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# Behavioral and Brain Sciences

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

# Behavioral and Brain Sciences

To appear in Volume 10, Number 4 (1987)

## The anomaly called PSI: Recent research and criticism

K. R. Rao & J. Palmer, *Institute for Parapsychology*

There have been a number of experimental reports of evidence for ESP and PK. A careful examination of some of these suggests that sensory cues, machine bias, subject fraud, or unintentional experimenter error cannot account for the highly significant results and that some findings are statistically replicable. Furthermore, the data seem to converge on the idea that a reduction of ongoing sensory-motor activity may facilitate ESP, suggesting that ESP acts like a weak signal that must compete for the information-processing resources of the organism. The small magnitude of most laboratory results does not preclude potential applications.

## Parapsychology: Science of the anomalous or search for the soul?

J. E. Alcock, *York University*

Although there has been over a century of formal empirical inquiry, parapsychologists have clearly failed to produce a single reliable demonstration of "paranormal" or "psi" phenomena. Although many parapsychological research projects have been carried out under what have been described as well-controlled conditions, this does not by itself make a science, for until it can be demonstrated that paranormal phenomena really exist, there is no subject matter around which a science can develop. It is argued that parapsychology basically reflects the quest to establish the reality of a non-material aspect of human existence, rather than the search to find explanations for anomalous phenomena.

**With Commentary on both articles from** VG Adamenko; OC de Beauregard; J Beloff; M Bunge; IL Child; RM Dawes; DC Donderi; JH Eysenck; M Gardner; M Gergen; C Glymour; CEM Hansel; R Hyman; B Josephson; S Krippner; H Schmidt; P Spanos; M Truzzi; L Wolins; W Woodward; and others.

## The comparative psychology of intelligence

E. Macphail, *University of York*

A rationale for comparative work on intelligence is proposed which defends the use of distantly related species because they may give insights into behavioral organization, and the use of non-natural tasks because only such tasks could reveal the nature of general problem-solving. Experimental work has failed to detect differences in intellect amongst nonhuman vertebrate species, and it is proposed that this is because there are no such differences (human intellectual superiority being due to language). It is concluded that nonhuman intelligence does not consist of collections of species- and niche-specific adaptations, but may instead be dominated by association formation, a process which detects causal links between events.

**With Commentary from** RE Anderson; HB Barlow; B Bickerton; ME Bitterman; A Elefant; JG Fetterman & PR Killeen; PS Goldman-Rakic & TM Preuss; DR Griffin; W Hodos; LG Humphreys; I Kupfermann; CT Nagoshi; MR Papini; SJ Shettleworth; and others.

## Précis of *Relevance; Communication and Cognition*

D. Sperber & D. Wilson, *University College London*

In *Relevance: Communication and Cognition*, we outline a new approach to the study of human communication, grounded in a general view of human cognition. Human attention and central cognitive processes, we argue, automatically turn to information which seems relevant, i.e., capable of yielding cognitive effects—the more, and the more economically, the better. To communicate is to claim someone's attention, and hence to imply that the information communicated is relevant. This fundamental idea, that communicated information comes with a guarantee of relevance, we call the "principle of relevance." We show how this principle alone is enough to account for the interaction of linguistic meaning and contextual factors in utterance interpretation.

**With Commentary from** J Adler; K Bach & RM Harnish; H Clark; A Cutler; J McCawley; J Macnamara; P Millikan; J Morgan & GM Green; A Reboul; F Recanatì; P Seuren; Y Wilks; and others.

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

P Smolensky, "On the proper treatment of connectionism"

AI Houston & JM McNamara, "A framework for the functional analysis of behavior"

II Glezer, "Implications of the 'initial brain' concept for brain evolution in Cetacea"

CP Benbow, "Sex differences in mathematical reasoning ability in intellectually talented preadolescents: Their nature, effects, and possible causes"

Multiple book review of D Laming, *Sensory Analysis*

A Whiten & RW Byrne, "Tactical deception in primates"

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