

Daniel Dennett says: We are machines [including our minds]
Tom Sherman interviewed Daniel Dennett by e-mail for FleshFactor

TS: Historically, philosophers have spent a lot of their time explaining how humans are different than animals. For FleshFactor we, like many others, are currently preoccupied with determining how we differ from machines. You yourself have stated that the brain is a kind of computer. Do you think it is a positive thing to have people think of themselves as [organic] machines?

DD: I think we philosophers should help people get over their anxiety about being machines, since it is no longer possible to deny it, unless one chooses to be weirdly uninformed. Logically, there are two possibilities: diminish our sense of self-worth because we discover we are machines, or raise our appreciation of the power of machines because we discover we are machines. There is no good reason to slump into the first alternative, and many good reasons for adopting the second.

TS: A lot of contributions to FleshFactor emphatically state the importance of remembering our species' [animal] relationship within the eco-system. Do you consider your writing on Darwin and natural selection supportive of this need for humans to once again feel they are part of nature?

DD: Yes, I do. I realize that many self-appointed guardians of human culture are appalled at the prospect of granting that even human culture — art, ethics, religion, politics, science — is a product of nature, that the cathedral at Chartres is part of the extended human phenotype in exactly the same way a beaver dam is part of the extended phenotype of the beaver. But their hope of "protecting" culture from biology by denying its biological roots is myopic; it could only succeed if culture were some sort of miraculous gift from on high. Manna from heaven. Since that idea is simply preposterous, they should take a deep breath and try to notice a simple fact: art [and culture more generally] is not less wonderful for being a product of nature. Anybody who thinks that evolutionary processes could produce a nightingale but not an ode to a nightingale has an impoverished appreciation of just how wonderful a nightingale is.

TS: You are widely respected by scientists because you go the extra mile to know the science when you write about neuroscience, perceptual psychology or AI. In fact you have stated and largely realized your goal to be a collaborating researcher in these fields, a complementary intellectual force from your position as a contemporary philosopher. Since perception, consciousness and intelligence embody creativity as a kind of 'engine' of change and growth, I'm wondering where artists fit into your thinking on interdisciplinary research, in these fields or others?

DD: Philosophy's primary role, I think, is to open up our imaginations to new prospects, new possibilities. This places philosophy, at its best, about half way between art and science. Without the methods and aspirations of art, philosophy just trudges down well-worn paths, policing the grounds. Without the discipline of scientific inquiry, philosophy is too easy to be worth very much. The point is not just to think new thoughts — anybody who wants to can think new thoughts; the point is to think GOOD new thoughts. As a former [or sometime] sculptor, I have a great sympathy for, and appreciation of, artists — but I have a generally very low opinion of the rest of the art world, and in particular of the pretentious culture of the galleries, critics and collectors. I have a similar attitude towards contemporary "serious" [as opposed to popular] music. But these phenomena of high silliness are passing fancies, in my

view, and real art will continue to be created, and continue to play its rich, illuminating, insight-provoking roles. We can see the role of art better, I think, if we look back on the art of Galileo's day, or Newton's day, or Darwin's day. The proposal, or hope, that art might play a bigger role today than it has done in the past is unrealistic and unnecessary.

TS: It seems that your thoughts about the roles of philosophers and artists reveal a belief in a kind of natural selection of ideas or images or melodies; that creative variation or diversity is only one aspect of cultural evolution, but that audiences ultimately decide which ideas, images or melodies are good and worthy of significant replication and dissemination. Surely you must recognize the editorial influence that institutions have on an ecology of ideas, or the control museums or the music industry have on art and music? A good thought, image or song does not often replicate just because it is good. Spielberg's dinosaurs do not outdistance and crush an experimental filmmaker's personal cinema because they are better art. Don't you think it is dangerous to label serious art or music as "high silliness" or "passing fancies"? Isn't variation and diversity essential in a healthy cultural environment?

DD: Variation and diversity are indeed crucial to a healthy cultural environment. The richer the meme pool, the better. But as a Darwinian I also expect that most artistic ideas, like most organisms, most lineages, will be extinguished after relatively brief trajectories, and that this is nothing to wring our hands about. That's the cost of innovation, and it would be myopic to urge equal support for all ideas. My point is not at all to dismiss serious art, but just to remove it from its presumptuous pedestal. I think that an excellent country & western song can be better art than a second-rate experimental opera — but that's just my personal contribution to cultural selective pressure. Others may counter it with their own, and we'll all be better off if we have a wide variety of different DEMANDING environments.

TS: Following the logic of your writing, it would seem that you would argue that artists are simply genetically hard-wired to be artists. Being a parent, you would have to acknowledge that all children begin their development as almost infinitely creative individuals, but that for some reasons, exposure to the arts included, only a very small percentage of people manage to stay 'open' as creators. Do you think creativity is constructed genetically? [I am not referring to 'talent' here — the obvious manifestation of hand-eye, hand-ear, or full-body coordination, permitting one to exercise superior drawing, musical or physical skills.]

