Terence Keel's Divine Variations: A Symposium

with Terence D. Keel, "The Religious Preconditions for the Race Concept in Modern Science"; Yiftach Fehige, "In What Sense Exactly Did Christianity Give Us Racial Science?"; Ernie Hamm, "Christian Thought, Race, Blumenbach, and Historicizing"; Jonathan Marks, "The Coevolution of Human Origins, Human Variation, and Their Meaning in the Nineteenth Century"; Elizabeth Neswald, "Racial Science and 'Absolute Questions': Reoccupations and Repositions"; and Terence D. Keel, "Response to My Critics: The Life of Christian Racial Forms in Modern Science."

THE RELIGIOUS PRECONDITIONS FOR THE RACE CONCEPT IN MODERN SCIENCE

by Terence D. Keel

Abstract. The view that science and religion are necessarily in conflict has increasingly lost favor among scholars who have sought more nuanced theoretical frameworks for evaluating the configurations of these two bodies of knowledge in modern life. This article situates, for the first time, the modern study of race into scholarly assessments on the relations between religion and science. I argue that the formation of the race concept in the minds of Western European and American scientists grew out of and remained indebted to Christian intellectual history. Religion was not subtracted from nor stood in conflict with constructions of race developed across the modern life and health sciences.

Keywords: anthropology; biology; Christianity; culture; determinism; epistemology; genetics; race; philosophy of science; theology

Recently, geneticists working at the Wistar Institute in Philadelphia claim to have found a single gene variant that may explain why Black Americans with common cancers are less likely to survive than other races (Basu et al. 2016). The Wistar Institute is the first independent nonprofit biomedical research organization in the country and has held the Cancer Center designation from the National Cancer Institute since the 1970s. In this study researchers examined a specific variant (single-nucleotide polymorphism at codon 47 in TP53) in a tumor suppressor gene that when mutated is involved in liver, breast, and colon cancer, along with lymphoma. According to the

Terence D. Keel is Associate Professor at the Institute for Society and Genetics, with a joint appointment in the Department of African American Studies, University of California, Los Angeles, Los Angeles, CA, USA; e-mail tdkeel@ucla.edu.

Wistar team this variant occurs only in people of African descent and is present in about 2percent of Black Americans and up to 8percent of West Africans. Using a mouse model to study the effects of this particular variant researchers found that 80percent of specimens developed cancer. The lead author of the study claimed in a press release, "we may finally have a truly genetic explanation for why African-Americans are more prone to a variety of cancers" (Wistar Institute Press Release 2016). She went further, noting that "this is a variant that has never been observed in Caucasian populations, so identifying people who have this variant may be crucial for providing improved prognosis and personalized treatment that will lead to better outcomes" (Wistar Institute Press Release 2016). Race in this study accounts for inherited differences in living populations derived from original ancestors believed to be homogenous. Variation is conceived in terms of an enduring, purposive, and creative genetic inheritance. In this formulation, race as biology is destiny.

As we live in the era of precision medicine and personal genomics the Wistar study is simply one among many conducted by scientists in search of race-specific genes that might explain our susceptibility to disease and our life chances. How might we account for the intellectual history of the race concept being used in studies like the Wistar Institute? If science is culture, what traditions of thoughts, habits of mind, beliefs, and inherited practices of reason explain the intellectual traits of modern racial science? Moreover, if the emergence of social constructionism during WWII challenged the scientific validity of the race concept, how is it that racial reasoning in science persists in new genetic analysis where political behavior, eating habits, diabetes, intelligence, and likelihood of success can be reduced to an individual's ancestry (Fowler et al. 2008; Clark 2014; SIGMA Type 2 Diabetes Consortium 2014; Grimm and Steinle 2011; Plomin and von Stumm 2018)?

