

# Scientific Psychology and Christian Theism

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## I. Introduction

Christian theism has much to say not only about metaphysical issues, but also about human nature, and what we can know, and how we should think and behave. In many such areas there is overlap with the realm of psychology, and there are numerous points of at least apparent conflict as well as agreement. In the current paper, we attempt to explore some of these points of contact by giving a brief review of scientific psychology from a Christian perspective.

By way of introducing ourselves, we have the responsibility at the University of New Mexico for teaching courses on statistics and scientific methodology in a psychology department with large undergraduate and graduate degree programs. Our particular department is dominated by behaviorists and neuroscientists, who presume that students will be taught a naturalistic, deterministic view of science. We also have teaching and research interests in other content areas of psychology, namely, cognitive psychology and the history of psychology. Thus, it is from the perspective of such professional experience and interests that we will be reflecting on the methods and presuppositions of psychology as they relate to Christian views of knowledge and reality.

## The Impact of Psychology

We believe that psychology has had and continues to have subtle yet pervasive influences on our society. While there are the visible manifestations of psychological principles in areas such as advertising and political campaigns, the more important influences might be in the indirect effects that the field has on what people assume about their basic nature and their behavior. Our discipline's view of people as being, as some have quipped, "a larger rat or a slower computer" (Van Leeuwen, 1985, p. 64) may well contribute to the modern tendency to shirk from accepting responsibility for one's actions. Similarly, the human proclivity toward self-indulgence may only be buttressed by a field that views the basic nature of its subjects as being controlled by their desire for pleasure and by their selfish genes. In this paper we will attempt to outline and critique such presuppositions or assumptions that are at least tacitly made about human nature in scientific psychology.

As something of a disclaimer, we note that there is obviously a significant though controversial role that psychology has come to play within the church itself. It likely goes without saying to readers of this paper that Christian psychologists such as James Dobson and Larry Crabb have large followings nationally. The interface between psychology and Christianity is perhaps most apparent in the arena of counseling and clinical psychology. Indeed the overwhelming majority of members of the major North American organization for Christians in psychology (The Christian Association for Psychological Studies) are those primarily affiliated with the counseling and clinical areas of psychology. As even secular psychologists are becoming more ready to acknowledge, metaphysical assumptions are critical to clinical work (O'Donohue, 1989).

Nonetheless, we have decided not to deal directly with the clinical area in this paper. There are several reasons. First, there is a voluminous literature on the relationship between Christianity and the theory underlying clinical work. (We recommend in passing the critique of humanistic psychology by NYU personality psychologist, Paul Vitz (1977), the comprehensive survey of the variety of approaches to psychotherapy provided by Stan Jones and Rich Butman (1991) of Wheaton College, and the recent review of relevant empirical research provided by Everett Worthington and colleagues (Worthington, Kurusu, McCullough, & Sandage, 1996.) ) Second, our primary expertise is in the scientific areas of psychology--what Lee Cronbach referred to in his 1957 Presidential address to the American Psychological Association as the "two disciplines of scientific psychology". These areas of experimental and correlational psychology still dominate academic departments of psychology, perhaps increasingly so since in the past two decades training of clinical psychologists has been taken over primarily by professional schools of psychology. Third, many argue that the applications of psychology in the clinical domain are derivative from the findings in the scientific research areas of psychology. And, fourth, it is in the scientific areas where the issues relating to the theme of "Knowledge, Reality and Method" of the conference for which this paper was prepared are most clearly relevant, and where the philosophical presuppositions of the field have been debated historically.

Although the literature on how the Christian faith relates to scientific psychology is not as extensive as that relating to Christian counseling, over the last 20 years a number of helpful, book-length treatments of the problem have appeared (Jeeves, 1976; Jones, 1986;

Koteskey, 1980; Myers, 1978; Myers & Jeeves, 1987; Van Leeuwen, 1982; Van Leeuwen, 1985). Thus, we will necessarily need to be very brief and selective in the current paper. In part because our audience may include those from academic areas other than psychology, we propose to begin with a survey of the history of our discipline to develop how we got to where we are today in academic psychology. Next we discuss the tensions between the standard view of modern psychology and the Christian view of man, and how these might be resolved. Finally, we consider in more detail cognitive psychology, which is the content area of psychology in which we have the greatest expertise and that is arguably the subarea of the field which is most closely related to the issues of "Knowledge and Reality".

