

## Notes and Fragments

### STEVEN PINKER'S CHEESECAKE FOR THE MIND

BY JOSEPH CARROLL

**I**N *HOW THE MIND WORKS*, Steven Pinker offers a splendidly fluent and lucid survey of evolutionary psychology. Pinker propounds the view that the mind has evolved under the shaping pressure of natural selection and that it has developed a number of mental “modules”—chunks of cognitive software—designed to solve specific adaptive problems. Apart from the sense organs, these postulated modules include adaptations for understanding arithmetic, logic, language, physical objects and forces, natural kinds (plants and animals), other human minds, kinship, social status relations, sexual behavior, parent-child relations, and the sense of individual identity. Evidence for the existence of such modules derives from an overlapping array of disciplines, from theoretical biology, behavioral genetics, cognitive and developmental psychology, comparative anthropology, animal ethology, experimental psychology, neurobiology, and endocrinology. Though Pinker does not present himself as an original thinker—in this work he is but a popularizer of an unusually high order—all this information is organized into an impressively coherent body of ideas.<sup>1</sup>

The inexorable logic of the adaptationist program requires that evolutionary psychology assume the position of a matrix discipline within the field of liberal education. From the adaptationist perspective, psychology is rooted in biology, and all cultural studies, including both the social sciences and the humanities, are rooted in psychology. Pinker formulates this logic with characteristic concision: “The geneticist Theodosius Dobzhansky famously wrote that nothing in biology

makes sense except in the light of evolution. We can add that nothing in culture makes sense except in the light of psychology. Evolution created psychology, and that is how it explains culture" (p. 210).

Pinker's voluminous bibliography gives ample evidence that a large cadre of evolutionary scientists are already striving to make good on such claims for a wide range of topics in the social sciences. Within the humanities, far fewer people have been at work and the program of research has been less clearly laid out. Drawing a parallel with the colonization of North America at the time of the Louisiana Purchase, we can identify the social sciences with the populous eastern seaboard and the humanities with the far western territory. However manifest the destiny, the continent remains to be mapped.<sup>2</sup>

Pinker's disciplinary home base is in cognitive psychology and linguistics. (He is head of cognitive neuroscience at MIT.) To illustrate and decorate his text, he has collected a substantial number of relevant quotations from literature, but there is no evidence that his familiarity with most of the works he quotes extends very far beyond the quotations. His literary taste and judgment seem those of an undergraduate who is extraordinarily bright but who is much more sensitive to computers than to poems, plays, or novels. Nonetheless, conscientiously seeking to vindicate the scope of his title, Pinker ventures to situate literature, theoretically, within the general map of evolutionary psychology.

Pinker poses a question that is basic for all mental operations within the evolutionary framework—the question of adaptive function. Displaying an excellent intuitive capacity for seizing on apposite commonplace, he identifies two obvious purposes of literature: instruction and entertainment, the *utile* and *dulce* of Horatian lore. The first of these, he supposes, might have some genuine adaptive value. Literature, like social gossip, teaches us about the games people play and prepares us to enter into such play. "Life is like chess, and plots are like those books of famous chess games that serious players study so they will be prepared if they ever find themselves in similar straits" (p. 542). Knowledge might be adaptive, but the pleasure afforded by art, Pinker thinks, is merely a non-adaptive exploitation of adaptive sources of pleasure. The arts respond to "a biologically pointless challenge: figuring out how to get at the pleasure circuits of the brain and deliver little jolts of enjoyment without the inconvenience of wringing bona fide fitness increments from the harsh world" (p. 524). In this respect, literature and the other arts would work in the same way as alcohol, drugs, and

rich desserts. Hence Pinker's suggestion that "music is auditory cheesecake, an exquisite confection crafted to tickle the sensitive spots of at least six of our mental faculties" (p. 534). The pleasure afforded by literature is of a similar kind:

Now, if the intellectual faculties could identify the pleasure-giving patterns, purify them, and concentrate them, the brain could stimulate itself without the messiness of electrodes or drugs. It could give itself intense artificial doses of the sights and sounds and smells that ordinarily are given off by healthful environments. We enjoy strawberry cheesecake, but not because we evolved a taste for it. We evolved circuits that gave us trickles of enjoyment from the sweet taste of ripe fruit, the creamy mouth feel of fats and oils from nuts and meat, and the coolness of fresh water. Cheesecake packs a sensual wallop unlike anything in the natural world because it is a brew of megadoses of agreeable stimuli which we concocted for the express purpose of pressing our pleasure buttons. Pornography is another pleasure technology. . . . the arts are a third. (pp. 524–25)

Despite the concession to the utility of fiction as a model for moves in the game of life, Pinker's wider exposition makes it apparent that like Freud he regards literary representation as largely a matter of pleasurable fantasy. It is different from pornography only in that the pleasure buttons it presses are not those literally and concretely of sexual activity.

