

BOOK REVIEW ARTICLE

**Three Books on Sociobiology and the Arts**

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**Biopoetics: Evolutionary Explorations in the Arts**

*Edited by Brett Cooke and Frederick Turner*

*Other contributors: Nancy Aiken, Wayne E. Allen, Alexander Argyros, Joseph Carroll, Kathryn Coe, Lee Cronk, Koen Depryck, Ellenn Dissanayake, Nancy Easterlin, Brian K. Hansen, Joseph D. Miller, Eric S. Rabkin, Daniel Rancour-Laferriere, Gary Westfahl*

ICUS (International Conference on the Unity of the Sciences), 1999, 466 pages

**Madame Bovary's Ovaries: A Darwinian Look at Literature**

*David P. Barash and Nanelle R. Barash*

Delacourte Press, 2005, 262 pages

**The Literary Animal: Evolution and the Nature of Narrative**

*Edited by Jonathan Gottschall and David Sloan Wilson*

*Other contributors: Brian Boyd, Joseph Carroll, Frederick Crews, Denis Dutton, Dylan Evans, Maryanne Fisher, Robin Fox, Ian Jobling, Daniel J. Kruger, Ian McEwan, Daniel Nettle, Marcus Nordland, Catherine Salmon, Michelle Scalise Sugiyama.*

Northwestern University Press, 2005, 304 pages

Sociobiology has endowed the scholarly world with a newly-identified (but not truly new) subdiscipline: "adaptationist literary studies," also referred to as "Darwinian," "selectionist," or "evolutionary." The Russian Formalist critic Viktor Shklovsky once noted that while samovars could be used instead of hammers to drive nails, this was not their intended purpose, nor was it the most productive way to employ them. Many of the still clumsy attempts to apply sociobiology to the arts create the same impression, but this is a field engrossed in the search for itself. There is a sense of excitement, of discovery, and discoverers are by definition brash. Some of the theories require a grain of salt and a sense of humor.

Although the new discipline is small in the number of its

adherents, it is amazingly disparate in its approaches, and thus I opt here for a sort of a hunt-and-peck approach – like the field itself. I freely confess that I do not do full justice to the various points of view presented in the book, and I apologize for that, but I do not see that it is possible to approach so many topics in any other way. Two of these books are, after all, collections of articles rather than monographs. So if you are not familiar with attempts to apply sociobiology to the arts, try to tolerate my telegraph style, and when you will have finished reading this review, you will have a basic acquaintance with both the promise and the weaknesses of the discipline. If at that point you want to learn more, try Joseph Carroll's *Literary Darwinism: Evolution, Human Nature, and Literature* (Routledge, 2004) or a fairly early collection *The Adapted Mind: Evolutionary Psychology and the Generation of Culture*, edited by Jerome H. Barkow, Leda Cosmides, and John Tooby (Oxford University Press, 1992). Four of the five books contain extensive bibliographies.

### **Biopoetics: Evolutionary Explorations in the Arts**

This collection was published by the International Conference on the Unity of the Sciences, and the contributors are indeed in search of a methodology which would permit the arts to be studied according to the same principles as mathematics and physics. I will attempt to list at least some of their salient ideas:

Brett Cooke in his introduction points out the newness of the field and traces its origins back to Edward O. Wilson, and his 1975 book *Sociobiology: The New Synthesis*. Sociobiology views human society as operating according to principles observed in insect colonies, and that is why Wilson's research caused such a furor. In as much as *Sociobiology* is considered "paradigm-changing," Cooke provides selections of and commentary on the biologist's writings, trying to reveal just how aesthetics might be of adaptive advantage, but Wilson is not an aesthetician and the approach comes off as rather hit-and-miss. In all fairness to Cooke, such a statement accurately sums up the state of the new field itself.

Ellen Dissanayake is entirely accurate in noting the "almost uniformly unsatisfying" treatment of art by evolutionary theorists. She herself proposes that art is "making special" ordinary human behavior. This does somewhat narrow down the

topic, but really not much more. In a second essay she discusses the biological propensity for music on the basis of mother-child interaction,.

In an older article reprinted in this collection. Eric Rabkin makes some perceptive observations: a) Every culture founds itself on its own creation myths, and such ubiquity demonstrates the utility of art. b) Folklore is all about obedience. Cut free from the wolf's stomach, Little Red-Cap promises to obey her mother and not dawdle with strangers in the forest. c) All explanations are at bottom narrational.

