

## When the Robots Rule

by Theodore Plantinga

We get jittery when a time period is ending. History records that at the turn of a century strange notions win credibility and people seem to expect the future to take a bizarre twist. Perhaps we have all the more reason to be jittery as we are poised on the brink of a new millennium. Will the new millennium -- or even the new century -- be our last as the human race?

Some people think so. Some believe that we are poisoning ourselves, steadily making the planet unlivable. We will have to migrate to some other part of the solar system to continue our existence. If we do not soon develop a technology to make possible this massive transfer of people, we may all wind up perishing of pollution-inhalation here on earth.

Others who expect us to migrate and who think our days here are earth are drawing to a close are more optimistic. Among them are Gregory S. Paul and Earl D. Cox, who together have written a curious book called *Beyond Humanity: Cyberevolution and Future Minds* (Rockland, Mass.: Charles River Media, 1996). Paul and Cox (henceforth P & C) tell us: "... after a very long time, it looks as if humanity's lease is about to run out." [p. 450]

The problem is not pollution, however. What we face instead is competition from a newly emerging group of beings who will best us in the battle for survival as the dominant beings on this planet. We will eventually recognize that the only future we can dream of lies in *joining* them. P & C: "Humanity, as we know it, will be facing rapid extinction, not from natural causes like the asteroid that obliterated the dinosaurs, but from a situation of our own making. We will find our niche on Earth crowded out by a better and more competitive organism. Yet this is not the end of humanity, only [the end of] its physical existence as a biological life form. Mankind will join our newly invented partners. We will download our minds into vessels created by our own machine children and, with them, explore the universe. Then we will really take off, literally. Freed of our frail biological form, human-cum-artificial intelligences will move out into the universe." [p. 8]

It is technology that has placed us in this predicament, but we may also look to it to help us get out of it -- by becoming radically different from what we are -- while yet somehow remaining ourselves. P & C assure us: "Technology ... will soon enable human beings to change into something else altogether." [p. 7]

If we are sufficiently flexible to be able to change into something altogether different from what we are now, it is fair to ask: what, exactly, is a human being? In other words, what is the "core of humanity"? P & C tell us: "The brain is just a matrix for thought to play on. What is truly human is the human mind. We can, therefore, say with confidence that being human is a state of mind, not of body. Being a human mind is only one kind of mind: there are many other kinds of minds." [p. 430]

The changes that are leading us in this direction are already underway; indeed, they are accelerating. The problem is that most of us don't realize what is happening. We do not appreciate the power of the technology that is now among us. P & C: "... we are building with inevitable swiftness an entirely new civilization beyond this world in which humans will have no important place, but conscious minds will be far more powerful than we dream. A few million humans may be left, Rejectionists who refuse to assume cyberforms. They may choose to live aboriginal or subsistence lives, or [they will] be beginning long, high-tech lives of leisure. In either case, to cyberbeings, they will be no more or less important than chimps are to us." [pp. 454-5]

Those human beings who resist (the ones called Rejectionists) are a lamentable group in the eyes of P & C. Yet these foot-draggers will not simply be put out of their misery, as though a cadre of heartless Nazis were running the show. P & C inform us: "It should be understood that however it might be done, saving humanity will be a conservation project. ... if a remnant of humanity is left after the cyberexplosion ... humanity will be what wildlife is today. ... One way or another, earth and its inhabitants are going to end up one big Yellowstone." [pp. 428-9]

If you find it hard to believe that such things will actually come about in the future, it is because you are clinging to an obsolete view of technology as an inert system awaiting our command and control. P & C reject a widely held belief when they claim that it is not true that computers do *only* what you tell them to do: "Some research and commercial machines are self-learning and evolving systems whose abilities go beyond what their human makers programmed into them. Assuming that computers will always remain under our control because we make them makes about as much sense as saying that a child will always remain under the control of its parents." [p. 127]

One day the child gets beyond the parents and their grasp, and so does the technology which we have, in effect, fathered. P & C: "... we humans are by no means in complete control of the technologies we make. Technology does have, to a certain extent, a life of its own ...." [p. 432] And if the story of the development of Western man has autonomy as its theme, should we expect these computers which we now call cyborgs to seek anything less?

