

---

# PSYCHOLOGICAL SCIENCE

*Published for the  
American Psychological Society*

---



Cambridge  
Journals

---

## EDITOR

William K Estes, *Harvard University*

*Psychological Science* is a new bimonthly publication being launched as the flagship journal of the American Psychological Society, founded 1988, to regain the scientific focus of psychological research. The journal is designed to be the forum for research, theory, and application in psychology and the closely related behavioral, cognitive, neural, and social sciences. The journal also considers psychology in government and public affairs. Unlike most research journals, *Psychological Science* encourages articles of general theoretical significance or of broad interest across specialties.

## *Recent Articles*

The Prenatal Origins of Behavioral Organization,  
*William P Smotherman and Scott R Robinson*

Facts, Fantasies, and the Future of Child Care in  
the United States, *Sandra Scarr et al.*

Serial vs Parallel Processing, *James T Townsend*

Answering Reading Comprehension Items Without  
Passages on the SAT, *Stuart Katz et al.*

Infants' Perception of Phase Structure in Music,  
*Carol L Krumhansl and Peter W Jusczyk*

*Psychological Science* (ISSN 0956-7976) is published bimonthly. Volume 1 (1990) subscriptions (US and Canada only): \$100.00 institutions; \$50.00 for non-member individuals. APS members receive the journal as part of their dues.

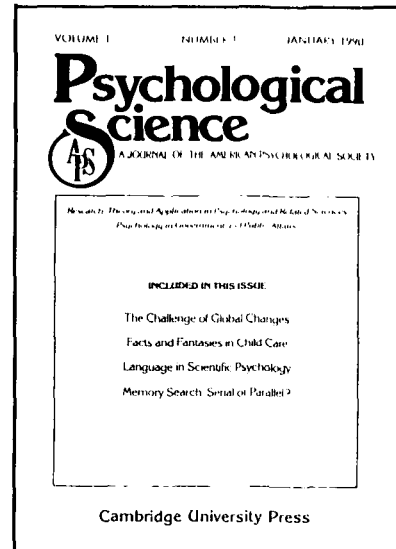
Send order to:

Journals Department

**Cambridge University Press**

40 West 20th Street, New York, NY 10011, USA; or  
The Edinburgh Building, Shaftesbury Road, Cambridge  
CB2 2RU, UK

---



# V I S U A L N E U R O S C I E N C E

Volume 7

December 1991

Number 6

## CONTENTS

### *Research Articles*

- MICHAEL A. KIRBY AND THOMAS C. STEINEKE 513 Early dendritic outgrowth of primate retinal ganglion cells
- DUANE G. ALBRECHT AND WILSON S. GEISLER 531 Motion selectivity and the contrast-response function of simple cells in the visual cortex
- ROGER P. ZIMMERMAN AND MICHAEL W. LEVINE 547 Complicated substructure from simple circularly symmetric Gaussian processes within the centers of goldfish ganglion cell receptive fields
- JOHN H.R. MAUNSELL, GARY SCLAR, TARA A. NEALEY, AND DERRYL D. DEPRIEST 561 Extraretinal representations in area V4 in the macaque monkey
- LEO PEICHL 575 Catecholaminergic amacrine cells in the dog and wolf retina
- JOEL E. BROWN, ANTHONY COMBS, KAREN ACKERMANN, AND CRAIG C. MALBON 589 Light-induced GTPase activity and GTP[ $\gamma$ S] binding in squid retinal photoreceptors
- HARRIS RIPPS AND RICHARD L. CHAPPELL 597 Ultrastructural and electrophysiological changes associated with K<sup>+</sup>-evoked release of neurotransmitter at the synaptic terminals of skate photoreceptors
- ROBERTA G. POURCHO AND MICHAEL T. OWCZARZAK 611 Glycine receptor immunoreactivity is localized at amacrine synapses in cat retina
- D.P.M. NORTHMORE AND A.M. GRANDA 619 Refractive state, contrast sensitivity, and resolution in the freshwater turtle, *Pseudemys scripta elegans*, determined by tectal visual-evoked potentials
- D.P.M. NORTHMORE AND A.M. GRANDA 627 Ocular dimensions and schematic eyes of freshwater and sea turtles
- N.N. OSBORNE, F. BLOCK, AND K.-H. SONTAG 637 Reduction of ocular blood flow results in glial fibrillary acidic protein (GFAP) expression in rat retinal Müller cells
- 641 Acknowledgment to *Ad Hoc* Reviewers
- 643 Detailed Information for Contributors
- 644 The Humane Care and Use of Animals
- 645 Author Index and Contents to Volume 7

ISSN 0952-5238

© 1991 Cambridge University Press

Printed in the United States of America