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The New Darwinism in the Humanities

Part II: Back to Nature, Again

Between the year 1997, when *How the Mind Works* was published, and 2002, the year of *The Blank Slate*, Steven Pinker's treatment of art seems to have undergone a certain amount of refinement. In 1997, far from seeing the arts as "adaptive," in the Darwinian sense of conducive to fitness for survival and reproduction, Pinker described music and fiction as "cheesecake" for the mind that provided a sensual thrill like the feel of fat and sugar on the taste buds. With a view such as this, there wasn't much difference between the psychological impact of Bach's *St. Matthew Passion* and pornography off the Web. Pinker made things even worse by adding, "Compared with language, vision, social reasoning, and physical know-how, music could vanish from our species and the rest of our lifestyle would be virtually unchanged. Music appears to be a pure pleasure technology, a cocktail of recreational drugs that we ingest through the ear to stimulate a mass of pleasure circuits at once."

Whether the passage of time has caused him to reconsider or whether harsh critics such as Joseph Carroll¹ have had a chastening effect, by the time of *The Blank Slate*, Pinker remarks, "Whether art is an adaptation or a by-product or a mixture of the two, it is deeply rooted in our mental faculties." In other words, our response to art is a component of human nature and, even if he still considers it a pleasure-technology or a status-seeking feat, Pinker now seems to see it as more deeply connected with being human. "Organisms get pleasure from things that promoted the fitness of their ancestors," he writes, and he mentions food, sex,

¹ Joseph Carroll, "Steven Pinker's Cheesecake for the Mind," *Philosophy and Literature*, Vol. 22, No. 2 (1998).

children, and know-how as well as visual and auditory pleasure. Not quite “adaptive” but serious nonetheless. If he has not already done so, I figure it is only a matter of time before he abandons the implausible view that nobody would profoundly miss music if it were simply to disappear. The number of totally music-insensitive people I have met during a lifetime would not use up the fingers of one hand.

Carroll, an English professor at the University of Missouri who can plausibly be regarded as the leading thinker among Darwinian humanists, has recently produced a brief overview of developments in this new field. He writes:

In the past decade or so, a small but rapidly growing band of literary scholars, theorists, and critics has been working to integrate literary study with Darwinian social science. These scholars can be identified as the members of a distinct school in the sense that they share a certain broad set of basic ideas. They all take “the adapted mind” as an organizing principle, and their work is thus continuous with that of the “adaptationist program” in the social sciences. Adaptationist thinking is grounded in Darwinian conceptions of human nature. Adaptationists believe that all organisms have evolved through an adaptive process of natural selection. . . . They argue that the human mind and the human motivational and behavioral systems display complex functional structure, and they make it their concern to identify the constituent elements of an evolved human nature: a universal, species-typical array of behavioral and cognitive characteristics . . . genetically constrained . . . and mediated through . . . neurological and hormonal systems that directly regulate perception, thought, and feeling. . . . They are convinced that through adaptationist thinking they can more adequately understand what literature is, what its functions are, and how it works—what it represents, what causes people to produce it and consume it, and why it takes the forms it does.²

Carroll’s magnum opus, *Evolution and Literary Theory*,³ is a powerful polemic against the poststructuralist dogmas known as textualism and indeterminacy as well as their leading exponents, Derrida, Foucault and their many disciples. Textualism is the belief that what claims to be knowledge of a world is only knowledge of a text, including the “rhetoric” of science, and that the attempt to make contact with a reality outside of texts is doomed

² “Adaptationist Literary Study,” *Style* 36 (2003). See also Carroll’s website: <http://www.umsl.edu/~engjcarr>.

³ Joseph Carroll, *Evolution and Literary Theory* (Columbia, Missouri, 1995).

by one's inability to produce anything beyond another text or rhetorical strategy. Indeterminacy, which follows from the logic of textualism, refers to the supposed impossibility of arriving at truth when all you can hope for is to produce more conflicting or self-contradictory texts disconnected from any independently existing world. In such a universe of discourse, one opinion is as good as another since none has foundations any stronger than the claims offered by each other's rhetorical cheering squads, thus leaving everything "indeterminate." The anti-poststructuralist stance of Carroll's book is a counterpart to Cosmides and Tooby's assault on the Standard Social Science Model, which sees almost everything human as a product of culture, minimally grounded in the evolved physicality of all existent things. In Carroll's case, his repudiation of the poststructuralists addresses their similar belief that everything is ultimately mental, the product of the self-enclosed human mind cut off from any constraining reality (such as "human nature" or a world). Carroll reviews in erudite detail all of the major post-structuralist theorists and, as far as I can judge, reduces them to a pile of shreds.

