

Call for Papers

# Investigators in Psychology, Neuroscience, Behavioral Biology, and Cognitive Science

Do you want to:

- draw wide attention to a particularly important or controversial piece of work?
- solicit reactions, criticism, and feedback from a large sample of your peers?
- place your ideas in an interdisciplinary, international context?

**The Behavioral and Brain Sciences** (BBS), an extraordinary journal now in its fourth year, provides a special service called Open Peer Commentary to researchers in any area of psychology, neuroscience, behavioral biology or cognitive science.

Papers judged appropriate for Commentary are circulated to a large number of specialists who provide substantive criticism, interpretation, elaboration, and pertinent complementary and supplementary material from a full cross-disciplinary perspective.

Article and commentaries then appear simultaneously with the author's formal response. This BBS "treatment" provides in print the exciting give and take of an international seminar.

The editor of BBS is calling for papers that offer a clear rationale for Commentary, and also meet high standards of conceptual rigor, empirical grounding, and clarity of style. Contributions may be (1) reports and discussions of empirical research of broader scope and implications than might be reported in a specialty journal; (2) unusually significant theoretical articles that formally model or systematize a body of research; and (3) novel interpretations, syntheses or critiques of existing theoretical work.

Although the BBS Commentary service is primarily devoted to original unpublished manuscripts, at times it will be extended to précis of recent books or previously published articles.

Published quarterly by Cambridge University Press. Editorial correspondence to: Stevan Harnad, Editor, BBS, P.O. Box 777, Princeton, NJ 08540

"... superbly presented... the result is practically a *vade mecum* or *Who's Who* in each subject. [Articles are] followed by pithy and often (believe it or not) witty comments questioning, illuminating, endorsing or just plain arguing... I urge anyone with an interest in psychology, neuroscience, and behavioural biology to get access to this journal."—*New Scientist*

"... a high standard of contributions and discussion. It should serve as one of the major stimulants of growth in the cognitive sciences over the next decade."—Howard Gardner (Education)  
Harvard

"... keep on like this and you will be not merely good, but essential..."—D.O. Hebb  
(Psychology) Dalhousie

"... a unique format from which to gain some appreciation for current topics in the brain sciences... [and] by which original hypotheses may be argued openly and constructively."—Allen R. Wyler (Neurological Surgery)  
Washington

"... one of the most distinguished and useful of scientific journals. It is, indeed, that rarity among scientific periodicals: a creative forum..."—Ashley Montagu (Anthropology)  
Princeton

"I think the idea is excellent."—Noam Chomsky  
(Linguistics) M.I.T.

"... should prove to be an invaluable tool for research and teaching."—*Quarterly Review of Biology*

"Care is taken to ensure that the commentaries represent a sampling of opinion from scientists throughout the world. Through open peer commentary, the knowledge imparted by the target article becomes more fully integrated into the entire field of the behavioral and brain sciences. This contrasts with the provincialism of specialized journals..."—Eugene Garfield *Current Contents*

"... open peer commentary... allows the reader to assess the 'state of the art' quickly in a particular field. The commentaries provide a 'who's who' as well as the content of recent research."—*Journal of Social and Biological Structures*

"... presents an imaginative approach to learning which might be adopted by other journals."—*Library Journal*

"Neurobiologists are acutely aware that their subject is in an explosive phase of development... we frequently wish for a forum for the exchange of ideas and interpretations... plenty of journals gladly carry the facts, very few are willing to even consider promoting ideas. Perhaps even more important is the need for opportunities publicly to criticize traditional and developing concepts and interpretations. [BBS] is helping to fill these needs."—Graham Hoyle (Biology) Oregon

"... like an international peripatetic seminar. Its open peer commentary on articles provides an exciting international forum for vigorous discussion of major issues in all areas of behavioral and neurological research."—Stuart A. Altman (Allee Laboratory of Animal Behavior)  
Chicago

"... this exciting journal of open peer commentary emphasizes interdisciplinary communication between behavioral biology, cognitive science, neuroscience, and psychology."—*American Anthropologist*

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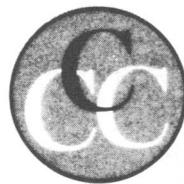
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# The Behavioral and Brain Sciences

## Instructions to Authors and Commentators

THE 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 any area of psychology, neuroscience, behavioral biology or cognitive science. If a submitted 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 his article, but he can respond formally to all commentaries accepted for publication. The target article, commentaries and author's 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 (1) 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; (2) an unusually significant theoretical article that formally models or systematizes a body of research; or (3) 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 is also eligible for Commentary if the author submits a comprehensive, article-length précis to be published together with the commentaries and his 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. Authors submitting previously published articles for consideration should give full information of place of publication, date, and include permission from the copyright holder to reprint. 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 contents of 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:

- the material bears in a significant way on some current controversial issues in behavioral and brain science;
- its findings substantively contradict some well-established aspects of current research and theory;
- it criticizes the findings, practices, or principles of an accepted or influential line of work;
- it unifies a substantial amount of disparate research;
- it has important cross-disciplinary ramifications;
- it introduces an innovative methodology or formalism for consideration by proponents of the established forms;
- it significantly integrates a body of brain and behavioral data;
- 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.

