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Bioethics

CALL FOR PAPERS

Special Issue for 1989

The Scientific, Philosophical and Ethical Uncertainties of Pain

There is a range of issues relating to pain which cross the boundaries of science, philosophy of mind and ethics, and have implications for our treatment of foetuses, infants, older humans in abnormal conditions, and non-human animals.

> What can we know about whether, and to what degree, beings in these categories are capable of experiencing pain ?
>
> What are the ethical implications of any uncertainty we may have about the pain they feel ?

We invite contributions on any aspect of these issues, or on related ethical problems in biomedical research or medical or veterinary practice.

Such problems include, but are not limited to:

* animal experimentation
* medical uses of the human foetus
* late abortions
* painful procedures on newborn infants
* painful procedures on older patients with an inability to consent

Contributors who are in doubt about whether their topic will be suitable for the issue are invited to send us an outline of their work. The editors may be reached by writing:

Professor Peter Singer/Dr. Helga Kuhse
Centre for Human Bioethics
Monash University
Clayton
Victoria 3168
AUSTRALIA

Deadline for submission of papers is **January 15, 1989.**

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Behavioral and Brain Sciences

Instructions for Authors and Commentators

Behavioral and Brain Sciences (BBS) is a unique scientific communication medium, providing the service of Open Peer Commentary for reports of significant current work in psychology, neuroscience, behavioral biology or cognitive science. If a manuscript is judged by BBS referees and editors to be appropriate for Commentary (see Criteria below), it is then circulated to a large number of commentators selected (with the aid of systematic bibliographic searches) from the BBS Associateship* and the worldwide biobehavioral science community, including individuals recommended by the author.

Once the Commentary stage of the process has begun, the author can no longer alter the article, but can respond formally to all commentaries accepted for publication. The target article, commentaries and authors' response then co-appear in BBS. Continuing Commentary and replies can appear in later issues.

Criteria for acceptance To be eligible for publication, a paper should not only meet the standards of a journal such as *Psychological Review* or the *International Review of Neurobiology* in terms of conceptual rigor, empirical grounding, and clarity of style, but it should also offer **a clear rationale for soliciting Commentary.** That rationale should be provided in the author's covering letter, together with **a list of suggested commentators.** The original manuscript plus **eight copies** must be submitted.

A paper for BBS can be (*i*) the report and discussion of empirical research that the author judges to have broader scope and implications than might be more appropriately reported in a specialty journal; (*ii*) an unusually significant theoretical article that formally models or systematizes a body of research; or (*iii*) a novel interpretation, synthesis, or critique of existing experimental or theoretical work. Occasionally, articles dealing with social or philosophical aspects of the behavioral and brain sciences will be considered.

The service of Open Peer Commentary will be primarily devoted to original unpublished manuscripts. However, a recently published book whose contents meet the standards outlined above may also be eligible for Commentary. In such a BBS Multiple Book Review, a comprehensive, article-length précis by the author is published together with the commentaries and the author's response. In special cases, Commentary will also be extended to a position paper or an already published article dealing with particularly influential or controversial research. Submission of an article implies that it has not been published or is not being considered for publication elsewhere. Multiple book reviews and previously published articles appear by invitation only. **The Associateship and professional readership of BBS are encouraged to nominate current topics and authors for Commentary.**

In all the categories described, the decisive consideration for eligibility will be the desirability of Commentary for the submitted material. Controversiality *simpliciter* is not a sufficient criterion for soliciting Commentary: a paper may be controversial simply because it is wrong or weak. Nor is the mere presence of interdisciplinary aspects sufficient: general cybernetic and "organismic" disquisitions are not appropriate for BBS. Some appropriate rationales for seeking Open Peer Commentary would be that: (1) the material bears in a significant way on some current controversial issues in behavioral and brain sciences; (2) its findings substantively contradict some well-established aspects of current research and theory; (3) it criticizes the findings, practices, or principles of an accepted or influential line of work; (4) it unifies a substantial amount of disparate research; (5) it has important cross-disciplinary ramifications; (6) it introduces an innovative methodology or formalism for consideration by proponents of the established forms; (7) it meaningfully integrates a body of brain and behavioral data; (8) it places a hitherto dissociated area of research into an evolutionary or ecological perspective; etc.

In order to assure communication with potential commentators (and readers) from other BBS specialty areas, **all technical terminology must be clearly defined or simplified, and specialized concepts must be fully described.** Authors should use numbered section-headings to facilitate cross-reference by commentators.

