opponents" (something Richard Rorty has made clear in his defense of neopragmatism, arguing that we must change the terms of the argument) is a pragmatist form of engagement and good advice for how to deal with our predicament.

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TO THE EDITOR:

Robert Scholes's elegant and resourceful Presidential Address, "The Humanities in a Posthumanist World," provided a hardheaded picture of the difficult times faced by the humanities. But its remedial conclusion, "going back" to the "roots" of language studies (732), fell sadly short of the one thing needful: science. Summarizing George Steiner's despairing essay in *Salmagundi*, with its painful contrast of the soft humanities with the hard sciences, Scholes quotes Steiner's remark that, unlike the sciences, in the humanities "*[a]nyone can say anything*" (qtd. on 725). But instead of benefiting from Steiner's explosive message, Scholes just moves on.

Reading Scholes's address, one would hardly know that the intellectual universe has been turned upside down over the past twenty-five years by Darwinian evolution's "modern synthesis" and the latest developments in the cognitive neurosciences. Like the head-buried proponents of intelligent design, academics in the humanities don't want to know that literary texts, far from being autotelic or merely a part of cultural history, are-like everything else produced by organisms-the products of biological history, which means the history of the body and its materially constituted brain. This brain is not a free-floating, self-determining, autonomous spook, with "roots" in language and the "trivium" (732), but a gradually evolved custodian of the body that abetted the struggle for survival-and the production of offspring-against competing forces.

Indeed, language itself is a recently acquired capacity. Had human beings evolved somewhat differently, had genetic and environmental factors been slightly other than they were, had human beings been endowed with only three fingers instead of five, with differently formed vocal equipment, with batlike echolocation, with canine olfactory sensitivity, with different electrochemical transmissions and greater or lesser sensitivity of the neurons, with the visual acuity of hawks or a different heart rate, a different metabolism, a different configuration of the brain-had any of these alternative paths been taken (or a million others), language and all our arts would be radically different from what they are today. The composition of our blood, our involuntary emotions, our limited ability to focus on more than a small handful of things at once, our need for certain nutrients, the right air quality, a nurturing caregiver-all these factors (and a million others) lie behind the meters and sonics of poetry, the subject matters of novels, the layout and sense qualities of paintings, the scale of architecture, the compositional balances of photography, the failure of twelvetone music. And most crucial of all, these factors lie behind the universal characteristics of human beings of all cultures (as Donald Brown has amply demonstrated in Human Universals), however diverse their expression. The study of literature without an ever-conscious awareness of its biological contingencies is akin to the fantasizings of creationism.

Humanists who presume to deal with the arts-or the world-in the twenty-first century, not simply repeating exhausted truisms from years of tedious inbreeding, should be facing up to E. O. Wilson, Steven Pinker, Daniel Dennett, Joseph Carroll, Ellen Dissanayake, Richard Dawkins, Gerald Edelman, Jared Diamond, and similar thinkers, who rarely can afford merely to "say anything." It will take a lot more than a return to the same old roots to yank the humanities out of their dogmatic slumbers in time to rescue the sinking ship. When what we need to understand is how the machinery works, how it relates to our evolved nature, and what the arts and humanities have to do with it all, raising the ship's tattered pennant a foot higher won't do the trick.

> Harold Fromm University of Arizona

Reply:

I thank James D. Hoff and Harold Fromm for their thoughtful responses to my talk, to which I will respond below.