The positive core of Carroll's book consists of his accounts of Darwinian adaptationism and his view that "the subject matter of literature is human experience," which "is continuous with that of physics and chemistry" but which has, however, "cognitive properties that emerge only at levels of organization higher than those with which physics and chemistry are concerned, and it is these higher levels that are the appropriate subject matter of literature." This human world is not *only* the product of culture and rhetoric, the actions of which no Darwinian would deny, but it is principally driven by the three billion years involved in the making of the human brain and is thus generated from the ground up rather than from the heavens down. "Consider," Carroll writes elsewhere, "that the vast bulk of fiction consists in personal interactions constituted primarily by combinations of motives involving mating strategies, family dynamics, and social strategies devoted to seeking status and forming coalitions." Among humans, this basic behavior is complicated by the peculiar human proclivity for creating elaborate cognitive models of the world and our activity in that world. For Carroll, artistic representation is a natural extension of an adaptive

human capacity for creating cognitive models. In other words, “All formal literary structures are prosthetic developments of evolved cognitive structures that serve adaptive functions.”⁴ In still another essay, Carroll examines in concrete detail the ways in which sex, nurturing, kinship, and a multitude of evolutionary adaptations instantiate themselves in novels by Jane Austen, Charlotte Brontë, Thomas Hardy, Arnold Bennett, and Willa Cather.⁵ And in one of his most brilliant essays he sums things up like this:

I would argue that the primary purpose of literature is to represent the subjective quality of experience. In opposition to the post-Kantian notion that cognitive and linguistic categories are autonomous forms that constitute their own objects, I maintain, in company with Karl Popper, Konrad Lorenz, Tooby and Cosmides, John Bowlby, and other evolutionary theorists, that cognitive and linguistic categories have evolved in adaptive relation to the environment. They correspond to the world not because they “construct” the world in accordance with their own autonomous, internal principles but because their internal principles have evolved as a means of comprehending an actual world that exists independently of the categories.⁶

Although Darwin had a massive impact on a wide range of disciplines shortly after the appearance of *The Origin of Species* in 1859, his influence waned during the first half of the twentieth century. The resurgence of Darwinism after World War II did not really begin to transform the social sciences and humanities until, perhaps, E. O. Wilson’s explosive conclusion to *Sociobiology* appeared in 1975. (That its final chapter now seems entirely unsurprising is a tribute to the extent of its naturalization over the course of twenty-five years.) And by the beginning of the nineties, the writings of Cosmides and Tooby produced their own

⁴ Joseph Carroll, “Wilson’s *Consilience* and Literary Study,” *Philosophy and Literature*, Vol. 23, No. 2 (1999). This is an especially brilliant and densely substantiated review of E. O. Wilson’s book.

⁵ Joseph Carroll, “Human Universals and Literary Meaning,” *Interdisciplinary Studies*, Vol. 2 (2001). Unfortunately, lack of space makes it impractical to include specimen readings of literary texts here. Forthcoming from Routledge, however, is a collection of Carroll’s essays, *Literary Darwinism: Evolution, Human Nature, and Literature*. At present, many of these essays may be viewed on Carroll’s website. See note 2. In his new edition of Darwin’s *On the Origin of Species*, Broadview Press, Ltd., Carroll provides an almost book-length Introduction to Darwin and his subsequent history.

