PROTEIN-NUCLEIC ACID INTERACTION

Volume 10 Topics in Molecular and Structural Biology

Edited by W. Saenger and
U. Heinemann.

The book contains articles highlighting the rapidly evolving field of protein-nucleic acid interactions. Individual chapters demonstrate the diversity of biological systems to which protein-nucleic recognition is of central importance.

There are chapters on the interaction of small proteins with DNA and RNA as well as on chromatin organisation. Care has been taken to include accounts of many different experimental approaches to studying the subject. All articles are written by scientists actively involved in the research they describe and considered experts in their respective research areas. The book is well-illustrated and contains extensive bibliographic information to provide easy access to the original literature.

Contents DNA-Protein Interactions in the Regulation of Gene Expression - P.H. von Hippel (University of Oregon, Eugene, USA) and O.G. Berg (Uppsala University, Sweden); / Structures of Protein-Nucleic Acid Complexes in Solution by Electro-optical Analysis - D. Porschke and J. Antosiewicz (Max-Planck Inst., Göttingen, FRG); / NMR Studies of Protein-DNA Recognition. The Interaction of LAC Repressor Headpiece with Repressor DNA - R. Kaptein, R. Boelens and R.M.J.N. Lamerich (University of Utrecht, Holland); / The Single-stranded DNA Binding Protein of *Escherichia coli* - J. Greipel, C. Urbanke and G. Maass (Medizinische Hochschule, Hannover, FRG); / Protein-Nucleic Acid Interaction in Tobacco Mosaic Virus - G. Stubbs (Vanderbilt University, Nashville, USA); / Structural and Functional Studies of Ribonuclease T1 - U. Heinemann and U. Hahn (Freie Universität, Berlin, FRG); / Tet Repressor-Tet Operator Interaction - W. Hillen and A. Wissmann (Inst., Mikrobiol. and Biochem., Erlangen, FRG); / Structure and Condensation of Chromatin - M.H.J. Koch (DESY, Hamburg, FRG); / Conclusion / Index

July 1989 £40.00 214pp 234 x 156mm
0-333-45321-2

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AI & SOCIETY

The Journal of Human and Machine Intelligence

of machine-centred and human-centred technology. Book reviews, news of conferences and recent projects, and an "Open Forum" containing short contributions, provide a variety of form.

Contributors from such diverse backgrounds as anthropology, sociology and theatre ought to make for an interesting and stimulating interchange of ideas, but they lack a common language. The authors cannot use the language of their own discipline, because the readership of

AI & Society is broad, while the language of AI is too restrictive to embrace its own criticism. The most successful articles are those that offer a focused critique of AI or cognitivism, such as Dreyfus's dismissal of the Socratic assumption that intelligence consists of solving problems by following rules and Pullum's scathing attack on the US Department of Defense's Strategic Computing Initiative (SCI). A major aim of the SCI is to develop autonomous military robots and weapons-control systems. The early prototypes have displayed all the limitations of Freddy the robot; but these AI systems of the 1980s no longer inhabit a toy world. □

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Harmony and discord

Robert Temple

International Journal on the Unity of the Sciences: Interdisciplinary Studies of Knowledge and Values. Editor Marcelo Alonso. *International Conference on the Unity of the Sciences*, GPO Box 1311, New York, New York 10117. 4/yr. North America \$25, elsewhere \$39.

Science as Culture. Editor Les Levidow. Free Association Books, 26 Freegrove Road, London N7 9RQ. 4/yr. £35 (institutional); £20 (personal).

To scientists the sciences are often known for their *disunity*, so a new journal dealing with interdisciplinary studies is welcome. Despite its clumsy title, *International Journal on the Unity of the Sciences* turns out to be a superior forum for the discussion of questions affecting not only the sciences but society as a whole.

The editors have set themselves a bold agenda and adhere to it with admirable determination. The discourse is at a high level. Figures such as Eugene Wigner, Max Jammer and F.A. von Hayek have contributed articles, which, in general, are intended to combine authoritativeness with accessibility to those outside the particular field under consideration. The journal is proving very successful in meeting this aim. After only a year of publication, it has to my mind become one of the most stimulating of periodicals dealing with science in a wider context.

Here are to be found thought-provoking contributions on issues ranging from *in vitro* fertilization to chaos theory as applied to economics, taking in the world food problem and all manner of ethical and philosophical questions along the way. Many of the ideas and insights are unusual, and the arguments convincing.

On the other hand, one must mention the undue number of typographical errors which appear.

Science as Culture is a different matter entirely. Although the proof-reading can't be faulted, the contents can.

The contributors, who seem to be writing largely for themselves with little thought of readers, appear to be drawn exclusively from the ranks of the far left. To them modern science is "moulded by capitalist priorities" (Engels, quoted), and the British Labour Party is dangerously right-wing. Information technology is an instrument of militarists intent on nuclear war; those who support its development

suffer from a "fear of the persecuting breast" (a curious pseudo-freudian idea). Even the history of the piano is viewed from a marxist perspective, though "music almost always manages to escape classification and domination by political interests". Quite so.

Science does indeed need its critics, both for its own benefit and that of society at large. But the mixture of irrationality, intolerance and vituperation to be found in *Science as Culture* serves no purpose. □

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Journal prices

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