To the average reader not hooked on science fiction and Star Trek reruns, the claims made by P & C will sound far-fetched, to put it mildly. One is inclined to predict flatly that the future they envision is impossible -- that these things simply *cannot* come about. The main impossibility, one might well argue, is this business of "mind merger." How in the world could such a thing ever be?

P & C admit that the details still need to be worked out. Therefore their book cannot provide us with specifics. Only generalities are to be found in their 460 pages of text. For example, they affirm: "The procedure [of merging two minds] will involve putting two or more sets of memories into the same conscious system and integrating their functions. ... Developing the technology to do so will be attractive because limiting a cyberentity to asexual reproduction will limit the rate at which new knowledge can be acquired. An important way to gain new knowledge will be through the merging of minds with complementary sets of knowledge. ... Mind mergers may be safer by being partial." [pp. 354-5]

When we merge with these cyberentities, we will leave sexual reproduction behind. (I suspect that some of us may even miss the good old days when we launched a new generation nature's way.) The painful labors of parenting will be gone -- so also the schoolmaster's craft. P & C tell us: "Reproduction will be a matter of splitting already mature minds and placing them in devices grown in a matter of days, hours, or even faster. Reproduction will have returned to asexual fission. Making completely new minds from scratch will be a rapid process. Humans learn so slowly that it takes years to build up enough life experiences to function well. There will be no extended periods of cybereducation, because a lifetime's experience will come wrapped up in a software package, and the knowledge equivalent of a Ph.D. will be downloadable in a few minutes." [p. 354]

Is there any evidence that computers can move in such a direction, or that they are already doing so? P & C find some indicators to point to as they talk knowingly of "AI" (artificial intelligence) and "AC" (artificial consciousness): "Some of those involved in AI research believe that when computers become powerful and smart enough, AC will naturally evolve of its own volition much

as consciousness gradually did when organisms evolved brains of sufficient sophistication. It has even been suggested that some robots with sensory systems have a crude minimalist level of self-awareness. Maybe so, maybe not. What we can say at this time is that no one can point to a computer and say, "No two ways about it; the machine is conscious of its own existence." [p. 130]

If these cyborgs can become persons and then proceed to merge or fuse with one another and perhaps also with us (if we ask politely), could we be heading for a fresh Tower of Babel situation (see Genesis 11) where all of us want to become one? We sometimes talk in jest about pooling our ignorance, but the appealing thing to do would be to pool all of our knowledge. P & C do not expect it to happen: "At the same time minds are coming together, forces will be working to keep them from gathering into one great collective. ... Although in theory cyberminds could all join into one mind, individuality will be preferred." [p. 355]

Hindus may find comfort in this prospect of becoming absorbed into something much greater than ourselves; I am too full of Western-bred individuality to be ready to welcome it. I cannot help but wonder what the point of being human might be after all the changes envisioned by P & C come about. Christians may speak of a "cultural mandate" (see Genesis 1:26, 28; 9:1-7) as giving meaning and purpose to our lives, but P & C do not see a task for humankind in the grand and glorious future that will dawn when the robots rule.

They tell us to look to television for a hint regarding the human future in the brave new world that is yet to be: "The American sitcom *Seinfeld* is popular because the show is explicitly about -- nothing. The gang of four young, hip, post-modern New Yorkers really has nothing to do with themselves; they have no great causes to fight for, no need to struggle for existence, [nothing to do] except lead moderately amusing, but rather harmlessly hedonistic and aimless, lives in the Big Apple. As will humans in the cyberfuture, Jerry, Elaine, George, and Kramer do not have critical jobs that produce goods others must have. Nor have they yet produced little ones to raise. Yet they find their lives interesting enough to be worth their while. After the robots come, all that remains of humanity may be living in one oversized episode of *Seinfeld*." [p. 338]

Now, I have never been a *Seinfeld* fan, and so the prospect of living my life like a marginal character in his fictional world does not appeal to me. But would I have any choice? P & C leave me the option of being one of the "Rejectionists," who, as we saw earlier, will have no more status than chimpanzees have among us today.