## **II. Historical Background**

Although questions of the nature of knowledge have been debated since at least the time of the pre-Socratic philosophers of ancient Greece, the science of psychology could be said to have begun with Aristotle's detailed analyses of learning and memory (e.g., in "On Memory and Reminiscence"). When reading a good translation, one could be convinced that the source was a current psychology journal because of the surprisingly contemporary accounts of what would now be termed network models, search strategies and mnemonic techniques. The associationistic tradition that Aristotle set in motion has thus continued to exert an influence throughout psychology's history, perhaps most notably in the Scholastic psychology of the late medieval era and the British empiricist movement of the 18th and 19th centuries.

With the coming of the Christian era, a decided shift in the nature of scholarship about psychological questions occurred. As the eminent historian of the field of psychology, Daniel Robinson, has written, "The emergence of Christianity must be counted as an occurrence whose importance to psychology is matched, if at all, only by the Hellenic epoch" (Robinson, 1981, p. 111). The dominant figure in charting this new course was Augustine. While in basic agreement with Greek and particularly Platonic thought on the existence of a transcendent realm and the inadequacy of the senses for discovering unchanging truths, Augustine's thought, informed by his Christian world view, departed from Platonic thought in major respects. Augustine's focus was on faith more than reason, and on wisdom more than knowledge. "Where the Republic was the enlargement allowing a clearer view of human nature, the Christian was the miniature in whom God's reality could be established. This shift in emphasis provided early Christian scholarship with a decidedly psychological cast" (Robinson, 1995, p. 76). In particular, while Plato had asserted the need for reason to rule over the passions, Augustine's focus was on that passionate side of human nature Plato condemned. In particular, Augustine explored the intensely personal struggles with sexual temptations and guilt feelings, and considered the role of dreams in revealing and the value of catharsis in dealing with inner conflicts. In these emphases, it is obvious that Augustine anticipated much of what would later be given to the modern world in the form of Freudian psychoanalysis, though of course Augustine and Freud's view of God and faith were diametrically opposed.

A final area in which the Christian view represented a major departure from the Platonic was that the Greek idea of certain people as natural slaves was replaced with an egalitarian view derived from the doctrine that all people are created in God's image. The egalitarian doctrine, however, made more pressing the problem of the varying degrees of virtue observed in different individuals. Augustine's solution to this problem, and to the problem of evil more generally, was to regard people as possessing free will, or being morally responsible agents. However, these wills certainly operated only within the domain marked out for them by God: "Our wills have just so much power as God willed and foreknew that they would have" (quoted in Robinson, 1995, p. 80).

Although the Christian perspective was dominant in the West for more than a millennium following Augustine, Christian thinkers who can be identified as critically important in psychology's history are few. The era of Scholastic psychology of course saw Thomas Aquinas (1225-1274) place the church's blessing on Aristotle's ideas, and the Reformation era saw Martin Luther (1483-1546) contribute to the process of discrediting this same "accursed, proud, knavish heathen" (quoted in Robinson, 1995). Luther's bias that everything he needed to know could be derived from Scripture did not encourage attempts at either a science of nature or of human nature.

Nonetheless, the beginnings of modern science were intimately connected with the Christian world view and to individual believers who differed from Luther on this point. Alfred North Whitehead has argued that Christianity gave birth to modern science by giving European minds the unalterable conviction that every detailed occurrence exemplified a general principle that could be discovered. Whitehead wrote, "When we compare this tone of thought in Europe with the attitude of other civilizations when left to themselves, there seems to be but one source for its origin. It must come from the medieval insistence on the rationality of God" (1926, p. 16). Thus, Copernicus (1473-1543), Kepler (1571-1630), Galileo (1564-1642) and Newton (1642-1727) all saw themselves as servants of the Creator, and as merely "thinking God's thoughts after Him" (Hummel, 1986, e.g. p. 57).

