ESSENTIAL READING FROM CAMBRIDGE

Diseases of the Nervous System in Childhood

Jean Aicardi

Offers a comprehensive description of the neurological disorders of children as well as all significant diseases of the central and peripheral nervous systems from the fetal period to adolescence.

Clinics in Developmental Medicine 115–118 Publisbed in North America by agreement with Mac Keith Press 1992 1425 pp. 41273-0 Hardcover \$160.00

Essentials of Neural Development

Second Edition

M. C. Brown, W. G. Hopkins, and

R. J. Keynes

This up-to-date account of the development of the nervous systems in invertebrates and vertebrates emphasizes fundamental concepts. 1991 186 pp. 37698-X Paper \$29.95

Emerging Visions of the Aesthetic Process

In Psychology, Semiology, and Philosophy Edited by Gerald C. Cupchik and János László

Explores the underlying aesthetic processes and play from the perspectives of psychologists, philosophers, and semiologists. 1992 343 pp. 40051-1 Hardcover \$49.95

The Neurophysiological Examination of the Newborn Infant

Edited by J. A. Eyre Provides an up-to-date description of the application of neurophysiological examination techniques and evaluates their importance in the care of newborn babies.

Clinics in Developmental Medicine 120 Publisbed in North America by agreement with Mac Keith Press 1992 217 pp. 41276-5 Hardcover \$54.95

Night Vision

Basic, Clinical and Applied Aspects Edited by **R. F. Hess, L. T. Sharpe,** and **K. Nordby**

Details up-to-date book describes the light and dark adaptation of receptoral and post-receptoral mechanisms from a number of perspectives. 1990 562 pp. 32736-9 Hardcover \$125.00

Cambridge Medical Reviews

Neurobiology and Psychiatry Volume 1

Edited by **Robert Kerwin**, David Dawbarn, James McCulloch, and Carol Tamminga

Presents an evaluation and dissemination of information on recent developments concerning the fundamental aspects of biological psychiatry. *Cambridge Medical Reviews: Neurobiology* and Psychiatry 1

1992 188 pp. 39442-9 Hardcover \$69.95

Successful Lab Reports

A Manual for Science Students Christopher S. Lobban and Maria Schefter

Bridges the gap between the many books about writing term papers and the advanced books about writing papers for publication in scientific journals.

, 1992 106 pp. 40404-5 Hardcover \$34.95 40741-9 Paper \$12.95

An Introduction to the Modelling of Neural Networks Pierre Peretto

Examines what neural networks can reveal about brain function as well as the implications for psychology, artificial intelligence and computer design.

Collection Aléa-Saclay: Monographs and Texts in Statistical Physics 2 1992 491 pp. 41451-2 Hardcover \$100.00

42487-9 Paper \$39.95

Now in paperback...

Modelling Brain Function: The World of Attractor Neural Networks

Daniel J. Amit

"... regard this book as an opening of a discussion—undoubtedly a very qualified one." —Journal of Mathematical Psychology

504 pp. 42124-1 Paper \$24.95

Available in bookstores or from



40 West 20th Street, New York, NY 10011-4211 Call toll-free 800-872-7423 MasterCard/VISA accepted. Prices subject to change.

V I S U A L NEUROSCIENCE

DETAILED INFORMATION FOR CONTRIBUTORS

LIMS AND SCOPE. Visual Neuroscience publishes papers ased on original experimental or theoretical work concerned xplicitly with the biological substrates of vision, including he neural mechanisms involved in visually guided behavior nd perception. Studies based exclusively on clinical, psychohysical, or behavioral methods will be considered only if ney speak directly to issues of neural mechanisms. The joural features full-length research reports and review articles as /ell as short communications.

PRIGINALITY AND COPYRIGHT. To be considered for ublication in *Visual Neuroscience* a manuscript cannot have een published previously, nor can it be under review for ublication elsewhere. Papers with multiple authors are reiewed with the assumption that all authors have approved is submitted manuscript and concur in its submission to *Viual Neuroscience*. A Transfer of Copyright Agreement must e executed before an article can be published. Government uthors whose articles were created in the course of their emloyment must so certify in lieu of copyright transfer. Aunors are responsible for obtaining written permission from the copyright owners to reprint any previously published maerial included in their article.

1ANUSCRIPT SUBMISSION AND REVIEW. An original nd three high quality photocopies should be submitted to:

James T. McIlwain, Editor Visual Neuroscience Brown University, Box G-M416 Providence, RI 02912, USA

ubsequent correspondence should refer to the Manuscript leference Number, which will appear on the Acknowledgtent Card sent to the corresponding author. Each manuript will normally be reviewed by at least two referees with slevant scientific experience. Authors may suggest approprite reviewers, but final selection of referees will be made by the Editor. Reviewers are asked to evaluate manuscripts for teir scientific merit and clarity of presentation and to voice ny concerns related to the welfare of animal and human abjects. Every effort will be made to notify authors of the eviewers' recommendations within six weeks of receipt of a tanuscript.

