Globalization and the Posthuman

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For Elpida Mertzelou

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INTRODUCTION

This book will argue that by globalizing posthumanism through biotechnology, particularly the invasive interface of humans and machines, we may well interfere with and even undermine the innate quality of human psycho-physiology and the experience of pure consciousness. Furthermore, many features of globalization in and of itself—such as the fall of public man, the exterritorialization of capital, the loss of an impersonal public world to localized communities based on emotively shared interests—combined with the posthuman expansion of bionic technology—will diminish our natural capacity to experience the self beyond the level of our socially-constructed identities. This experience of the self comprises the unsayable secret of modern and postmodern literature and art, a secret that may soon become inaccessible if the world continues down the road of globalized infomania. The analysis of the psychocultural consequences of globalization and the posthuman in this book is unique in that it will be the first to examine the interrelation between globalization, posthumanism and consciousness.

Posthumanists define consciousness in a way that promotes the globalization of biotechnology without regard for its potential risks. While no theory of consciousness has achieved consensus in the interdisciplinary field of consciousness studies in the West, the one generally accepted by posthumanists as the most convincing holds that "To be conscious is to be conscious of something" (Pepperell 2003, 175). In other words, the argument goes that "Consciousness is always consciousness of some object or other, never a self-enclosed emptiness" (Miller 2001, 62). This theory of consciousness, however, contradicts Eastern philosophy, which posits a qualityless state of pure consciousness or "a void of conceptions": "That which is non-thought, [yet] which stands in the midst of thought" (*Maitri Upanishad* 6:18–19; Hume 1921, 436). This book explores the implications of the globalization of the posthuman model of consciousness. On the one hand, cognitive scientists tend to equate consciousness with subjectivity, which they associate with the thinking mind as an extension of the body, nature and culture; Eastern philosophy, on the other hand, distinguishes mind from consciousness, with mind defined as the content of consciousness. David Chalmers believes that "'To be conscious'...is roughly synonymous with 'to have qualia'" (1996, 6)—*qualia* being the qualities of subjective experience, or what something is *like* phenomenologically. By this definition

consciousness is part of an open system that depends on input and output. As Robert Pepperell says, to be conscious a system must have "some object other than its own sentience for it to be conscious of" (2003, 175). He asserts that the only way to know if a system such as a human or a machine is conscious is by its response to questions about its mental content.

Although this theory of consciousness underlies the standard definition of the posthuman, it carries significant implications for the definition of human nature and for the relationship between the human species and its environment. The first part of this book suggests that conscious content is an indispensable aspect of the human and posthuman condition; nevertheless, the experience of thoughts, feelings and perceptions that comprise this content do not encompass an essential aspect of human nature attested to by the first-person experience of many millions of people around the world, as well as by the records of both classical and modern contemplative traditions. Given the strong evidence for the capacity of human consciousness to be aware of itself as a void of conceptions, certain invasive technological features of the posthuman, even though as yet unrealized beyond the realm of science fiction, may quickly lose their appeal for natural-born humans.

Posthumanism refers to the human-technology symbiosis. Many people, especially scientists, see the biology-machine interface as a positive development, but many also fear the possibility of its irreversibly damaging and possibly catastrophic effects on the human condition, particularly from invasive technologies. On the positive side, Katherine Hayles writes:

> First, the posthuman view privileges informational pattern over material instantiation [....] Second, the posthuman view considers consciousness [...] as an epiphenomenon, as an evolutionary upstart [....] Third, the posthuman view thinks of the body as the original prosthesis we all learn to manipulate [....] Fourth, and most important, by these and other means, the posthuman view configures human being so that it can be seamlessly articulated with intelligent machines. (1999, 2–3)

By encouraging the prospect of seamlessly articulating human being with intelligent machines as a form of progress, Hayles, among other theorists, sees the posthuman subject as an amalgam of heterogeneous components that will not only do away with but also supersede the "natural" self.

In "A Cyborg Manifesto," Donna Haraway indicates the possibility of three crucial breakdowns in the boundary between machine and organism: first, nothing validates the human and animal separation,

including social behavior, language, tool use and reason; second, the distinction between the animal-human organism and machine is weak because of the uncertain difference between the natural and the artificial; and third, as a subset to the second, the "boundary between physical and non-physical is very imprecise" (1991, 149–81). Haraway claims that

> No objects, spaces or bodies are sacred in themselves; any component can be interfaced with any other if the proper standard, the proper code, can be constructed for processing signals in common language. (1991, 302)

In defining cyborgs, however, she does not take into account consciousness as such, but only the temporal self: "The cyborg is a kind of dissembled and reassembled, postmodern collective and personal self. This is the self feminists must code" (302). For codifying the self and redesigning the body, bio- and communication technologies become the essential tools.

Haraway concludes that "The machine is us, our processes, an aspect of our embodiment" (1991, 180). Pepperell also argues that "organic machines would blur the distinction between organic and mechanical" (2003, 9). Citing Richard Dawkins' definition of DNA as a "machine for making life," Pepperell claims "there is no distinction between the mechanical and the organic when it comes to considering DNA" (2003, 10). Andy Clark, moreover, claims that human beings have always been "natural born cyborgs," or "human-technology symbionts" (2003, 3). Nevertheless, he has not entirely sold out to invasive technology. To his credit, he prefers a non-invasive machine-biology symbiosis. "[I]s there something nasty lurking under those biomechanical rocks?" he asks, and cautions that "the social and personal impact of bioelectronic interpenetration is difficult to predict" (2003, 118). Throughout his book *Natural-Born Cyborgs*, he highlights the advantages of mind-body *scaffolding*, "the looping interactions between material brains, material bodies, and complex cultural and technological environments" that lead to self-transformations (2003, 11). One thing he does not mention is the possible implications of these transformations for human consciousness.