However, the discoveries of the power of mechanistic laws to describe and apparently account for the motions of distant planets were used by Enlightenment writers to undermine the view of persons as transcending the natural order in any way. As Voltaire quipped in *The ignorant philosopher*,

"It would be very singular that all nature, all the planets, should obey eternal laws, and that there should be a little animal, 5 feet high, who, in contempt of these laws, could act as he pleased, solely according to his caprice." (quoted in Robinson, 1981, p. 298).

Voltaire's ally David Hume (1711-1776) provided the philosophical arguments for the desirability of creating a science of human nature. Because in Hume's skeptical view we can't trust our perception of the natural world, we need first and foremost to explore our own natures. When he attempted to do so, Hume failed to see evidence of God's design but instead found a creature ruled by his passions. While perhaps this view is consistent with the Christian doctrine of the fall, we see that the Enlightenment attempt to make

man autonomous of God's authority ultimately served only to degrade him into the victim of impersonal forces.

In contrast to Hume's skepticism, the 19th century view of human nature and human society was dominated by ideas of inexorable progress. Among the most important figures in psychology's history of this era was Auguste Comte (1798-1857), the founder of the discipline of sociology and of the religion of scientism. Comte saw cultures as moving through three stages, beginning in a theological stage (where divine agents were seen as causing natural phenomena), and passing through a metaphysical stage (where unobserved forces and powers were thought to be active), but ultimately arriving at a scientific stage (where it is recognized that the only true knowledge consisted of descriptions of relationships between publicly observable events). Comte saw the knowledge of the scientific stage as being positive in two senses: it was known with certainty, and it was so unifying and uplifting that it would solve all of the problems besetting human societies. As we will note, echoes of Comte's thought can still be clearly heard in 20th century behaviorist psychology.

Scientific psychology per se grew most directly out of 19th German physiology, with three men being most significant. All were reared in the homes of pastors or philosophers, but decided to pursue natural science instead of theology or philosophy. All were trained as physicians, but dedicated their lives to research, not service. The first, Gustav Fechner (1801-1887), was the son and grandson of pastors, and saw his career as a mission to defend the importance of consciousness. His eureka experience while lying in bed on the morning of October 22, 1850 provided what he thought was the solution to the relationship between the physical and the spiritual worlds. His *Elements of psychophysics* (1860) documented the empirical support for the mathematical equation that was central to his "solution". Although Fechner regarded the spiritual realm as real, his approach was not from the perspective of the Christian faith.

One of the greatest scientists of the 19th century, Herman von Helmholtz (1821-1894) was strongly opposed to vitalism (i.e., the doctrine endorsed by his mentor Johannes Müller that life involves forces other than those found in the interaction of inorganic bodies), and pursued naturalistic explanations of human sensation and action. In addition to his landmark, detailed analyses of vision and audition, Helmholtz assured his place in history by being the first to measure the speed of nervous conduction. The work not only made clear the lag between willing a movement and actually initiating it, but also helped prepare the way for the mental chronometry approach of modern cognitive psychology.

The third of the three German physicians is universally credited with the formal founding of psychology as a discipline when he established its first lab at Leipzig in 1879. Although Wilhelm Wundt (1832-1920) worked under Helmholtz for 13 years, his intellectual heritage was more closely tied to Kant and Fechner. Wundt's definition of psychology was the study of consciousness and his goal was to identify the components of consciousness that would constitute something like a periodic table of mental elements. Unfortunately his introspective method proved unreliable, and thus his attempt

to create a paradigm failed, though he did create a field which nonetheless was convinced it was a science.

Within America, psychology took a different tack. This is due in large part to the influence of William James (1842-1910), the first and greatest of America's early psychologists. James' pragmatic philosophy found German elementism boring and of little value. While James agreed that psychology should concern itself with Mental Life, he wanted it to be a field with practical applications. James' pragmatic orientation held out the promise of the creation of a distinctly American psychology which was readily embraced by his countrymen. Although James was very interested in religion, he explained away the factual claims of Christianity while trying to defend its utility nonetheless: in short, James' view was "the truth of the religious experience is its pragmatic value" (Allen, 1967, p. 432). While publications like "The Will to Believe" made claims that Christians might find palatable (the central thesis being that one must commit to certain ideas to have any hope of finding out if they are true), he was the last major figure in American psychology to give religion a prominent place in his psychological system.

