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All BBS Associates and any non-Associates who have served as referees, commentators or authors, or who are qualified and interested in serving as referees or commentators for BBS:

Please send us your electronic mail address, if you have one. (If you don't have one, you are strongly urged to look into the advantages of getting one -- not only for BBS's sake!)

BBS is implementing more and more of its peer communication functions by electronic mail. This not only increases the speed and efficiency of BBS's interaction with the world biobehavioral and cognitive science community, but it dramatically increases its scope and range as well. Abstracts can be circulated by email in advance to allow potential commentators to nominate themselves. Referee reports can be submitted by email. The BBS Associateship can be more representatively canvassed to determine what topics and authors they would like to see treated in BBS. New Associates can be nominated by email, etc.

Electronic mail addresses can be sent to our regular mail address. (Any available *departmental* or *institutional email directories* would be very helpful too.)

**Behavioral and Brain Sciences
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Along with your email address you are encouraged to include your suggestions about current BBS editorial policy and directions you would like to see BBS take in the future.

ANNOUNCEMENT

Human Behavior and Evolution Society (HBES) Annual Meeting Binghamton, NY, August 4–8, 1993

The fifth annual meeting of the Human Behavior and Evolution Society will be held on the campus of Binghamton University. The society promotes scientific discourse in all disciplines by researchers who use the theory and methods of evolutionary biology to study humans. Research on non-human species is also welcome when it addresses general issues that are important to human evolution. Invited speakers include George C. Williams (Keynote), J. Michael Bailey, Leda Cosmides and John Tooby, Martin Daly and Margo Wilson, William Durham, Harry Harpending, and Elliott Sober. Organized symposia include "Evolutionary approaches to cognition," "Evolutionary approaches to morality," and "Evolution and Culture." Deadline for submission of abstracts is May 1, 1993.

Send correspondence to:

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Binghamton University
Binghamton, NY 13902-6000

Phone: (607) 777-4393

FAX: (607) 777-6521

E-MAIL: DWILSON@BINGVAXA.BITNET

BBS Associates

Please send BBS your electronic mail ('email') address

BBS is relying more and more on electronic mail to communicate with Associates (especially for circulating abstracts of recently accepted target articles so prospective commentators can nominate themselves).

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ANNOUNCING

SOCIETY AND ANIMALS: Social Scientific Studies of the Human Experience of Other Animals

Inaugural Issue: Winter, 1993

CONTENTS

Introduction and comments

Arnold Arluke, Eric Green, Mary Midgley, and Kenneth Shapiro

Articles

The symbolic role of animals in the Plains Indian Sun Dance

Elizabeth Atwood Lawrence

Labels and the treatment of animals: Archival and experimental cases

D.W. Rajecki, Jeffrey Lee Rasmussen, and Heather D. Craft

Savages, drunks and lab animals: The researcher's perception of pain

Mary T. Phillips

Dissection as an instructional technique in secondary science: Choice and alternatives

Alan D. Bowd

Assessment of the effectiveness of a pet facilitated therapy program in a nursing home setting

Ira B. Perelle and Diane A. Granville

Book review

The animal rights crusade (Jasper and Nelkin)

Harold Takooshian

Society and Animals publishes studies which describe and analyze our experience of nonhuman animals. The goal of the journal is to stimulate and support an emerging content area within the social sciences consisting of studies of the ways in which nonhuman animals figure in our lives.

S&A is published by Psychologists for the Ethical Treatment of Animals. PSYeta is an independent, national nonprofit organization of psychologists and other social scientists interested in animal welfare. PSYeta also publishes an annual, *Humane Innovations and Alternatives*.

Individual subscriptions and \$30 for volume 1 (2 issues), payable to PSYeta, P.O. Box 1297, Washington Grove, MD 20880. For information on manuscript submission, write to the editor at the same address.