Self-transformation certainly comes in many forms, not all of which, however, are necessarily benign. Due to the unknown long-term impact of combining human and artificial components, these transformations may in the end prove undesirable. Unlike Haraway and other theorists of the posthuman, Jean-François Lyotard and Jürgen Habermas warn that technology and capitalism can have a dehumanizing influence on the humanist subject. In *The Postmodern Condition*, Lyotard argues that

capitalism is a "vanguard machine dragging humanity after it, dehumanizing it in order to rehumanize it at a different level of normative capacity" (1984, 63). He says that technocrats support takeover by the vanguard machine simply because society cannot understand or designate its own needs, especially in the face of a plethora of new technologies. In *The Inhuman: Reflections on Time*, Lyotard asserts that the only resistance to the technological inhuman is another inhuman located in human subjectivity. This subjective inhuman is the potential for surprise and unpredictable transformation beyond the reach of rational, technological systems. In defining this subjective inhuman, he says:

> what else is left to resist with but the debt to which each soul has contracted with the miserable and admirable indetermination from which it was born and does not cease to be born?—which is to say, with the other inhuman? [...] It is the task of writing, thinking, literature, arts, to venture to bear witness to it. (1991, 7)

I argue that this dimension of subjectivity, as a nonrational, nonhuman source of resistance, suggests an unsayable void of conceptions that is now under threat by the globalization of the posthuman condition. As discussed in this book, moreover, globalization may also diminish the capacity of an audience to access the unsayable as represented by literature and art.

In *The Future of Human Nature*, Habermas argues that eugenics, when parents interfere with the birth of their offspring by modifying them according to their own preferences, will create a gap between generations and reduce their offspring's sense of independence and self-understanding. Habermas mainly focuses on the moral issues of eugenics, the fact that the child is made rather than born naturally and as a result will have difficulty with self-understanding because s/he is not a product of nature but rather of parental interference. He says that

> Such ethical questions regarding our own weal and woe arise in the context of a *particular* life history or a *unique* form of life. They are wedded to the questions of identity: how we should understand ourselves, who we are and want to be. Obviously there is no answer to such questions that would be independent of the given context and thus would bind all persons in the same way. (2003, 3, original emphasis)

What Habermas neglects to point out, however, is that the eugenics of parental interference may not only affect society on a moral dimension but may also go beyond reducing the autonomy of their offspring's consciousness by limiting or subverting consciousness in and of itself.

The way one reaches pure awareness is a completely natural process. Once nature is supplemented by technological intervention, chances are the offspring may not only lose his or her sense of autonomy but also the ability to experience the ground state of consciousness, namely pure consciousness as the state of least excitation and the sources of thought. Through eugenics the offspring will have to accept the sharing of the authorship of his or her life with someone else, which as Habermas notes will result in a fracturing of her own identity.

As Habermas asserts, we have no way of knowing for sure that genetic intervention will have a positive effect. We also have no way of knowing whether it will expand the potential of another person in shaping their own life or deprive them of this potential. As Habermas points out, our prognostic knowledge does not enable us to "judge the consequences of genetic intervention within the context of a future life history of another human being" (90). He argues that eugenic interference carries the risk of damaging the sense of individual autonomy as well as the moral status of the person so treated. Self-optimization through genetic engineering, moreover, results in a clash between science and humanity or the churches. Self-understanding as knowledge-by-identity, which Robert Forman defines as a knowing by being in which there is no subject/object duality, will no doubt be adversely affected by genetic engineering. In knowledge-by-identity, as Forman puts it,

> the subject knows something by virtue of being it. [...] It is a reflexive or self-referential form of knowing. I *know* my consciousness and I know that I am and have been conscious simply because I *am* it. (1999, 118, his emphasis)

In *Cyberculture, Cyborgs and Science Fiction* (2006), I argue that posthumanism undermines our ability to transcend thought and experience pure consciousness. Now I argue that the posthuman condition may extend to a global dimension and eventually undermine the future of human nature by depriving us of our innate ability to experience the self beyond our socially-constructed identities.

This book, therefore, will define the various aspects of globalization, particularly those related to technology, and that aspect of the posthuman related to consciousness. Even if cyborg technology based on invasive implants has till now centered on wealthy economies, globalization will soon spread these technologies around the world in such a way that not only will multinational corporations make high profits but also poorer economies will do everything they can to keep abreast of wealthier countries. In terms of global environmental degradation, Manfred Steger

mentions genetically modified organisms, which Habermas discusses in terms of ethical concerns of one's sense of ethical identity regarding the made as opposed to naturally developed adults. What neither of them discusses, however, is the fact that genetically-modified humans will not only be ethically degraded but may also lose the essence of their human nature because of the imprecise ability of scientists to avoid mistakes that could dehumanize the human race.

