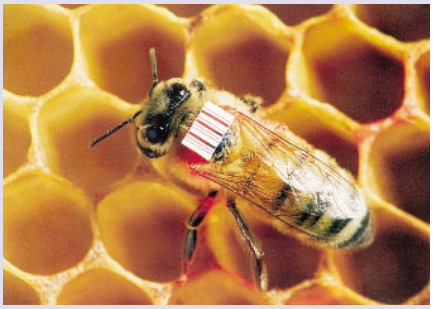
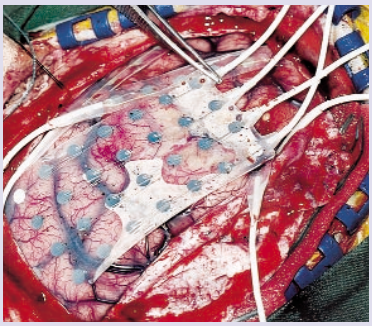


Technology can alter our world and our perceptions of it. ***Images from Science: An Exhibition of Scientific Photography*** (RIT Cary Graphic Arts Press, $19.99) is the catalogue for a juried exhibit organized by the School of Photographic Arts and Sciences at Rochester Institute of Technology. Made with a variety of lenses, from traditional cameras to electron microscopes and astronomical telescopes, these images blur the distinction between art and science.

Many of the 58 selections are both aesthetically and intellectually pleasing. Above, the bee in David C. Ring's *Bar-coded Honeybee on Honeycomb* (1988) has been tagged by researchers so that it can be scanned with a laser bar-code reader to track how often it departs from and returns to its hive. Below, Amanda Rebbechi's *Epilepsy Procedure* (2000) offers a close-up look at intracranial electrodes recording brain functions and localizing the source of seizures.

For additional glimpses of worlds you might otherwise miss, visit the exhibit online at http://images.rit.edu.—*F.D.*



us that reason lies with the enemies of the blank slate. For those readers like myself who start with the conviction that biological determinism is more of a threat to reason than is the blank slate, there is not much in this book that is likely to change minds.

Undoubtedly, there is a tendency to understate the role of biological factors in the development of the human mind. The classical behaviorists were perhaps most culpable in this regard, although there may also be such a tendency in the outer reaches of contemporary postmodernism. Pinker identifies two ideas that aid and abet this rejection of human nature: Descartes's ghost in the machine and Rousseau's noble savage. The former has certainly led some thinkers to see the mind as almost entirely unconstrained by its physical manifestation, and the myth of the noble savage has no doubt convinced some that only culture or society can possibly explain human nastiness.

However, Pinker's strategy of presenting himself as one of a beleaguered minority, confronting a hegemony of blank slates, ghosts in machines and noble savages, reduces these old warhorses to a trinity of straw men. In reality, although these traditions should certainly be rejected, they no longer inform the best thought of the schools Pinker inveighs against. As I have noted, what is needed, and quite widely perceived to be needed, is an attempt to address the interaction among biological, environmental and cultural factors in the development of human minds. The trouble with this prescription is just that an honest acceptance of the complexity of interacting factors in human psychology leads one largely to confessions of ignorance about human nature and human possibility. And, to be only mildly cynical, such confessions are no way to write best-selling books. Sadly, then, having dispatched his straw men, Pinker slides smoothly toward the simplistic position he staked out in *How the Mind Works*.

That book offers an egregious example of the development of the argument that if we decide that a given behavior would have been good for our ancestors in the Stone Age, then we must conclude that we almost certainly have evolved a tendency to produce it. I, and others, have said a good deal elsewhere about the inadequacy of this line of thought, and I shall not rehearse the arguments. Suffice it to say that Pinker continues here his pursuit of this unpromising project.

For example, Pinker quotes a remark by fellow evolutionary psychologists Martin Daly and Margo Wilson that "Any creature that is recognizably on track toward complete reproductive failure must somehow expend effort, often at risk of death, to try to improve its present life trajectory." Pinker infers that "Impoverished young men on this track are therefore likely to risk life and limb to improve their chances in the sweepstakes for status, wealth, and mates." Daly and Wilson's remark is highly problematic: Clearly there is no necessity—natural, logical or moral—involved, although certainly there may be an evolutionary tendency for organisms to evolve conditional strategies of the kind indicated. So to infer from their remark that a particular species (ours) has in fact evolved such a strategy, and that therefore reproductively unsuccessful young men are likely to exhibit such a strategy, is utterly ungrounded. All young men without reproductive success? Only impoverished ones? Homosexuals? Of course it is a well-known demographic fact that young men are more disposed to violence than are other segments of the population. But sweeping statements of evolutionary generality were not needed to discover this fact, nor do they do much to illuminate it.

More bizarre are Pinker's speculations about "folk" understandings across the intellectual map (folk physics, folk biology, folk psychology, folk economics and so on), which he thinks reflect innate mental structures. Even the poor old ghost in the machine turns out to be a central feature of innate psychology, a view that I should have thought difficult to reconcile with the complex status of this picture in the history of ideas. (Did Aristotle lack the relevant module, for instance, whereas Plato had more standard mental equipment?) And this is not harmlessly barmy. For example, Pinker attributes opposition to genetically modified foods to innate and intuitive essentialism. This provides an excuse—of which Pinker avails himself—for dismissing without any analysis, or enumeration even, the criticisms that have been made of these technologies.

Rather surprisingly, Pinker ties views on nature and nurture directly to politics and explicitly connects his own innatist ideas to conservatism. I