

Austrian Society for Cybernetic Studies

Congress Announcement

EMCSR 1992
Eleventh European Meeting on Cybernetics
and Systems Research

University of Vienna, Austria
April 21 – 24, 1992

For Call for Papers and Programme contact the Chairman:

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Symposia on:

- General Systems Methodology
- Mathematical Systems Theory
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- Communication and Computers
- Computer Aided Process Interpretation
- Connectionism and Cognitive Processing
- History of Cybernetics and Systems Research
- Telepresence, Virtual Environments, and Interactive Fantasy
- Cybernetics of National Development
- Impacts of Artificial Intelligence

250 scientists from all over the world have participated in the 10th EMCSR 1990. The proceedings have been published as "Cybernetics and Systems '90", Robert Trappl, ed., by World Scientific Publishing, Singapore.

From Cambridge University Press:

A Cognitive Theory of Consciousness.

by Bernard J. Baars

(451 pp. 1989. ISBN 0-521-30133-5)

Conscious experience is notoriously one of the most difficult and thorny subjects in psychological science. Its study has been neglected for many years, either because it was thought to be conceptually insuperable, or because the relevant evidence was believed to be poor. This book suggests a way to specify reliable empirical constraints on a theory of consciousness, by contrasting well-established conscious phenomena --- e.g., stimulus representations known to be attended, perceptual and informative --- with closely comparable unconscious ones --- those that are pre-perceptual, unattended, or habituated. By avoiding the most disputatious arguments about "boundary cases" of conscious experience and focusing on very clear and uncontroversial findings, Baars suggests that we can outline a large body of solid evidence, on which to build theory.

Many findings converge to show that consciousness seems to reflect a basic architectural aspect of the nervous system --- a kind of "global workspace" in an otherwise mainly parallel and distributed set of neural processors. This architectural view of conscious experience helps to clarify many difficult questions. Consciousness is, Baars concludes, an essential *functional* component of the nervous system, a major biological fact, playing multiple and indispensable roles in all psychological tasks.

"With this model, the author sweeps through dozens of phenomena that are well known to students of sensation, perception, learning, abstraction, language, thinking, and problem-solving. In each case he interprets the phenomenon in terms of the global workspace model and thus produces an admirable piece of scholarship. Also commendable is his attempt ... to match the assumptions of the model with the known facts about neurophysiology. Chapter 7, which rejuvenates William James' ideomotor theory of thought and action, is illustrative of the power implicit in the global workspace model. Even phenomena on social perception and self-image ... are interpretable within his framework. ...

The most enduring contribution of the book may be its challenge to cognitive scientists to return to their roots, to describe and explain consciousness. Without a decent theory of consciousness, cognitive science may be adrift. If that is so, then Bernard Baars's A Cognitive Theory of Consciousness deserves to be read by many."

Ronald T. Kellogg in *Contemporary Psychology*

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