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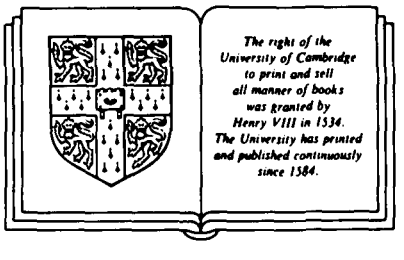

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Contents Volume 8:1 March 1985

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Nashner, L. M. & McCollum, G. The organization of human postural movements: A formal basis and experimental synthesis 135

Continuing Commentary

On Wise, R. A. (1982) Neuroleptics and operant behavior: The anhedonia hypothesis. BBS 5:39–87.

On Smith, P. K. (1982) Does play matter? Functional and evolutionary aspects of animal and human play. BBS 5:139–184.

Contents Volume 8:2 July 1985

Continuing Commentary

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Contents Volume 8:3 September 1985

https://doi.org/10.1017/S0140525X00044897 Published online by Cambridge University Press

Contents Volume 8:4 December 1985

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The Society for Philosophy and Psychology is calling for papers to be read at its 12th annual meeting, June 5—8, 1986 at The Johns Hopkins University, Baltimore, MD.

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The Behavioral and Brain Sciences

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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.

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

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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 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.

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Authors are requested to submit their original manuscript with **eight copies** for refereeing, and commentators their original plus **two copies,** to: Steven Harnad, Editor, The 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.

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Semantic activation without conscious identification

Daniel Holender, *Université Libre de Bruxelles*

When the meaning of a stimulus is accessed through the processing of a sensory input a person usually recognizes the stimulus consciously. The idea that semantic activation can occur without conscious identification had been the central thesis of the controversial research in subliminal perception. Recently, new claims for such a possibility have come from studies in dichotic listening, parafoveal vision and visual pattern masking. This paper attempts to show that most of these apparent demonstrations can be attributed to inability of the experimental method to reveal conscious identification of the stimulus at the time of presentation rather than to the reality of the phenomenon.

With *Commentary* from E Bisiach; TH Carr & D Dagenbach; NF Dixon; MH Erdelyi; AW Inhoff; AJ Marcel; PM Merikle & J Cheesman; J Morton; R Näätänen; D Navon; K Rayner; G Underwood; and others.

Cortical connections and parallel processing: Structure and function

Dana H. Ballard, *University of Rochester*

The cerebral cortex is a rich and diverse structure that is the basis of intelligent behavior. One of the deepest mysteries of the function of cortex is that neural processing times are only about one hundred times faster than the fastest response times for complex behavior. At the very least, this would seem to indicate that the cortex does massive amounts of parallel computation. This paper explores the hypothesis that an important part of the cortex can be modeled as a connectionist computer especially suited for parallel problem solving. This computer can be thought of as computing hierarchies of sensory-motor invariants.

With *Commentary* from RA Andersen; JC Baird; PM Churchland; LH Finkel & GN Reeke Jr., J Foss; S Grossberg; E Harth; JJ Hopfield; D Mumford; AJ Pellionisz; TJ Sejnowski; M Sur; JK Tsotsos; and others.

Intentionality and information processing

Kenneth M. Sayre, *University of Notre Dame*

(1) What is actually accomplished by the functions of the nervous system that we describe intentionalistically? (2) What makes the information processing involved in these functions semantic? The computational approach fails to provide satisfactory answers. A more promising start is to fall back on mathematical communication theory, with help from evolutionary biology and neurophysiology. Focusing on vision, representations can be defined as patterns of cortical activity constantly adjusting to maintain adequate mutual information between pattern and perceptual object. Intentionality is the direction upon objects accomplished by such representations and this intentionality adds semantic features to the information processing involved.

With *Commentary* from PM Churchland; JG Daugman; DC Dennett; FI Dretske; DP Ellerman; RT Eskew Jr.; J Heil; M Lebowitz; DM MacKay; LE Marks; D Perlis & R Hall; WT Powers; MT Turvey; and others.

Social versus reproductive success

Daniel R. Vining, Jr., *University of Pennsylvania*

The central postulate of sociobiology is that individuals exploit favorable environments to increase their genetic representation in the next generation. The data on fertility differentials among contemporary humans are not consistent with this postulate. Except for a period of rising fertility in the middle of this century, contemporary humans exhibit an inverse relationship between fertility and endowment (i.e., wealth, success and measured aptitudes). Contrary to the claims of some modern eugenicists, however, no threat to contemporary culture is posed by this inverse relationship. Environmental change appears to be shifting the means of various trait distributions at rates that are several orders of magnitude larger than those implied by the observed fertility differentials. However, there remains the question of just how elastic these distributions are in the absence of reinforcing genetic change.

With *Commentary* from JH Barkow; M Daly & M Wilson; R Dawkins; I Eibl-Eibesfeldt; JR Flynn; R Fox; MT Ghiselin & FM Scudo; J Hartung; W Irons; P Kitcher; RJ Sternberg; D Symons; and others.

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