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WINTER, 1979
VOLUME 2 NUMBER 1

STTH

SCIENCE/TECHNOLOGY & THE HUMANITIES

Published by
Florida Institute of Technology

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Published three times a year: January, May, and September by Florida Institute of Technology, Melbourne, Florida, Box 1150, Humanities Department. Subscriptions are \$8.00 a year, \$3.00 a copy in the U.S.; \$9.00 a year, \$3.50 a copy in Canada. Make checks payable to STTH, Humanities Department, Florida Institute of Technology. Box 1150, Melbourne, Florida 32901. © 1979 Florida Institute of Technology.

The Origin of Consciousness in the Breakdown of the Bicameral Mind by Julian Jaynes. Boston: Houghton Mifflin Company, 1977. 467 pp.

For his study of consciousness and its origins Julian Jaynes could scarcely have chosen a title more precise—nor one more likely to suggest dull or at best esoteric reading. Any such misgivings vanish rapidly. Jaynes's thesis is audacious, his range of evidence remarkable, and his style delightful.

Only the barest outline of *The Origin of Consciousness* can be given here. In brief, Jaynes advances an extraordinary psychological and neurophysiological explanation for both consciousness and its attendant objectification, human civilization. His initial premise is the recently proposed theory of the "double brain," according to which the human brain, or rather the cerebral cortex, is highly "lateralized." Its two hemispheres behave in radically different ways. Typically, the left hemisphere exercises the more "rational" or "conscious" functions such as analysis and verbalization; the right thinks in an intuitive, holistic, creative manner. Seldom, it appears, is there direct communication between the two hemispheres. To this still controversial theory Jaynes adds the even more startling notion that the human mind was not always divided. The characteristic mode of perceiving the external world and the self, the state we call consciousness, resulted from "the breakdown of the bicameral mind," i.e., the progressive lateralization of brain functions, the virtual cessation of direct communication between the two hemispheres, and, usually, the marked dominance of the left hemisphere. Moreover, consciousness originated only in the very recent history of our species—a time-span to be measured in terms of a few thousand years, rather than hundreds of thousands or even millions.

In a skillful and entertaining manner Jaynes orchestrates evidence from both the sciences and the humanities. To show that his theory is even initially tenable, he must describe the hypothetical "bicameral mind" and refute the objection that a few millenia are patently insufficient for so radical an evolutionary development as the "double brain." Jaynes attacks both problems simultaneously. Schizophrenic behavior, he suggests, indicates the nature of the bicameral mind and shows that direct and powerful communication between the cerebral hemispheres indeed still occurs; its typical form is aural, admonitory hallucination in response to stress. Yet there is no significant anatomical difference between the schizophrenic and the normal brain; in fact, under extraordinary stress the latter may also generate hallucinations.

Jaynes then turns to historical evidence which might document the genesis of consciousness and even explain why this particular psychological structure, and indeed not some other, evolved at all. The members of primitive Mediterranean societies, he suggests, had bicameral minds. When they experienced undue stress—unfamiliar situations or complex tasks involving abstract, remote goals—the deliberations which the left hemisphere could not manage were performed in the right. The decisions thus reached were then conveyed to the left hemisphere as powerful "neurological commands" (p. 99) which were registered as aural or even visual hallucinations of figures of authority. Thus the bicameral mind created gods and god-kings, and thereby provided "a form of social control" (p. 126) which made possible the first stages of civilization.

But by permitting the growth of civilization the bicameral mind facilitated its

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own obsolescence and the evolution of consciousness. Societies became too large and complex for the hallucinatory voices to control. Either a babel of conflicting voices was heard, or—a similar evolutionary disadvantage—the voices simply ceased. Cultures which survived this psychological and social crisis might experience the cyclical renewal and breakdown of the bicameral structure, or they might evolve some more workable psychological structure and mechanism of social control. In their attempts to lend meaning to the world, to revive or create anew the presence of authority, such transitional cultures (including our own, according to Jaynes) developed religion, law, art, science, and technology. Eventually consciousness emerged as an often barely successful substitute for the bicameral mind. Man gained his individual and collective maturity, at the price of having to face stress alone, always mournfully asking why the gods had deserted him.

