Biotechnology and the Connection Between Our Physical and Spiritual Natures

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Many people in today’s culture perceive a gulf between science and religion, or the physical and the spiritual. Too often we presume that these entities do not intersect, that one area is distinct from the other. Christians, however, should both recognize and assert that science and religion are compatible and that the physical and the spiritual are interrelated.

What is the nature of such a relationship? In what ways will advances in biotechnology (e.g., genetic and neural enhancement) challenge our notions regarding this interface? Before I address these questions head-on, I would like to explain the premises, both theological and logical, which underlie my present analysis.

First, evil exists in the world. Paul notes in Romans 5:12ff that sin came into the world through one man, Adam, and with that sin came death. Paul further states in Romans 8:18-25 that the whole creation was subjected to evil’s bondage and decay as a result of the entrance of sin into the world. Wherever I see decay, brokenness, and dysfunction, I thus attribute it to the corrosive power of Adamic sin. From macrocosm to microcosm, the effects of sin pervade all.

Given this perspective, there is no aspect of life that is not rooted ultimately in the supernatural. Applying this to the human level, a person’s physical behaviors are manifestations of his or her inner spiritual self. Christ illustrates this truth in Matthew 12 where he tells the Pharisees that their mouths speak out of the overflow of their hearts. In Galatians 5, Paul also speaks of outward behaviors that manifest powers of the flesh or of the spirit, both of which are regarded as entities that are supernatural or spiritual (these last two terms will be used interchangeably in the discussion that follows). Among those that flow from the supernatural fleshly nature are sexual immorality and drunkenness.

Outpourings of the Holy Spirit include love, joy, peace, and patience.

A final premise undergirding my analysis of certain biotechnological applications is the idea that much of human behavior is chemically and/or genetically based. Though the extent remains unknown, that there is a strong chemical-genetic component to our behavior seems increasingly certain. Even environmental forces external to the human body exert their powerful effects by modifying body chemistry and genetic structure.

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continued on page 3

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**Genes, Neurochemistry, and Personal Choice**

As a Christian, I want to harmonize current research that shows human behavior to be substantially chemically/genetically based with what Scripture seems to teach about the supernatural basis of such behavior. By looking at both science and Scripture, we may gain great insights into the overlap between the physical and spiritual components of human beings. I would like to suggest that brain chemistry and genetic structure are vehicles through which the supernatural element of a person affects his or her external behavior.

Based on our present knowledge of genetics and neurochemistry, it seems legitimate to posit that the Holy Spirit can affect spiritual growth—or produce the “fruit of the Spirit”—at least in part by changing genes or the levels of certain chemicals in the human brain. When the believer yields herself to the Holy Spirit for the process of transformation, the mode whereby changes occur could certainly be physiological to some significant degree—be it via an alteration of serotonin or dopamine levels or through some other mechanism. On some level, there has to be a meeting or interface of the physical and the supernatural. If we believe that the Holy Spirit is within the believer producing behavioral fruits such as peace and joy, how does this occur? Such transformation appears to be mediated through a physical substrate to some degree, and research seems to show that genes and brain chemicals are such substrates. In addition to the Holy Spirit intervening in such a way, Satan could, via genetic or neural alteration, conversely stimulate a person to manifest the works of the flesh.

Within this model, we must be careful not to be reductionistic by implying that our need for God could be completely replaced by biochemical intervention. We must also factor in the dynamic of personal choice. Clearly there are some aspects of an individual’s personality over which he has no initial control; however, choices made throughout life can significantly affect a person behaviorally. Even though someone may be born with certain characteristics, it is a distortion to say that she must behave in a certain way. Many behaviors, environmental influences, and learned habit patterns can in fact be modified to offset the negative effects of certain genes.

**A Theology of Biotechnology**

Given the enormous potential of biotechnology to change human lives, let us now consider several corollary questions to further our discussion. Foremost among these is the issue of whether or not Christians should take a pill designed to produce peace, joy, or some other “fruit of the Spirit.” Would taking a medication such as Prozac or subscribing to any action that alters the chemicals of the brain interfere with the work of the Holy Spirit? Is the joy achieved by Prozac the same as the joy produced by the Holy Spirit? How are these questions similar to or different from the questions that govern our use of any technology?

Whatever the reason for our embrace of a technology, we must be brutally honest with ourselves as we scrutinize the basis for its use and we must also carefully consider the possible outcomes that might result. So much of our technology is driven by social desires, many of which are counterproductive to the development of Christian character. What our culture considers to be normal, or even essential, may or may not be harmonious with Christianity. It is also possible for a Christian to be driven by an obsession with perfection that has its roots in flawed theology—“If I can be the best in some area(s), then I’ll be acceptable to others and God.” Technology can be employed as a means of furthering this false view of reality. Furthermore, it is important to remember that the use of a technology often results in unintended consequences, some of which may be negative. The drug that lowers your cholesterol may also damage your liver. Your new glasses may enhance your vision, but they might also enable you to see flaws in your complexion that you hadn’t noticed previously.

The ultimate source of happiness for the Christian lies not in freedom from suffering or pain, but in the transcendence of these through Jesus Christ. Certainly the Christian needs to develop a personal theology with regard to the nature of suffering and its role in personal development. Scripture seems to teach that suffering often has a redemptive effect in the life of the believer—helping us identify with Christ, teaching us endurance and patience, and equipping us for ministry. But does the fact that God can use those things from which we suffer to bring about spiritual maturity mean that we should embrace pain and never seek to avoid it? Certainly not. Technology may indeed be a legitimate means of helping us remove or alleviate much of the suffering we experience as a result of living in a fallen world, even though it is not always an appropriate method for doing such.

Another area the Christian must consider is that of personal responsibility. There may be some behaviors, learned and habitual, in which a person engages that effect the chemical make-up of his brain. We also know that other environmental influences, some of which can be modified, may affect brain chemistry and subsequent behavior. Our society is far too quick to absolve those known to have abnormal brain chemistries, or genetic predispositions toward certain undesirable behaviors, from personal responsibility. We need to recognize that knowledge about the effects of brain chemistry and certain genetic constitutions on an individual’s behavior does not require us to remove from her responsibility for personal actions.

The temptation to use new and exotic technologies will likely only escalate; therefore, now is the time for us to consider what scriptural and logical guidelines might be helpful in evaluating these emerging challenges. The following inquiries might assist us in formulating such principles: Will a particular technology simplify or unnecessarily complicate my life? Will it give me more free time to devote to other things? Will it enhance my ministry? Will it lead to a deeper sense of dependence on God? Will it extend meaningful life? Assuredly, there are no simple or easy answers regarding the extent to which Christians can embrace biotechnology as a route to personal enhancement or transformation; however, we must begin to ask the right questions if we are to be prepared for the technological barrage that will increasingly confront us in the twenty-first century.