⁶ Joseph Carroll, “Pluralism, Poststructuralism, and Evolutionary Theory,” *Academic Questions* 9, No. 3 (Summer 1996).

startling impact, which continues even today. What seems particularly to have generated the humanistic turn was the increasingly poisonous effect of poststructuralism in its brushing aside of the material foundations of existence along with a human nature derived therefrom and its insistence that almost everything is “constructed” by an autonomous intellect as channeled by society. Carroll’s uncompromising polemic against textualism and indeterminacy in his 1995 book seems to have produced an extremely strong humanistic influence, though even before this landmark work Frederick Crews had made his own highly critical remarks in a brief preface to *After Poststructuralism: Interdisciplinarity and Literary Theory*, a collection of oppositional essays.⁷ And even before him, in 1992, Ellen Dissanayake combated these orthodoxies in *Homo Aestheticus* (see below). More such attacks against poststructuralism followed, most notably Robert Storey’s caustic dismissal of poststructuralist delusions of grandeur in the “Pugnacious Preface” to *Mimesis and the Human Animal: On the Biogenetic Foundations of Literary Representation*,⁸ with an avowed indebtedness to Carroll.

Two collections of essays from the past few years provide a sense of the way in which this movement has been developing. The first, published in 1999, *Biopoetics: Evolutionary Explorations in the Arts*,⁹ was assembled by Brett Cooke and Frederick Turner. “The evidence is steadily mounting,” the editors remark in their introduction, “that if we wish to understand our profound and long-standing impulse to create and enjoy art we are well advised to attend to our evolutionary heritage. . . . Even if art is for art’s sake, it follows that we seriously consider what *that* purpose means in Darwinian terms. Not for nothing, we assume, as have many before us, is art found in every society, living or dead.” Thus the origins and rationale for the production and consumption of art are represented here by a wide, if uneven, range of essays, all of which have some connection with Darwinian adaptation and its physical and cultural consequences. Among them, the editors

⁷ *After Poststructuralism: Interdisciplinarity and Literary Theory*, ed. by Nancy Easterlin and Barbara Riebling (Evanston, IL, 1993).

⁸ Robert Storey, *Mimesis and the Human Animal: On the Biogenetic Foundations of Literary Representation* (Evanston, IL, 1996).

⁹ *Biopoetics: Evolutionary Explorations in the Arts*, ed. by Brett Cooke and Frederick Turner (Lexington, KY, 1999). Cooke has recently published a book-length application of adaptationist biopoetics in *Human Nature in Utopia: Zamyatin’s We* (Evanston, IL, 2002).

have collected into a mini-anthology E. O. Wilson's *passim* remarks on art (some very marginal) from several of his pioneering books, and Cooke has written a commentary upon them. Another contributor traces the generation of aesthetic emotion to shamanistic ecstasy biochemically produced by toxic herbs or mechanically induced by drumming, chanting, fasting, pain, all sharing aspects of sexual arousal. Yet another defines art in its most primitive manifestations as "color and/or form used by humans in order to modify an object, body, or message solely to attract attention . . . to make objects more noticeable." Cooke himself, a scholar in Russian literature, provides one of the collection's few concrete readings of a literary work in adaptationist terms, examining how the treatment of women as property in Pushkin's "The Snowstorm" reflects epigenetic (i.e., the superimposition of culture upon genes) patterns of social behavior. Although these patterns are transmitted by society, the actors involved have little if any awareness of the evolutionary mechanisms that are expressed by their society's (and their own) enactment of conventions.

For example, Cooke gives us the generally accepted Darwinian description of the radically different sexual behavior of males and females in most cultures:

With gendered species, the great differential between the reproductive investment made by the two sexes in their offspring influences differences in their behavior. The female generally has much less reproductive potential than the male, and she invests significantly more time and energy in each offspring. The male usually makes little investment and, theoretically, has a vast reproductive potential. It then follows that the female will carefully select her mate, so as to optimize her limited reproduction. Males of most species may . . . try to be as promiscuous as possible so as to have more offspring. Some of these differing strategies are expressed in human behavior, such as the common age differential between husbands and wives.

Many of the underlying drives behind reproduction and nurturing may seem to be "common sense" or "logical," but evolutionists find their pervasiveness across cultures to be more than just a funny coincidence. Of course, it is possible for people "to buck the often obsolete trends of biological adaptation, but they usually will pay an emotional price for doing so," given the lingering power of atavisms. Cooke applies these and other forces

that operated during the long Pleistocene period in which we were formed to account for the essential twists and turns of the marital action in Pushkin's story—and he is pretty convincing.

