

Journal Review

Cybernetics & Human Knowing: A Journal of Second-Order Cybernetics, Autopoiesis and Cyber-semiotics. Quarterly, Thorverton, UK: Keith Sutherland, Imprint Academic. \$55.00. Editor: Søren Brier.

Chaos theory has a number of close cousins in the scientific field, each of which adds its own flavor to the pudding: including general systems theory, autopoiesis, cybernetics, among others. *Cybernetics & Human Knowing* is a lovely and complex journal dealing with, as its subtitle tells us: “second-order cybernetics, autopoiesis and cyber-semiotics.” Its editorial board includes a number of names that are either familiar to those of us in nonlinear dynamics, or should be, including Heinz von Foerster (second-order cybernetics), Ervin Lazlo (general systems theory), Humberto Maturana and Francisco J. Varela (autopoiesis). Allan Combs, who is one of SCTPLS’s founders, is a consulting editor.

Many of this journal’s articles deal with areas that overlap closely with the interests of nonlinear dynamics. For example, during the last year (its sixth year of publication), it had a special issue on “self-organizing social systems.” But perhaps more often, its center is somewhat to the side of the areas on which chaos theory concentrates, including an emphasis on the philosophical underpinnings of self-organization, and the semantics (in the most general sense) with which self-organization evidences itself in the world. The editor/publisher, Søren Brier, says that:

“This journal is devoted to the new understandings of self-organizing processes of information in human knowing that have arisen through the cybernetics of cybernetics. . . . Through the concept of self-reference it tries to explore the meaning of cognition and communication; our understanding of organization and information in human, artificial and natural systems, and our understanding of understanding . . .” (Brier, 1993, inside cover.).

For several years now, two on-going columns, Ranulph Glanville’s “A (Cybernetic) Musing” and Louis Kauffman’s “Virtual Logic” have addressed these issues from what I think of as the Aristotlean and Platonic viewpoints, respectively. Here’s an excerpt from one of Glanville’s 1994

columns which I think raises issues that we in chaos theory might also well heed:

In our need to show that Cybernetics is valuable, to convince others (who perhaps don't want or need to be convinced) that there is actually something there, we have, I believe accidentally sold Cybernetics out. By this I mean we have taken a position in which we treat how to use the subject more seriously than the subject itself (1994, p. 53).

I'm especially fascinated by Louis Kauffman's column, which, among other things, presents the work of both Kurt Gödel and G. Spencer-Brown in entertaining and often droll ways that make their complex ideas as fun as one of Martin Gardner's old "mathematical games and recreations" columns in Scientific American. In defining his goals for this column, Kauffman said that:

I take the meaning of the word virtual in the archaic sense. Virtual logic is not logic, it is that which energizes reason and so brings the forms of logic and mathematics into being. Virtual logic is not logic, nor is it the actual subject matter of the mathematics, physics or cybernetics in which it may appear to be embedded. Virtual logic lives in the boundary between syntax and semantics. It is the pivot that allows us to move from one world of ideas to another. (Kauffman, 1996, p. 65)

I highly recommend this journal to our readers. Those wishing to learn more should go to the journal's Web site at <http://www.imprint.co.uk/cyber.html>.

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- Brier, S. (1993). Statement of purpose. *Cybernetics & Human Knowing: A Journal of Second-order Cybernetics, Autopoiesis and Cyber-semiotics*, inside cover.
- Glanville, R. (1994). A (Cybernetic) Musing. *Cybernetics & Human Knowing: A Journal of Second-order Cybernetics, Autopoiesis and Cyber-semiotics*, 2, 53–55.
- Kauffman, L. (1996). Virtual logic. *Cybernetics & Human Knowing: A journal of second-order cybernetics, autopoiesis and cyber-semiotics*, 4, 65–67.