One might feel an impulse to "refute" P & C by proving the technical impossibility of what they claim to foresee. Perhaps there are people who would be competent to undertake such a refutation; I am not among them. I suppose I could scoff, as people of previous generations scoffed at the first halting descriptions of such possible future devices as the radio and the airplane. But what I will do instead is to raise a couple of philosophical questions and leave them on the table as my reason for not believing what P & C wish to tell us.

Let us grant, for the sake of argument, that I am in essence a mind, a collection of thoughts and information and memories. My brain is replaceable, just as the hard drive and CPU in my current main computer is replaceable. I value the data in my word-processing and spreadsheet files much more than I value my hard drive on which they are stored.

Most computer users by now are aware of the need to back up their data. I am an energetic backer-upper, and so extra versions of my main data files (some of them in "zip" form) are to be found on various other computers. One of the glorious things about computer-based information is that it is so easily reproduced and stored elsewhere for safekeeping.

Now, if my identity, composed essentially of information, thoughts, memories, and so forth, is able to be downloaded into a computer or cyborg of some sort, would it not be the case that my "mental stuff" could also be reproduced and "backed up, " so to speak? A "back-up" copy could come in handy in case I underwent a physical trauma that destroyed part of memory. But would my "backed-up mental stuff" truly be dead and inert? Or would it be part of some sort of living being -- perhaps one with a history of its own prior to having my stuff added to it? P & C believe in "mind merger": would it not be the case that mental contents drawn from two separate human sources would begin to coalesce around a single revised and enlarged identity?

P & C have us merging with cyberbeings that have proven their superiority to us. We piggy-back on them, as it were, and thereby enter upon a future that would be closed to us if we persisted in being fleshly Rejectionists. Thereby we still have an identity: I am still me, even though I am now a part of something larger.

It seems to me that if there is anything to the P & C conception of our future, I will wind up duplicating myself and spreading myself over so many separate beings and cyber storage locations that the conception of myself that I now

have as a unitary being would have to become quaint and obsolete. In what sense could I then be said to exist?

And what would we say if partial reproduction and export of our mental contents became possible? Would this prospect, if actually realized, compound the problem I am now pointing to? Would I not become hopelessly diffused among the other cyberbeings, with bits of me lodged in hosts of cyberplaces? And might something of this sort not be the condition of all the former human beings who sought to tag up with the cyborgs?

P & C maintain that "individuality" (a term they still dare to use) would somehow prevail and lead us *not* to seek the ultimate merger that would result in there being only one grand cyberbeing in whose mind all of our thoughts are contained. They tell us: "Although in theory cyberminds could all join into one mind, individuality will be preferred." [p. 355] We can breathe a sigh of relief: there would be no Tower of Babel as the outcome of the new cyberdevelopments.

When I contemplate what they offer by way of a cyberfuture, it seems to me that it would be more likely to lead to some sort of Hindu conception of reality (perhaps with a touch of Aurobindo to modernize it) in which the everyday consciousness of all of us has only a lower-level, provisional standing. Ultimately we would see a merger of all of us, and there would only be one mind left to be reckoned with -- hence no education would be needed.

I could then find delight and liberation (moksha is what Hindus call the ultimate state to which we should aspire) in having been swept up in something so grand. Or I might take a Buddhist turn and seek nirvana instead, recognizing that my individual identity was an illusion all along. I am nothing, and the sooner I realize this, the sooner my painful cravings will end.

For the moment I will pursue neither of these spiritual and philosophical paths, clinging instead to the Western and Christian belief in individual identity and responsibility. The Christian tradition recognizes that in marriage two separate persons become, in some sense, "one flesh" (see Matthew 19:5-6). It does not yet recognize a merger of minds or of moral responsibility. No two of us become "one mind." I can indeed cast my sins and misdeeds upon another who pays the price for my sins with his sacrifice, but I do not merge with him ontologically, nor he with me. I pray that it will always remain so.