Acts of Meaning JEROME BRUNER

"[Bruner] argues that psychology should return to human concerns, especially the role of culture in shaping our thoughts and the language we use to express them...[He] seems to have read and assimilated everyone else's ideas on the topics he discusses. He can—and does—allude to them in context, so that we are constantly rubbing elbows with the giants on whose shoulders he stands. Erudite and recondite, the text glistens with Bruner's bold style."

—Dava Sobel, *New York Times Book Review*

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Unstable Ideas

Temperament, Cognition, and Self JEROME KAGAN

"Jerome Kagan sets forth an elegantly reasoned and well-written argument for events, functions, and dynamisms rather than things as explanatory notions in psychology. What he calls for is a more complex understanding of the interaction between personality and environment—and the master concept through which he explores such interaction is the notion of 'temperament.'"

—Richard M. Restak, *New York Times Book Review*

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An electronic "BBS of the Air" has been created under the sponsorship of the Science Directorate of the American Psychological Association. PSYCOLOQUY is an international, interdisciplinary electronic forum for BBS-style "Scholarly Skywriting" and has already been selected as one of the best new magazines of 1990 in the Library Journal's annual survey (by Bill Katz, April 15, 1991).

Authors are invited to post to *psyc@pucc.bitnet* brief target articles (preferably not longer than 500 lines) reporting recent ideas or findings on which you wish to invite peer feedback in the form of interactive "skywriting" discussion with the world psychological community.

PSYCOLOQUY provides the unique possibility of "test-piloting" material that may eventually become a target article for open peer commentary in BBS. It also provides much more rapid feedback than BBS can, and with a global scope and interactiveness that no other medium of scholarly communication can even begin to match.

All contributions are refereed by members of PSYCOLOQUY's Editorial Board, which will cover all areas of psychology, neuroscience, behavioral biology, cognitive science and related fields, as BBS does. (Nominations for the Editorial Board are also invited.)

Subscription to PSYCOLOQUY is free, but you must have an electronic mail ("email") address. To subscribe, send the following one-line message to *listserv@pucc.bitnet*:
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(substituting your last name and first name). After signing on, post your submissions to *psyc@pucc.bitnet*. PSYCOLOQUY can also be received on Usenet as *sci.psychology.digest*.

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scientific contributions:

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Princeton University

applied/professional/clinical contributions:

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Graduate School of Applied and Professional Psychology
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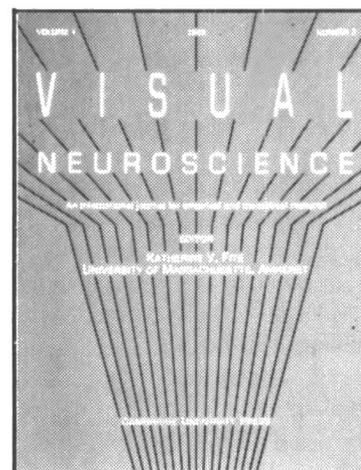
VISUAL NEUROSCIENCE

An International Journal
for Experimental and
Theoretical Research

EDITOR:

James T. McIlwain, *Brown University*

Visual Neuroscience is devoted to the publication of research and theoretical articles in basic visual neuroscience, with primary emphasis on retinal and brain mechanisms that underlie visually-guided behaviors and visual perception. The major goal of *Visual Neuroscience* is to bring together in one journal a broad range of studies which reflect the exciting diversity and originality of contemporary research in this field. Methodologies are drawn from neuroanatomy, neurophysiology, neurochemistry, neuroimmunology, and behavioral science, as well as computational models and computer-assisted formulations. Molecular, cellular, local-circuit, and systems-level analyses in both vertebrate and invertebrate species are presented.



Visual Neuroscience (ISSN 0952-5238) is published bi-monthly. Subscription to Volume 10, 1993: \$320.00 for institutions, \$125.00 for individuals, single parts \$55.00.