Pinker's hypothesis about the pleasure of art reflects a prejudice common to evolutionary psychology—the idea that only those functions that evolved in the distant evolutionary past have any particular adaptive status. We can call this prejudice the bias for the EEA ("environment of evolutionary adaptedness"). Evolutionary psychologists tend to regard the EEA as a relatively static condition in which the human mind was fixed and finished sometime before the past 100,000 years or so. An important correction to this prejudice has been proposed in Steven Mithen's recent book *The Prehistory of the Mind*. Mithen is a cultural archaeologist. He has fully assimilated the idea of "the modular mind," but he has also broken free from the premature concretization of the EEA. He describes the cultural revolution that took place about 40,000 years ago and that introduced complex multi-part tools and the elements of higher culture, including art, religion, and more complex forms of social organization. How to account for this explosion of creative activity? Mithen postulates an organically based cognitive development in which the previously separate domains

of the mind became accessible to one another. He argues that the domains devoted to technical understanding, social interaction, and natural history blended together, and that out of this blend there emerged an entirely new range of creative cognitive activity. Mithen describes this new capability as "cognitive fluidity," and he argues cogently that it is the basis for all our more imaginative, inventive cultural achievements.<sup>5</sup>

Now, art, music, and literature are not merely the products of cognitive fluidity. They are important means by which we cultivate and regulate the complex cognitive machinery on which our more highly developed functions depend. Because he does not understand the necessity of such cultivation, Pinker believes that we could do without music and undergo no significant loss in our capacity to function. "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" (p. 528). If we compare the effects of music with those of recreational drugs, we can begin to understand the mistaken direction Pinker's theory has taken. Drugs are disorienting and demoralizing. If people use them habitually, they become incapable of adapting to the demands of a complex environment. Music has no such deleterious effect. More importantly, it seems very likely that people raised with no exposure to music, art, or literature would be psychologically and emotionally stunted, that they would be only marginally capable of developing in normal ways. They would probably have great difficulty learning to deal with their own emotions or to relate to other people with any sensitivity and flexibility. Their capacity for responding in creative ways to the demands of a complex and changing cultural environment would probably be severely impaired.

If we shift from the metaphor of drugs to that of cheesecake, we find similarly misleading implications. Rich desserts offer a purely sensual stimulus. They appeal only to the taste buds. They have no intrinsic emotional or conceptual content, and they convey no information from one mind to another. In contrast, art, music, and literature embody emotions and ideas. They are forms of communication, and what they communicate are the qualities of experience. Someone deprived of such experience would have artificially imposed on him a deficiency similar to that which is imposed on autistic children through an innate

neurological defect.<sup>4</sup> Unlike autistic children, a child deprived of all experience with art and literature would still have innate capacities for social interaction, but these capacities would remain brutishly latent. The architecture of his or her own inner life and that of other people would remain dully obscure. In the place of meaningful pattern in the organization of emotions and the structure of human needs and purposes, such a child would perhaps scarcely rise above the level of reactive impulse. It is not difficult to imagine an inner life consisting of large desolate tracts of restless confusion sporadically traversed by violent and incomprehensible storms of fear and desire. When we speak of civilization as a form of salvation, it is from such conditions that we envision ourselves being saved.

The argument I am making for the vital role of art in the healthy development of human beings is a central didactic theme in the works of one of our most psychologically astute novelists. In his great novel, *Bleak House*, Charles Dickens presents us with a case that we can compare with Pinker's notion of human beings who are musically deprived but who are nonetheless perfectly healthy, happy, and wise. As a foil for the full humanity and achieved civilization of his protagonists, Dickens depicts a family of misers, the Smallweeds, who are wholly practical in orientation. The family is one of Dickens's most vividly conceived set of grotesques. Grandfather Smallweed is paralytic, cunning, and venomous. He subdues the expression of his spite toward those from whom he would extract wealth, but he consoles himself by flinging pillows and imprecations at his senile wife, who breaks imbecile silence only to chatter in incoherent phrases about money. The young male heir to the house, Bartholomew Smallweed, is "a weird changeling" with "an old, old eye." He "drinks and smokes, in a monkeyish way" and "is never to be taken in; and he knows all about it, whatever it is." Bart's sister Judy "never owned a doll, never heard of Cinderella, never played at any game." Judy cannot laugh and is incapable of playing with other children. She is "a pattern of sordid age." Dickens explains that in its exclusive fixation on gain, this family has "discarded all amusements, discountenanced all story-books, fairy tales, fictions, and fables, and banished all levities whatsoever. Hence the gratifying fact that it has no child born to it and that the complete little men and women whom it has produced, have been observed to bear a likeness to old monkeys with something depressing on their minds."<sup>5</sup>

The Smallweeds are constitutionally predisposed to this grotesque withering of their humanity. In *Hard Times*, a more schematically

didactic presentation of the same theme, there are again two children who have been deprived of all imaginative cultivation, Tom and Louisa Gradgrind. Unlike the Smallweeds, these children are potentially normal, and they do not take happily to the imaginative desolation that has been imposed on them. Their father is a utilitarian ideologue. Convinced that art and literature are a waste of time and an influence corrupting to mental discipline, he eliminates all such influences from their carefully controlled curriculum. As a consequence of his educational policy, his children are morally and emotionally impaired, and the action of the plot flows from these impairments. As adults, the Gradgrind children can neither achieve personal fulfillment nor function as responsible citizens. Louisa proves incapable of developing a healthy marital bond, and Tom degenerates into common crime as a means of financing his vices.

