Psychology at the Theological Frontiers

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Editor's Note

Science is constantly moving. Dr. Heather Looy, professor of psychology at The King's University College in Edmonton, Alberta, has written this intriguing description of the latest developments in psychology along with insights and challenges that they may raise for Christian faith. The essay is provided here and is intended as an invitation. Readers are encouraged to take up one of the insights or challenges, or maybe a related one that was not mentioned, and draft an article (typically about 5,000 words) that contributes to the conversation. These can be sent to Dr. Looy at Heather.Looy@KingsU.ca. She will send the best essays on to peer review and then we will select from those for publication in a psychology theme issue of *Perspectives on Science and Christian Faith*. For full consideration for inclusion in the theme issue, manuscripts should be received electronically before 28 February 2013.

For those readers who prefer to take a more creative literature approach in sharing their ideas, please submit essays (up to 3,000 words), poetry, fiction, or humour inspired by Looy's invitational essay to emily@asa3.org for possible publication in *God and Nature* magazine.

Looking forward to hearing your perspectives,

James C. Peterson
President of CSCA & Editor of *Perspectives on Science and Christian Faith*

Philosophers, theologians, poets, storytellers, and many a wakeful person longing for self-understanding ask questions about human identity and behavior. Who am I? Why do I do what I do, and often what I do *not* wish to do? We experience ourselves as both freed by and frustratingly limited by our physicality, as both "embodied spirits and inspirited bodies" (Farley, 2008). Self-understanding is neither immediately obvious nor easily obtained.

We turn for answers to whatever sources of knowledge we value and trust. For those who accept the *Bible* and the *Christian tradition* as such a source, we are both dust of the earth and a little lower than the angels, called to care for and cultivate the creation (Genesis 1:28; Psalm 8:4-6). Dietrich Bonhoeffer explored these questions through *theology* and *poetry* (Wannenwetsch, 2012). Those who wish to explore these questions *philosophically* can turn to a rich written tradition that in the West includes Plato, Aquinas, Nietzsche, and Freud. C.S. Lewis uses *story* to paint a picture of human nature: When young Prince Caspian discovers he is the descendant of pirates who accidentally stumbled through a door between worlds and conquered Narnia, he says "I was wishing that I came of a more honourable lineage." "You come of the Lord Adam and the Lady Eve," said Aslan, "and that is both honour enough to erect the head of the poorest

beggar, and shame enough to bow the shoulders of the greatest emperor in earth. Be content" (Lewis, 1951, p. 218).

We get a rather different picture of ourselves when we turn to psychology. Psychology self-defines as the *science* of human behavior and mental processes. This field uses the language of process, mechanism, probability, prediction, and causation. We mark the beginning of psychology as a separate discipline at 1879, the year that a German scientist by the name of Wilhelm Wundt opened a *scientific* laboratory explicitly dedicated to 'experimental psychology.' Although today many psychologists work in applied areas such as counseling or human resource management rather than research, they have virtually all been trained as "scientist-practitioners" and are encouraged to engage in "evidence-based practice." In other words, to be a psychologist is to be a scientist.

The heart of this article is an exploration of how this self-definition of psychology as a science helps or hinders our self-understanding. I will focus on what might be called 'mainstream' North American psychology: The theories, practices, and methods accepted by the American Psychological Association (APA) and the Association for Psychological Science (APS), the two largest professional organizations in the field. Of course in practice psychologists draw on a diverse collection of approaches ranging from the biological to the sociological, using methods that include the quantitatively empirical to the phenomenological. My narrower focus is not intended to exclude or deny this diversity but merely to engage the most dominant themes in the field, in particular those that I believe Christians need most to engage. This is a highly selective and idiosyncratic list influenced by my own background as a biopsychologist working interdisciplinarily and integratively in the context of a Christian university. My intent is to spur dialogue and debate, and I invite readers to correct or expand upon the issues I raise here, and point out others as needed.

