbitrary value judgments masked in poetry and generalities." So says Michael Persinger, author of *Neuropsychological Bases of God Beliefs* (p. 97); I say, add his book to the list.

Neuropsychological Bases of God Beliefs is an attractive book; it comes hardbound, carefully typeset, and sporting an extremely intriguing title. Unfortunately, the contents do not measure up to the package. I began reading this book with a predisposition towards agreeing with its basic tenet — that "God Ex-

periences are . . . correlated with transient electrical instabilities within the temporal lobe", and that they "have emerged within the human species as a means of dealing with the expanded capacity to anticipate aversive events" (p. x). Yet in spite of my pre-existing bias, it only took a few pages to convince me that this was not the objective, scholarly work that I had anticipated. *Neuropsychological Bases of God Beliefs* is, like the religious texts it criticizes, full of "arbitrary value judgments masked in poetry and generalities".

My first suspicion that the book would not meet my expectations came from a cursory glance at the bibliography. There are only 56 references for the entire book, including eight references to the author's own previous works, but not including any of the works which I consider absolute "musts" for a discussion of this topic (i.e., William James' (1902) *The Varieties of Religious Experience*, Abraham Maslow's (1964) *Religions, Values, and Peak Experiences*, Andrew Greeley's (1974) *Ecstasy: A Way of Knowing*, Julian Jaynes' (1976) *The Origin of Consciousness in the Breakdown of the Bicameral Mind*, and d'Aquili, Laughlin, and McManus' (1979) *The Spectrum of Ritual: A Biogenetic Structural Analysis*).

Persinger does himself a disservice by ignoring major contributions in the field. There are many studies and pieces of data which support his premise, but which he fails to provide. At the same time, he makes sweeping statements about the findings of "hundreds of other brain scientists" (p. 16), but then fails to cite them. Many of the statements in the book are undoubtedly exaggerated; others may be basically sound; but for very few is there any way of checking.

Another problem is that although the book's cover and title appear to be aimed at an academic audience, the level and style of the writing is more appropriate for college freshmen. I suspect in fact, that Persinger has tried out much of his material on introductory psychology students. He is probably a stimulating teacher, but the constant repetition, overuse of anecdote, and lack of data and technical detail is not appropriate for a more sophisticated audience. Very little of the text is actually devoted to neuropsychology at all, and what is is at an elementary level (Persinger for example, defines the term "transmitter" for his readers).

As I read, it became clear that the author had a vitriolic rather than an objective message. I was disappointed. The book is so full of deprecatory comments that I cannot anticipate that many people who might pick it up will read far before they put it down again. Since the intended audience is unclear, I'm not even sure who will pick it up in the first place. Perhaps if the book were published in paperback and retitled *The Great Religion Hoax!* it would reach a more appreciative audience.

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Nonhuman primate models for human growth and development.

Alan R. Liss, Inc., New York, 1985. By E. Watts.

Reviewed by William T. Bailey

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Growing up primate

"The use of laboratory and feral primates as models for testing hypotheses about man is so common that one scarcely bothers to justify it today." So begins Elizabeth Watts' introduction to the book. Since seven of the nine chapters deal with non-behavioral aspects of development, she is no doubt safe in making such an assumption. I suspect, however, that those of us who make behavioral comparisons still feel constrained to make at least some minor justification.

Watts notes that nonhuman primates afford two types of comparisons for humans: the experimental and the evolutionary. I'm afraid that far too often the distinction is not made clear. One wonders, are monkeys and apes being used as subjects because they are biologically similar to humans? Or, because of their relatedness, we hope to learn something about human evolutionary development? This leaves aside the separate question of why a particular species was used. With very few exceptions, the choice of species is apparently dictated by availability alone. For instance, most of the work on infant-mother attachment in nonhuman primates has involved macaques (mostly Rhesus); an interesting choice in as much as Bowlby's theory is based on terrestrial species. I have never yet seen an explanation as to why macaques were used and how what is found using them is related to Bowlby's theory.