### 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, acknowledgements, appendixes, 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:

Kupfermann, I. & Weiss, K. (1978) The command neuron concept. *The 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: Cambridge University Press.

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

Journal titles should not be abbreviated.

### 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 accommodate approximately 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 original manuscript with eight copies for refereeing, and commentators their original plus two copies, to: Stevan Harnad, Editor, The Behavioral and Brain Sciences, P.O. Box 777, Princeton, N.J. 08540.

### 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 will 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.

\*Qualified professionals in the behavioral and brain sciences who have either (1) been nominated by a current BBS Associate, (2) refereed for BBS, or (3) had a commentary or article accepted for publication can become BBS Associates. Editors of learned journals and officers of scientific societies are invited to become BBS Associates *ex officio* for liaison purposes. Associates are eligible for a reduced subscription rate. Please write to the Editor for further information.

# The Behavioral and Brain Sciences

To appear in Volume 4, Number 3 (1981)

Offprints of the following forthcoming BBS treatments can be purchased in quantity for educational purposes if they are ordered well in advance. For ordering information, please write to Journals Department, Cambridge University Press, 32 East 57th Street, New York, N.Y. 10022.

## Can human irrationality be experimentally demonstrated?

L. Jonathan Cohen, *Oxford University*

The object of the paper is to show why recent research in the psychology of reasoning does not have "bleak implications for human rationality." It is argued, first, that a theory of competence for deductive or probabilistic reasoning must be so contrived as to conform to the normative criteria by which this reasoning is evaluated. It is then argued that, while some research activity in the field enables useful conclusions to be drawn from the occurrence of performance errors under certain experimental conditions, the rest is either just a test of intelligence or of education, or it imputes fallacies where none exist.

**With Commentary from** B. Fischhoff, M. Henle, D. Kahneman, D. H. Krantz, H. E. Kyburg, Jr., J. L. Mackie, A. Margalit & M. Bar-Hillel, R. E. Nisbett, J. Smedslund, A. Tversky, P. Wason, and others.

## Maximization theory in behavioral psychology

Howard Rachlin, *State University of New York at Stony Brook*, Ray Battalio and John Kagel, *Texas A&M University*, and Leonard Green, *Washington University*

Maximization theory, borrowed from economics, is used to describe the choices of animals (including humans) in various environmental situations. The theory is applied to schedules of reinforcement with rats and pigeons in Skinner boxes and compared to human behavior in a situation that can be described in economic terms – the degree to which the negative income tax reduces incentive to work. Maximization theory provides an alternative to traditional reinforcement theory in which the reinforcement context can be quantitatively taken into account.

**With Commentary from** R. C. Bolles, E. J. Fantino, R. J. Herrnstein, A. I. Houston & J. E. R. Staddon, M. C. Keeley, P. R. Killeen & C. M. Allen, M. S. Motheral, W. T. Powers, R. H. Thaler, W. Timberlake, and others.

## Reticulo-cortical activity and behavior: A critique of the arousal theory and a new synthesis

C. H. Vanderwolf, *University of Western Ontario* and T. E. Robinson, *University of Michigan*

It is usually reported that reticulo-cortical activation is correlated with arousal, while deactivation is correlated with sleep or coma. However, since there are many exceptions, these generalizations have limited validity. Recent data indicate that there are two kinds of input from the reticular activating system to the cortex. One kind, probably dependent on cholinergic transmission, may play a role in stimulus control of behavior. The second, possibly dependent on the presence of a trace amine, seems to be related to motor activity. Reticulo-cortical systems are not related to arousal but may play a role in the control of adaptive behavior.

**With Commentary from** G. Buzsáki et al., E. Callaway, H. H. Jasper, K. Krnjević, R. B. Malmö & H. P. Malmö, A. Rougeul et al., M. Steriade, J. C. Szerb & J. D. Dudar, R. P. Vertes, J. R. Villablanca, O. S. Vinogradova, and others.

## Dominance: The baby and the bathwater

Irwin S. Bernstein, *University of Georgia* and Yerkes Regional Primate Research Center of Emory University

The concept of dominance is used to describe outcomes in a variety of competitive interactions. One prominent use of the concept has to do with the influence of past agonistic encounters between specific individuals on the course of future agonistic encounters. Operational definitions must distinguish this concept from territoriality and other influences on agonistic expression. Causal, functional, evolutionary, and ontogenetic perspectives have contributed different definitions, with varying degrees of validity and reliability. If dominance relationships have biological significance then the traits that contribute to establishing such relationships may be subject to selection. But since dominance and dominance ranks themselves are only relative, reflecting interorganism relationships, neither can be a direct genetic trait.

**With Commentary from** S. A. Altmann, P. F. Brain, C. A. Bramblett, N. R. Chalmers, K. J. Flannelly & R. J. Blanchard, R. A. Hinde & S. Datta, R. Plutchik, D. S. Sade, B. Smuts, S. H. Vessey, and others.

## Among the articles to appear in forthcoming issues of BBS:

BBS Multiple Book Review of C. R. Gallistel, *The organization of action: A new synthesis*

K. M. Colby, "Modeling a paranoid mind"

J. Le Magnen, "The metabolic basis of dual periodicity of feeding in rats"

P. K. Smith, "Does play matter? Functional and evolutionary aspects of animal and human play"

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