

# Human Ethology Newsletter

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## Evolution and Developmental Psychology

(The Developing Body and Mind, Number 4)  
Eds. G. Butterworth, J. Rutkowska and M. Scaife.  
Brighton, England: Harvester Press, 1985. ISBN 0-7108-  
0921-2. xxiv plus 205 pages.

Reviewed by Ian Vine  
University of Bradford, England.

Ethologists are typically interested in both evolutionary and developmental explanations of behaviour, and have often been attracted by apparent similarities between phylogenetic and ontogenetic processes. But the editors of this book, which stems from an interdisciplinary conference mounted by the British Psychological and Developmental Biology societies in 1982, contend that the relationship "is still very much an open question" - too rarely examined in detail in non-reductionist ways. Its topic, then, is the general biology-psychology interface.

In the first section, three papers deal with phylogeny and ontogeny directly. Patrick Bateson, the only ethologist contributor, highlights inadequacies of the crude dichotomy between 'innate' and 'learned' contributions to phenotypic behaviours - with the latter simply being added on to the phylogenetic legacy of a genetic blueprint. Plasticity of

*Cont. on p. 2*

## Membership Renewals

If the date on your mailing label is earlier than 1986, it is time to renew your membership. Renewal notices are not sent for economic reasons.

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

## Daring Ideas

The announcement of human ethology Daring Ideas contest did not fall on deaf ears. Contest sponsors have not yet announced a closing date, so keep them coming. Responses to the submissions below are also encouraged, but should respect the initial ground rules: that these are far out ideas.

## Choose-N' Sniff . . .

Now in new improved and easy open decanters. Put an end to capricious chance.

Wade C. Mackey,  
Iowa Wesleyan College  
Mt. Pleasant, Iowa

In the era of the commercialism of space, in particular, and the elevation of the icons of commerce, in general, I offer a modest proposal for increasing the profit margin in human ethology. Only two premises and a large amount of capital—mostly for advertising—are needed.

Premise 1: Human olfaction and the role of pheromones are important in the initiation and maintenance of human moods and emotions.

Premise 2: The woman's adjustment of her primary sex-ratio, i.e. at conception, is a facultative adventure which depends upon her psychodynamics/self-concept/self-confidence at the time of conception. Said differently, one mood would bias her chances of conceiving a boy; whilst a second, alternate mood would bias her chances of conceiving a girl. Ergo, therefore, and hence (DOW and Dupont are you paying attention?)

We merely have to isolate which fragrances are aligned with which moods that, in turn, are correlated with which gender. Instructions can be developed from (MANOVA) to learn how long—minutes, hours, days—the woman must inhale the appropriate aroma prior to conception. The products, of course in pink and blue containers, can be distributed in candle, aerosol, or roll-on forms. Only in America, free enterprise (see Iacocca, L.)

*Continued from page 1*

development, including feedback effects upon gene expression, can itself be an evolved and adaptive reaction favouring variability. But equally, canalization and similar sources of developmental inertia can buffer individuals against temporary environmental deficits, and even mask genetic mutation effects in the short term at least. (A plausible factor in explaining some phylogenetic 'discontinuities', cf. Gould & Eldredge). Functional approaches to development can have heuristic value, so long as they are not confused with preformationist assumptions about causal mechanisms. A further anti-reductionist point is added by Nancy Rader, who emphasizes Gould's view that selection works primarily upon variations in the timing of developmental processes. She sees temporal displacement as a useful way for psychologists to consider individual differences too. Alan Costall provides a brief critique of Haeckel's theory of recapitulation, the inadequacies of which for too long discouraged developmentalists from taking functional perspectives seriously.

Embryologist Brian Goodwin opens the next section with a provocative plea for a structuralist or 'constructional' biology, stressing that morphogenesis is best understood in terms of interactions between the states of the whole organism and of the developmental environment, rather than of atomistic gene effects. He is sympathetic to Piaget's 'genetic epistemology' and critique of neo-Darwinism, as it reinstates the active organism "structured by distinctive principles of order and organisation". Goodwin denies that genes carry, as Weismann thought, enough information to specify morphological form. They are just inputs to a self-organizing 'morphogenetic field' with restricted developmental options, and do not explain form any more than knowing water is composed of H<sub>2</sub>O explains many of its properties. Accepting Gorczynski & Steele's evidence for Lamarckian genocopying of acquired adaptations, he holds that directional evolution towards less vulnerability to environmental change has occurred. He follows Piaget in seeing greater 'equilibration' of organismic systems - which depends upon modelling the environment internally - as a principle underlying enhanced self-regulation and spontaneous structural changes, within constraints provided by generative rules of growth. This view of biology is held to make intelligible the emergent properties of our own mental freedom and purposiveness.

Michael Scaife is somewhat sceptical of such grand and abstract attempts to cognitivize biology with reference to some generalized organism, seen as a self-transforming 'field' or cluster of semi-autonomous fields. Piaget may have demonstrated spontaneous restructuring of our mental models in the face of their predictive inadequacy - but how close is the biological parallel? And whatever biological preadaptations for social life humans may possess, could any properly biological paradigm hope to explain how social sharing of symbolic meanings has its effects upon developmental processes? John Churcher adds some doubts about the nature of Goodwin's internal models as a way of claiming the equivalence between internal and external perturbations of an organism's structures.

The third section deals with intelligence and its evolution. Sue Parker sees Piaget's stages of cognitive development as recapitulating our primate phylogeny, and seeks to identify our ancestors' intellectual limits by reference to the forms of reasoning required for their

lifestyles and artefacts. She thus equalises attaining formal operational thought with the emergence of early *Homo sapiens*, seeing it as a species-specific ability, partly selected for its utility in organizing warfare. Kathleen Gibson sees both abstract intelligence and mass killing as Cro-Magnon innovations, arguing that even Neanderthal brain structures were not richly developed for fully flexible planning, and that their limited technology only required concrete operational thought. And Julie Rutkowska is more theoretically sceptical, pointing out that formal structural properties as identified by Piaget may not correspond with any generalized, content-free internal process of thought. Performance on Piagetian tasks is often much more task- and context-specific than the theory suggests, so the kind of reconstructions being attempted by Parker and Gibson are problematic. Besides this, Gould's more plausible view of evolution by selective adult retention of juvenile rather than earlier adult traits complicates their enterprise.