But back to the book. Newell-Morris and Fahrenbruch present a comprehensive treatment of practical and evolutionary considerations on using primates in research. They note that all primates — including humans, have been evolving separately for several million years. An effect of this is that there is no *ideal* primate model for humans. After all, if a species were one-to-one isomorphic with humans, they would be human. Researchers need to know why they are using a particular species and they ought to make any assumptions explicit.

Five chapters deal with physical development (e.g., weight, adiposity, dental). There is some very informative writing here. Human developmentalists will be particularly interested in the chapters on adolescence (Watts) and dimorphism (Coelho). We have thus far covered about half the book; the remainder may be more interesting to *human* ethologists. Two chapters deal with prenatal protein deprivation (Riopella) and cognitive assessment in nonhuman primates (Thomas & Walden). Much of the latter is concerned with applying Piagetian theory in studying nonhumans and the authors note it may have limited utility.

The final chapter is the section which will perhaps be of the most interest to ethologists studying humans. In this the longest chapter (92 pgs), Michael Pereira and Jeanne Altmann explain the "development of social behavior in free-living nonhuman primates." They present an excellent, detailed treatment of their topic. They note that primate behavioral development is most appropriately viewed (and studied) as a life-long process — and a long one at that. Having begun with a discussion of developmental phases and transitions and some considerations of primate ecology and social organization, they then present a very good examination of social development from infancy through the

adult years. The ultimate part of their paper is a discussion of human-nonhuman comparisons.

Members involved with evolutionary and cross-species comparisons will want to have this book; the final chapter alone is worth the price. Others will certainly wish their institutional libraries to have it available for reference.

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, chapters

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- Schmid, M., & Wuketits, F.M. (Eds.) (1987). *Evolutionary Theory in Social Science*. Kluwer Academic Publishers. Chapters - Basic structures in human action - on the relevance of bio-social categories for social theory, by P. Meyer; Evolutionary models and social theory - prospects and problems, by M. Ruse; Evolution, causality, and human freedom a biological point of view, by F.M. Wuketits; Collective action and the selection of rules - some notes on the evolutionary paradigm in social theory, by M. Schmid; Learning and the evolution of social systems - an epigenetic perspective; by K. Eder; Evolution and political control - a synopsis of a general theory of politics, by K. Eder; Media and markets, by B. Giesen; The self as a parasite - a sociological criticism of popper theory of evolution, by R. Pieper.
- Caton, H. & Salter, F.K. (1988). *A bibliography of Biosocial Science: 2500 Titles across fourteen fields*. Brisbane, Atlanta: St. Albans Press. (This unique bibliography services the requirements of those whose research crosses boundaries between social and behavioral sciences.)

The authors have collected 2500 titles from a list of some 12,000. Their selection tracks the main empirical and theoretical developments in the areas covered. Emphasis is placed on works that integrate between disciplines and areas.

The *Bibliography* satisfies the need for up-to-date references. The authors take 1975 as their notional commencement date. Over half the titles fall within the past five years and about

1 percent were in press as of January 1 of this year. But depth has not been neglected. "The classics" and important contributions prior to 1975 are entered.

The subject headings are : Evolution (general, human, cultural); Prehistory; Genetics & Population; Ethology; Sociobiology; Psychobiology; Endocrinology; History & Philosophy; Bibliography & Reference. These headings are used to classify social science entries. Social science fields included are: anthropology, organization theory, psychology, social psychology, sociology, economics, and history of ideas.

The first edition of the *Bibliography*, published in 1984, attracted high praise. Charles J. Lumsden, co-author of *Genes, Mind, and Culture*, wrote: "I consider it a most valuable research tool and am very glad to have it." Vernon Reynolds, Department of Biological Anthropology, Oxford University, wrote: "... it will be most useful both to me and my students." Albert Somit, co-author of *The Literature of Biopolitics*, deemed it "an excellent bibliography." With the expansion of the *Bibliography* from 850 titles in the first edition, we at St. Albans believe that the second edition will be valued as an indispensable guide to the literature that it alone among bibliographies covers.

The *Bibliography* is available in book and electronic form. The book is printed on quality A4 paper, in double columns for ease of reading and ring-bound for ease of use. The disk version is available for Macintosh and IBM-compatible PCs.