Although James helped do away with the Wundtian introspective tradition, the functionalist school attributed to him served primarily as a bridge to the dominant movement in 20th century American psychology: behaviorism. When John B. Watson (1878-1958) presented his manifesto "Psychology as the Behaviorist Views It" in 1913, the future course of the discipline was dramatically affected. Although Watson did little more than import Pavlovian psychology to the U.S., his assertion of the doctrine that "there was no dividing line between man and brute" (Watson, 1913) helped to cement evolutionary thinking onto American psychology. Watson's enthusiasm for the power of psychological methods to achieve what he regarded as the goals of psychology, viz. the prediction and control of behavior, was unbounded:

"Give me a dozen healthy infants, well-formed and my own specified world to bring them up in and I'll guarantee to take any one at random and train him to become any type of specialist I might select--doctor, lawyer, artist, merchant, chief and yes even beggarman and thief, regardless of the talents, penchants, tendencies abilities, vocations, and race of this ancestors" (Watson, 1924, p. 104)

The acceptance of behaviorism as the dominant movement within early 20th century psychology was greatly facilitated by the emergence of logical positivism. This variation on Comte's positivism was based on what was termed the Verifiability Criterion of Meaning: a statement must be empirically verifiable by sensory data or it was meaningless. Some statements were confirmable by the senses, all others were regarded as nonsense. Although logical positivism was quickly rejected by philosophers of science as incoherent, it came to be the dominant perspective within psychology and fit hand-in-glove with Watsonian behaviorism. Psychologists thought they were adopting the true method of the natural sciences, and quickly removed any concepts that could not be reduced to or "operationalized" via behaviorally oriented specifications.

The movement that Watson started was refined and redirected by B. F. Skinner (1904-1990). Although many of his ideas could be traced directly to Hume and Comte, Skinner's application of those ideas to the control of society helped make him by age 65 the best-known scientist in the U.S. His utopian vision of a behaviorally controlled society as fictionalized in *Walden II* (1948) and justified in *Beyond freedom and dignity* (1971) was based more on his philosophy than on his experimental data, which primarily related to the conditioning of pigeons and rats in his operant chambers. Skinner's central enemy was the autonomous inner man espoused by writers of the "literature of freedom and dignity", such as C. S. Lewis. (Although Lewis' *The abolition of man* (1947) had been available for more than two decades, his critique of a behavioral approach to education was so keen and prophetic that when Skinner wrote *Beyond freedom and dignity* he apparently felt compelled to single out Lewis for attack at multiple points in his book.) Skinner's basic view of man is revealed by his citing favorably a remark that "whereas the traditional view [of the nature of man] supports Hamlet's exclamation, 'How like a god!', Pavlov, the behavioral scientist, emphasized, 'How like a dog!'" (1971, p. 192). Man might be a more complex machine than a dog, but in Skinner's view is a machine nonetheless.

### **III. Preserving the Person**

#### **Fundamental Presuppositions of Modern Psychology**

The fundamental presupposition of not only radical behaviorism but of modern psychology in general is that of naturalism. Human behavior, like the phenomena of other natural sciences, is to be explained by citing only natural causes. Contemporary psychology is largely defined, to use the phrase of Daniel Robinson, by its taking "Method as Metaphysic" (Robinson, 1995, p. 330ff.). By this Robinson means that psychology's adoption of empiricism or the scientific method as an epistemology has devolved into an endorsement of materialism as the nearly universally accepted position on metaphysics or ontology. The casualties of this perspective have been not only the elimination of ideas of the reality of God or the soul from the field, but also the traditional perspective of persons as agents. To quote Robinson again, "If 'scientific' psychologies of various stripes have a common ground, it is that upon which rejections of 'autonomous man' have always been based" (1995, p. 362).

Naturally one implication of this position of viewing people as just one more cog in a closed, clockwork physical system is that there is no basis of absolute values. As Skinner asserts, "We say that there is something 'morally wrong' about a totalitarian state, a gambling enterprise, uncontrolled piecework wages, the sale of harmful drugs or undue personal influence, not because of any absolute set of values, but because all these things have aversive consequences" (Skinner, 1971, p. 166). That is, the "good" is labeled such because of its association with pleasant experiences, and the "evil" is labelled such because of its association with unpleasant experiences.