Thus far, however, the number of *aesthetic* evaluations of works of art from a Darwinian perspective has been small, and it is hard to say how fruitful such an approach will turn out to be. There is always the danger of forcing a variety of artifacts through a critical grinder that makes them all come out looking like the same dust. Though the range of Freudian and Marxian criticism has been great, once certain basic formulae had been applied again and again, there was an increasing tedium and self-parody involved, eliding the most distinctive aspects of art works, while distorting their character. So far, Darwinian approaches have tended to be more historical, anthropological, psychological, biological, sociological than aesthetic, so Darwinian art criticism is still in its earliest phase. Of course it is not possible to reduce complex art works to total conformity with any scientific paradigm, and at least one of this volume's contributors, Nancy Easterlin, has established a role as an adversarial Darwinian who tries to demonstrate ways in which culture and art works go against the Pleistocene drives that to some degree have misfitted us for contemporary life (as Pinker insisted in *The Blank Slate*, although he regarded this going-against as more deleterious and frustrating than Easterlin does). Thus she takes the contrarian position that "works that are considered valuable and timeless are not those in which normative cognitive patterns are most closely reproduced." Unlike Pinker, she is not ready to write off post-modern literary techniques and, to some degree, sees them as playing themselves off against the adaptationist norms that generate our unwitting everyday predilections.

The second collection of Darwinian essays (and there are a number of others), edited by Easterlin herself, was a special issue of *Philosophy and Literature*, a symposium on evolution and literature.¹⁰ In it, Michelle Sugiyama writes on one of the most recurring themes in Darwinian literary study, the function of narrative: "An understanding of why and how humans create and consume narrative requires an understanding of (1) features of ancestral environments and (2) features of the mind that made the emergence of this phenomenon possible." Tracing the

¹⁰ *Philosophy and Literature*, Vol. 25, No. 2 (October 2001).

origins of narrative far back into human prehistory, she reports on the view of anthropologists and psychologists that ritual, art, and narrative “may be conceptualized as means of exchanging information relevant to the pursuit of fitness in local habitats [during the Pleistocene].” Moreover, the same themes pervade narratives worldwide, “social relations (e.g., kinship, marriage, sex, social status, morality, interpersonal conflict, deception), animal behavior and characteristics, plants, geography, weather, and the cosmos.” And coming much closer to home than the Pleistocene, many of these themes were already traced by Joseph Carroll in his examination of Victorian novels mentioned above. In this collection, however, Carroll (who appears in both) interconnects literature not only with evolution but with ecology as well, in “The Ecology of Victorian Fiction.”

No organism can be understood except in its interactive relations with its total environment. An organism is never an isolated thing. By definition and in brute reality the world that an organism inhabits is part of that organism. The organism carries that world embedded and moulded [*sic*] into every inmost fold of its physiology, its anatomy, and its psyche. . . . The felt quality of experience within a natural world is one of those fundamental conditions of experience. It should also be one of the fundamental categories of literary analysis.

This joint consideration of Darwinian adaptationism and ecology has, in fact, produced the discipline of behavioral ecology. One can see how its insights might have great bearing on the creation and interpretation of literary works, given the role of place not only in nature-writing but in poetry and fiction as well.

Although a Darwinism newly infused with insights from cognitive neurosciences is spreading rapidly, humanist academia so far remains a bastion of doctrinaire resistance, now that the formerly young poststructuralists are in control of English and history departments (not to mention the social sciences). The political correctness that forms the bedrock of their fundamentalism depends for its authority on the belief that people are mostly blank slates almost entirely fleshed out by culture. This belief implies that just about anything can be changed if culture so dictates. And it has been doing a lot of dictating—to a human nature that is not always very obliging. The Darwinians are seen by this opposing camp as conservatives, since their belief that the core of our being has been given rather than chosen seems