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Problems in the Behavioral Sciences 11

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— *Times Higher Education Supplement*

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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 et al. 1979). References should be typed in alphabetical order in the style of the following examples. **Journal titles should not be abbreviated.**

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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 one-inch margins, 60 characters per line and 25 lines per page, and should not exceed 50 pages. Please do not right-justify margin. 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 **single-sided**, double-spaced original manuscript plus **eight (8) double-sided copies** for refereeing, and commentators their original plus **two copies**, to: Stevan Harnad, Editor, Behavioral and Brain Sciences, 20 Nassau St., Suite 240, Princeton, NJ 08542. **Electronic mail:** harnad@clarity.princeton.edu or harnad@pucc.bitnet. Though not mandatory, ascii email versions or floppy disks of submissions (in addition to hard copies) facilitate processing. *In case of doubt as to appropriateness for BBS commentary, authors should write to the editor before submitting eight copies.*

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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.

To appear in Volume 16, Number 2 (1993)

Offprints of the following forthcoming BBS treatments can be purchased for educational purposes if they are ordered well in advance. For ordering information, please write to Journals Department, Cambridge University Press, 40 West 20th Street, New York, NY 10011.

Cultural and reproductive success in industrial societies

Daniel Pérusse, Université de Montréal

The absence of a relationship between cultural and reproductive success in modern populations was examined in a representative sample of men from an industrial society. Socioeconomic status, although unrelated to ultimate measures of reproductive success, correlates highly with proximate components of fitness, accounting for as much as 62% of the variance in male mating success. A substantial relationship between cultural and reproductive success would ensue were it not for recent environmental innovations, suggesting that, contrary to widespread thinking, evolutionary interpretations of human behavior remain highly relevant in modern contexts.

With Commentary from J Alcock; L Betzig; FL Bookstein; M Bergerhoff Mulder; M Daly; M Dickemann; RIM Dunbar; J Dupré; TD Kemper; L Mealey; HC Plotkin; D Thiessen; DR Vining; D Wahlsten; M Wilson; and others.

"What" and "where" in spatial language and spatial cognition

Barbara Landau, University of California, Irvine, and Ray Jackendoff, Brandeis University

We explore the language of *objects* and *places*, asking what geometric properties are preserved in the representations underlying object nouns and spatial prepositions. Evidence suggests significant differences in the geometric richness with which language encodes objects vs. places: Objects are represented in terms of detailed geometric properties of shape while places occupied by objects are represented in terms of only coarse object properties (e.g., an object's main axes) and coarse relationships (e.g., containment, contact, relative distance). These differences suggest (1) a tendency for language to remove geometric detail from both object and place representations and (2) a nonlinguistic disparity between representations of "what" and "where" underlying language.

With Commentary from DC Bennett; DJ Bryant; MC Corballis; JB Derogowski; AD Friederici; DD Hoffman; D Ingle; SD Mainwaring; DR Olson; DI Slobin; MJ Tarr; B Tversky & HH Clark; J Wagemans; JM Wolfe; and others.

Multiple book review of *Deduction*

Philip N. Johnson-Laird, Princeton University, and Ruth M. J. Byrne, Trinity College, Ireland

How do people make deductions? *Deduction* argues that their logical competence depends, not on formal rules of inference, but on mental models. They formulate novel conclusions from these models, and search for alternative models that might refute their conclusions. The book reports experiments on all the main domains of deduction, including propositional, relational, and quantificational reasoning. Without exception, the results corroborate the model theory's two main predictions: Inferences requiring one model are easier than those requiring multiple models, and erroneous conclusions are typically the result of constructing only one of the possible models of the premises.

With Commentary from K Bach; J Baron; J Barwise; MDS Braine; LJ Cohen; JStBT Evans; A Garnham; RE Grandy; R Inder; P Legrenzi & M Sonino; AS & EH Luchins; KI Manktelow; L Savion; K Stenning & J Oberlander; NE Wetherick; and others.

Among the articles to appear in forthcoming issues of BBS:

B Fischer & H Weber, "Express saccades and visual attention"

L Shastri & V Ajjanagadde, "From simple associations to systematic reasoning"

M Tomasello, AC Kruger & HH Ratner, "Cultural learning"