Globalization both in itself and in the spread of the posthuman condition will undermine access to pure consciousness, the groundless ground of human nature. Richard Sennett argues that the principle and practice of intimacy in modern society has undermined the public domain based on impersonality, objective rules, polite behavior and effective government administration that upholds individual rights and freedom, replacing them instead with an emphasis on personality and the identification of the self with class status and professional identity. Because the public sphere in capitalist industrial society has been stigmatized as evil and immoral due to its impersonal tone and political favoritism, people in the present have retreated into local communities based on shared feelings, motivations and ethnicity. Sennett explains the fall of public man through an analogy between the public sphere and games played by children. When children play games they learn how to make and follow rules, and when necessary they modify these rules to create equality between younger and older kids playing together. Modern man, on the other hand, has lost the ability to act effectively in the political arena because he places greater emphasis on personality and charisma than on the ability to interact with strangers on an impersonal level, as children do while playing games. Localism has thus replaced the impersonality of the public world with the personality of a charismatic leader whose only qualification is the ability or skill in expressing his emotions in public. People for the past century have increasingly felt so alienated from the impersonality of the public world that they can only identify with a leader who inspires a sense of familiarity by expressing himself on clichéd issues they as a community share in common. No track record of political activism counts for people in the twentieth century because they care less about political, economic or religious issues than about the personality of a leader with whom they can identify. This attitude has undermined the public sphere and led to the globalization of local communities, many of which may accept eugenics or genetic engineering. By emphasizing shared emotions, special interests and material goals, these communities consist of people who have lost the capacity for dealing with the unknown or taking risks for the benefit of

society as a whole. According to Sennett, localism does not lead to fraternity so much as fratricide because unless you conform to the common interests of the group, you become a threat and therefore a potential scapegoat.

As Sennett says, "Community has become both emotional withdrawal from society and a territorial barricade within the city" (1992, 301). People in local communities share "the same outlook" on the basis of peer pressure, without sharing "the same in look," such as the religious faith, mores and customs of that community (1992, 306). The more people get involved in the passions of community, the more they avoid the impersonality of the social order. The more they fear impersonality, the more they fantasize about a parochial collective life. Sennett argues, however, that people can be sociable with each other only if they have some protection from each other too. Without boundaries or barriers between members of a community, they become paranoid and even destructive. The impersonal public world stems from a belief in human nature, while local communities promote a belief in human *natures*, or as Sennett puts it, "a movement from the idea of natural character to that of personality" (1992, 314). In communities based on narcissism, everyone else in the group has to reflect yourself, your own personality, as opposed to an impersonal set of interests. Children's play, on the other hand, allows children to associate with the rules of the game and thereby achieve an experience of self-distance, which helps them focus on the rules of the game rather than on instant gratification. When children play together, they learn the kind of disinterested activity that adults used to be able to perform in public. To play, Sennett says, "requires a freedom from the self" (1992, 319), specifically the socially-constructed self from which postmodernist characters and audience manage to distance themselves.

Sennett says that:

> the sharing of impulses rather than the pursuit of a common activity began to define a peculiar sense of community at the end of the last [nineteenth] century, and is now tied to the localization of community—so that one shares only as far as the mirror of self reflects. (1992, 326)

One is no longer allowed to live impersonally, in freedom from the constructed self as defined by the special interest of localized communities. As postmodern writers such as Don DeLillo, Thomas Pynchon, Harold Pinter, Tom Stoppard, Sam Shepard and many others suggest, what has been lost through the demise of the public world, in addition to the capacity for polite interaction with strangers through a

general acceptance of meta-narratives or the rules of the game, is the ability to access a transpersonal, trans-linguistic dimension of experience, a field of all possibilities beyond the socially-constructed human *natures* espoused by individual communities. Because the contemporary public world can no longer sustain these impersonal qualities, individuals in the postmodernist globalized world have stigmatized it as immoral and evil and thus supplanted it with the pseudosafety of local communities.

Although postmodernist literature and art can induce an experience of pure consciousness, this experience will gradually fade through the globalization of invasive biotechnology. To quote Bauman,

> As François Lyotard put it, if since the beginning of modernity arts sought the ways of representing the 'sublime,' that which by its nature defies representation—the modern artists' search for the sublime formed a 'nostalgic aesthetics'; they posited the non-representable as an 'absent content' only. Postmodern artists, on the other hand, struggle to incorporate the non-representable into the presentation itself. (1997, 104)

Bauman goes on to explain that the postmodern artist works without rules in order "to give voice to the ineffable, and a tangible shape to the invisible" (105). In Pinter's play *The Birthday Party*, for instance, the mystifying lifestyle of the non-conformist character Stanley gives tangible shape to the invisible and voice to the ineffable. Stanley does not fear the outside world in itself but rather its replacement by a localized attitude that imposes boundaries on his freedom of thought and action. His freedom, moreover, is not a conceptual but rather an experiential phenomenon that he never tries to express through a narrative about his past. Pinter's characters and spectators cannot know this inner freedom, which comprises the sacred dimension of human nature, through conceptuality or narrative accounts but only as a trans-verbal, transpersonal direct experience. As argued here, once human nature begins to change through invasive biotechnology, literature may increasingly fail to evoke such experiences.

In the traditions of Western and Eastern philosophy, this level of experiential knowledge corresponds to Plato's Forms, as related to Being, the Good and the Beautiful, and to the Vedic state of Sat (transcendent Being), Chit (transcendental Intelligence), Ananda (transcendental Bliss). As Jonathan Shear notes, Being, the Good, and the Beautiful are reached, like samadhi or objectless pure consciousness, through a

> mental faculty distinct from ordinary intellect to 'reverse' the direction of attention within and produce experience of a transcendental ground

> of thought, knowledge and awareness, [an experience associated] with gaining wisdom, virtue, self-sufficiency and freedom. (1990, 34)

Plato's Forms, the fourth level of his Divided Line, is reached through the faculty he calls the "dialectic" (Shear 1990, 11–29), just as Sat-Chit-Ananda or pure consciousness is reached through a reversal of the direction of attention within through the transcendence of ordinary mental faculties to an abstract, objectless state of awareness. This experience of unbounded consciousness corresponds to the experience in Zen called "no-mind." As described by Huang-po,

> No-mindness means having no mind (or thoughts) whatever...inwardly it is like wood or stone; it is immovable, unshakable; outwardly, it is like space where one knows no obstructions, no stoppage. It transcends both subject and object, it recognizes no points of orientation, it has no forms, it knows neither gain nor loss. (quoted in Suzuki 1956, 218)

The works of Pinter and other postmodern writers can induce such a reversal in the mind of a spectator—one not yet subjugated by the computational instrumentalism induced through bionic technology.