restrictive and limiting, even though this human nature is expressible in infinite ways that result in individuals who are far from identical. Culture, of course, retains great force no matter what ontology is assumed as operative: any woman living in the year 1800 in England who happened “by nature” to be athletic had little chance of satisfying athletic yearnings in a culture that forced women into a domesticity underwritten by God. Such a woman living then would have been prime material for psychiatry, a misfit neurotic who at that time could only turn to priests who reinforced the neurosis. Today, such a woman would be regarded as a model of health and would be welcomed into the world of women’s sports, no psychiatrist needed. This phenomenal (in the philosophic sense) expression of the genes as culture is now being elaborated by yet another Darwin-related discipline, that of cultural biology, whose empirical investigations of brain growth reveal that both individual choices and cultural practices alter the actual physical components of hominid brains, which remain open to development throughout a lifetime (but can never be cut loose from “human nature”).¹¹ It is only a matter of time before even humanist academia will be forced to admit that the doctrinaire truth of a truth-doubting poststructuralism is on its last legs.

I have saved Ellen Dissanayake for last because her work is the most difficult to characterize. Just before *Lingua Franca* folded at the end of 2001, Caleb Crain wrote a long account of her that began with the following summary paragraph:

Suppose there were a person who saw, before almost anyone else, that the most important concept in modern biology could be applied to the arts. Suppose, however, that this person studied biology only as an undergraduate, never took a class in anthropology, and never received a Ph.D. Suppose, in fact, that she were a homemaker for a dozen years and then spent fifteen years in the Third World, where it was difficult for her to gain access to the research libraries and social networks that most professors take for granted. Nevertheless, over the past two decades—with no more institutional support than a few years of adjunct teaching, several grants, and a couple of visiting professorships—she has managed to publish three books setting forth her ideas. And today a new field of study has sprung up where she pioneered. Suppose, in addition, that some people think a schol-

¹¹ For an account of cultural biology see *Liars, Lovers, and Heroes: What the New Brain Science Reveals About How We Become Who We Are*, by Steven R. Quartz and Terrence J. Sejnowski (New York, 2002).

arly framework based on her insights will displace much of current aesthetic theory—that future generations will understand literature and the arts as she does, thereby reconciling the humanities to the science of human nature.¹²

This heterogeneous, offbeat life is deeply relevant to Dissanayake's independent thinking and research, since she falls in neither with the orthodoxies of academic departments nor the preferred themes of the cognitive sciences, starting out with a broader experience of felt life, of the affect of behavior, than most theorists whose information depends largely on books. A Darwinian adaptationist, she connects also with human ethology, sociobiology, evolutionary psychology, psycholinguistics, neuroscience, ethnomusicology, biopoetics, developmental psychology, and much else, and her chief interest, aesthetics, takes account of a wider range of human behavior than the traditional approaches.

A passage from her 1992 book, *Homo Aestheticus*, could well serve as starting point in an account of her work. Writing about the “scriptocentric” bias of modern life, she remarks:

It seems more accurate to view thought and experience as occurring behind or beneath spoken words, as being something that saying helps to adumbrate and communicate and that writing (or rewriting) falsifies to the extent that it turns the natural products of mentation—fluid, layered, dense, episodic, too deep and rich for words—into something unnaturally hard-edged, linear, precise, and refined. We “think” like logicians primarily on (and because of) paper. If we assume that thought and experience are made wholly of language it is only because, as twentieth-century hyperliterate, we read and write reality more than we live it.

If writing has been around for only 6000 years, and if people perform such complex activities as driving cars and playing the piano with minimal conceptualizing or attention, there's a great deal of cognition going on before the mind gets around to the discursive orderliness of speech, let alone writing. Or to put it more extremely, there's another life going on beneath the life we think we are living. And perhaps that other life is the really real one even if, or because, it can't be expressed in words.

¹² *Lingua Franca*, October 2001. Dissanayake's books are: *What Is Art For?* (Seattle, 1988) and subsequent paperbacks; *Homo Aestheticus: Where Art Comes From and Why* (New York, 1982), paperback edition (Seattle, 1995, 1996); *Art and Intimacy: How the Arts Began* (Seattle, 2000).