A more contemporary example of the same relativism is provided by evolutionary psychology. Evolutionary theory's undercutting of morality was something grasped but

not widely advertised by Darwin. Evolutionary psychology popularizer Robert Wright provided this revealing quotation from Darwin's Notebooks together with his (Wright's) commentary and translation into the modern vernacular:

"[Darwin] saw that determinism, by eroding blame, threatens society's moral fiber. 'This view will not do harm, because no one can be really fully convinced of its truth, except man who has thought very much, & he will know his happiness lays in doing good & being perfect, & therefore will not be tempted...' In other words: So long as this knowledge is confined to a few English gentlemen, and doesn't infect the masses, everything will be all right" (Wright, 1994, pp. 350-351).

The trouble of course is that the implications of a doctrine of unguided evolution were not confined to a few English gentlemen. As the writer in the Edinburgh Review in the late 1800's commenting on Darwin's theory correctly foretold, the result of acceptance of Darwin's theory would be that "most earnest-minded men will be compelled to give up these motives by which they have attempted to live noble and virtuous lives, as founded on a mistake; our moral sense will turn out to be a mere developed instinct... If these views be true, a revolution in thought is imminent, which will shake society to its very foundations by destroying the sanctity of the conscience and the religious sense" (quoted in Wright, 1994, pp. 327-328).

Given this destruction is proceeding apace thanks to those who promulgate the Darwinian theory as if it were true, the promoters of evolutionary psychology are left in a rather awkward position from the perspective of conventional, much less Christian, morality.

Specifically, accepting instead the doctrine that the ultimate good from the perspective of the selfish gene is that which increases the relative proportion of the next generation that its offspring constitutes leads to some disquieting implications. This "good" from the perspective of a young male is maximized by increasing his number of fertile sexual partners. Even more troubling are the implications for any unfortunate stepchildren who fall within his care. After documenting the "enormously elevated risk [of homicide] to children residing with stepparents" (Daly & Wilson, 1994, p. 294), evolutionary psychologists Martin Daly and Margo Wilson have to view the behavior of killing one's stepchild as an "evolutionary adaptation"--not something which violates a revealed ethical norm.

Writer Robert Wright tries to make the best of a bad situation by claiming that, although telling people they are not responsible for past mistakes will make future mistakes more likely (Wright, 1994, p. 358), recognizing the truth of such evolutionary psychology logic will make people less arrogant. As he tells it, understanding the way everyone is controlled by his or her genetic urges will make us more forgiving and accepting: "...to know all is to forgive all. Once you see the forces that govern behavior, it's harder to blame the behavior" (Wright, 1994, p. 348). While perhaps this constitutes a more modest utopianism than Skinner's, nonetheless the hope that undercutting the basis of any virtue will somehow lead to a greater motivation to display a virtue of tolerance is a non sequitur. As reviewer Dennis O'Brien comments, "...the notion that his brand of

'determinism' is the key to compassion is perverse. The best that can emerge from thoroughgoing determinism would be a 'morality' of excuses (victims are blameless) never a morality (you have a moral responsibility not to blame victims!)" (O'Brien, 1995, p. 26).

The other major casualty of adopting the mechanistic model of modern psychology is truth. Wright and the evolutionary psychologists glimpse this (though of course do not see this as applying to their own theory): "For the social discourses that supposedly lead to truth--moral discourse, political discourse, even, sometimes, academic discourse--are, by Darwinian lights, raw power struggles" (Wright, 1994, p. 325). But if it is true that we are merely the product of mindless genetic mechanisms ("knobs") and environmental conditioning ("tuning"), there is no ground for truth, even if you are the nobly born philosopher-king academic. As O'Brien puts it, "If the big Truth is genes, then there is no truth, only ideologies. If natural selection is true, the Origin of Species cannot be true, not to mention Wright's fervid extrapolations" (O'Brien, 1995, p. 27).