Science and Worldview

When "scientists say," we listen. Science and scientists are given great authority and power in modern Western culture. The particular view of science that the early psychologists deliberately embraced emerged from Enlightenment and positivistic beliefs in the lawful, mechanical nature of creation, and the power of human rationality to discover and utilize those laws. We human beings, "after all, are just extremely complicated machines" (Wilson, 1998, p. 30). Our complicated machinery has given rise to a rationality that enables us somehow to transcend our mechanical nature to discover and ultimately control our own mechanisms. "Technologies of behavior" are the only way we will solve our emotional, behavioral, and social problems (Skinner, 1971).

Psychologists rarely acknowledge that this mechanistic view of human nature is part of a particular worldview which by definition is neither scientifically- nor logically-verifiable. Instead, the culture of psychology convinces its students that these worldview beliefs are objective, verifiable truths. Yet as long as psychologists claim that they can discover fully objective truths about human behavior, they risk failing to notice the limits and distortions of their knowledge and close their minds to other potentially fruitful ways of coming to self-understanding. The refusal to acknowledge that everyone has a "view from somewhere" also creates difficulties for Christians who engage psychological science expressly from a Christian worldview (Stevenson, Eck, & Hill, 2007). Mainstream psychologists treat faith as simply one of a multitude of variables relevant to an objective account of human behavior, rather than the lenses through which each one of us, psychological researchers included, engages the world.

Objectivity and Objectivism

Students enter psychological studies with passionate questions about who we are, why we behave as we do, and how to deal with emotional or relational difficulties. One of the first things they are taught is that people cannot be trusted to have accurate insight into their own psyche. It is the psychological *scientist* alone who, by observing dispassionately from the outside, can tell people the *real* reasons for their behavior or mental states. The psychologist is the expert, the objective observer, the one in a position to obtain the real truth.

Because of the worldview belief that human beings are 'nothing but' complicated natural mechanisms, psychologists are taught that we can, for the purposes of research, ignore that we are human beings studying ourselves. They view the very traits that enable us *to* study ourselves—our subjective experience, meaning-making, self-awareness, unique access to what it is *like* to be human—as irrelevant to self-understanding. Instead, we are to take an objective view, or as G.K. Chesterton's fictional detective Father Brown puts it, "getting outside a man [sic] and studying him as if he were a gigantic insect: in what they would call a dry impartial light, in what I should call a dead and dehumanized light" (1911/1997). This is a form of *objectivism*, a position that "portrays truth as something we can achieve only by disconnecting ourselves, physically and emotionally, from the thing we want to know" (P. J. Palmer, 1998, p. 51).

Thus, research participants are 'subjects' who must be deceived so they cannot adjust their behavior in accordance with their own or the researcher's expectations, so that they behave 'naturally.' While in everyday life behaving 'naturally' actually does involve making meaning and self-reflection—not just reflexive reactions—these natural processes are viewed as sources of 'error' in positivistic psychology (Van Leeuwen, 1985). Participants cannot be trusted to know their real motives nor accurately predict their responses—only the researcher has access to that.

Researchers are also suspect: because they are human, they are 'biased' and this bias must be prevented from influencing participants' behavior and the researchers' observations and interpretations. Thus researchers are required to systematically separate themselves from their participants and treat each identically to prevent the researchers from distorting the 'objective truth' of the participants' motives and behavior. For example, administering a standardized intelligence test to young children often involves the tester reading from a script rather than adjusting behavior depending on the child's emotional state, despite the fact that under such conditions a confident child might show their full potential while a timid or anxious child might perform well below their actual ability. Becoming blind to the condition or state of the participant being observed and leaving the participant blind to the observations and expectations of the reseacher are viewed as laudable goals, and indeed, sometimes they are. However, the contortions researchers undergo to deny their subjective knowledge in the interests of objectively applying their rationality through the methods of the natural science (or a caricature thereof) can actually distort the 'truth' of human experience and behavior.