IANUSCRIPT LENGTH AND EXCESS PAGE CHARGES. bue to space limitations, concisely written papers are more kely to receive favorable review than those judged to be ccessively long. Page charges are not levied for articles ocapying fewer than 12 printed pages (i.e. double-spaced manurripts of approximately 40 pages or less, using standard, niformly spaced typefaces, and including figures), but autors will be asked to pay \$100 for each printed page beyond 2. Editorial review and publication of a paper are not conngent upon the payment of page charges.

Manuscripts submitted as Short Communications should ormally occupy no more than 4 printed pages, figures inluded (approximately 13 manuscript pages).

IANUSCRIPT PREPARATION AND STYLE. Manuripts must be in English and typed double-spaced on one de only of $8\frac{1}{2} \times 11''$ or A4 size good quality paper. Allow largins of at least 1" (20 mm); use a 5-space paragraph inent; do not hyphenate words at the end of lines and do not ustify right margins. Minor corrections to the manuscript lay be typed or neatly printed in ink; retyping is required for gnificant changes. Numbers should be spelled out when ley occur at the beginning of a sentence; use Arabic umerals elsewhere. Abbreviations should be used sparingly nd nonstandard abbreviations should be defined at their first ccurence. Metric system (SI) units should be used. Manuscripts that do not conform to the style of *Visual Neuros*cience will be returned without review.

MANUSCRIPT ELEMENTS AND ORDER. Unless there are obvious and compelling reasons for variation (e.g. review articles, short communications), manuscripts should be organized as follows:

Title page. This is page 1. The title should be concise, informative, and free of abbreviations, chemical formulae, technical jargon, and esoteric terms. This page should include (a) the article's full title, (b) names and affiliations of all authors, (c) the name, mailing address, and telephone number of the corresponding author, (d) the address for reprint requests if different from that of the corresponding author, (e) a short title of 50 characters or less, and (f) a list of the number of manuscript pages, number of tables, and number of figures.

Abstract and keywords page. This is page 2 and should include (a) the article's full title, (b) an abstract of no more than 300 words, and (c) up to 5 keywords or phrases that reflect the content and major thrust of the article. The abstract should give a succinct account of the objective, methods, results, and significance of the research.

Introduction. This section begins on page 3 and should clearly state the objective of the research in the context of previous work bearing directly on the subject. An extensive review of the literature is not usually appropriate.

Methods. This section should be brief but provide sufficient information to permit others to replicate the study. Pertinent details of species, apparatus and equipment, procedures and experimental design should be described.

All experiments involving human subjects must be conducted in accordance with principles embodied in the Declaration of Helsinki (Code of Ethics of the World Medical Association). Experiments involving animal subjects must conform to the principles regarding the care and use of animals adopted by the American Physiological Society and the Society for Neuroscience. The editor may refuse papers that provide insufficient evidence of adherence to these principles.

Results. The results should be presented clearly and concisely, using figures and tables to summarize or illustrate the important findings. Quantitative observations are often more effectively displayed in graphs than in tables.

Discussion. The discussion should summarize the major findings and explain their significance in terms of the study's objectives and relationship to previous, relevant work. This section should present compact, clearly developed arguments rather than wide-ranging speculation or uncritical collation of earlier reports.

Acknowledgments. Use a separate page to recognize the contributions of individuals and supporting institutions.

References. Visual Neuroscience uses the author-date reference style of the Journal of Physiology. In the text, references should be cited as follows:

as shown by Herrick (1948) (Gordon et al., 1973)

(Buhl & Peichl, 1986; Gordon et al., 1987)

The alphabetical list of references begins a new page, and must be typed double-spaced. Each in-text citation must have a corresponding reference and vice versa. List works by different authors who are cited within the same parentheses in chronological order, beginning with the earlier work. Journal titles should not be abbreviated. Only published articles and articles in press should appear in this list. Responsibility for the accuracy of references cited lies with the authors. Brief examples:

Journal article

Buhl, E.H. & Peichl, L. (1986). Morphology of rabbit retinal ganglion cells projecting to the medial terminal nucleus of the accessory optic system. Journal of Comparative Neurology, 253, 163-174.

Book

Herrick, C.J. (1948). <u>The Brain of the Tiger Salamander</u>. Chicago: University of Chicago Press.

Chapter in an edited book

- Bonds, A.B. & DeBruyn, E.J. (1986). Inhibition and spatial selectivity in the visual cortex: The cooperative neuronal network revisited. In <u>Models of Visual Cortex</u>, ed. Rose, D. & Dobson, V.G., pp. 292-300. Chichester, England: John Wiley & Sons.
- For more than one work by the same author(s) published in the same year, use (Jones, $1986\underline{a},\underline{b}$) in text and likewise in the reference section.