In postmodern fiction and theater before the globalization of posthumanism, a process of self-distancing allows the characters and audience to replace their socially-constructed identity with a non-learned or innate neuro-physiological condition capable of sustaining a trans-cognitive mode of freedom as direct experience. D. T. Suzuki describes this mode of direct experience as the opening of a "third eye" to "the hitherto undreamed-of region shut away from us through our own ignorance" (1949, 11). Regarding the uncertainty of a character's historical background, Pinter says that

> we are faced with the immense difficulty, if not the impossibility, of verifying the past. I don't mean merely years ago, but yesterday, this morning. (quoted in Naismith 2000, 46)

An added difficulty would arise when the past consists of an experience beyond language, beyond the capacity for narrative exposition. Such a transverbal phenomenon would characterize the empty state that characters such Stanley may have tasted by abandoning his socially-constructed identity. In his case, he may have first had this experience while engaged in creative activity, such as playing the piano or even listening to music. According to both Eastern and Western philosophy, the self thus consists of two aspects: linguistic and extra-linguistic. The

extra-linguistic experience of the self beyond the duality of attributes cannot be rendered through narrative, for in reflecting non-intentional consciousness, it contains no objects to be related.

From a constructivist view, Gary Fireman notes that "Narrative does not merely capture aspects of the self for description, communication, and examination; narrative constructs the self" (2003, 5). Fireman also claims that

> the portions of human consciousness beyond the purely somatic—self-awareness, self-understanding and self-knowledge—are products of personal narratives. (2003, 4)

As argued here, however, the self-awareness generated and communicated through narrative applies only to the linguistic, constructed aspect of the identity. As Shear explains in his analysis of Descartes, Hume and Kant,

> pure consciousness can be defined uniquely as that experience which has absolutely no identifiable empirical qualities within it, that is, which is devoid of identifiable spatio-temporal content. [...] For if we identify the experience of pure consciousness with experience of the self, then this experience, containing absolutely no discernable empirical qualities, uniquely allows us to give experiential significance to Descartes' characterization of self as simple and non-picturable, Hume's characterization of self as (supposedly) distinct from all impressions, and Kant's characterization of it as pure consciousness independent of all spatio-temporal appearances. (1990, 104)

By keeping the backgrounds and identities of his characters unknown, Pinter prevents the spectator from concentrating on a particular narrative account of their lives with its phenomenal content. Shear notes that

> if one concentrates on something, the act of concentration itself keeps the mind active and focused on the object being concentrated on, thus, once again, preventing one from experiencing the completely non-active state of pure objectless consciousness (1990, 100).

Postmodern works like *The Birthday Party* often reverse the direction of the spectator's attention within by preventing her from concentrating on the specific empirical qualities of the characters' past.

As Bauman says in *Globalization*, "desire does not desire satisfaction. To the contrary, desire desires desire" (1998, 83). The prospect of desire disappearing horrifies consumers because they sense that the loss of new sensations would confine them even more within the boundaries of time

and space, a prospect their limited, linguistic selves may long for, but which their extra-linguistic, transpersonal selves would naturally shun. Bauman's analysis of the nature of consumerism also applies to the nature of localized communities in search of collective agreement:

> For the consumers in the society of consumers, being on the move—searching, looking for, not-finding-it or more exactly not-finding-it yet is not a malaise, but the promise of bliss; perhaps it is the bliss itself. Theirs is the kind of traveling hopefully which makes arriving into a curse. [...] Not so much the greed to acquire and possess, not the gathering of wealth in its material, tangible sense, as the excitement of a new an unprecedented sensation is the name of the consumer game. Consumers are first and foremost gatherers of *sensations*; they are collectors of *things* only in a secondary and derivative sense. (1998, 83; original emphasis).

The momentary fulfilling of desire gives the illusion of transcending space and time, of a change of circumstances, but this change is artificial and transitory. It amounts to no more than shifting the boundaries of temporality, not transcending them altogether. If that suspension can be prolonged, then fulfillment becomes an abiding state of mind. Members of a localized community fear such a suspension for it would undermine their very existence, which depends on the need of individuals to find support and security in shared objects of desire.

Just as capital is dependent on consumers, so a localized community as produced by globalization is dependent on people who desire the security of shared interests and the personality of a charismatic leader. But as soon as consumers realize that desire cannot be satisfied by acquiring commodities or sensations, the globalization of capitalist society may begin to falter. Likewise, once individuals begin to realize that fulfillment cannot be achieved within a spatio-temporal dimension, then localized communities may lose their appeal. The finite perspectives of waves and mirrors—a localized expression (wave, reflection) as opposed to the overall unbounded field (ocean, space)—will no longer satisfy, and the globalized quest for the bliss of sensations will begin to be supplanted by the globalized quest for the bliss of self-awareness.