Two papers follow on the future of genetic epistemology. Howard Gruber points out that in Piaget's work the evolutionary analogue for development is a unilinear progression towards an end-point, not a tree with multiple branching. Piagetians are only just starting to identify alternative developmental pathways and modes of solving a given problem effectively. Likewise, creativity is envisaged in terms of inefficient processes of blind variation and selective retention, in accord with another controversial evolutionary model. A new emphasis on variability is needed in genetic epistemology, stressing how, if different individuals have differing skills, optimal problem-solving may be achieved through co-operative consideration of perspectives and alternative strategies. Leo Apostel agrees, adding that future advances in genetic epistemology at the level of Piaget's logico-mathematical formal claims should exploit new kinds of logics designed to deal with incomplete, inconsistent, and fuzzy sets of propositions, and in which the self-reflecting subject of thought and action can be represented. I must confess my own lack of understanding of these issues - but Apostel's suggestions sound potentially exciting. A simpler point, which I can more confidently appreciate, is a plea for a broader interdisciplinary effort involving all the bio-social sciences, geared to explaining the distinctively human emergence of purposive, intentional modes of representation and action.

The final section opens with Chris Sinha's discussion of some current controversies associated with such a goal, and attempt to interpret evolution and development without either restricting the former to classical neo-Darwinian selection processes or adopting the 'neo-rationalist' assumptions which the 'cognitive science' movement now makes about the relative autonomy of mind. Whereas neo-Darwinism plays down the active nature of organisms, neo-rationalism holds the environment at one remove from the person - since it can only affect behaviour after filtering through our mental models. Here 'ecological' approaches stemming from J.J. Gibson's view of perception suggest how a 'relationship of mutuality' between organism and environment might be theoretically reinstated. Much of our human environment embodies materially the products of symbolic thought and intentional action. In that sense culture is encountered directly through its products, and development involves meeting its adaptive challenges with the dialectic of assimilation and accommodation that leads

to growth. Here Sinha attempts to combine Baldwin's functionalist orientation with Piaget's structuralist one in what he calls a 'socio-naturalistic' epigeneticism. In place of Piaget's formal abstractions, the 'objectivity' of knowledge becomes a matter of socially negotiated intersubjective agreement with those whose collaboration is necessary in obtaining one's goals, grasping cultural meanings and uses of artefacts, and so on.

The last paper, by Wolfe Mays, highlights the often neglected social themes in Piaget's own theorizing. Best known was his work on moral reasoning, where he made very clear the importance, for developing a reflective and responsible social self, of the effort to gain co-operation from others, and the associated need to appreciate their differing viewpoints and desires. Only through experience of the need for mutual social adaptation and persuasive consensus can a self-aware social rationality and commitment to fairness develop. But Mays also points to Piaget's awareness of how, more generally, social conditions affect at least the content of thought. And he offers a trenchant critique of Buck-Morss's claim that formal operational thought is only seen as superior to concrete thinking because of its utility in capitalist societies where there is "triumph of exchange value over use value". His sympathies are more with A.R. Buss, who sees formal abstractions as simply more powerful tools in dominating nature (cf. the modern technologies shared by both capitalist and communist societies).

This rather diverse set of papers by no means represents a unified and integrated resolution of evolutionary and developmental issues, or points of contact and difference. Indeed, there is sometimes clear conflict between authors. And because many of the discussions are pitched at technical, abstract, or even philosophical levels, only the best informed polymath is unlikely to find some papers difficult and obscure. And the fact that human ethology as such is not represented amongst the author's disciplines, or even given more than passing mention explicitly, may lead readers of this *Newsletter* to wonder what this collection can offer them. Minimally, I think the answer is that it does expose a variety of complex questions and theoretical challenges that our broadly empiricist training has often induced us to shy away from. The reason why Piaget figures so prominently is of course that he - scarcely an ethologist in the usual sense - actually attained the interdisciplinary expertise required to get to grips with the intellectual demands of a non-simplistic appreciation of the links between evolution and development. However inadequate his attempted synthesis might prove to be in the long run, it is currently a milestone.

In many ways this volume falls short of providing any paradigm which might be acceptable to all the specialist perspectives involved, or resolving the central paradoxes which the emergence of human consciousness on the evolutionary biological scene throws up. But if any specialist disciplines remain complacent about the explanatory primacy of their own approaches, this book should help to dispel some illusions. It is not the kind of book to dip into for information on one's own favorite topics - where one may find little challenging or new. Rather, it is short enough to read right through, and leaves a *Gestalt* impression even if some topics are too unfamiliar to make complete sense. At the very least it suggests that where human ethologists

themselves may often fear to tread there are others who are groping towards a more realistic conception, of human beings and our place in nature, than has hitherto featured in any one science.

## Response to Kocan's Review of *Myths of Gender*

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This is a response to George Kocan's review of Fausto-Sterlin's *Myths of Gender*, printed in the March issue of HEN. The form, content and tone of this review are addressed, rather than the merits of the book itself. Generally, book reviews include a description of what the author attempted to say, how it was said, and whether or not their attempt was successful. Kocan has failed to accomplish the first two, and in that sense, as a reviewer, he has done potential readers of *Myths of Gender* a disservice.

It is very difficult from reading this review to distinguish what Fausto-Sterlin's views about biological factors in gender related behaviors might be from what Mr. Kocan would encourage his readers to believe about them. In the first paragraph, the reader is informed that Fausto-Sterlin's purpose is a scientific refutation of myths about gender differences, and in so doing, "(t)he value of feminism is assumed and equated with justice, equality, affirmative action and socialism. That any decent and intelligent person would have a different outlook is just not considered. So, feminism prevails by default." This statement does not provide illustration of dogmatic bias in *Myths of Gender*, making it appear to be highly inflammatory and rhetorical.

Another example of an *ad hominem* type of critique is the following "I for one, am not going to announce that my scientific standards are higher than anyone else's." It seems that in the point under discussion, i.e., Maccoby and Jacklin's review of past research offering evidence of sex differences, that scientific standards do seem to be a rather important consideration. Taken to its logical conclusion, if all scientific standards are to be considered equal, one would not have a basis on which to refute scientific creationism. Kocan tells his readers that Fausto-Sterlin's review of his work is "to tell the world that she is a bona fide feminist dedicated to the highest standards of science and that Maccoby and Jacklin, scientifically speaking, muffed the ball." In this review, we do not get any information on how Maccoby and Jacklin attempt to eliminate cultural bias from their analysis of past research, or why Fausto-Sterlin thinks they failed to do so.