Note to commentators The purpose of the Open Peer Commentary service is to provide a concentrated constructive interaction between author and commentators on a topic judged to be of broad significance to the biobehavioral science community. Commentators should provide substantive criticism, interpretation, and elaboration as well as any pertinent complementary or supplementary material, such as illustrations; all original data will be refereed in order to assure the archival validity of BBS commentaries. Commentaries and articles should be free of hyperbole and remarks *ad hominem.*

Style and format for articles and commentaries Articles must not exceed 14,000 words (and should ordinarily be considerably shorter); **commentaries should not exceed 1,000 words.** Spelling, capitalization, and punctuation should be consistent within each article and commentary and should follow the style recommended in the latest edition of *A Manual of Style,* The University of Chicago Press. It may be helpful to examine a recent issue of BBS. A title should be given for each article and commentary. An auxiliary short title of 50 or fewer characters should be given for any article whose title exceeds that length. Each commentary must have a distinctive, representative **commentary title.** The contributor's name should be given in the form preferred for publication; the affiliation should include the full institutional address. **Two abstracts,** one of 100 and one of 250 words, should be submitted with every article. The shorter abstract will appear one issue in advance of the article; the longer one will be circulated to potential commentators and will appear with the printed article. A list of 5–10 keywords should precede the text of the article. Tables and figures (i.e. photographs, graphs, charts, or other artwork) should be numbered consecutively in a separate series. Every table and figure should have a title or caption and at least one reference in the text to indicate its appropriate location. Notes, acknowledgments, appendices, and references should be grouped at the end of the article or commentary. Bibliographic citations in the text must include the author's last name and the date of publication and may include page references. Complete bibliographic information for each citation should be included in the list of references. Examples of correct style for bibliographic citations are: Brown (1973); (Brown 1973); (Brown 1973; 1978); (Brown 1973; Jones 1976); (Brown & Jones 1978); (Brown, Jones & Smith 1979) and subsequently, (Brown et al. 1979). References should be typed in alphabetical order in the style of the following examples. **Journal titles should not be abbreviated.**

Kupfermann, I. & Weiss, K. (1978) The command neuron concept. *Behavioral and Brain Sciences* 1:3–39.

Dunn, J. (1976) How far do early differences in mother-child relations affect later developments? In: *Growing points in ethology,* ed. P. P. G. Bateson & R. A. Hinde, pp. 1–10. Cambridge University Press.

Bateson, P. P. G. & Hinde, R. A., eds. (1976) *Growing points in ethology.* Cambridge University Press.

Preparation of the manuscript The entire manuscript, *including notes and references,* must be typed **double-spaced** on 8½ by 11 inch or A4 paper, with margins set to 70 characters per line and 25 lines per page, and should not exceed 50 pages. Pages should be numbered consecutively. It will be necessary to return manuscripts for retyping if they do not conform to this standard.

Each table and figure should be submitted on a separate page, not interspersed with the text. Tables should be typed to conform to BBS style. Figures should be ready for photographic reproduction; they cannot be redrawn by the printer. Charts, graphs, or other artwork should be done in black ink on white paper and should be drawn to occupy a standard area of 8½ by 11 or 8½ by 5½ inches before reduction. Photographs should be glossy black-and-white prints; 8 by 10 inch enlargements are preferred. All labels and details on figures should be clearly printed and large enough to remain legible even after a reduction to half size. It is recommended that labels be done in transfer type of a sans-serif face such as Helvetica.

Authors are requested to submit their double-spaced original manuscript with **eight copies** for refereeing, and commentators their original plus **two copies,** to: Steven Harnad, Editor, Behavioral and Brain Sciences, 20 Nassau St., Suite 240, Princeton, NJ 08542. *In case of doubt as to appropriateness for BBS commentary, authors should write to the editor before submitting eight copies.*

Editing The publishers reserve the right to edit and proof all articles and commentaries accepted for publication. Authors of articles will be given the opportunity to review the copyedited manuscript and page proofs. Commentators will be asked to review copyediting only when changes have been substantial; commentators will not see proofs. Both authors and commentators should notify the editorial office of all corrections within 48 hours or approval will be assumed.

Authors of target articles receive 50 offprints of the entire treatment, and can purchase additional copies. Commentators will also be given an opportunity to purchase offprints of the entire treatment.

*Individuals interested in serving as BBS Associates are asked to write to the editor.