As Francis Fukuyama says in *Our Posthuman Future* (2002), biotechnology has the potential to mix benefits for the human race with subtle harms. He argues

> that the most significant threat posed by contemporary biotechnology is the possibility that it will alter human nature and thereby move us into a 'posthuman' stage of history. This is important, I will argue, because

> human nature exists, is a meaningful concept, and has provided a stable continuity to our experience as a species. [...] Human nature shapes and constrains the possible kinds of political regimes, so a technology powerful enough to reshape what we are will have possibly malign consequences for liberal democracy and the nature of politics itself. (2002, 7)

Although Fukuyama does not deal with the issue of consciousness, he still points out that technology may offer longer life, "but reduced mental capacity" (8). He emphasizes that people who want human cloning or genetic engineering will simply move to a more favorable country where this can be accomplished. In this context human culture would be at risk, for as Fukuyama notes,

> As Aristotle and every serious theorist of human nature has understood, human beings are by nature cultural animals, which means that they can learn from experience and pass on that learning to their descendants through nongenetic means. (2002, 13)

If culture, as Sennett explains, becomes overly localized with certain parts of the world condoning genetic engineering, culture itself may alter drastically. Fukuyama argues that while human nature is flexible, it is not infinitely so;

> at a certain point deeply rooted natural instincts and patterns of behavior reassert themselves to undermine the social engineer's best-laid plans. (14)

If wealthy parents are the only ones who can genetically engineer their offspring, then not only will the rich be at a disadvantage but they could instigate a class war. Fukuyama also points out that the nature versus nurture in modern society has shifted to the point where genetic manipulation is beginning to take over. He concludes that changing

> human nature is neither possible, according to some, nor remotely on the agenda of contemporary biotechnology. We need, then, a balanced assessment of what this technology can be expected to achieve, and a sense of constraints that it may eventually face. (2002, 73)

He quotes Edward O. Wilson as saying that

> in heredity as in the environment, you cannot do just one thing. When a gene is changed by mutation or replaced by another gene, unexpected and possibly unpleasant side effects are likely to follow. (2002, 78)

Like Habermas, therefore, Fukuyama realizes the risk of entering a globalized posthuman world, although neither of them actually deal with the issue of the most serious unpleasant side effects, namely the degradation of consciousness. Although Fukuyama believes that human nature won't be altered unless changes occur in a statistically significant way, the fact is that each individual's consciousness has a profound effect on the world as a whole.

Unlike the United States, Europe remains more resistant to eugenics because it's an inhospitable terrain for genetic engineering. More than Americans, Europeans know that changing human nature is undesirable because human nature alone insures its own continuity. Biotechnology has the potential to undermine the essential quality that constitutes who we are. Fukuyama notes that human rights need to be based on human nature because it's shared by everyone and provides "a common ground on which to base universal human rights" (114). He defines human nature as "the sum of the behavior and characteristics that are typical of the human species, arising from genetic rather than environment factors" (130). What is most typical of human nature, as I argue, is the ability to experience pure consciousness as a void of conceptions, a human universal. An aspect of this human universal outside of consciousness, as Noam Chomsky suggested, is the "deep structures" that underlie the syntax of the world's languages (*Reflections on Language*, 1975). Even the geneticist Lee Silver is terrified by the possibility that genetic engineering may create a class of genetically superior humans (1998, 277). At one point in his book, Fukuyama touches on consciousness when he asserts that

> Modern natural science can uncover the time line of [the process of humans' developing a soul] and explicate its material correlates, but has not fully explained either what the soul is or how it can to be. (2002, 161).

He also points out that Daniel Dennett thinks that human consciousness

> is simply a by-product of the operations of a certain type of computer, and if we think that there is more to it than that, we have a mistakenly old-fashioned view of what consciousness is. (2002, 167).

But as everyone knows, no computer has its own consciousness; they are merely programmed machines, like humans are at risk of becoming in the age of posthumanism. John Searle, on the other hand, believes that consciousness is a mere biological property of the brain, the firing of

neurons, as do many other reductionist theorists. What we want to protect from the risks of self-modification through biotechnology is our evolved nature. Fukuyama concludes his book by arguing that

> the posthuman world could be one that is far more hierarchical and competitive than the one that currently exists, and full of social conflict as a result. It could be one in which any notion of 'shared humanity' is lost, because we have mixed human genes with those of so many other species that we no longer have a clear idea of what a human being is. (2002, 218).

Before presenting the insightful ideas of John Fagan's book *Genetic Engineering: The Hazards; Vedic Engineering: The Solutions* (1995), I'd like to focus for a moment on the concepts of pure consciousness and posthumanism. Let us start with pure consciousness, the void of conceptions. Most people will associate their identity with their emotions, thoughts and so forth, but those are objects of awareness. The subject or witness of the mind is consciousness itself. Pure consciousness simply means that least-excited state of consciousness devoid of content. It is the container of the mind, a state of transcendence where you go beyond objects of awareness, and you are aware of awareness itself.

Now posthumanism refers to the relationship between machines and biology, a fairly complex field that has succeeded postmodernism. In the twenty-first century we are entering the cultural construct of posthumanism at a rapid pace. And that means we as humans are starting to become more than just natural-born cyborgs. According to some scientists such as Andy Clark, we are already natural-born cyborgs, as a cyborg is somebody that uses a prosthetic device as a tool. A pen, for example, is an extension of your hand. What is happening now is that bionic technology is starting to use invasive techniques to implant computer chips or pacemakers and all sorts of things that are beneficial to one's health, but they're also starting to implant chips that will enhance your memory, physical prowess or computational skills. What posthumanists are trying to do is develop humans so they can make better use of their potential but in an artificial way; consequently, the physiology will be pressured into performing beyond its capacity to perform in a natural way. The risk involved with this advancement is that you will cause stress to the nervous system. When you take LSD, for example, you expand your mind beyond its natural capacity, but in the process you twist the mind and body apart, causing stress that will ultimately result in a level of awareness deformed and as a result less pure.

