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Biotechnology, Human Enhancement, and the Ends of Medicine

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Editor's Note: This article originally appeared as Edmund D. Pellegrino, "Biotechnology, Human Enhancement, and the Ends of Medicine," *Dignity* 10, no. 4 (2004): 1, 5. As we approach CBHD's 30th annual conference and a reexamination of our first conference theme, The Christian Stake in Bioethics, the late Dr. Pellegrino's piece displays well the continuing need for Christian voices in the ever-changing bioethical realm. Written nearly 20 years ago, the changes Pellegrino witnessed have not only continued, but quickened, shifting the world of medicine from healing to enhancement. CBHD remains committed to residing on the cusp of bioethical change while staying rooted in unchanging truths. For further exploration of the themes developed here, see CBHD's book, *Biotechnology and the Human Good*, available for purchase on Amazon.

The actual and promised capabilities of biotechnology have given prominence to a possible new end of medicine, "enhancement." Almost every present-day commentator underscores the difficulties, impossibility, or futility of any definition that seeks to distinguish enhancement from therapy.¹ Nonetheless, everyone eventually ends up using the term since no viable substitute has yet appeared. In short, no boundary between morally valid and invalid uses of biotechnology can be established without at least a working definition.

In this essay, my operating definition of enhancement will be grounded in its

general etymological meaning, i.e., to increase, intensify, raise up, exalt, heighten, or magnify. Each of these terms carries the connotation of going "beyond" what exists at some moment, whether it is a certain state of affairs, a bodily function or trait, or a general limitation built into human nature. Enhancement is, as Fowler says, "a dangerous word for the unwary," but its use in some form seems inescapable.² For this discussion, enhancement will signify an intervention that goes beyond the ends of medicine as they traditionally have been held.

For medicine, the treatment/enhancement distinction cannot be avoided since

physicians will play a central role whenever medical knowledge is used both to regain health and to go beyond what is required to regain health. To be sure, specialists in other fields are necessary if even the modest promises of biotechnology are to be realized. They will provide the basic scientific and technical expertise from which biotechnological enhancements will emerge. But physicians are crucial in the actual use of this technology with individual human beings.

Some physicians have already crossed the divide between treatment and enhancement, between medically indicated use and patient-desired abuse. There is already

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a need for physicians to reflect on the ethical implications of their involvement in the uses of biotechnology. This reflection centers on these loci: (1) the use of biotechnological advancements in the treatment of disease; (2) its use to satisfy the desires of patients and non-patients for enhancement of some bodily or mental trait, or some state of affairs they wish to perfect; and (3) more distantly, in the use of biotechnology to redesign human nature and thus to enhance the species in the future.

New treatments are the most promising use of biotechnology. They most closely conform to the clinical and ethical ends of medicine. The list of target diseases is long. Devising treatments for them is a legitimate and desirable individual and social good. Here, the physician functions in his time-honored role as healer. He has a moral obligation to stay informed and educated in the use of the new technologies.

The ethical questions are related to the means by which these new treatments are developed and applied. Genetic manipulations, cybernetics, nanotechnology, and psychopharmacology are in themselves not intrinsically good nor bad morally. Procedures, however, derived from the destruction of human embryos, distortions and bypassing of normal reproductive processes, or cloning of human beings, etc., are not morally permissible no matter how useful they might be therapeutically.

Within the traditional ends of medicine, the primary intention is the use of biotechnology to treat physical or mental disease. There is no question that the cure or amelioration of a disease process will also result secondarily in enhancement of the patient's life. Here the enhancement lies in the restoration of health or relief of symptoms undermined by disease. The patient feels "better" and regains functional capacity. He may be returned to his previous state of health, or to an even better state. This kind of enhancement follows therapy and is part of the aim of therapy—not "beyond" therapy but a result of it. This is different from enhancement as a primary intention. Here we start with someone who has no disease or obvious bodily malformation. She is considered "normal" in the usual sense of that term. Yet the person feels dissatisfied with her portion in life. She feels unfulfilled, at a social disadvantage or competitively deficient in some

mental or physical bodily trait. She may want to augment a state to what she thinks is a normal level, or she may want something approaching perfection.

The motives, ends, and means of enhancement as a primary intention are morally variable. Some ends—like the desire for healthy, bright, and lovable children—are understandable. If the means that bring these states about do not themselves dehumanize their subjects, they might be within the legitimate ends of medicine, particularly preventative medicine.