Perhaps even more seriously misleading is Kocan's representation of scientific procedures for hypothesis testing in the following "On the other hand, all the evidence should be negative to support the null hypothesis." In my understanding of how scientific evidence is applied to hypothesis testing, failure to reject the null hypothesis does not constitute its proof. In other words, absence of evidence is not evidence of absence. In his discussion of the role of

testosterone in aggression, there may be a similar confusion in the statements that he finds "remarkable evidence supporting a positive role for testosterone in aggression", and that "one can not rule out testosterone as a cause of aggression in men."

In his discussion of research on sex differences in brain laterality, Kocan utilizes a rhetorical device in attempting to indict Fausto-Sterling, not for the content of her critique, but for the reviewer's suspicion that "Fausto-Sterling did not look into this issue personally, but relied on fellow feminists' reviews of the brain literature" on laterality. Again, no scientific issues are discussed in the reviewer's summary of Levy's brain laterality research, i.e., methodology, sample size, or any potential sources of random or systematic error in the available data.

Mr. Kocan does not appear aware of the multiple non-sequiturs in "If evolution has any validity it must apply totally to the human. The universality of its application is intrinsic to this concept. Otherwise, one is compelled to argue that human existence represents a special case—a special creation." In this statement, Mr. Kocan fails to distinguish evolution from theories about its mechanism. He also seems to suggest that critics of sociobiology must be creationists. Again, the scientific issues of evidence for the role of natural selection in human adaptation are not addressed.

One of the most disturbing aspects of Mr. Kocan's review is its tone. If Fausto-Sterling's book is to be seen as a critique of sociobiology, it is appropriate that a sociobiologist review this work. It is not appropriate however, that this review be carried out as a careless, dogmatic, personal attack. If, by the end of his review, any reader should have any question about Mr. Kocan's opinion of the success of Fausto-Sterling's work, it is expressed quite clearly in this concluding statement "... her effort has merit—in the same way, perhaps, that an automobile accident has merit, if it motivates one to learn from others' mistakes." It may be that this reviewer has succumbed to his own accusation of Fausto-Sterling, in that he perhaps "has not so much given the reader a solid refutation of anything as much as a study in how to advocate strongly held personal beliefs by pooh-poohing unwanted evidence.

## The Descent of the Hypercyclical, Hypoprolactinized Female Who Did Evolve

Wade C. Mackey  
Iowa Wesleyan College  
Mt. Pleasant, Iowa

Two items are of interest in relationship to the expectations of the basic Westernized female.

Item #1: Before World War II (henceforth WWII), men had higher (reported) rates of psychoneuroses. After WWII, women forged ahead of men in rates of psychoneuroses.

Item #2: Weidinger (1976) wrote that "Menstruation

and menopause are the only physiological processes in which mild to severe discomfort is a normal accompaniment to healthy functioning . . . Premenstrual syndrome (PMS) distress is not a manifestation of disease, but is the by-product of normal functions of the reproductive system." Leaving "menopause" for others to ponder, I have a thought or so on menstruation. Although not quarreling with the pain quotient attending menstruation, I will momentarily present a quibble about the idea of "normal".

Following convention, Item #2 is discussed first and Item #1 second.

Item #2: Despite the fact that empirical verification is virtually impossible to generate, there is a reasonable argument to be made that current females have a very abnormally high number of menstrual cycles. Beginning at about 12 years, females might anticipate three decades of continuous cycling or somewhere in the vicinity of 360 (30 x 12) 360 cycles. Maybe 300 if they have two children; 250 if they lactate extensively.

Up until the agrarian revolution, our nomadic female ancestors probably had menses later, were pregnant more often, certainly lactated more, were anovulatory more often due to a chancy diet and the nomadic walkathons. One of two dozen visits to the menstrual huts may have sufficed for a lifetime, i.e. menstruation (esp. ovulatory) would be an **unusual** event.

A narrowed focus on lactation is now in order. Without appearing too Class-chauvenistic and without offending boney fish and feathery birds, **Homo** is a mammal and generally proud of it. Given that we are mammals, between the end of WWII and the advent of mammals, who would be worthy of the name, each and every mother suckled her young in a continuous and unbroken chain. No suckling → no child; No child → no descendants. Successful nursing would be a necessary, if not sufficient, precondition for survival of a lineage. Grim reapers can be swift and unyielding.

Why WWII? About that time, or shortly after, "formula-feeding" made technological advances and became available and utilized in the West on a mass-market level. Certainly in the U.S., nursing children for six months to two-years became highly unusual. The onset of formula-feeding prior to leaving the hospital edged toward the norm.

Included within the mosaic of changes operating together in the shift from lactation to formula-feeding is the loss of the prolactin surge at the beginning of suckling. The sequence is very straight-forward and has been around for a long, long time: the mechanics of suckling releases (comparatively) huge amounts of prolactin from the pituitary which splash throughout the blood-stream. Although gradually diminishing over time, the surge is detectable for approximately six months.

Back to Item #1: Remember that the rates of recorded incidences of psychoneuroses switched from males being over-represented to females being over-represented. Especially in the category of depression, females now have a marked advantage in psychological dysfunction. Studies controlling for increased role-conflict still find the distaff lead intact. Males have kept their margin in "other" personality disorders, and have held their own in psychoses. But they have relinquished their pre-eminence in what used to be called "neuroses".

The caveat stating that correlation does not prove causation is dutifully accepted just as it is accepted that correlation does not simultaneously preclude a causal relationship. Qualifications aside, I will place my bet on a causal linkage between the loss of the primordial prolactin surge (CAUSE) and an increased vulnerability/susceptibility of adult women to selective forms of "depression" (EFFECT). The prolactin-surge at the "sensitive period" following birth is speculated here to help insulate the woman from the slings and arrows of outrageous urchins and other abrasive items in her environment.

The culture-wide perceptions and expectations of the normality of monthly cycles (see Disneyesque training films) would mask a well-focused inquiry into any cumulative dysfunctions effect that the natural propensity for, albeit statistically abnormal act of, menstruation would trigger.

I am happy to offer to the good folks at NIMH (see "Secret of . . .") the suggestion of a causal triangulation of (1) too many cycles, with (2) prolactin-deficits, with (3) lowered threshold to depressive reaction. I should also be pleased to leave to them what to do about such a putative linkage for I haven't a clue.