Posthumanism, therefore, involves a process of humans becoming more like cyborgs—more mechanical. For instance, instead of having a mobile phone, you would have a nanochip implanted in your skull so that you can dial somebody and communicate with them through some level of thought, or you could have another chip implanted in your skull to access the internet as well as a chip in your eyeball so you can see the monitor. All these things may enhance human potential, but in the process will jack up your metabolism so that the mind will then not be able to settle down to that least-excited state known as pure consciousness, the void of conceptions. Posthumanism, therefore, could end up subverting the ability that allows you to access the different levels of consciousness that define human nature.

Some people wonder whether posthumanism represents an inherent admission that we are imperfect and as a result encourages further development of our different faculties. As Einstein said, it is true that we are only using 5 or 10 percent of our mental potential, but as I said earlier there is a natural way to enhance this potential. Many contemplative traditions around the world have developed mental techniques that expand consciousness in a natural way. If you try to expand consciousness in artificial ways, then you stress your physiology by forcing the mind to use more of its capacity beyond the ability of the body to sustain in a natural way. In the case of sleep deprivation, you might say to yourself, I could take these pills so I don't have to sleep. But what will happen? It will denigrate the human physiology and result in pressure and stress that ultimately leads to disease. Everybody knows that the human physiology is not using its full potential. This, however, does not mean that we are imperfect; rather, our physiology is a perfect entity, but we are not making use of that perfection because we are not using it to its full potential. Over time what has happened is that the mind has lost touch with its pure nature and has become preoccupied with its content. When posthumanists talk about capitalizing on human potential, they are not talking about experiencing transcendence; instead they are talking about filling the mind with more content, as they are more geared towards profit in the material world rather than spiritual interest.

According to N. Katherine Hayles, author of *How We Became Posthuman*, an example of a posthumanist tenet is the view that replacing portions of the body by artificial means as they wear away is a sound idea, which has become a basic surgical procedure nowadays. Some people would say, therefore, that posthumanism is already upon us. And they're right, posthumanism is definitely upon us. Much of the technology being developed today is designed for people who are sick or handicapped. That

can be beneficial for society, but what is also being developed by the military is a technology that will make soldiers fight better in battle. For example, we have technologies being developed that will allow wounded soldiers not to bleed so they can continue fighting, or not to have to sleep so they don't have to interrupt combat, and many other abnormal forms of implants designed to promote victory in battle. Soon scientists and industrialists will capitalize on these devices by selling them to the general population, providing ways of enhancing their ability to do more in the world of activity. But do we really need this? When you think about fulfillment, it comes from the inside, not from the outside. If your attention is constantly drawn outwardly by having more physical or mental prowess through artificial means, you can do that, but it's going to undermine the natural condition of the human physiology. If somebody loses an arm or leg, you have prosthetic devices that can be beneficial for humanity, but as soon as you start producing things that are done just for the sake of fashion or competition, like people wanting to party all night or to be able to access the internet at all times through a chip implant in their skull, etc., then you will soon experience negative side effects. Even when you take valium or any kind of medication, you're also going to experience some kind of side effect. What modern science is doing with biotechnology is trying to find a shortcut to fulfilling human nature or developing human potential.

According to the transhumanist FAQ published by the World Transhumanist Association established in 1998, a posthuman is a hypothetical future being who has basic capabilities that radically exceed those of present humans; however, this will make them no longer unambiguously human by our current standards. Many agree with this posthuman phenomenon, but such exceedingly high mental and physical capacities induced artificially contain inherent disadvantages. First of all, we have to understand that through artificial means within the boundaries of space, time and causality, we will never reach the infinite, whereas consciousness itself, as discussed in greater detail in the next chapter, is unbounded and can take us to the infinite in a natural way. Pure consciousness is unbounded subjectivity, equivalent to the unified field of quantum physics, which constitutes unbounded objectivity. Through a mechanical device or chip, or even something on the nanotechnological level, we will not have the same capacity, mentally or physically, as we would if we were using the full potential of our minds in a natural way. For example, you can sit on a mechanical device and fly through the air as an individual, but there are also powers that allow you to fly as described in the Yoga Sutras, since gravity is omnidirectional. History

has records of various cultures throughout the world of individuals who could levitate or even fly. Would one therefore rather be in some little mechanical device that could fail and cause you to drop to your death, or would one rather have the ability to fly in a natural way using the support of the laws of nature? All of these mechanical devices within the boundaries of space, time and causality will never allow you to achieve the full potential that you can achieve by integrating your consciousness with the laws of nature.

Some people believe in the concept of a posthuman godhood based on an increase in mental and physical capacities to the extent that the posthuman appears godlike to the ordinary human. In fact, however, this concept is only a god delusion. A best-selling book is out called *The God Delusion* by Richard Dawkins, but what you have in posthumanism is a real god delusion. Some people already feel godlike—superstars and super-rich people who "wow" ordinary people. But as soon as people become aware that posthuman abilities can be developed in a natural way that does not disrupt the normal functioning of the human physiology and cause stress and disease, they'll probably reject the risk of these artificial devices. But this will take time, because biotechnology is advertising itself as a means of enhancing human potential and thus deceiving the population into wanting a shortcut for developing these temporary and artificial powers. If we were to teach kids in school from grade one through university how to develop their mental potential, they wouldn't need these posthuman powers. They wouldn't need to spend money for every new little gadget that comes out on the market. When you go to school today you're growing physically, but not mentally in terms of consciousness. The minds of students are being stuffed with information, but their awareness is not being expanded. One can say that students all over the world are being cheated through education.