Daniel Rancour-Laferriere discusses the now well known concept *meme*, developed by Richard Dawkins in *The Selfish Gene*, 1976 (I assume in imitation of Leibniz's *monads*). Dawkins produced the term by abbreviating *mimeme*, meaning *mimic*. Examples of memes, according to Dawkins, are tunes, ideas, and catch-phrases, propagated ready-made in a process of imitation. I am unaware if Dawkins had read Eric Auerbach's famous book *Mimesis*.

Frederick Turner reasons that beauty may be a real property of things and not "a socially or individually constructed illusion," but concedes that he has only scratched the surface. And he takes a swipe at deconstructionism, which he considers *passé*.

Derrida is all very ingenious, but it becomes clear when his smokescreen of language is blown away that this emperor has no clothes. For all he is saying, after all, is that a word is not the same thing as what it refers to.

Joseph Carroll distinguishes three mutually hostile schools of literary scholarship: a) traditional, eclectic practitioners who believe that "great books" contain a precious heritage of Arnoldian humanism that has to be preserved and transmitted to future generations; b) "postmodernism," which consists of a blend of linguistic philosophy, Marxist social theory, and Freudian psychology (he does not discuss the Jewish common denominator, but refers only to postmodernism as currently "dominant"); and c) the new "Darwinian" scholarship, of which he has become an adherent. "Evolutionary criticism" rejects the traditionalist idea that art transcends or exceeds theoretical reduction but accepts from the postmodernists the idea that art is amenable to a unified scientific analysis. Literary scholars, he asserts, must either retrain themselves or retire.

Wayne E. Allen's contribution is frankly hard to take seriously. For him the arts are the manipulation of "mentally generated conceptualizations" made possible by "hormonally based psycho-emotional mechanisms" inducing mammalian pleasure and "ecstatic states" comparable to that of orgasm. Hopefully Wayne also enjoyed himself in writing the article, but art is first and foremost discipline, and while it may attempt to replicate ecstasy, I suggest that this all amounts to a refried Romantic conceit, served up with generous sides of gobbledygook.

In attempting to "apply genetic theory to behavior," Brett Cooke proceeds from the assumption that art is behavior that must have been adaptive, and in this assertion, fundamental to the new discipline, he conflates the author's personal values and those of his personages with art. I would argue that plot goes into art but is *not* art any more than the red pigment in a painting is art.

Lee Cronk discusses Margaret-Mead-style assertions as to the endless malleability of human society (now widely debunked), but fails to link his discussion to art.

Gary Westfahl takes up the topic of science fiction as having the potential for going beyond human perspectives, thus picking up the idea of transhumanism, but his fundamental starting point is flawed. Science fiction is not "a new genre of literature... significantly different from any previous literary forms," but is fantasy literature with purportedly scientific justification, nothing more.

Nancy L. Easterlin discusses narrativity in literature as a cognitive mode developed over the course of evolution to help us understand the world and our place in it. Refreshingly, she specifically denies that such an approach makes a meaningful contribution to the study of aesthetics. She analyzes plot as linear and oriented toward causality and discusses post-modern fictional worlds in which "the disintegration of language and of the norms of novelistic realism mirror the loss of a comprehensible world along with any perception of control over it."

Kathryn Coe is an anthropologist who treats the problem of functionality in the visual arts. She points out that collectivist art promotes social cohesiveness and quote's Darwin's evaluation of body painting as serving the purpose of enhancing sexual

attractiveness.

Joseph D. Miller discusses the drive for novelty, in particular with regard to science fiction.

Alexander Argyros argues that “the tragic is liable to be brittle and vulnerable to internally or externally generated instabilities” and that the tragic is founded on the conflict between creativity and a sense of mortality.

Brian Hansen analyzes the prehistory of the theater, pointing out that seven-year-old children are generally capable of multiple, fairly developed fantasy characters. Since it is the common scientific opinion that the human brain achieved this level roughly a million years ago, the history of drama extends back at least this far in time. Hansen links drama with speech and views it as a gradual development rather than a single-event occurrence. Drama is for him historically linked with religious ritual and is a form of play which allowed people to gain experience in essential social interaction.

Koen DePryck discusses determinism, its denial of aesthetics, and the “hidden teleology behind the utilitarian evolutionary program.” He derives biology from aesthetics rather than the reverse.