Weideger, Paula (1976) *Menstruation and Menopause*. NY: Alfred A. Knopf p. 44.

## A Tale of Two Niches

Wade C. Mackey  
Iowa Wesleyan College  
Mt. Pleasant, Iowa

Let's us quickly agree on premises: The degree of adaptation of an organism within an ecological system is determined by its relative ability to reproduce itself over generations. Humans are no more or no less an exception to this structure than is any other segment of the biological kingdom. Following the axiomatic lead of Darwin, there is usually variability for a trait within a population, and some sub-set of the population will be better suited—read better adapted—to the environment such that the subset has increased reproductive success compared to alternative sub-sets. Again, humans, just as reindeer, trap-door spiders, and salmon are not exceptions. Accordingly, two reasonable questions to ask about contemporary humans are (1) what is the current ecological niche in which humans live and (2) are some subsets enjoying reproductive advantages while some other subsets are falling below replacement value?

Let's now concern ourselves with the current U.S. culture-megatribe painted with a very wide and coarse-haired brush. Basically, the U.S. society is urbanized, industrialized, service-oriented, and bureaucratized. Children are virtually useless economically, are net costs, and are kept from the monetarized labor force for 16-22 years. The U.S. is a humane place with massive programs to

prevent malnutrition, disease, and ignorance from afflicting its own citizens. The overall fertility rate is below replacement levels and has been since 1972. Presently, there are approximately 1.7 children born per female which is substantially below the 2.1 needed for replacement value. So, the culture as a unit is operating not only at a suboptimal level but at a submaintenance level when evolutionary gauges are used as benchmarks. Immigrants into the culture have allowed the population to increase.

Let's further define the woman-child dyad as a "family". So defined, we find three major types of families in the U.S.: (1) the traditional nuclear family: father as primary provider and ancillary caretaker; mother as primary child caretaker and *ad hoc* participant in the labor force plus children; (2) co-equal parents-providers plus children; (3) mother plus children plus the "state" which fulfills the roles of the traditional father. Type 1 is archetypal old; whereas Types 2 and 3 are new slots. However unconscious the process may be, these three family-types are competing with each other for the predominant form within the U.S. megatribe ecology.

Slot #2, the egalitarian family of coparent-providers, is at a low fertility rate. As a consequence of this depressed rate, which asymptotes at about one, the egalitarian family-type is more of a nominal competitor rather than a functional competitor.

The other new kid on the block, the woman-child-state triad stems from a cultural value which has been actualized for less than a century. The cultural value, publicly articulated and publicly funded, is that the U.S. is a humane tribe which tends to its own. Public coffers are available to insure that food, clothing, shelter, medical care are available for all of the tribe's members. This "state" altruism has become superimposed upon, and immersed in, the bureaucratic-industrialized infrastructure. Ever eager, ever opportunistic humans are certainly available to try out and exploit the spanking new niche.

Therefore, the more interesting and very real contest, however inadvertently the opponents may be vying, is the one between the woman-child-"state" family and the traditional nuclear family. As is often the case, hygienically clean data are generally hard to compile. Nonetheless, there is a clear trend of an increase in both the number and percentage of woman-child-"state" families compared to the traditional family. Both types appear to be producing (viable) children at approximately the same rate per woman. Within the two broad categories, the Blacks are good examples of the former; while Hispanics and Mormons are good examples of the latter, using ethnicity and religious affiliation respectively as taxa.

These two polar types represent a structurally unstable amalgam. For example, the traditional father underwrites the "state" thereby provisioning his own children directly and the "state's" children indirectly. Accordingly, somewhere down the road, the social father either abdicates his position or removes "humaneness" from the character of the society.

The fun part for human ethologists is to watch the jostling and refitting of our species as different sections of the population find their most comfortable dens, redecorate them, and then settle down to be fertile and multiply or not.

## Social Science Publication Trends in Sociobiology: 1976-1984

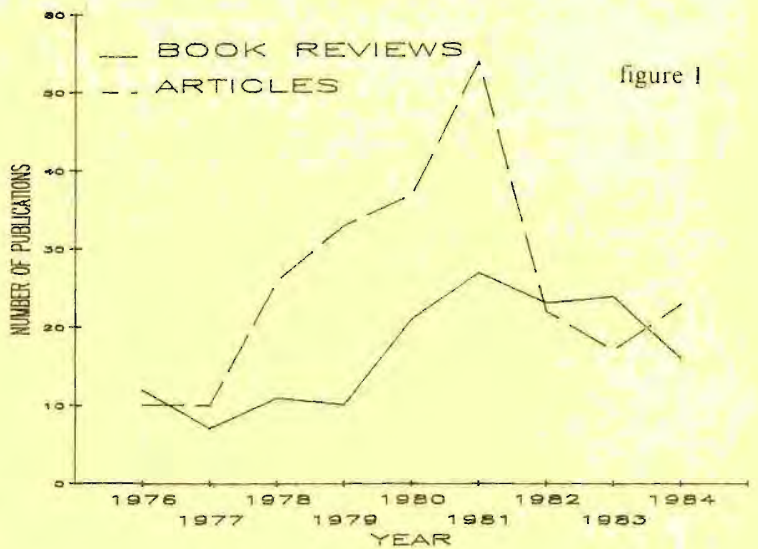
Robert M. Adams  
Eastern Kentucky University

Wilson's (1975) "new synthesis" generated a great deal of enthusiasm and controversy, and Wilson (1977) even went so far as to predict that the social sciences would be revolutionized by their new "antidiscipline," sociobiology. One way to test such a prediction, and the general impact of sociobiology on the social sciences, is by means of publication counts.

The "Permuterm Subject Index" of the *Social Sciences Citation Index (SSCI)*, published by the Institute for Scientific Information, was chosen for its breadth of journal coverage. SSCI indexes about 3,000 journals in social sciences, broadly defined. The years 1976, the year following publication of Wilson's book, through 1984, the last cumulative volume of SSCI, were chosen. A frequency count was made of publications under the index term "sociobiology," separating book reviews from other articles. These frequencies are shown in the first figure.

In general the number of book reviews shows a moderate increase over the period, while the number of other articles shows an increase to a peak of 57 in 1981, then a decrease to pre-1978 levels. Only four of the articles, covering three years, appeared in *Ethology and Sociobiology*.