A particularly ironic implication of the elevation of the model of science to the correct metaphysical description of man is that it ends up undercutting the trustworthiness of science itself. This point is well-developed by C. Stephen Evans in his helpful study *Preserving the person*. The scientist tries to persuade a community of peers of the plausibility of a theory by offering reasons why such a theory should be accepted. In explaining why he supports a particular hypothesis, the scientist does not provide mechanistic explanations of his own behavior (Evans, 1982, p. 75), e.g. "this theory makes me feel better" or "I want to discredit Prof. X so I am offering a theory which is contrary to his theory". Indeed, any time we think that a person's beliefs can be explained by nonrational causes, we are less likely to accept those beliefs as trustworthy. For a scientist to accept that his own behavior in endorsing a particular hypothesis is accounted for by his unconscious desires or his biological state is tantamount to admitting that "his work is not scientific in character, as it is not governed by rational criteria" (Evans, 1982, p. 79).

Nonetheless, the methodological training of psychologists fosters this schizophrenic view of persons, with those who are research participants being regarded as hopelessly governed by their conditioning history and biological predispositions while those who are experimenters are responsible agents who rationally arrive at conclusions, free of the distracting influences of what Bacon termed idols. As Van Leeuwen put it, there is "an implicit double standard at work in psychology: a cognitive capacity on which the very doing of science depends is routinely assumed to be present in psychologists themselves yet ignored or circumvented in the persons they study" (1985, pp. 70-71). There are some, like Malcolm Jeeves, who embrace this dichotomy as reflecting complementary truths about human nature (Jeeves, 1984, pp. 18-21). Jeeves, in something of the same fashion as the evolutionary psychologists (Daly & Wilson, 1988, p. 269), sees the assumption of viewing oneself as controlling one's own destiny as psychologically healthy but viewing others' behavior as largely determined by factors beyond their control as promoting compassion (Jeeves, 1984, pp. 29-31). While this is perhaps compatible with a view that individuals possess varying degrees of real freedom of

choice, there is an inherent inconsistency between a total, undirected determinism that applies to the rat-like subjects in your experiments but viewing yourself as free and rational.

### **Essence of Personhood**

What is the essence of a Christian view of man? Once more, this is a topic that has been treated in much more depth by other writers than our expertise or space will allow here. Chapter length treatments of the subject are available in McDonald (1986), Myers (1978, Ch. 4), Myers and Jeeves (1987, Ch. 5), and Van Leeuwen (1985, Ch. 4). We will take the time for only the briefest of summaries.

Man's uniqueness from the rest of creation lies in his being created in the image of God. As God's image bearer he shares in a limited form many of the attributes of God. These include his ability to love, to know, and to choose. He is a person. His is an immortal and living soul. Man is a moral being. Man is a rational agent. Man's life has a purpose and his experience of the world is meaningful.

At the same time, man is a creature, and shares many attributes with the rest of the created order. Made of the dust of the earth, he is a biological system and has certain needs that are similar to those of other organisms.

Thus, the Biblical view of man is mixed: created in the image of God and declared very good, yet his fallen nature is such that "All have sinned and fall short of the glory of God"; an immortal soul temporarily encased in a very mortal body; God-like and animal-like; part divine, part dust; spiritual yet carnal.

Finally, the capacity to make decisions, to choose between alternatives, and to make those choices poorly or well is the essential basis of personal responsibility. One of the most fundamental characteristics of people, the Law of Human Nature as C.S. Lewis terms it (1952), is this inherent ability not only to perceive right and wrong, but to choose to do either the right or wrong.

### **Routes to Resolution**

But it is this capacity to choose which the mechanistic views of modern psychology deny.

As championed 25 years ago in Skinner's *Beyond Freedom and Dignity* (1971) and as reiterated in recent years by the evolutionary psychologists, the modern psychologist endorses a view of the human organism that undercuts the moral accountability presumed by our legal system, the rationality required to be a scientist, or the responsible judgment needed for a democratic form of government to work (Evans, 1977, Ch. 6).

How can this conflict between the person as traditionally understood by Christians and the image of the human as a determined machine be resolved? The most helpful analysis of this issue that we are aware of is that provided by the philosopher C. Stephen Evans

(1977). Evans notes that the apparent conflict between truths drawn from science and truths drawn from Scripture arises because of scientism and the "unity of science" thesis. By scientism is meant the view, due in large part to Comte, that the truth that science gives is ultimate and complete. By the unity of science thesis is meant that there is a single method that all true sciences employ and that consists of searching for naturalistic, deterministic causal explanations of phenomena.