Nancy E. Aiken rediscovers an article by Herbert Spencer “The Origin and Function of Music,” published in 1857 (two years before Darwin’s *Origin of the Species*), in which Spencer speculates that art may have evolved from behaviors necessary for individual survival, thus launching an entire school of thought called “evolution aesthetics” in the late nineteenth century: “It is humbling to note,” she writes, “that many ‘new’ ideas reflect propositions offered over a hundred years ago.” She and Brett Cooke then present a useful and informative annotated bibliography of “Selectionist” studies of the arts.

### **Madame Bovary’s Ovaries:**

#### **A Darwinian Look at Literature**

“Evolutionary aesthetics” often takes the form of psychological analysis of literary characters. Such is the approach of David Barash and his daughter Nanelle, who analyze *Othello* as an illustration of the protagonist’s sexual male jealousy. As for the novel *Jane Austin*, it boils down to finding the right mate, and the moral of *Tess of the d’Urbervilles* is that “men like bad girls but marry good ones.” David Barash is not a

literary scholar, but a psychologist, which explains the approach. The father-daughter duo argue that all humans are bound together by a common genetic blueprint, and that aesthetic pleasure consists of recognizing our commonalities with literary personages. They then proceed to analyze the “fitness” of literary characters – as if they were living people – through the prism of sociobiology:

We have based our approach on the conviction that literature, after all, is by human beings, about human beings, and for human beings. And whatever else they are, human beings are beings, biological creatures through and through, from beginning to end, ashes to ashes and dust to dust, hydrogen and oxygen and carbon and a sprinkling of sulfur, potassium, calcium, sodium, iron, and phosphorous, shaken and stirred and winnowed and selected by millions of years of evolutionary history.

All fine and good, but what does this tell us? Armies of Freudians, Jungians, and behaviorists have already been down this path. It is not without validity, but it is disappointing.

### **The Literary Animal:**

#### **Evolution and the Nature of Narrative**

Edward O. Wilson, the above-mentioned biologist whose studies of social insects created the field of sociobiology, writes the “Foreword from the Scientific Side”:

The cleavage between naturalism and social constructivism in literary theory highlighted by the essays to follow extends to the foundation of knowledge itself.... Either the great branches of learning – natural sciences, social sciences, and humanities – can be connected by a web of verifiable causal explanation or they cannot. Either existence can be mapped as a continuum with the aid of science... or science is only “one way of knowing....”

Wilson expresses hope that the “unifiers” will succeed in making their case, and how could he not be hopeful when they claim to be creating an entire new discipline in his name?

Frederick Crews, who writes the “Foreword from the Literary Side,” comes out as a committed Darwinian, but “not a champion of evolutionary criticism,” describing the new field as “just one among many avenues of legitimate inquiry.” And he

adds that “consilience across disciplines does not require the surrender of one field [literary scholarship] to the goals and methodological habits of a more basic one” [evolutionary psychology]. Crews denounces the attacks on Wilson by the egalitarian thinkers Richard Lewontin and Stephen Jay Gould and the left-wing group *Science for the People* as “kangaroo courts” and in passing also takes a swipe at Derrida’s Deconstructionism as “warped and demoralized by cynicism.” The two forewords are the equivalent of loyal parents rooting for their son’s team rather than the final whistle of the referee proclaiming the winner.

The volume’s editors, Jonathan Gottschall and David Sloan Wilson (both of whom participated in *Biopoetics*), argue for a Darwinian “integrationist” worldview. Gottschall describes how, having just read Desmond Morris’s 1967 best seller *The Naked Ape*, he then took up Homer:

I experienced the Iliad as a drama of naked apes – strutting, preening, fighting, tattooing their chests, and bellowing their power in fierce competition for social dominance, desirable mates, and material resources.

Echoing E. O. Wilson’s words, Gottschall decries *tabula-rasa* theories of human psychology that maintain that makes such claims as “gender is only an arbitrary social construct,” and complains of *de facto* censorship by traditional literary scholars. D. S. Wilson supports him, commenting: “I could understand why the evolutionary perspective might be *controversial* in the field of literary studies – but effectively *off limits*?” The two editors then enunciate their approach:

We aim to forever establish evolution as part of the normal discourse in literary studies, while directing the attention of evolutionists to literature (and other art) as a fundamental product of human nature, (so far, so good, but then they go further) as a source of insight, (and then still further) and even as a source of data that can be analyzed quantitatively.

Ultimately Gottschall and Wilson go on to dismiss the literary work as a legitimate object of study in and of itself: “The subject of literary studies is ultimately the human mind.” In this last claim they have gone too far, probably without realizing the full implication of their statement.