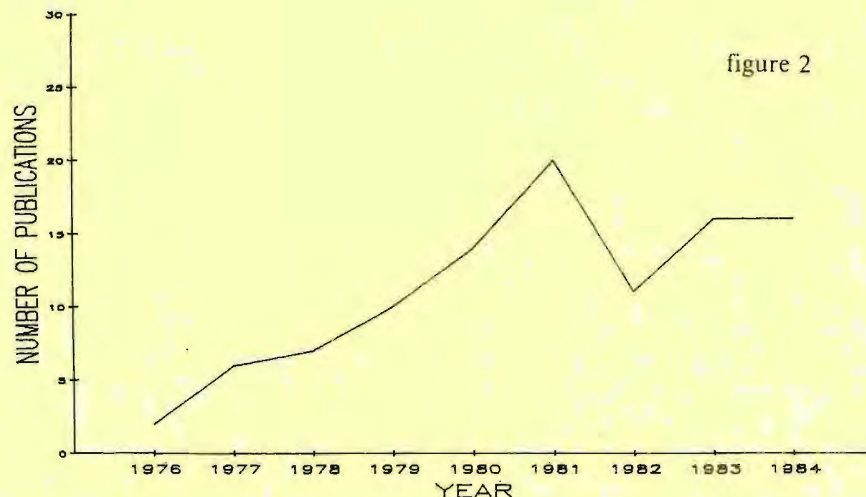
A possible explanation for the failure of "sociobiology" articles to show continuing growth is that, as sociobiology becomes a less novel term, there would be less need to include it in a title. To examine this hypothesis a frequency count of articles using any one of the terms "inclusive fitness", "parental investment", "kin selection", and "reproductive success." This list was selected for its relatively exclusive use in the sociobiological literature, and the data are shown in the second figure. The set of articles was not checked for duplication, focus on human subjects, or sociobiological content.



Again a moderate increase is seen, but one that is considerably less than striking. One possible explanation for the absence of a large increase is the frequency of these articles is that sociobiology has not yet found acceptance in the traditional editorial policy of the social science journals - revolutions may require more than nine years - thus forcing authors to submit their human sociobiological manuscripts to natural science journals or publish them as book chapters (though many of these are indexed in SSCI). Or, it may be the case, as Harzog (1986) has suggested, that sociobiology is still viewed merely as an oddity by the great majority of social scientists.

Thanks to Neccica Hayes for the publication counting.

Harzog, H.A., Jr. (1986). The treatment of sociobiology in introductory psychology texts. *Teaching of Psychology*, 13, 12-15.  
 Wilson, E.O. (1975). *Sociobiology: The new synthesis*. Cambridge: Harvard University Press.  
 Wilson, E.O. (1975). Biology and the social sciences. *Daedalus*, 106, 127-140.



## Beyond the Dyad

Michael Lewis (Ed.). (Genesis of Behavior: Vol 4). 1984. Plenum Press.

### Review by William Bailey

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In no primate species do the young grow up alone with their mothers, completely isolated from conspecifics. Even the most isolated species, Orangutan, is now known to be somewhat more social than it was previously thought to be.

Anyone who has any experience at all with young humans knows that they are exposed to and interact with a good many people of varying characteristics (e.g., age, sex, relatedness). Yet, to a large extent one gains the impression that most students of child development are unaware of this readily apparent condition. The literature on early development gives the impression that young humans are reared solely by their mothers—in complete isolation. Consider, for instance, the literature on language acquisition; it's all mother and baby, baby and mother. Surely the baby's father, brothers, sisters must, at least occasionally, speak to it and just as surely the baby must sometimes babble/talk to them. Surely when grandmother comes to visit, the baby's ears are not plugged up, and even the most reserved grandfather must sometimes say *something to the child*. Yet you will read a great deal of the language literature without having these elemental facts drawn to your attention. For all intents and purposes the study of language acquisition is the study of mother-related language acquisition.

My comments here are not intended to suggest that mothers do not play an important role (perhaps the most important one) in language development but rather to emphasize that a great deal of development goes beyond the dyad, the mother-child dyad in particular.

This book attempts (rather well) to refute the implicit assumption that the mother-child dyad is the necessary and sufficient environment for all social and cognitive development. Fathers, siblings, grandparents, and strangers all impinge upon, affect and effect child development as the authors in this book point out.

To begin with: my one major complaint . . . there's too much of the editor here. It's expected that he's written the introductory "overview"; but I think it's a bit too much that he's also a co-author of three chapters—even though they are well composed and interesting. Enough!

Three (of 13) chapters will be of particular interest to human ethologists. Thomas Weisner has written a cross-cultural perspective of children's social ecology. Too often ethologists neglect variation such as this. Devra Kleiman further expands her important work on monogamy in mammals. Her concepts of direct and indirect investment with renewable and unrenewable resources are among the

most important points in the consideration of paternal involvement/investment in humans. Somehow the 40 hours a week (or whatever) a man spends at work earning his pay is usually ignored in most studies of father "caring". Ronald Nadler discusses the biological contributions to the maternal behavior of the great apes. One big problem in so many discussions of the "biological" aspects of parent-child and child-parent bonding is that they fail to recognize the effect and extent of variation. If there is a genetic element to bonding (**and there is**) then it should come as no surprise, indeed we should anticipate, that there will be variation. Hopefully, papers such as Nadler's will better inform people what is "natural" and what is actually going on in nature."

Several researchers have begun in the past few years to explore the contribution of grandparents to development. (Remember **Reproductive Success** and "future generations"?) Barbara Tinsley and Ross Parke report their work in this area.

In addition to these, there are two "applied" chapters concerning families with a handicapped member and several that are just a bit too much in the traditional psychological tradition for my taste.

This is a book I can truly recommend to the members. You will want your institutional library to have it. If childhood and development is your focus of interest, you will want your own copy (to underline, write in margins, consult references, etc.) Further, I think it would make a good primary/focal source for a graduate/advanced undergrad seminar.

*As a final note: the publishers of this work, Plenum Press, have brought out a number of books in recent years which are of interest, important to human ethologist (for instance Wade Mackey's book on fathering behavior). You might want to consult their catalogs regularly.*

### Newsletter Submissions

Yes, please send anything which might be of interest to ISHE members: announcements of meetings, comments relevant to human ethology, suggestions for Forum topics — conspicuous by their absence lately, sabbatical opportunities, employment opportunities, anything.