Evans outlines three broad categories of responses to, or routes to resolution of, this dilemma: Reinterpreters, Limiters of Science, and Humanizers of Science. Reinterpreters essentially capitulate, and accept the perspective of the sciences. That is, they solve the problem by revising their view of the person. Arguments that might be advanced for this alternative are that history should teach us, witness the Galileo incident, that Christians are likely to be embarrassed when they oppose the claims of science because of their supposed incompatibility with Scripture. Proponents likely would also stress the sovereignty of God, arguing that the Bible reveals a God who controls and determines all things. The deterministic laws of human behavior are thus to be regarded merely as "the means whereby God's sovereign decrees are accomplished" (Evans, 1977, p. 96). Or in the King James style language of the Westminster Confession, "although in relation to the foreknowledge and decree of God, the first cause, all things come to pass immutably and infallibly, yet by the same providence he ordereth them to fall out, according to the nature of second causes, either necessarily, freely, or contingently". Thus the will of man is regarded as one of the secondary causes by which God accomplishes his purposes, though nonetheless human choices are not "by any absolute necessity of nature determined to good or evil" (Leith, 1973, p. 200 and 205 as quoted in Evans, 1977, p. 99). Even so, Evans argues that Calvinists cannot comfortably be Reinterpreters as he defines the position because the claim of science to be the whole story cannot be true because, although it may give us an account of how God accomplishes his purposes it does not give us the why, a portion of which it revealed in the book of God's word not the book of God's works.

Thus, a more palatable means of resolving the problem is the Limiter of Science position. This involves at least a partial rejection of the scientistic claim that science provides the ultimate truth about the whole of reality. The most typical form of this response is that science is a limited albeit valid perspective on humanity. Thus, the perspectivalist Limiter of Science would argue that the psychologist has no right to discount the knowledge of other, non-scientific approaches. And, of course, it is just this sort of scientistic claim that psychologists such as Skinner make, e.g. when he argues that "the traditional 'knowledge'" of fields such as religion, philosophy, history, education, and family life "must be corrected or displaced by a scientific analysis" (Skinner, 1971, p. 17). This is an error that perspectivalist and Christian neuroscientist Donald Mackay has labelled "nothing buttery" (MacKay, 1979, p. 27). It is similar to an electrician's claiming that a lighted sign is 'nothing but' a collection of wires and electrical currents, and thus any consideration of what the words on the sign mean is not only superfluous but invalid (Jeeves, 1976, p. 39).

What typically characterizes perspectivalists such as MacKay, Jeeves and Myers is what is regarded by some Christian psychologists as an "extremely high view of science" (Van Leeuwen, 1985, p. 66). That is, although they reject scientism they nonetheless endorse the view that all sciences involve the objective pursuit of deterministic, causal explanations. This in turn may be justified in part by noting that devout Christians were at the forefront of the beginnings of modern science. When the lens of science is turned on man it still is a valid means of discovering truth, they reason, but it simply reveals a truth that should be regarded as complementary to the truths at other levels of analysis. This of course invites the question "which of the levels of analysis is ultimate?" or "how do the truths from different levels of analysis relate to each other?".

Another problem that some Christian thinkers have with this position is that it is only a token acknowledgment of the nonmechanical aspects of psychology's subject matter. That is, it allows for the legitimacy of non-scientific analyses of humans, e.g. literary or artistic or legal, but it excludes these from the "paradigm of psychology itself" (Van Leeuwen, 1985, p. 69). Such theorists opt instead for the Humanizer of Science position, which rejects not only scientism but the Unity of Science thesis as well. The Humanizer position finds support in those like R. G. Collingwood (1946) who argue that the nature of explanation of human action in history is such that human acts must be understood in terms of the agent's beliefs, motivations, and intentions. Explanations seek to show the point or purpose of an act and must rely on the empathetic understanding of the explainer. Critics of the humanizer position retort that such subjective hunches might be a reasonable input to the hypothesis-generation part of the context of discovery, but that standard scientific methods must still be used to validate such hypotheses as being generally applicable.