There is nothing wrong with trying to be objective in the sense of remaining humble about our limitations. Christian theology reminds us that we are creatures and sinners. We all tend to be self-serving, short-sighted, and self-deceiving. Therefore we need to structure our observations of the world in such a manner that we minimize the possibility of seeing only that which we wish to see, of creating self-fulfilling prophecies. However, we so easily slip from this sort of humility into the arrogance of believing that if we simply use the correct method, we can achieve a truly objective view of the world and of ourselves. Is it *ever* possible for us to see ourselves from the outside? We *are* subjective, self-aware, compulsive meaning-makers who experience the world *in relationship* (Van Leeuwen, 1985). We cannot even perceive the external world from the outside; perception is heavily influenced by our particular sensory systems and the language and cultural contexts within which we interpret sensory information. How much more difficult for us to perceive *ourselves* from the outside. To act as if we *can* and *should* seek a view from without, a disconnected view, surely deeply distorts our understanding of the causes of our behavior.

Another problem with objectivist methodologies is the potential for ethically questionable practices. Psychologists regularly practice complex and layered forms of deception to achieve objectivity, and the consequences of this should lead Christians to ask hard questions (Bassett, Basinger, & Livermore, 1992; Van Leeuwen, 1982). The claim that such deception is necessary to determine the real truth of human behavior is weakened by the fact that experimental economists eschew deception in research on principle (Ortmann & Hertwig, 2002).

Psychologists are not unified in their commitment to objectivist research. There have always been anti-positivist and anti-objectivist voices, and researchers who use methodologies that

attempt to honor the subjectivity and relationality of the researcher and participant (Burston & Frie, 2006). While these methodologies have been more widely adopted and accepted in fields such as sociology and health sciences, they are gaining traction within psychology itself. At present, however, such approaches remain on the margins. 'Success' in mainstream psychology still requires a commitment to and competence with objectivist, quantitative approaches (Livingstone, 1997). Christians in the field would do well to provide articulate grounds for methodologies that better reflect our understanding of human nature; to develop, teach, and practice those methodologies; and to challenge and engage the mainstream in recognizing their rigor and validity.

Good and Bad Reduction

Science necessarily involves a process of simplifying or reducing the complexity of reality. Exploring and learning about an aspect of human experience is similar to creating a map. A map is not intended to tell us everything about a territory, but only those things we need to navigate. A map that is exactly the same size as the territory and contains within it every single element of that territory is actually useless (Borges, 1946/1998, p. 325). Thus maps are by definition simplifications, reductions, of the reality to which they refer.

This type of reduction is necessary and desirable. Reduction only becomes inappropriate when someone claims that what is in the map contains all that is essential to understanding the whole in its richness and complexity. The map should contain all that is essential to understanding certain *aspects* of reality, just as Newton's laws of planetary motion actually do explain planetary motion. However, those laws say nothing of the size, composition, atmosphere, and other features of the planets so moving. Should someone claim that Newton's laws tell us everything meaningful about the planets they would engaging in 'bad' reduction (Peet, personal communication, September 2011).

I submit that much of modern psychology engages in bad reduction. It leaves out elements essential to understanding the rich experience of being human in its attempt to uncover the natural, mechanical laws that supposedly govern our behavior. The currently popular level to which we are reduced is usually biology. It is certainly much easier (though by no means easy) to study concrete biological systems like the genome, neurochemistry, or brain structures, than to examine subjective traits like empathy and intelligence that are invisible to the senses except through our words and actions. Thus we speak of how depressed persons are more likely to carry a particular allele, or to have diminished serotonin function or activity in the 'reward' areas of the brain, losing sight of—or frankly finding irrelevant—the subjective reasons such persons might give for their deep hopelessness and despair. This 'biologism' is problematic in many ways, as I have addressed in more detail elsewhere (Looy, in press). While these approaches do honor our embodied creatureliness, they deny or make problematic intention, free will, moral

responsibility, and subjective experience. They also isolate human problems to the individual, by and large ignoring the contributions of community, our collective responsibility for one another. Solutions to psychological problems are limited to those that alter our biological function.

Reducing human nature to 'nothing but' biological mechanism (or, for that matter, social construction) and believing that this will reveal the 'real truth' about ourselves is both paradoxical (how can mechanisms become the mechanics?) and prideful. How can Christians engage in *good* reductions, those that are necessary to doing good psychological studies, without losing sight of essential dimensions to human being and behavior? One place to start is to become aware of the problems of bad reduction by reading some of the helpful critiques available (Burston & Frie, 2006; Tappan, 1997; Van Leeuwen, 1985). Developing and practicing research methods that attempt to honor human subjectivity, such as those coming from 'human science', feminist, and existential-phenomenological perspectives, is another.