Ian McEwan is not a literary scholar but a creative writer, and his contribution is akin to a lecture given by a swallow on aerodynamics. He begins by writing about a “theory of the mind” and literature as a “mental map” that “does not define human nature so much as exemplify it,” but therewith exhausts his analysis, although he does swoop quite gracefully over a number of topics.

David Sloan Wilson sees literary studies as historically dominated by “social constructivism” – an insistence on human flexibility shared by postmodernism and deconstructionism – and attempts to reconcile it with sociobiology and “evolutionary psychology.” He refers to this reconciliation of the nature and nurture schools as “reconstruction.”

If D. S. Wilson’s article is only peripheral to the purported topic of the book (literature), Dylan Evans’ is virtually irrelevant. This is a generalized problem afflicting much of psychobiology purportedly applied to art (D. S. Wilson discusses the French psychoanalyst Jacques Lacan and the current predominance of the “cognitive science” model – the mind is a computer – over behaviorism.)

Daniel Nettle quotes the statistic that in 1999 the average Briton spent 369 hours watching drama, via television, film, and theater. If, according to Darwinism, people are ceaselessly preoccupied with the perpetuation of their genes, how does drama help them to accomplish this task? Some evolutionary theorists have speculated that spectator activities increase fitness via “fictional cognition,” that participating in the arts is a way of displaying mating potential, that drama transmits behavioral norms, or that memes are best at “colonizing the mind.” (I told you you’d have to have a little humor.) Of greater interest, at least to my mind, is Nettle’s comparison of primate societies with insect colonies. Unlike ants or bees, which are governed by predetermined genetic instructions, primates maximize fitness within tight-knit social groups via learned interactions revolving around love and status: tragedy is about competition, and comedy about the mating game. We are preprogrammed for precisely this sort of thing. Unfortunately, Nettle does not analyze why the zoo gorilla (after all, just another primate!) likes to watch football. Perhaps a female would prefer soap operas.

Joseph Carroll, whom we heard from above, maintains that Darwinian psychology is on the verge of achieving a paradigm

that will in its turn create a new school of literary criticism (Most proponents of the application of sociobiology to the arts are concerned chiefly with literature rather than music or the visual arts.) Carroll targets all of previous literary scholarship, which he breaks down into two chief scholarly trends: a) traditional criticism, which Carroll views as impressionistic, opportunistic and, mainly, lacking in a “a systematic reduction to simple principles,” and b) postmodernism with its “semiosis,” “textuality,” “class struggle,” “the phallus,” “bourgeois ideology,” “discourse,” “gender,” “dialogism” “heterosexism,” “the Other,” “patriarchy,” etc. “There is no work of literature written anywhere in the world, at any time, by any author,” Carroll maintains, “that is outside the scope of a Darwinian analysis,” and he illustrates his point with a Darwinian analysis of *Pride and Prejudice*, even though he begins his article by pointedly castigating psychological analyses of literary characters.

As can be seen from the above, the logic for applying sociobiology to literary works can be laid out quite simply:

- a) the behavior of biological creatures is determined by the degree to which these behaviors, directly or indirectly, influence fitness;
- b) art, including literature, is the product of such behavior;
- c) literary scholarship should not predicate an artistic universe separate from the laws of science.
- d) literary scholarship should be “Darwinian” (“evolutionary,” “adaptationist,” “selectionist”).

The syllogism is indeed tempting, for it assumes a dovetailing of disparate knowledge. Who could possibly reject such a fundamental assumption of all of science? Previous literary scholarship now finds itself lumped together with creationism and people who believe 1930s black-and-white science-fiction films in which bearded cavemen wearing animal hides use sharpened sticks to fight off toothy, disagreeable dinosaurs.

But there is a leap of faith here which can be exposed by citing a fairly primitive practice. Many, perhaps most, college bookstores offer a selection of slender booklets that provide reasonably accurate plot summaries of novels for student “customers” (I said you’d need humor; this is phraseology in all seriousness by some well-known institutions of higher learning)

or “clients” whose primary motivation does not extend further than receiving a grade, or at least course credit. I know of no “evolutionary” analysis of a literary work that is not equally applicable to the plot summary of that work. If such scholarship cannot distinguish between *Pride and Prejudice* and its ten-page summary, we are still very distant from the purportedly imminent “paradigm shift,” for we have lost that which is most important, perhaps even the only thing that is important.