Suggestions for books to review, or reviews, should be sent to European Editors William McGrew (Dept. of Psychology, University of Stirling, Stirling FK9 4LA Scotland) or Ian Vine (Interdisciplinary Human Studies, University of Bradford, Bradford, West Yorkshire, BD7 1DP, England) or to American Editor William Bailey (Dept. of Psychology, Tulane University, New Orleans, Louisiana 70118).

Submissions in any legible format are acceptable.

## 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.

Addison, W.E. (1986). Agonistic behavior in preschool children: A comparison of same-sex versus opposite-sex interactions. *The Bulletin of the Psychonomic Society*, 24, 44-46. (St. Peters College, Department of Psychology, Jersey City, NJ, 07306)

Archer, J. (1986). Animal sociobiology and comparative psychology: A review. *Current Psychological Research and Reviews*, 5, 48-61.

Arnold, A.P., & Breedlove, S.M. (1985). Organizational and activational effects of sex steroids on brain and behavior: a reanalysis. *Hormones and Behavior*, 19, 469-498.

Bakeman, R., & Gottman, J.M. (1986). *Observing interaction: An introduction to sequential analysis*. New York: Cambridge University Press. (32 East 57th Street, New York, NY 10022).

Blakemore, J.E.O. (1985). Interaction with a baby by young adults: a comparison of traditional and feminist men and women. *Sex Roles*, 13, 405.

Bornstein, M.H., & Benasich, A.A. (1986). Infant habituation: assessments of individual differences and short-term reliability at five months. *Child Development*, 57, 87-99.

Bryant, B.K. (1985). The neighborhood walk: sources of support in middle childhood. Monographs of the Society for Research in Child Development. 50, (no 3, serial no. 210).

Bugental, D.B. (1986). Unmasking the polite smile—situational and personal determinants of managed affect in adult-child interaction. *Personality and Social Psychology Bulletin*, 12, 7-17. (University of California-Santa Barbara, Psychology Department, Santa Barbara, CA 93106)

Buss, D.M. & Barnes, M. (1986). Preferences in human mate selection. *Journal of Personality and Social Psychology*, 50, 559-571.

Charlesworth, W.R. (1986). Darwin and developmental psychology: from the proximate to the ultimate. *Human Development*, 29, 22-35.

Charlesworth, W.R. (1986). Darwin and developmental psychology: 100 years later. *Human Development*, 29, 1-4.

Costall, A. (1986). Evolutionary gradualism and the study development. *Human Development*, 29, 4-11.

Cunningham, M.R. (1986). Measuring the physical attractiveness: Quasi-experiments on the sociobiology of female facial beauty. *Journal of Personality and Social Psychology*, 50, 925-936. (Elmhurst College, Dept. of Psychology, Elmhurst, IL, 60126).

Delienne, J. (1984). The notion of territoriality in ethology and animal sociology. *Revue de l'Institut de Sociologie*, 401-436. (University of Libre Bruxelles, B-1050, Brussels, Belgium)

Donate-Bartfield, E., & Passman, R.H. (1985). Attentiveness of mothers and fathers to their baby's cries. *Infant Behavior and Development*, 8, 385-394.

Donovan, B.T. (1986). *Hormones and human behaviour*. New York: Cambridge University Press. (32 East 57th Street, New York, NY 10022).

Gaensbauer, T.J., Harmon, R.J., Culp, A.M., Schultz, L.A., Vandoorninck, W.J., & Dawson, P. Relationships between attachment behavior in the laboratory and the caretaking environment. *Infant Behavior & Development*, 8, (4), 355-370. (Univ. of Colorado, Health Science Center, 4200 E. 9th Ave., Denver, CO 80262, USA).

Gaulin, S.J.C. & FitzGerald, R.W. (1986). Sex differences spatial ability: an evolutionary hypothesis and test. *American Naturalist*, 127: 74-88.

Ghiselin, M.T. (1986). The assimilation of Darwinism in developmental psychology. *Human Development*, 29, 12-21.

Glassman, R.B., Packer, E.W., & Brown, D.L. (1986). Green beards and kindred spirits: A preliminary mathematical model of altruism toward nonkin who bear similarities to the giver. *Ethology and Sociobiology*, 7, 107-115. (Department of Psychology, Lake Forest College, Sheridan and College Roads, Lake Forest, IL 60045)

Goldberg, S., Perrotta, M., Minde, K., & Corter, C. (1986). Maternal behavior and attachment in low-birth-weight twins and singletons. *Child Development*, 57, 34-46.

Granberg, D. & Granberg, B.W. (1985). A search for gender differences on fertility-related attitudes—questioning the relevance of sociobiology theory for understanding social psychological aspects of human reproduction. *Psychology of Women*, 9, 431-439.

Greenwood, P.J., Harvey, P.H., & Slatkin, M. (Eds.). (1986). *Evolution: Essays in honour of John Maynard Smith*. New York: Cambridge University Press. (32 East 57th Street, New York, NY 10022).

Grene, M. (Ed.). (1986). *Dimensions of Darwinism*. New York: Cambridge University Press. (32 East 57th Street, New York, NY 10022).

Hallpike, C.R. (1986). Social and biological evolution .2. Some basic principles of social evolution. *Journal of Social and Biological Structures*, 9 (1), 5-36. (McMaster Univ., Dept. of Anthropology, 1280 Main St., W. Hamilton, Ontario, Canada L8S 4L9).

Harcourt, A., (1985). All's fair in play and politics. *New Scientist*, 1985, Dec., 35-37.

Harpending, H. & Cowan, S. (1986). Primate population structure: Evaluation of models. *American Journal of Physical Anthropology*, 70, 63-69. (Penn. State University, Department of Anthropology, University Park, PA 16802)

Harrop, A., & Daniels, M. (1986). Methods of time sampling: A reappraisal of momentary time sampling and partial interval recording. *Journal of Applied Behavior Analysis*, 19, 73-77. (Section of Psychology, Liverpool Polytechnic, C.F. Mott Campus, Liverpool Road, Prescott, Merseyside L34 1NP, United Kingdom).