Pinker's manner is rather different from that of Gradgrind, but the difference is not all in Pinker's favor. He is charming and witty, but he is too easily content at having said something he deems provocatively clever, and he has not thought through the implications of his bright idea. Gradgrind is dull and oppressive, but he pursues his mistaken ideological convictions in a serious and determined way. When the consequences of his policy become apparent, he is capable of achieving a tragic recognition of his mistake. Pinker's tonal range does not include the capacity for tragic recognitions. He is unfailingly pleasant and self-possessed. Within the even tenor of his style, the closest approximation to grief and anguish would be a momentary compunction at having failed to pass up a dessert tray.

For Dickens, the period of childhood is a highly sensitive and vulnerable stage in which the whole personality can be forever stunted and impoverished by inadequate imaginative stimulus. From *Oliver Twist* through *Pip*, his books are full of stories of children who have been abused and neglected and who are threatened with lifelong degradation. Some, like Smike in *Nicholas Nickleby* and the crossing sweeper Jo in *Bleak House*, don't survive this treatment. Those who do, like David Copperfield and like Esther Summerson, the protagonist of *Bleak House*, do so because they create an imaginative world of their own, and within this world they fashion an environment that is adequate to their needs of self-development. To create an imaginative world in which to develop is not the same thing as merely fulfilling a fantasy of pleasure. Esther is raised in a household devoid of affection, under the shadow of an obscure religious condemnation, but through

conversations with her doll she creates a small imaginary space for human affection. Within this space, she can keep her own emotional nature alive until her aunt dies and she is removed to a more genial environment. The conversations she has with her doll are not fantasies of pleasure; they are desperate and effective measures of personal salvation. As a small boy, David Copperfield is tormented and abused by his vicious stepfather, but close to his own room he discovers a neglected store of old books, including *Tom Jones*, *Humphrey Clinker*, *Don Quixote*, and *Robinson Crusoe*. What David gets from these books is not just a bit of mental cheesecake, a chance for a transient fantasy in which all his own wishes are fulfilled. What he gets are lively and powerful images of human life suffused with the feeling and understanding of the astonishingly capable and complete human beings who wrote them. It is through this kind of contact with a sense of human possibility that he is enabled to escape from the degrading limitations of his own local environment. He is not escaping from reality; he is escaping from an impoverished reality into the larger world of healthy human possibility. By nurturing and cultivating his own individual identity through his literary imagination, he enables himself to adapt successfully to this world. He directly enhances his own fitness as a human being, and in doing so he demonstrates the kind of adaptive advantage that can be conferred by literature.

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1. Steven Pinker, *How the Mind Works* (New York: W. W. Norton, 1997). In a concise survey of the field, "Evolutionary Psychology: A New Paradigm for Psychological Science," *Psychological Inquiry* 6 (1995): 1-30, David Buss gives a better sense of evolutionary psychology as a developing discipline. He acknowledges the challenges evolutionary psychology has to meet if it is to make good on its promise to provide a unifying paradigm for all of psychology.
2. To get a sense of where things stand in the evolutionary study of literature, see Joseph Carroll, *Evolution and Literary Theory* (Columbia: University of Missouri Press, 1995); Robert Storey, *Mimesis and the Human Animal: On the Biogenetic Foundations of Literary Representation* (Evanston: Northwestern University Press, 1996); Brian Boyd, "Jane, Meet Charles: Literature, Evolution, and Human Nature," *PHILOSOPHY AND LITERATURE* 22 (1998): 1-30; and Joseph Carroll, "Literary Study and Evolutionary Theory: A Review Essay," *Human Nature* (forthcoming).

3. Steven Mithen, *The Prehistory of the Mind: The Cognitive Origins of Art, Religion, and Science* (London: Thames and Hudson, 1996), p. 194. The most authoritative and influential exposition of evolutionary psychology, containing both its most profound theoretical formulations and its premature concretization of the EEA, is that of John Tooby and Leda Cosmides in "The Psychological Foundations of Culture," in *The Adapted Mind: Evolutionary Psychology and the Generation of Culture*, ed. Jerome H. Barkow, Leda Cosmides, and John Tooby (New York: Oxford University Press, 1992). Tooby and Cosmides are the originary inspirations for Pinker's conversion to evolutionary psychology.
4. Autism has been a main source of evidence for the so-called "theory of mind module," that is, the module that enables people to imagine the inner lives of other people—precisely what autistic children cannot do. See Simon Baron-Cohen, *Mindblindness: An Essay on Autism and Theory of Mind* (Cambridge: MIT Press, 1996).
5. Charles Dickens, *Bleak House* (Boston: Houghton Mifflin, 1956), pp. 209, 210, 221, 219.