On the other hand, many others will focus elsewhere, e.g., on the thrills of going farther, faster, with more endurance in athletic competition. Alternatively, they might want to enjoy the adrenalin surge of seeing how far the human body and mind can be pushed. Enhancement of this kind becomes an end in itself far beyond the healing ends of medicine in any traditional sense.

Some would extend the term "patient" to anyone unhappy, in any degree, with his body, mind, soul, or psyche. This would "medicalize" every facet of human existence. Were physicians to accept enhancement of this kind as their domain, the social consequences would be dire. The number of physicians needed would skyrocket; access by those with disease states would be compromised; research and development would become even more commercialized and industrialized. Research resources would be channeled away from therapy per se. The gap in access to therapy between those able to pay for the doctor's time and those who cannot would expand. To make physicians into enhancement therapists is to make therapy a happiness nostrum, not a true healing enterprise.

On the other hand, if any significant number of physicians were to decide that enhancement, as an end in itself, is not the physician's responsibility, enhancement therapy could become a field of its own "beyond" medicine. How these new therapists would relate to patients and physicians is unclear. Would they be simply those physicians willing to cooperate? Would they be persons in other fields—like sports trainers, psychologists, and naturopaths—who would attend to their own special spectrum of enhancement requests? What would these enhancement therapists do when serious, mysterious, or

potentially lethal side effects appeared?

It is likely that outright rejection of enhancement would encounter strong resistance. Satisfaction of personal desires, freedom of choice, and "quality life" have, for many, become entitlements in a democratic society. Few will want restrictions placed on their choice of enhancement. Peer pressure, the drive of a competitive society, and market pressures will convince many physicians and ethicists that resistance is futile.

Given our society's incessant search for satisfaction of all its desires in this world, many will argue that enhancement is part of the physician's responsibilities—no matter what the profession thinks. The confluence of an ego-oriented culture sustained by social approval, peer example, and clever advertising will produce a cascade of demand.

Physicians will be drawn into enhancement practices for a variety of reasons. Some will see only good in it; some will accept it as "treatment" for the unhappiness and depression suffered by those who are not everything they want to be. Others will argue that physician involvement is necessary to assure safety and to permit better regulation of abuses. "What better way to treat the whole person?" some may add. "Isn't the patient the one who knows most about his own good?" Assertions like these suggest that failure to provide enhancement may become a breach of the physician-patient relationship or the physician's social contract.

Enhancement will also appeal to the physician's self-interest. A willing and paying clientele is certain to develop. Patients will be more eager to pay for the enhancement of the lifestyle they desire than for treatment of disease they did not want in the first place. Physicians can say they are doing "good" for their patients even while doing well for themselves.

The possibility and probability of a serious conflict of interests on the part of the physician cannot be ignored. Money can easily induce the physician to provide enhancement of dubious merit or marginal efficacy. More specific, for example, is the conflict that involves the team physician who is expected to do his part to produce a winning team. Enhancements of athletic performance are in worldwide use. Their deleterious side effects are well known. Who does the physician serve—the good of the patient,

the success of the team that pays his salary, or his own infatuation with athletic success?

Fundamental questions about how enhancement affects our concepts of the purposes of human life and the nature of human happiness will be buried by more immediate demand for happiness, fulfillment, and mental tranquility.³ The modern and post-modern emphasis will be on effective regulatory measures, better techniques, and competent practitioners—not ethical

restraint. Restraint or prohibition beyond prevention of abuses and harmful side effects is highly unlikely. Those who restrict freedom of choice will be seen as a danger to the realization of a higher quality of life for all. Any restriction will be interpreted as a violation of the physician's obligation to respect patient autonomy.

Many of us will take these to be specious arguments, which, if accepted, would make medicine the handmaiden of biotechnology

and erode its traditional role in treating the sick. Counterarguments will be difficult given the powerful vectors of change in our cultural mores. Hopes for an earthly paradise are seemingly within reach for many people who no longer believe in an after-life. For them, extracting the maximum from personal enhancement is a seductive substitute.

Notes

1. Erik Parens, "Is Better Always Good?" in *Enhancing Human Traits: Ethical and Social Implications*, ed. Erik Parens (Washington, D.C.: Georgetown University Press, 1998), 1–28; Eric T. Jeungst, "What Does Enhancement Mean?" in: *Enhancing Human Traits*, 29–69.
2. H. W. Fowler, *A Dictionary of Modern English Usage*, 2nd ed., rev. Sir Ernest Gowers (New York: Oxford University Press, 1965).
3. Peter D. Krammer, *Listening to Prozac* (New York: Viking, 1993).