Context and Individualism

When psychologists speak of human nature, they often mean a context-independent set of characteristics that are species-specific and universal. Constructs such as intelligence, aggression, introversion, self-esteem, or compassion are treated as real, stable things that can vary quantitatively. Psychological measures are presumed to be valid indicators of these constructs; these measures are called operational definitions. For example, 'intelligence' might be operationalized as 'score on the Wechsler Adult Intelligence Scale' or 'school grades.'

Operationalizing involves decisions about which indicators of the construct are most valid, central, or characteristic, decisions that are influenced by worldview. For a long time, psychologists were oblivious to the idea that intelligence might look quite different in different contexts and came to the peculiar conclusions that black people are inherently less intelligent than white people, poor than rich, aboriginals than Europeans. This is because the indicators of intelligence—IQ scores, school grades, financial success—were measures of ability to function within a particular context with particular values and expectations. Alternative, culture-sensitive measures of intelligence acknowledge that what it means to be intelligent in urban North America may be profoundly different from that in the Australian outback or Canada's far north. However, the vast majority of psychological research is based on operational definitions that are developed for the North American context but presented as if they are universally applicable. Indeed, many operational definitions are so context-independent that they are applied across species; for example, studying 'empathy' in rodents as a model for human interaction. Psychologists put a lot of energy into formulating, comparing, validating, and modifying operational definitions. However, they frequently forget the disputed, contextual nature of those

definitions and measures; conclusions simply assume that we are using objective measures of real and universal human characteristics.

Ignoring context leads to other peculiar distortions of our understanding of human experience (Kagan, 2012). For example, the Diagnostic and Statistical Manual of Mental Disorders is intended to standardize diagnoses and make them more consistent across professionals and settings. It does so by using lists of context-independent symptoms, intensities, and durations. While there is value to a standardized system, it can lead to phenomena such as labeling both a deeply sad middle-aged man with few apparent external stressors and a young child dealing with her parents' unpleasant divorce with the same diagnosis of depression. It can also lead to both people receiving the same treatment, usually drugs, which are themselves nonspecific, context-independent forms of treatment.

In the attempt to identify universal laws of human behavior, variability in that behavior literally becomes 'error,' to be controlled statistically. Rich and meaningful diversity is lost in means and standard deviations. Difference can become abnormality, leading to alienation, stigmatization, even unnecessary treatment of the glorious variation of human experience and behavior.

How might the theology of the image of God help us deal with the pitfalls and opportunities of psychological research that ignores or attempts to control the effects of context? How can Christian psychologists learn to become more self-critical about their complicity in an enterprise that often makes universal claims about human experience and well-being without humble acknowledgement of the complexity and limitations of our self-knowledge?

The Christian faith reminds us that we are fundamentally relational beings, part of a creation that includes non-human beings and inorganic elements, unable to develop and function without a social community. Along with a few wise voices emerging from mainstream psychology, Christians can and should speak to the importance of considering context and community in understanding a person's experience and behavior. Further, Christians have impetus from their faith to challenge clinical and counseling psychologists to consider how they can play a role in promoting, perhaps through empowering their clients, healthier contexts and communities rather than focusing exclusively on helping people cope with, or flee from, toxic environments.

Christianizing Psychology / Psychology of Religion

Christians sometimes use mainstream psychological methods to study various 'Christian' topics, such as as forgiveness, repentance, gratitude, and altruism (Emmons & Kneezel, 2005; Flanagan, Loveall, & Carter, 2012; Witvliet, Hinman, Exline, & Brandt, 2011), the effectiveness of prayer (R. F. Palmer, Katerndahl, & Morgan-Kidd, 2004), or the impact of religion on physical and mental health (Lee & Newberg, 2005; Marks, 2005). They also study how mainstream

psychological theories and treatment approaches can and cannot be used effectively with Christian clients (Skillen, 2009; Strong, 1980).