- Hart, P.J.B. and Jackson, P.H. (1986). The influence of sex, patch quality, and travel time on foraging decisions by young adult homo sapiens L. *Ethology and Sociobiology*, 7, 71-89. (Department of Zoology, University of Leicester, Leicester, United Kingdom)
- Hartung, J. (1985). Matrilineal inheritance: New theory and analysis. *Behavioral and Brain Sciences*, 8, (4), 661-688. (SUNY Downstate Med. Center, Dept. of Anesthesiology, Brooklyn, NY 11203, USA)
- Hartup, W.W. & Rubin, Z. (Eds.) (1986). *Relationships and development*. Hillsdale, NJ: Lawrence Erlbaum. (Includes chapters by Hartup, Hinde and Stevenson-Hinde, Sroufe and Fleeson)
- Herzog, H.A. (1986). The treatment of sociobiology in introductory psychology textbooks. *Teaching of Psychology*, 13, 12-14. (Mars Hill College, Department of Psychology, Mars Hill, NC, 28754.)
- Hoffman, S.O. (1986). Ethology, trauma and neurosis—testing of an evaluation of John Bowlby contribution on the comprehension of the origins of mental disorders. *Zeitschrift fur Psychosomatische Medizin und Psychoanalyse*, 32 (1), 5-7. (University of Mainz, Psychosomatic Medicine & Psychotherapie Kiln & Polikiln, Langenbeckstr I. D-6500 Mainz, Fed. Rep. of Germany).
- Janson, C.H. (1986). Capuchin counterpoint. *Natural History*, 1986, Feb., 44-53.
- Jones, C.B. (1986). Infant transfer behavior in humans: A note on the exploitation of young. *Aggressive Behavior*, 12 167-173.
- Jones, N.B. (1986). Bushman birth spacing: A test for optimal interbirth intervals. *Ethology and Sociobiology*, 7, 91-105. (Graduate School of Education, University of California, Los Angeles, 405 Hilgard Avenue, Los Angeles, CA 90024)
- Kellman, P.J., Spelke, E.S., & Short, K.R. (1986). Infant perception of object unity from translatory motion in depth and vertical translation. *Child Development*, 57, 72-86.
- Kenner, A.N. (1984). The effect of task differences, attention and personality on the frequency of body-focused hand movements. *Journal of Nonverbal Behavior*, 8 (3), 159-171. (South Australian College of Advanced Education - Magill Campus, Lorne Avenue, Magill, South Australia 5072) (In this paper I consider the factors apparently influential in the occurrence of irrelevant self and object manipulating behavior in humans, with reference to similar behavior in other vertebrate species.)
- Kevles, B. (1986). *Females of the Species*. Cambridge, Massachusetts: Harvard University Press.
- Kinzey, W.G. (Ed.) (1986). *Evolution of human behaviour: Primate models*. Albany, NY: State University of New York Press.
- Kirouac, G., Bouchard, M., & Stpierre, A. (1986). Facial expressions of emotions and ethological behavioral categories. *Perceptual and Motor Skills*, 62, 419-424.
- Kolata, G. (1985). Finding biological clocks in fetuses. *Science*, 230, 929-930.
- Kort, F. (1986). Considerations for a biological basis of civil rights and liberties. *Journal of Social and Biological Structures*, 9 (1), 37-52. (Univ. of Connecticut, Dept. of Political Science, Storrs, CT 06268, USA)
- Lancaster, J.B., & Hamburg, B.A. (Eds.) (1986). *School-age pregnancy and parenthood: Biosocial dimensions*. Hawthorne, NY: Aldine de Gruyter.
- Lewin, R. (1986). When stones can be deceptive. *Science*, 231, 113-115.
- Linnankoski, I., & Leinonen, L.M. (1985). Compatibility of male and female sexual behavior in *Macaca arctoides*. *Zeitschrift fur Tierpsychologie*, 70, 115-122. (note: this should be required reading for all those who (still) think that human females are unique in their being sexually receptive throughout the month and in having orgasms. Bill)
- Livesey, P.J. (1986), *Learning and emotion: A biological synthesis. Volume 1: Evolutionary processes*. Hillsdale, NJ: Lawrence Erlbaum Associates, Inc.
- Lumsden, C.J., & Wilson, E.O. (1985). The relation between biological and cultural evolution. *Journal of Social and Biological Structures*, 8 (4), 343-360. (Univ. of Toronto, Dept. of Medicine, Med. Science Bldg., Room 7313, Toronto, Ontario Canada M5S 1A8)
- Lyons, J.A. & Serbin, L.A. (1986). Observer bias in scoring boys and girls aggression. *Sex Roles*, 14, 301-315. (Reprint requests to Serbin, Concordia University, Center for Research of Human Development, 1455 Marsonneuve Blvd, W., Montreal, Quebec, Canada H3G 1M8)
- McCormick, M.C. (1985). The contribution of low birth weight to infant mortality and childhood morbidity. *New England Journal of Medicine*.
- Mackey, W.C. (1986). A facet of the man-child bond: The teeter-totter effect. *Ethology and Sociobiology*, 7, 117-134. (Division of Social Sciences, Iowa Wesleyan College, Mt. Pleasant, IA 52641)
- Mackintosh, N.J. (1986). The biology of intelligence. *The British Journal of Psychology*, 77 (1), 1-18. (Univ. of Cambridge, Dept. Exceptional Psychology, Downing St., Cambridge, CB2 3EB, England).
- Mahalski, P.A. (1985). *Children, Cuddlies and Comfort Habits* Ph.D. thesis available from the University of Otago Library, Dunedin, New Zealand. (Theories, incidence, causation and consequences of attachment to soft objects and thumb sucking. Current address: 3984 Mahaila Avenue, #A, San Diego, CA 92122).
- Mahalski, P.A., Silva, P.A., & Spears, G.F.S. (1985). Children's attachment to soft objects at bedtime, child rearing and child development. *Journal of the American Academy of Child Psychiatry*, 24, 442-446.
- Manson, W.C. (1986). Sexual cyclicity and concealed ovulation. *Journal of Human Evolution*, 15, 21-31.
- Martin, P., & Bateson, P. (1986). *Measuring Behaviour: An Introductory Guide*. New York: Cambridge University Press. (32 East 57th Street, New York, NY 10022).
- Melotti, U. (1985). Competition and cooperation in human evolution. *The Mankind Quarterly*, 25, 323-352. (University of Pavia, I-27100, Pavia, Italy)