The basic hurdle faced by “biopoetics” is proving the unity of artist and his creation. If the artist creates his own universe, can we be sure that the laws of our “objective” universe are applicable there as well? Personally I am deeply opposed to and even repelled by such metaphysics, but at the same time the plot-summary objection must be answered if sociobiology is to be judged applicable, not just to the author’s psychology, but to his literary creation.

One last item in Carroll’s article: the notorious egalitarian/environmentalist contraposition to genetically determined diversity is part and parcel of the issue. “Evolutionary psychologists” speak of the brain in terms of fixed “cognitive modules” common to us all. This is the so-called doctrine of “domain generality,” which holds to the *tabula rasa*, we-are-all-the-same worldview, and is opposed by the doctrine of “domain specificity,” which is intertwined with the eugenics argument.

Marcus Nordland analyzes characters in two of Shakespeare’s plays and objects to the egalitarian assumption that love is a “social construct,” preferring instead to view it as a product of genetic and cultural co-evolution. Although he describes Shakespeare’s comic heroines as “carneavalesque role reversals,” his essay is essentially an exercise in biology and human psychology, with literary aspects serving only as illustration. Robin Fox examines male bonding in epics and romances from this same perspective. Males who bond will have reliable allies, he writes, and thus literary characters are of interest to him to the degree that they illustrate this “adaptational significance.”

Brian Boyde and Michelle Sugiyama discuss a central dilemma of evolutionary art scholarship: if art does not promote fitness, why does it exist? After all, it “exceeds the functional” and thus subtracts from efforts to propagate the species. Boyde

discusses such theories as parental investment, sexual selection, fitness indicators, cognitive design, adaptation, and individual and social functions, and Sugiyama treats narrative as “an information storage and transmission system.” But none of these theories is adequate to the task of literary analysis. Can we really claim we have comprehended the genius of Albinoni on the basis of Steven Pinker’s definition of music as “a cocktail of recreational drugs that we ingest through the ear”? Only the theory of art as a by-product of the evolutionary process appears to have any validity, but even it does not take us very far.

One section of the book is devoted to quantitative methods: counting the number of male and female characters, their relative attractiveness, marital states, ages, sexual maturity, ratings of “dads and cads,” and the male/female incidence of erotica versus romance, the assumption being that literature can be studied as a “vast, cheap, and virtually inexhaustible argosy of information about human literature.” That is, samovars may indeed be used to drive nails.

Denis Dutton performs an optimistic summing up of the volume, exclaiming: “Literary theorists, aestheticians, it’s time to start explaining. Just repeating the mantra that ‘it’s all culture’ has become tedious and empty.”

Again, I apologize for the terseness of the presentation.

John Glad’s book *Future Human Evolution: Eugenics in the Twenty-First Century* (Hermitage Publishers, 2006) may be downloaded free at [www.whatwemaybe.org](http://www.whatwemaybe.org)

Sociobiology and You. If Steven Pinker's latest 500-page treatise on the brain, *The Blank Slate*, serves any wider purpose in the popular discussion of science issues, it will, one hopes, be the final demolition. By Steven Johnson. October 31, 2002. Rose et al. cannot substantiate their allegation about sociobiologists believing in inevitable genetic determination, because the allegation is a simple lie. The myth of the "inevitability" of genetic effects has nothing whatever to do with sociobiology. Sociobiologists, such as myself (much as I have always disliked the name, this book finally provokes me to stand up and be counted), are in the business of trying to work out the conditions under which Darwinian theory might be applicable to behaviour. Sociobiology is "the systematic study of the biological basis of all forms of social behavior, in all kinds of organisms, including man".<sup>1</sup> The forms of social behavior displayed by man *homo sapiens* are vast in number and fantastically heterogeneous. But from a biological perspective none are more remarkable than those exemplified in sophisticated contemporary aesthetic practices: the practices of art and art appreciation. Can sociobiology contribute to an understanding of contemporary aesthetic practices? Keywords. This process is experimental and the keywords may be updated as the learning algorithm improves. This is a preview of subscription content, log in to check access. Preview. Sociobiology has contributed several insights to the understanding of animal social behaviour. It explains apparently altruistic behaviour in some animal species as actually being genetically selfish, since such behaviours usually benefit closely related individuals whose genes resemble those of the altruistic individual. This insight helps explain why soldier ants sacrifice their lives in order to defend their colony, or why worker honeybees in a hive forego reproduction in order to help their queen reproduce. Sociobiology is more controversial, however, when it attempts to explain various human social behaviours in terms of their adaptive value for reproduction.