Many people can imagine numerous ethical and religious qualms pertaining to this idea of posthuman gods. Many objections, moreover, have been raised about this viewpoint, for becoming a cyborg is less ethically sound than getting a heart transplant or an artificial leg. One ethical qualm that has come out of this is that in order to afford posthuman capabilities you need money, which only the elite will be able to afford. Another thing theorists talk about now is how a family can branch off from the human species and develop a species of its own by genetically modifying their offspring so they no longer have two arms and two legs. We're talking about astronauts having four arms because you don't need legs in space; currently, you need to hold on to things more than you need to walk. As a result, we'll have these strange-looking

cyborgs with four arms. Would you like your child to look like that? Another ethical issue is the unequally distributed form of technology that not everyone will benefit from, but only those who can afford it. The ones who can't afford it, however, will be the lucky ones, as they will be spared the damage caused by these posthuman devices.

Some people question whether a definitive line exists after which we cross we become unambiguously posthuman and no longer human. This threshold emerges when you damage the human physiology to the point where you create a structural abnormality to the extent that the individual can no longer transcend into pure consciousness. If you genetically modify the human species so that everyone loses this potential for transcendence, then you've wiped out the human race, and what will succeed us will be machines that are going to be destroyed anyway, because you won't have humans there to keep them running. So potentially the definitive line is whether you can still transcend in a natural way. If you genetically modify people to the extent that they are unable to transcend into pure consciousness, then you undermine the human species, and what you end up with is a world of robots.

If the development of consciousness allows us to perform numerous functions in a natural way, then could the functions attained through posthumanism be interpreted as damaging or enhancing consciousness? Can posthumanism and consciousness go hand in hand? This concept may be a fancy way of wondering whether human and cyborgs can all get along. Perhaps someday this will happen to a certain degree; nevertheless, why should it happen if you can enhance your capabilities and other potentials in a natural way? Pure consciousness is the home of all the laws of nature. The easiest way to access this field is through an effortless approach, such as meditation. As soon as you use effort, you can't reach the state of transcendence because it is a state of being. If you use activity or effort, you are not going to reach a state of being, a state of non-activity or perfect orderliness. As soon as you start using artificial or mechanical devices in the attempt to reach that level, those mechanical devices create activity, which doesn't allow you to reach that state of non-activity or being. You may thus achieve a certain amount of enhancement, and it will seem like an advantage within our finite world, but it's actually miniscule compared to what human potential really has to offer. All sorts of historical records exist of people having achieved powers through developing the mind in a natural way. But now the driving force behind posthumanism is economics. People want to capitalize on technology because that's what makes the world go round today, given that people lack the imagination for alternatives. Why put billions of dollars into

nuclear weapons and other military hardware when it is used to destroy the human species rather than advance it by holistic and harmonious means? John Fagan answers these questions in his book on genetic engineering.

In Genetic Engineering: The Hazards; Vedic Engineering: The Solutions, Fagan explains the problem of globalized posthumanism, beginning with the adopting of recombinant DNA techniques in research for health, agriculture and the environment. The recombinant DNA techniques are used to cut our parts of DNA and then splice them together, or recombine them, to make new configurations in genetic language, which can result in either benefit or harm, as in the process of creating cyborgs. Because of the limited benefits of this process, Fagan returned $614,000 in grant money awarded him by the National Institutes of Health and also withdrew a proposal for another $1.25 million. He argues that genetic engineering for health often fails because many diseases such as heart disease and cancer are not genetic but caused by the environment or behavior. We can cure diseases more effectively, therefore, not by high-tech gene therapy but rather by preventative means that stop their environmental and behavioral causes. He argues that the greatest weakness of the modern scientific approach to health and developing human potential is "that the results of a scientist's labors can be used equally for good or for harm" (1995, vi). What he advocates instead is an approach based on Maharishi's Vedic Science, which

> elucidates a deeper, more fundamental level of natural law. Each of the isolated laws of nature that modern science studies is a localized manifestation of this more fundamental level of nature's intelligence. While modern science studies these localized laws of nature in isolation, Maharishi's Vedic Science provides the tools to understand the integrated basis of all of those isolated laws, the most fundamental level of intelligence in nature. (1995, vii)

Fagan explains that Vedic science provides a unified knowledge of nature by operating from a level that underlies all of life and therefore can solve any problem by avoiding harm to anyone or anything.