- Mitchell, R.W., & Thompson, N.S. (Eds.) (1986). *Deception: Perspectives on human and nonhuman deceit*. New York: State University of New York Press. (State University Plaza, Albany, NY 12256, USA).
- Nespoulous, J., Perron, P. & Lecours, A.R. (Eds.) (1986). *The biological foundations of gestures: Motor and semiotic aspects*. Hillsdale, NJ: Lawrence Erlbaum Associates, Inc.
- Nyquist, L.V., & Spence, J.T. (1986). Effects of dispositional dominance and sex role expectations of leadership behaviors. *Journal of Personality and Social Psychology*, 50, 87-94.
- Power, T. G. and Chapieski, M.L. (1986). Childrearing and impulse control in toddlers: A naturalistic investigation. *Developmental Psychology*, 22, 271-275. (University of Houston, Department of Psychology, Houston, TX, 77004)
- Ragair, S. (1985). Retarded development: The evolutionary mechanism underlying the emergence of the human capacity for language. *Journal of Mind and Behavior*, 6, 451-468. (Cuny College of Staten Island, Department of Sociology and Anthropology, 715 Ocean Terrace, Staten Island, NY, 10301)
- Reynolds, V., Falser, V.S.E., & Vine, I. (Eds.) (1986). *The sociobiology of ethnocentrism: Evolutionary dimensions of xenophobia, discrimination, racism, and nationalism*. London: Croom Helm.
- Rindos, D. (1986). The genetics of cultural anthropology: Toward a genetic model for the origin of the capacity for culture. *Journal of Anthropological Archaeology*, 5 (1), 1-38. (R2, Box 222, Trumansburg, NY 14896, USA).
- Roberts, S. (1986). Ontogeny of mirror behavior in two species of great apes. *American Journal of Primatology*, 10, 109-118.
- Rowell, T.E., & Chism, J. (1986). The ontogeny of sex differences in the behavior of patas monkeys. *International Journal of Primatology*, 7 83 - .
- Ruggieri, V., Fiorenza, M., & Sabatini, N. (1986). Visual decodification of some facial expressions through microimitation. *Perceptual and Motor Skills*, 62, 475-482.
- Saudargas, R.A., & Lentz, F.E. Jr., (1986). Estimating percent of time and rate via direct observation: A suggest observational procedure and format. *School Psychology Review*, 15 (1), 36048. (Univ. of Tennessee. Dept. of Psychology, Knoxville, TN 37996, USA)
- Scherer, K.R. (1986). Vocal affect expression: A review and a model for future research. *Psychological Bulletin*, 99, 143-165. (University of Giessen, Department of Psychology, Otto Behaghel Strasse 10, D-6300 Giessen, Federal Republic of Germany).
- Schleidt, W.M. (1985). Cross-cultural comparison of temporal patterns in facial expressions. *National Geographic Society Research Reports*, 21, 437-442. Institut fur Vergleichende Verhaltensforschung, Savoyenstrabe 1 a, A-1160 Wien) (Describes a promising semi-automatic method for the study of human facial expression movements by means of pattern detection and classification algorithms.
- Shipman, P. (1986). Scavenging of hunting in early hominids: Theoretical framework and tests. *American Anthropologist*, 88, 27-43. (Johns Hopkins University, School of Medicine, Department of Cell Biology and Anatomy, Baltimore, MD, 21205)
- Simons, R.C., & Hughes, C.C. (Eds.). (1985). *Culture-bound syndromes: folk illnesses of psychiatric and anthropological interest*. Rowan and Littlefield.
- Slater, P.J.B. (1986). *An introduction to ethology*. New York: Cambridge University Press. (32 East 57th Street, New York, NY 10022).
- Spotila, J.R., & Standora, E.A. (1985). Energy budgets of ectothermic vertebrates. *Amer Zool*, 25, 973-986.
- Sternberg, R.J. (1985). Human intelligence: the model is the message. *Science*, 230, 1111-1118.
- Stuartfox, M. (1986). The unit of replication in socio-cultural evolution. *Journal of Social and Biological Structures*, 9 (1), 67-. (Univ. Queensland, Dept. of History, St. Lucia, QLD 4067, Australia).
- Thierry, B., & Anderson, J.R., (1986). Adoption in anthropoid primates. *International Journal of Primatology*, 7, 191-. (U. Strasbourg I, Psychophysiol. Lab, F-67070, Strasbourg, France)
- Vine, I. (1986). Inclusive fitness and the self-system—The roles of human nature and socio-cultural processes in inter-group discrimination. In V. Reynolds, V.S.E. Falser, & I. Vine (Eds.) *Evolutionary dimensions of xenophobia, discrimination, racism, and nationalism*. London: Croom Helm. (It is argued that an adequate sociobiological analysis of tendencies to restrict social loyalties to close kith and kin must, in the human case, take full account of our unique self-system. Thus fitness-related social biases of the self can be either increased or reduced by both social normative and rational influences.)
- Wagner, H.L., MacDonald, C.J., & Manstead, A.S.R. (1986). Communications of individual emotions by spontaneous facial expressions. *Journal of Personality and Social Psychology*, 50, 737-743. (University of Manchester, Department of Psychology, Manchester M13 9 Place, Lancs, England)
- Walsh, D.G., & Hewitt, J. (1985). Giving men the come-on: effect of eye contact and smiling in a bar environment. *Perceptual and Motor Skills*, 61, 873-874.
- Wierzbicka, A. (1986). Semantics and the interpretation of cultures: The meaning of alternate generations devices in Australian languages. *Man*, 21, 34-49. (Australian National University, Canberra, ACT 2600, Australia)
- Zahn-Waxler, C., Cummings, E.M., & Iannotti, R.J. (1986). *Altruism and aggression: Social and biological origins*. New York: Cambridge University Press. (32 East 57th Street, New York, NY 10022.)
- Zivin, G. (1986). Processes of expressive behavior development. *Merrill-Palmer Quarterly*, 32 103-140. (Thomas Jefferson University, Jefferson Medicine College, Department of Psychiatry and Human Behavior, 3 Curtis, 1015 Walnut St., Philadelphia, PA 19107)
- Zumpe, D., & Michael, R.P. (1986). Dominance index: A simple measure of relative dominance status in primates. *American Journal of Primatology*, 10, 301-315. (Dept. of Psychiatry, Emory Univ., 1256 Briarcliff Rd. NE, Atlanta, GA 30306 USA)