Expression not in words is the starting point of Dissanayake's biological conception of where art comes from. In the punningly titled "Aesthetic Incunabula," both the cradle of aesthetics and the cradle of an infant (see note 10), Dissanayake presents her foundational theme of baby talk as the primordial expression of the arts (developed further in a series of articles and in her most recent book, *Art and Intimacy*). "Babies in every culture show the same or similar cognitive abilities and preferences." The interactive baby talk in the mother-child relationship may use words, which of course the infant cannot understand at all, but it is not the words as meanings that produce the interaction; rather it is the words delivered as a form of music/poetry/dance performance, a primal aesthetic experience for both mother and baby, a duet, as Dissanayake calls it, fostering emotional connection. Examining in detail a transcription of a mother's baby talk to her infant, Dissanayake reveals that beyond the infant's inborn capacity for face recognition, preference for humans, responsiveness to colors and sounds, and the adult's unpremeditated musicality of utterance to the baby, the foundations of the basic ingredients of art works are being established:

I suggest that what artists do in all media can be summarized as deliberately performing the operations that occur instinctively during a ritualized behavior: they simplify or formalize, repeat (sometimes with variation), exaggerate, and elaborate in both space and time for the purpose of attracting attention and provoking and manipulating emotional response. "Artification," like ritualization, attracts attention and shapes and manipulates emotion. Just as infants recognize, attend to, and respond to regularization and simplification, repetition, exaggeration, and elaboration in vocal-visual-gestural modalities when interacting with adults, so do adults attend to and respond to these features as presented to them aurally, visually, and kinaesthetically in the various arts.

What Dissanayake calls "artification" here, she elsewhere characterizes as "making special." And what she consistently means by "art" is rarely elite high art of the West so much as a type of behavior. "By calling art a behavior, one also suggests that in the evolution of the species, art-inclined individuals, those who possessed this behavior, survived better than those who did not."¹³ Her sense of art as "making special" was heightened by years in

¹³ *Homo Aestheticus*. (See note 12.)

countries such as Sri Lanka and Papua New Guinea where customs and rituals were not as heavily overlaid by the Industrial Revolution's transformations of contemporary life in the West. Beyond ancient cave drawings, ornamentations on stone tools and handles, and the production of artifacts more beautiful than utility demanded, she calls to our attention that "each of the arts can be viewed as ordinary behavior made special (or extraordinary)." This is easy to see in dance, poetry, and song, which share the salient features of play and ritual, forms of exaggerated stylization of ordinary behavior. To illustrate one instance, "In song, the prosodic (intonational and emotional) aspects of everyday language—the ups and downs of pitch, pauses and rests, stresses or accents, crescendos and diminuendos of dynamics, accelerandos and rallentandos of tempo—are exaggerated . . . patterned, repeated, varied, and so forth—made special."¹⁴ There is more here than a rapid survey can convey, but the force of her argument and the particularity of her evidence grow on you as you read a book like *Homo Aestheticus*.

"Back to Nature, Again" is, of course, sheer irony. You can't return to something you can't leave. Siamese twins, although they may not be an ideally viable life form, are as "natural" as you and I, produced by the same "laws" of chemistry, biology, and physics. There aren't any others. All of "us" who survive are "mutations" who have been turned into members of a species because of the serendipity of "our" adaptability. I envision a cartoon in which a group of chimps, our closest cousins, behold the first Homo sapiens and exclaim, "WOW! Like weird, man!" The view that we are not, in some respect, "weird" but that everything else is—as they all strive to evolve into paragons like us—is simply human arrogance and blindness. All life forms are the most natural of freaks. And our own particular freakishness is the raw material of the arts and humanities. Because they are so aware of all this, the Darwinians strike me as more "religious" than conventional religions, lacking the narcissism and hubris that can for a moment suppose that fifteen billion years of the universe and quintillions of creatures born and dead—millions at this very moment crawling all over my exterior and interior, without whom I wouldn't even exist—were produced in order to immortalize my

¹⁴ "'Making Special'—An Undescribed Human Universal and the Core of a Behavior of Art," in *Biopoetics*. (See note 9.)

“transcendent” little soul. (Does the universe really need my soul around forever? Do I need it?) Everything is “nature,” produced from the finite materials of our planet and shaped by an aimless history with no favorites. Culture is just nature in artful and elaborate drag. In reminding us of our origins, in connecting ourselves and our arts to our biological development instead of to the heavens, the Darwinians, for me at any rate, are engaged in a long overdue hubris-crunching mission of natural piety.