The Authors. Hiram Caton is Professor of Politics and History at Griffith University, Brisbane, Australia. His biosocial publications are in the areas of cultural evolution, political psychology, bioethics. His study *The Politics of Progress: the origins and Development of the Commercial Republic 1600-1835*, will soon be released by the University Presses of Florida. Pre-publication comment by leading historians hail it as a magisterial book. Frank K. Salter, M. Phil., is researching a doctoral thesis on the ethology of behavior or organizational settings.

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BULLETIN BOARD

Call for Papers

The *Journal of the American Statistical Association* is planning to publish a special section on "Social Statistics and Public Policy for the 1990s." This publication is sponsored by the Social Statistics Section of the ASA. The 50-page section will include about ten papers on the goals, substance, data content, design, and performance of national and international statistical systems as they relate to issues of public policy for the next decade. The general topic should be of interest to persons who do not consider themselves to be statisticians but who have something to say on statistics in the service of analyses of public policy. Persons who have never before published in JASA are particularly invited to contribute articles. Possible topics include longitudinal and repeated cross-sectional surveys; event histories; international, federal, state, and local statistics; historical time series; modeling; social accounting; the history of specific statistical programs; analytical consequences of nonsampling error and population undercounts; needs for new data bases or

methodologies; and improved ways of gathering data for answering public policy questions. The section is expected to be published sometime in 1990 or early 1991. Please direct inquiries to the editor of the special section: Richard C. Rockwell, Social Science Research Council, 605 Third Avenue, New York, NY 10158 or call (212)661-0280. Persons interested in contributing an article should first submit a short abstract of the planned article; this abstract must be received by the editor by September 30, 1988.

New Doctorate

The Co-ordinators (Drs. Aaron Wolfgang and Peter Gamlin) of the Masters in Education Focus in Multicultural Studies in the Department of Applied Psychology at the Ontario Institute for Studies in Education announce the initiation of a new Doctorate in Multicultural Studies in Teaching and Counselling. For information, write to: Drs. Aaron Wolfgang or Peter Gamlin, Co-ordinators of Multicultural Studies, Department of Applied Psychology, Ontario Institute for Studies in Education, 252 Bloor St. West, Toronto, Ontario, Canada M5S 1V6.

Announcements

The **Second International Conference on Behavioral Ecology** will be held in Vancouver, British Columbia, Canada on 6-10 October 1988. The conference is chaired by Dr. Ron Ydenberg, and hosted by the Behavioral Ecology Research Group at Simon Fraser University. The submission date for further abstracts is now past. However, one can still register to attend. Registration material is available by writing to Continuing Studies, Simon Fraser University, Burnaby, British Columbia, Canada V5A 1S6 or by phoning 604-291-4475.

The **Third International Conference of the Society for Human Ecology** will take place October 7-9, 1988 in the Golden Gate National Recreation Area, near San Francisco, California. Contact: Jeremy Pratt, Conference Coordinator, Institute for Human Ecology, Bldg 1055, Fort Cronkhite, Sausalito, CA 94965, U.S.A.

A symposium on **Genetics and Evolution** will be held on November 11-12, 1988 and is organized by the Genetic Society in London, United Kingdom. Further information can be obtained from: Dr. R.N. Jones, Dept. of Agricultural Botany, University College of Wales, Penglais, Aberystwyth, SY23 3DD, United Kingdom.

A **conference on the Biology of Language** will be held in Poznan, Poland, on December 1-3, 1988. For information contact: Jacek Fisiak, Adam Mickiewicz University, ul. Wieniawskiego 1, 61-712 Poznan, Poland.

Unable to Forward

Newsletters of the following members 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.

Dr. Frank Seizinger, Universität Düsseldorf, Abteilung für Experimentelle Biologische Psychologie, Universitätsstrasse 1, 4000 Düsseldorf 1, WEST GERMANY.

Prof. Dr. M.W. Watts, Gästehaus der Universität Marburg, Hansenhäuserweg 11, #609, 3550 Marburg/Lahn, WEST-GERMANY.

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.

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