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Behavioral and Brain Sciences

To appear in Volume 11, Number 3 (1988)

Event-related potentials and cognition: A critique of the context updating hypothesis and an alternative interpretation of P3

Rolf Verleger, *West Germany*

P3 is the most prominent of those electrical potentials of the human electroencephalogram that are sensitive to psychological variables. P3 is widely interpreted as reflecting the updating of working memory and as being evoked by unexpected events. However, these interpretations are not supported by the available evidence. It is argued that P3s are evoked by stimuli that the subject is awaiting; they thus appear as a consequence of the subject's combining successive stimuli into larger units. P3s may be physiological indicators of excess activation released from perceptual control areas.

***Precommentary* by** E Donchin & MGH Coles

With *Commentary* from N Birbaumer & T Elbert; D Brandeis & E Callaway; D Friedman; E Halgren; RE Hampson & SA Deadwyler; GV Jones; MR Jones; HJ Markowitsch; P Rabbitt; F Rösler; WT Roth & JM Ford; M Rugg; AF Sanders & W Collet; MN Verbaten; and others.

Feedforward vs. Feedbackward: An ethological alternative to the law of effect

R. Allen Gardner & Beatrix T. Gardner, *University of Nevada*

The results of operant conditioning appear regardless of and often in spite of response contingent consequences. Experiments designed to measure a residual effect of consequences contain an inevitable *ex post facto* error that vitiates all versions of this design; experiments on the effect of predictive contingency in Pavlovian conditioning contain a corresponding error. This indicates that there is a fundamental logical defect in all contingency models of the learning process. Modern developments in ethology and in computer science provide a parsimonious feedforward model for the learning of both adaptive and maladaptive behavior under laboratory and field conditions. Research on teaching new and challenging tasks to free-living, well-fed subjects such as children and cross-fostered chimpanzees illustrates the wide applicability and practical effectiveness of feedforward over feedbackward principles.

With *Commentary* from RJ Andrew; A Dickinson & NJ Mackintosh; J Dinsmoor; G Graham; PN Hineline; P Lieberman; FJ Odling-Smee & H Plotkin; BF Skinner; JER Staddon; F Toates; M Tomasello & C Snow; E Wasserman; and others.

Multiple book review of *The Intentional Stance*

Daniel C. Dennett, *Tufts University*

The intentional stance is the strategy of prediction and explanation that attributes beliefs, desires, and other "intentional" states to organisms and devices and predicts future behavior from what it would be rational for an agent to do, given those beliefs and desires. Any device or organism that regularly uses this strategy is an "intentional system," whatever its innards might be. The strategy of treating parts of the world as intentional systems is the foundation of "folk psychology," but it is also exploited (and is virtually unavoidable) in artificial intelligence and cognitive science in general, as well as in evolutionary theory. An analysis of the role of the intentional stance and its presuppositions supports a naturalistic theory of mental states and events, their "content" or "intentionality," and the relation between "mentalistic" levels of explanation and neurophysiological or mechanistic levels of explanation. As such, the analysis of the intentional stance grounds a theory of the mind and its relation to the body.

With *Commentary* from R Amundson; D Cheney & R Seyfarth; P Churchland; A Cussins; F Dretske; DR Griffin; G Harman; P & P Kitcher; W Lycan; A Rosenberg; A Sloman; MP Smith; SP Stich; C Taylor; and others.

Among the articles to appear in forthcoming issues of BBS:

AW Logue, "Research on self-control: An integrating framework"

TD Johnston, "Developmental explanation and the ontogeny of birdsong: Nature/nurture redux"

H Davis & R Pérusse, "Numerical competence in animals: Definitional issues, current evidence, and a new research agenda"

D Lightfoot, "The child's trigger experience: Degree-0 learnability"

JB Deregowski, "Real space and represented space: Cross-cultural perspectives"

JS Turkkan, "Classical conditioning: The new hegemony"

LE Krueger, "Reconciling Fechner and Stevens: Toward a unified psychophysical law"

DM Buss, "Sex differences in human mate preferences: Evolutionary hypotheses tested in 37 cultures"

LR Caporael, RM Dawes, JM Orbell & AJC van de Kragt, "Selfishness examined: Cooperation in the absence of egoistic incentives"

WR Uttal, "On the meaning of models of visual processes"

S Chevalier-Skolnikoff, "Spontaneous tool use and sensorimotor intelligence in *Cebus* compared with other monkeys and apes"

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