Tables. Tables should be numbered consecutively with Arabic numerals and each should be typed double-spaced on a separate sheet. All tables are to be grouped together after the references. A short explanatory title and column headings should make the table intelligible without reference to the text. All tables must be cited and their approximate positions indicated in the text.

Figures and legends. The number of figures should be the minimum necessary to make the essential points of the paper. Figures should be supplied no larger than $8 \times 10^{\circ}$ (approx. 200 \times 250 mm) and must be camera-ready. Photographs for halftone reproduction must be on white glossy paper. Figures should be composed to occupy a single column (8.3 cm) or two columns (17 cm) after reduction. Diagrams and illustrations must have a professional appearance and be typed or drawn with sharp, black lettering to permit reduction. To assure legibility, letters, numbers, and symbols on figures should have a minimum height of 1 mm when reduced. Photomicrographs must include a calibration bar; if symbols are used on micrographs, they must contrast sufficiently with the background to be clearly visible when printed. Photocopies of micrographs are not acceptable for review purposes.

Artwork should normally be in black and white; if authors have color figures, the publisher will provide a price quotation for the additional production costs. All figures must be identified on the back with the short title of the paper, figure number, and figure orientation (top or bottom). Preferably, figures should be mounted on heavy sheets of the same size as the manuscript. Four complete sets of figures should be carefully packaged in protective envelopes, one to accompany each copy of the manuscript. Each figure must be cited and its approximate position clearly indicated within the text.

Figures must be numbered consecutively with Arabic numerals and be accompanied by a descriptive caption typed double-spaced on a separate sheet. The captions, collected at the end of the manuscript, should concisely describe the figure and identify any symbols and/or calibration bars.

COPYEDITING AND PAGE PROOFS. The publisher reserves the right to copyedit manuscripts to conform to the style of *Visual Neuroscience*. The corresponding author will receive page proofs for final proofreading. No rewriting of the final accepted manuscript is permitted at the proof stage, and substantial changes may be charged to the authors.

OFFPRINTS. The corresponding author will receive 25 free article offprints. A form will accompany the page proofs allowing orders for complete copies of the issue and for the purchase of additional offprints. Offprint requirements of all coauthors should be included on this form. Orders received after issue printing will be subject to a 50% reprint surcharge.

V I S U A L NEUROSCIENCE

Volume 10

September/October 1993

Number 5

CONTENTS

-0-

Research Articles

and Henk Spekreijse	/01
Peter D.R. Barker	791
Simona Celebrini, Simon Thorpe, Yves Trotter, and Michel Imbert	811
Marcello G.P. Rosa, Juliana G.M. Soares, Mario Fiorani, Jr., and Ricardo Gattass	827
Donald C. Hood and David G. Birch	857
Hans-Ortwin Nalbach, Peter Thier, and Dezsö Variú	873
L.C.L. SILVEIRA, V.H. PERRY, AND E.S. YAMADA	887
Carl B. Watt and Valarie J. Florack	899
Charles L. Zucker and Berndt Ehinger	907
Timothy H. Goldsmith and Thomas W. Cronin	915
Ete Z. Szuts	921
Jennifer M. Hayes and Grant W. Balkema	931
Jonathan D. Victor, Mary M. Conte, Leslie Burton, and Ruth D. Nass	939
Henri Gioanni, Mohamed Bennis, and Annie Sansonetti	947
Benjamin E. Reese and Gary E. Baker	957
Yung-Feng Shih, Malinda E.C. Fitzgerald, and Anton Reiner	969

A E Linger Des Waters Der

	Organization of	texture segregation	tion processing	in primate visual
(cortex			

- Sensitization and multiplicative noise in the descending contralateral movement detector (DCMD) of the locust
- Dynamics of orientation coding in area V1 of the awake primate
- Cortical afferents of visual area MT in the *Cebus* monkey: Possible homologies between New and Old World monkeys
 - Human cone receptor activity: The leading edge of the *a*-wave and models of receptor activity
 - Binocular interaction in the optokinetic system of the crab *Carcinus* maenas (L.): Optokinetic gain modified by bilateral image flow
- The retinal ganglion cell distribution and the representation of the visual field in area 17 of the owl monkey, *Aotus trivirgatus*
- Colocalization of glycine in substance P-amacrine cells of the larval tiger salamander retina
- Synaptic connections involving immunoreactive glycine receptors in the turtle retina
- The retinoids of seven species of mantis shrimp
- Concentrations of phosphatidylinositol 4,5-bisphosphate and inositol 1,4,5-trisphosphate within the distal segment of squid photoreceptors
- Visual thresholds in mice: Comparisons of retinal light damage and hypopigmentation
 - Visual evoked potentials in dyslexics and normals: Failure to find a difference in transient or steady-state responses
- Visual and vestibular reflexes that stabilize gaze in the chameleon
- The re-establishment of the representation of the dorso-ventral retinal axis in the chiasmatic region of the ferret
- 9 Effect of choroidal and ciliary nerve transection on choroidal blood flow, retinal health, and ocular enlargement