The principal proponents of the Humanizer of Science position within secular psychology are those in the "third-force" movement of clinical psychology, e.g. Abraham Maslow, Carl Rogers or Gordon Allport. There is much in these movements with which many Christians can agree. The person is regarded as a unified self, the person's choice is seen to be of critical importance, and values are presumed to be critical not only in daily life but in science itself. The individual is regarded as transcending the natural order to some extent rather than being only a determined victim of material causes, and the healthy response of such individuals is regarded as not simply conforming to a fixed environment but exercising one's capacity for creativity to forge new paths. The client in a therapy room or the participant in an experiment is regarded as another person to be encountered and with whom to dialogue.

Humanizers of science also find support among those revisionist philosophers of science such as Thomas Kuhn or Michael Polanyi who stress the importance of psychological and cultural factors in all of science, not just the human sciences. Thus, the scientist, by these lights, is necessarily working within the framework of a given paradigm which can be regarded as a world view, based like the Christian world view in part on faith commitments, and personal loyalties (Kuhn, 1970).

Difficulties facing the Humanizer of Science include the question of how to preserve the integrity of science. As Paul Vitz says, in effect, if Maslow and May are scientists, then so are theologians who reflect on human nature (Vitz, 1977). How is one to delineate what constitutes science if it is not restricted to causal hypotheses that are empirically testable? Another difficulty is how one is to decide when a person's subjective framework or understanding of their reasons for acting is wrong. That this is to be expected is the clear implication of passages like Jer. 17:9, "The heart is deceitful above all things, and beyond cure. Who can understand it?"

For our part, we hesitate to be Reinterpreters because of recognizing, as it seems any Christian must, that there are knowable truths available through God's special revelation that science in itself could never grasp. Turning to the alternative positions, we note that attempting to Limit and to Humanize scientific psychology are not mutually exclusive options. With regard to the Limiter position, most anyone, secular or Christian, could agree there are other valid perspectives on the human experience than the scientific one--to stop there is not to say much. The more challenging task is to attempt to explicitly incorporate Christian presuppositions into the conceptual framework guiding how one does psychology. Evans suggests that the way to tell if you are more of a Humanizer as opposed to a Limiter of Science is whether you warm up to the idea of a "Christian psychology" (1977, p. 138). We do. While the form or forms that such a Christian approach will take is still up for debate, some helpful progress has been made by thinkers such as Evans (1996) and Van Leeuwen (1985). One central tenet such scholars share is that Christians have just as much right and perhaps more of a duty than non-Christians to pursue research within a framework that explicitly flows from their world view.

Admittedly, much of our motivation for embracing the Humanizer position, at least partially, is the negative one of wanting to avoid being squeezed into the world's mold, whose "scientific psychology" is so closely tied to presuppositions antithetical to the Christian faith. On the other hand, the Christian form of the Humanizer position must also be clearly distinguished from the secular form of humanistic psychology. Christians psychologists would very quickly need to part company with their apparent allies in the "third-force" camp. The humanistic or existentialist psychology view of the person as free to create his or her own values obviously fails to recognize the boundaries imposed by God's revealed moral absolutes. Similarly, it seems that a greater modesty is called for than one which would absolutize the research participant's own explanation of his or her behavior. That one is a Christian and a psychologist does not assure one of perfect insight into another's motives even when he or she is willingly attempting to inform you of them. Nonetheless, an explicit Christian perspective gives insight into the role that both man's sinful nature and God's redemptive grace might play in influencing human action, insights not shared by colleagues who view human nature as either inherently good or inherently amoral.

We would not dispense with attempts at objective, quantitative research in the human sciences but we would endorse efforts to take advantage, even in such studies, of the self-reflective capacities of the research participants to offer their own hypotheses about their actions which are being monitored in such research. Similarly, we would explicitly want

to encourage research that makes explicit the relevant assumptions about human nature derived from the Christian view of man. Given the same God authored the special revelation of Scripture and created in his own image the people psychologist study, conceptual models derived from Scriptural assumptions about human nature should have an inherent advantage in terms to their fit to behavior relative to those that are not based on this solid foundation.

The case of cognitive psychology provides a fruitful area to explore how one might attempt to both take a higher view of people and to utilize the insights that a scientific psychology can provide (see, e.g., Watts and Williams, 1988).

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