The examples Jaynes cites are sometimes widely familiar (Homer, the Bible), sometimes rather esoteric (Mesopotamian art); invariably the interpretations he offers are provocative. "The Trojan War," he states, "was directed by hallucinations." The Iliadic heroes "did not have any ego whatever . . . no conscious minds such as we say we have. . . . [They] were noble automatons who knew not what they did" (pp. 72-75). Jaynes also examines a tribe of initially bicameral outcasts who survived the catastrophic downfall of the major eastern Mediterranean civilizations. These Khabiru or Hebrews created the Old Testament, "in its grand overall contour the description of the loss of the bicameral mind, and its replacement by subjectivity over the first millenium B.C." (p. 294). Jaynes has an obvious penchant for flashy, sometimes blasphemous, but often enticing language—not necessarily a weakness; such utterances as those quoted here sound far more convincing when read in context. Jaynes is also skilled at subtly transforming the mere hypothesis of one argument into the accepted premise of the next, often simply by a liberal use of the word "bicameral." But it would be naive to suppose that scientific argumentation dispenses with rhetoric, and boring if it did.

Jaynes does not systematically examine the subsequent history of consciousness and civilization. Book III, "Vestiges of the Bicameral Mind in the Modern World," serves instead to bolster the fundamental theory by elucidating a variety of phenomena seldom considered to be related more than tenuously, if at all. Chapters entitled "The Quest for Authorization," "Of Prophets and Possession," "Of Poetry and Music," "Hypnosis," and "Schizophrenia" suggest that the lunatic and the poet—and not only they, Jaynes says—are indeed of imagination all compact. The final chapter, "The Auguries of Science," proposes that science, too, is part of the "quest for authorization" which characterizes "this transitional period after the breakdown of the bicameral mind. And this essay is no exception." (p. 443).

Jaynes's argument may depend heavily on the resources of psychology and neurophysiology, but the issues he addresses are familiar to every student of the humanities. Thus, by supplying the knowledge of neurophysiological mechanisms understandably unavailable to Kant, Jaynes's model of consciousness corroborates and amplifies the *Critique of Pure Reason*. The search for some all-important principle underlying the operations of history places Jaynes, as he well knows, in another grand humanistic tradition. But *The Origin of Consciousness* is of particular interest to students of literature. Jaynes's own discussions of language, literature, and creativ-

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ity are fascinating, and add new life to some time-honored but occasionally anemic subjects like epic poetry, metaphor, and metrics. The reader's specialized knowledge will provide material for further speculation. The present reviewer could not help thinking, for example, of the mystifying German poet Friedrich Hölderlin: his philosophy of history, concept of alienation, incredible mastery of classical metres, and not least of all his severe schizophrenia.

Jaynes's ideas can enhance both our appreciation of literature and our teaching as well, perhaps especially on the undergraduate level. In a time when scientific investigation enjoys enormous prestige and credence, and literature and literary criticism very little, *The Origin of Consciousness* suggests not only that science can indeed be applied to the study of literature, but also that language and literature are important parts of the mind's attempt to understand the world and itself. More specifically, Jaynes's analyses of metaphor, metrics, and poetic creativity, by showing that form and content may be intimately related to each other in the process of creation, might well help us to counter the frequent tendency to reduce literary criticism to two isolated exercises, the mechanical analysis of metrics, verse forms, figures, and images, and on the other hand the vague paraphrase of "meaning." Language teachers will also find Jaynes's discussions of lateralization and linguistic processes interesting. One starts to see why beginning language students, while they can passively understand a foreign language, can reproduce fairly complex sequences of sounds without comprehending them, and can laboriously assemble their own utterances, still have such difficulty combining the three operations.

The Origin of Consciousness is not above criticism. Jaynes's individual points, choice of evidence, argumentative strategy, and of course his general theory deserve careful and skeptical scrutiny—far more than is possible here, or perhaps even really necessary, for *The Origin of Consciousness* is not the sort of book which evokes indifference. But however right or wrong it proves to be, *The Origin of Consciousness* is a valuable work. Jaynes offers students of the humanities new insights, without suggesting that their work is unimportant or their methods obsolete. He also aims at creating, not just talking about the much-desired interaction between the sciences and what are now termed, somewhat inaccurately, the humanities. Not least of all *The Origin of Consciousness* reminds us that good writing is not the exclusive preserve of humanities scholars. In sum, Jaynes's book exemplifies what humanism can be—or at least attempt to be.

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