While this research meets standards of rigor within the psychological community, by doing so these researchers implicitly agree with the foundational assumptions described earlier. Does it makes sense for Christian psychologists to work within a positivist, mechanist, objectivist, reductive, context-independent field in order to demonstrate *scientifically* that Christian values lead to more happiness, flourishing, psychological stability, etc? Many Christians delight in finding scientific evidence to support the value and efficacy of the faith for human well-being, without necessarily questioning the validity of the source of these conclusions.

Should Christians therefore develop a parallel, alternative form of psychology? Stand within their own worldview and critique mainstream psychology? Accept that mainstream psychology explores the same reality and therefore is one means to truth about human experience? Work subversively within the mainstream, both participating and presenting alternatives? The fact is that we live in a culture that values psychological research as a source of knowledge about ourselves. How do we live in the tension of being *in* but not necessary *of* (Johnson & Jones, 2000)? If God encourages or commands us to live in particular ways, we may presume that these are not simply arbitrary commands intended solely to test our faithfulness, but instead reveal what God knows will help us be most fully ourselves, best able to fulfill our calling. And if so, then it is possible that systematic examination of those who attempt to live in God's way might reveal positive outcomes of doing so. Further, on the presumption that 'all truth is God's truth,' it may be that knowledge obtained through psychological science is no *less* and no *more* truthful than knowledge obtained through other means, such as a faith tradition. Thus there is some warrant for Christians to use psychological science to learn more about ourselves and specifically to study the effects of Christianity on human experience and behavior. Nevertheless, the tensions inherent in a field that uses assumptions about human nature and about knowledge that do not always harmonize with those of Christianity are real and the implications have not been fully worked out.

Becoming More than Human

The study of mind and mental processes has been converging with the study of brain and neural networks and with the study and development of computer systems. One of most well-funded and publicly popular areas of psychological research today is cognitive neuroscience, the scientific study of the biological aspects of mental processes. Computers are used in this area not only as technological supports, but as models and metaphors for human mental processes. Computers can be used to model human mental processes, programmed to learn, adapt, and even create in ways that are sometimes indistinguishable from human behaviors and products. This appears to confirm the belief that the human mind is simply a (very complex) biological

mechanism, a system that may even be reducible to computations. It further supports the belief that we can use our rationality to discover our own mechanisms, since we can construct machines that behave very much as we do. The next logical step, in the eyes of some, is to use technology to enhance and extend human abilities.

Already computer technology is used to heal and mitigate the effects of disease and disability: cochlear implants for the hearing-impaired, interfaces that enable mute or paralyzed people to communicate and interact, electrodes implanted deep in the brain to alleviate intractable depression. Pharmaceutical technology is also being used for healing or altering mental states. Christians often feel comfortable with such uses of technology; healing is an important calling. But the line between healing and enhancement is a blurry one. Should we use drugs or computer technology to boost human memory beyond its creaturely limits? To enable someone to see clearly in the dark? To give firefighters more strength, CEOs and university students more energy, or reduce the need for sleep (Merrifield, 2012 http://godandnature.asa3.org/column-modern-frontiers-ancient-faith.html)?

The questions that arise from the push to expand our human limitations are not merely those of how to draw the line between healing and enhancement. Christians especially should be asking whether these technologies and drugs are implemented as part of a culture focused on human beings as psychophysical unities, embodied spirits and inspirited bodies (Farley, 2008), members of the body of Christ, integrally connected with the rest of creation. Are they means of developing character or fulfilling our calling? Or are they short-cuts that exemplify human hubris, that emerge from a paradoxical desire to transcend our biological limits and take control of our own destiny, no matter what the cost to our planet or ourselves? These are not new questions—C.S. Lewis already pointed to these concerns in his science fiction trilogy, particularly *Out of the Silent Planet* (1938)—but they are becoming increasingly pertinent.