In his book, Fagan shows through scientific research that genetic engineering falsely claims to solves all health problems, dispense with hunger by increasing agricultural productivity, and improve the environment by dealing with pollution, all of which has been promoted through articles in the popular press that oversell genetic engineering. He argues, however, that gene therapy leads to many dangers. It can "inadvertently mutate normal genes," affect the function of a gene, but

"inadvertently interfere with a second function," affect germ or reproductive cells in a way that the "side effects will be passed on to all subsequent generations," resulting in genetic pollution because "genetically engineered genes [...] would lead to unanticipated, harmful side effects," and genetic technologies for social or cosmetic purposes "would result in abuses of human rights and generate new medical and social problems" (1995, 5). Similarly in agriculture, genetically engineered organisms can disrupt the ecosystem, create new diseases for plants, pollute the environment by contaminating the gene pool, disrupt soil ecology and reduce soil fertility, and lead to water pollution and a higher incidence of "cancer, birth defects, and other illnesses" (6). All of these harmful side effects can occur because of the impossibility of predicting the effects of gene manipulation given the interconnectedness and complexity of living systems. Any genetic alteration involved in posthuman-style manipulations will not disappear with time but rather be perpetuated, thus undermining human nature and eventually the ability to experience pure consciousness. These alterations, no matter how insignificant they may appear, could irrevocably interfere with the course of evolution of any species because of the unbridled nature and scope of these alterations. Even though genetic change is natural, the degree of these changes through genetic engineering are vaster that those that would occur naturally. Not only scientists but also business and industry capitalize on these new forms of isolated and limited knowledge. Scientists, business and industry should move forward more slowly in the field of genetic manipulation, but the pressures that drive commercialization oppose this strategy. As Fagan puts it,

> In addition to a moratorium and research on safety, we need to come to grips with the fact that harmful, unpredictable side effects are unavoidable with technologies bases on the modern scientific paradigm. (1995, 17).

This moratorium will lead to the discovery that genetic technologies and their potential dangers are unnecessary. As Sidney Perkowitz says,

> Few random mutations are beneficial [...], which tends to make the organism that receives the mutated genes less likely to survive. (2007, 112)

Germ-line gene therapy, for instance,

> alters the reproductive or germ cells of an organism, while somatic cell gene therapy modifies cells other than reproductive cells, such as liver,

> brain, muscle, and skin cells. Thus, somatic manipulation will not be transmitted to subsequent generations, while germ-line genetic modifications will. (Fagan 1995, 22)

Nevertheless, although somatic cell gene therapy is less dangerous than germ-line gene therapy, mistakes and harmful side effects can still occur, in the former case to a single individual and in the latter to all future generations. As Fagan says,

> Despite the millions of dollars and the thousands of research-years that have been invested in somatic gene therapy to date, not a single clear-cut clinical success has been reported. (1995, 23).

Even though methodological refinements will help genetic engineers, risks will always be there, causing genetic manipulations to result in unintended mutations. Moreover, because gene therapy and cyborg modifications operate at a fundamental physiological level, that of the DNA itself, the range of side effects is vast and our ability to avoid them limited, which should lead us to question the justification of the costs of these uncertainties and risks. Five European countries have already banned germ-line engineering in humans: Austria, France, Germany, Norway and Switzerland.

Germ-line gene manipulations have several distinct risks: harmful mutations, unanticipated effects, genetic pollution, and interference with the course of natural evolution. The dangers of posthuman modifications, therefore, stem from the complexity of human physiology and the interaction between genes. Although some medical conditions have a genetic component, gene therapy is, as Fagan says, "at best naïve, wishful thinking" (39), a result of the self-serving promotion of scientists, business and industry, even though they realize that through gene therapy humanity will suffer because this therapy deviates from the natural process of evolution. Germ-line therapy in particular will inevitably enter and in fact alter the gene pool. Even eugenics, which Habermas and Fukuyama oppose, allows one generation to impose its vision and values on the next generation. As Fagan concludes, gene therapy is not the right approach for a vast number of diseases. Germ-line therapy in particular carries the serious risk of producing health-damaging side effects and genetic errors that will be passed on to future generations, especially in a posthuman age when people start enhancing their human potential by artificial methods. The ELSI (Ethical, Legal and Social Issues) program of the Human Genome Project supports genetic research, but does not fund research into the risks of germ-line genetic therapy.

Fagan offers an alternative to genetic engineering, namely, Maharishi's Vedic approach to health, which is based on avoiding disease through prevention. He shows that diseases are not due to defective genes but rather to environmental or behavioral influences. For example, lung cancer is often caused by a specific activity, namely smoking. He states that

> According to the U.S. Surgeon General, the majority of diseases [are] self-induced and as much as 80 percent of medical problems can be prevented through behavioral or lifestyle changes. (1995, 61)

He quotes the findings of researchers who conclude that

> Readily available empirical data suggest that until recent decades in the United States, and even today in nearly all underdeveloped nations, health improvement as measured by increased life expectancy has been almost entirely the result of improvements in prevention. (1995, 61)

Because of the limited success of prevention methods in the recent past, prevention is not looked upon as very effective in addressing serious health problems. What we need, therefore, is a deeper knowledge to enhance prevention, an approach more truly comprehensive based on a more holistic approach to knowledge. Fagan argues that Ayur-Veda, the medical tradition of India, provides this knowledge because it is prevention-oriented and more holistic, taking a comprehensive approach designed to re-establish balance in every aspect of existence and thereby avoiding disease before its inception. He explains that

> In the early 1980s, Maharishi Mahesh Yogi—the leading authority on the Vedic system of knowledge—began working to restore Ayur-Veda, with support from Ayur-Vedic physicians, Vedic scholars, and Western physicians and scientists. The result of this approach is Maharishi's Vedic approach to Health, or Maharishi Ayur-Veda. [...] In Sanskrit, *Ayu* means life, and *Veda* means knowledge. (1995, 67, original emphasis).

This knowledge-based approach to health provides a systematic, comprehensive and effective therapeutics and prevention. Many scientific studies have shown that a primary aspect of the Vedic approach, Maharishi's Transcendental Meditation technique, effectively prevents many diseases. Studies have shown that individuals who practice this technique require far less medical assistance measured by visits to doctors and hospitals. Looking at sixteen categories of diseases, researchers have