DD: I have no well-supported conviction about the relative contributions of genetic and environmental factors in "constructing" creativity. I would guess those factors can be extraordinarily varied. I suspect, however, that there are a few simple "tricks" that some people never learn, and that are well-nigh essential for creativity. Chief among them is a taste for making mistakes and then savoring them. People who hate to make mistakes are locking themselves in a closet. The trick is to learn to make mistakes in a fruitful way, so that you and others can gain from them, and so that the damage is minimized. Then making mistakes can be fun, both for you and the onlookers.

TS: There seems to have been a change in the size or scale of the individual person over the past two decades [certainly artists have experienced this...]. Our mediated self presence has expanded with personally, commonly accessible telecommunications technologies, to the point where the individual seems to have attained institutional or corporate influence, without institutional or corporate affiliation. Is this perceived expansion of the self largely illusionary and only temporary [is this just the result of leaving signs here and there in the media environment, or actually communicating frequently with strangers?] Or is the individual and his or her sense of self more or less permanently expanding?

DD: I suppose Alexander the Great and Louis XIV and a few other colossal figures had "selves" that reached as far as everyday human selves can reach today, but not at the speed, or with the efficiency that we all can today. In fact, this unprecedented enlargement of our powers has left us in serious moral confusion. As philosophers so often say, "ought" implies "can" — and a corollary of this is that when new powers become widely available [so that each of us CAN do things our grandfathers couldn't do], we have a harder time deciding what we OUGHT to do. Each one of us, today, CAN make a non-negligible difference in, say, the well-being of people starving or enslaved or oppressed in the farthest corners of the earth. With a surfeit of choices, we are embarrassed to discover that our hands are NOT tied, there IS something we can do. What, though, will we choose to do? We can't do everything [and we just don't want to try]. That was not a problem very often faced by our ancestors, even the most virtuous of them. Philosophers have not prepared us well to deal with this problem.

TS: An important aspect of this expansion of choices and potential for acting in the world is an incredible increase in range. Individuals can manage to intervene on a global scale, and they can dramatically increase their volume of information exchange and even the number and nature of their relationships with other people. As the scale and range of personal endeavours increases there can be problems with overcommitment, not to mention psychological and physical exhaustion due to hyper-involvement. Some would say that those who survive this expansion of self have necessarily adapted to a more superficial life, a life lived on the surface. If emotional and intellectual depth is sacrificed for an expansion of range, won't the dilemmas be both about making choices and the degree of commitment to directions chosen?

DD: I think you are right. In fact, I raised just those concerns some years ago, in an essay in DAEDALUS entitled "Information, Technology, and the Virtues of Ignorance." [1986] We have not yet learned how to live good lives in the age of Information, and we philosophers have been particularly backward in our recognition that "classical" perspectives on these problems show signs of obsolescence. Some people may find this shocking, but they would laugh at anybody who thought the art or science of grandfather's day, or Kant's day, or Aristotle's day, defined the field for all time. Why should philosophy — or ethics in particular — be the one area of human culture that cannot tolerate innovation?

TS: One of the main things we are trying to determine through FleshFactor is how much our selfunderstanding of humanness has changed over the past couple of decades, especially in this age of information technologies. The contributors to this net-symposium have been drafting and re-drafting their observations, issuing multiple drafts of a collective self-understanding of their humanness. This has served to delineate a line in the sand between people and machines and of course we have found out that increasingly people and machines are on both sides of the line and that those we once thought were people are actually machines and perhaps someday vice versa. In closing, would you offer us what you think is the main way we have changed in our perception of ourselves as humans over the past couple of decades?

DD: In an age of prosthetic body parts and increasingly sophisticated "repairs" of bodily flaws ranging in scale from molecules to limbs, the idea that our bodies are machines has become prosaic, too obvious to warrant comment. The idea that our minds are also machines still encounters enormous resistance, since it seems to imply that we are not free, or responsible. I am optimistic, however, and expect to see this scary illusion evaporate. In twenty years it will not seem paradoxical to declare that we human beings are the only machines [so far] with free will. The major philosophical obstacles to appreciating this have already been cleared away;

we just have to keep educating each other and avoiding the overstatements that set the pendulum swinging. In their anxiety, people try to protect what really matters to them by protecting a little too much — as if defending an extra "margin of safety" surrounding the actually defensible visions was the prudent course instead of a recipe for dogmatic disaster. I can think of no better project for philosophers than showing people — showing them, patiently and calmly — that they can afford to give a little ground and still hang on to everything that really matters.

TS: Thank you, Daniel Dennett.