Psychology and the Human Relationship with the Natural World

The transhumanist ideal attempts to further separate humanity from the rest of creation. The modern science that the early psychologists so enthusiastically embraced is also the science that has both emerged from and in turn actively supported the industrial revolution and the dramatic and devastating impact it has had on our planet. Today there are many people, scientists and nonscientists alike, who are raising the alarm about the cumulative and accelerating damage we are causing to planetary climate and ecosystems, damage that reflects our failings as stewards of creation and that will ultimately create unspeakable hardship for all living creatures, including ourselves. We need a real change of perspective, attitude, values, and behavior; a fundamental alteration of how we think about and act within the natural world (Tucker & Grim, 2009).

As noted earlier, most psychologists focus on people as beings apart from their contexts; if context is addressed it is only the human aspects—family, immediate community—that receive attention. Apart from a few environmental and conservation psychologists, few in the field seriously consider the relationships between human and non-human well being. Pollution, climate change, environmental toxins, highly processed foods, living in a built environment separated from natural rhythms and processes: Such factors have a significant impact on human psychology, and further, human psychology—attitudes and behavior—contributes to these problems (Gifford, 2011).

Despite their limitations, psychological studies can help us to understand overall patterns of human thought and behavior, the formation of attitudes, emotional responses, and their relationship to action. Expanding the use of more qualitative and 'subjective' methodologies would also help us probe the interplay between the natural environment and the human person as part of, yet subjectively separate from, that environment. This is urgently necessary not only for improvements in human well-being but also for the well-being of the planet. We badly need to come to a profound awareness that our well-being is intimately tied to that of our earth (Berry, 1990, pp. 5-13; Tucker & Grim, 2009). While there are certainly serious problems *within* human communities—poverty, violence, insecurity, malnourishment, corporate greed, etc.—foundational to them all is the ways in which our deep psychological separation from the natural world is creating the environmental conditions that exacerbate many of these human woes.

Christianity contains within its traditions and scriptural interpretations beliefs that have contributed to our separation from and destruction of the natural world (White, 1967) as well as those that support a much more intimate and responsible relationship with creation (Tucker & Grim, 2009). I believe that one of the priorities for Christians engaged in psychological studies and practice should be to find ways to demonstrate the consequences of this separation and paths toward healing, enabling us to collectively recognize our failure to live out our calling as stewards of creation, repent, and find ways to change.

Conclusions

This brief foray into psychological studies as widely understood and practiced in the Western world is intended to highlight what I perceive to be key concerns and possibilities, particularly for Christians. I am most concerned that Christians recognize the deep assumptions that permeate the discipline—assumptions about the natural world, human nature, and the means of obtaining 'true' or 'real' knowledge. These deep assumptions may or may not be consonant with a Christian worldview, but until they are brought to conscious awareness they will quietly permeate psychological theory and practice for good or for ill. And as I have argued here, some of those assumptions may produce dangerous distortions or limitations of self-understanding.

Here are a few foundational questions Christians might ask about psychology: To what extent and in what manner can and should Christians embrace a view of human nature as biological mechanism or a system of computations? The notion that human beings are equipped to use their rationality to understand, predict, and control those mechanisms? The belief that the truest knowledge about ourselves is 'objective' knowledge, while the subjective 'view from inside' is suspect?

Movements within psychology that reduce human nature to biology or to computation, as observed in the rise and popularity of cognitive neuroscience, artificial intelligence, and neural network modeling, support and enable the desire to transcend ourselves through the use of technology. Christians should participate in open and active conversation around the rationale for, development and use of such studies and the related technologies. Historically science has proceeded apace while ethical discussion has lagged; must that be the case when we are talking about transforming what it means to be human?

These transhumanist movements both reflect and increase our psychological disconnection from the rest of the natural world. While the environmental consequences of this disconnection are being explored by scientists in other fields, psychologists could, and I believe should, prioritize increased understanding of the psychological consequences of this disconnection. Finding ways to live sustainably on our planet primarily involves changes in human attitudes and behavior, and in moving toward this goal problems of poverty, violence, and injustice will also be mitigated.

Seeking answers to questions about human experience and behavior is not so much a process of finding the 'objective' truth of ourselves, but rather one of finding ways to live well and faithfully in our current context. Psychological science can play a role, but only if its assumptions and limitations are recognized and where necessary transformed.

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