The resilience and proliferation of race in science and the fetishization of ancestry begs the question: For those shaped by the social traditions of Europe and North America might race be the answer to an inherited desire for certainty about the order of social life and by extension our place in nature? Surely the modern study of human biodiversity has a social-cultural history, for science is not produced in a vacuum, is not the result of pure discovery, or detached from the forces that govern society. What beliefs and ideas then in the West could incline biologists to claim our genetic differences are largely beyond social control, stemming from causes that stand independent of modern society and can be found in parts of ourselves that predate culture?

This is the question that I sought to answer in *Divine Variations* (Keel 2018). What becomes clear when we evaluate the *long durée* of Western thinking about race and human ancestry is that Euro-American scientists have inherited reasoning practices, beliefs, and an intellectual horizon

shaped by Christian theology. The formation of the race concept in the minds of Western European and American scientists grew out of a unique social and religious history that colored European intellectual life and bled into German, British, and North American scientific constructions of race. I arrived at this conclusion after reevaluating a range of sources, including para-theological texts and biblical commentaries from the early church through the seventeenth and eighteenth centuries, writings from early Christian natural philosophy, seminal studies in ethnology and early nineteenth-century social science, debates among twentieth-century public health researchers, and recent genetic studies of ancient human DNA. Western accounts of human origins have harbored Christian sentiments despite their articulation from within secular scientific frameworks. The use of the race concept in science involves a long history of entanglement with Christian theology.

Indeed, there are four different historical moments of interest to me in their ability to lay bare the Christian prehistory of scientific theories of race: the formation of racial science out of Germany in the eighteenth century, its transformation among nineteenth-century American ethnologists, the biomedical theories of the Progressive Era, and finally present-day genetic research on human-Neanderthal relatedness. From this history I argue the following. First, modern racial science is indebted to a religious intellectual history that it has attempted to deny and supersede, which I call the "modern scientific appropriation of Christian supersessionism." This theological idea had antecedent forms in early church attitudes toward Jews. During the seventeenth and eighteenth centuries Christian supersessionism shaped disputes over the antiquity of human history. Modern scientific ideas about race appropriated this supersessionist view of history by claiming to possess an account of human origins that was intellectually superior to all other creation narratives, was universally applicable, and overcame the errors and partiality of previous religious traditions. By the nineteenth century, we begin to see American ethnologists develop a scientific account of race that explicitly disavows and replaces the Christian account of human origins that preceded it. This represents what I call "Christian supersessionism" turned upon itself: a critique of Christianity that would further remove explicit reference to religion in any scientific study of human variation and lay the groundwork for present-day myths about the secularity of modern biological theories of race.

Second, I argue that despite the decline of the Bible as a cultural authority in the Western Euro-American natural history, the concept of the creator God described in the Genesis narrative would continue to facilitate the formation of scientific ideas about race. Throughout the modern study of human diversity we find scientists projecting onto nature the attributes and power of the creator God described in scripture—a God who gave shape to an earth that "was without form and void" (Genesis 1:2) and

"created mankind in his own image" (Genesis 1:27). I call this projection "secular creationism," which describes an attempt to account for the causes of biological diversity through an unnamed God, an implied divine power that is purposive, enduring, and creative. Unlike theological creationism, its secular variant anchors divinity almost exclusively to nature and is freed of having to account for God through reference to scripture, doctrine, and theology. In the eighteenth century, German physicians and early biologists claimed that a teleological force embedded within nature gave rise to and shaped the formation of the human races. American ethnologists in the nineteenth century spoke openly of nature's capacity to create human types within specific environments and locations. By the twentieth and twentyfirst centuries secular creationism manifests itself in the idea that biology or genetics determines the destiny and life chances of the races. I argue that modern scientists have explained the origins of human variation by transferring the creative power of God onto nature, biology, and genetics, which effectively moves scientific thought away from human-made factors that are likely more or entirely determinate. This veneration of biology as a free-standing phenomenon has eclipsed the social causes of human biodiversity.

Drawing upon Hans Blumenberg's notion of reoccupation (Blumenberg 1981, 65), I argue that concepts like "nature's formative force," or biological determinism, have reoccupied the conceptual space once filled by the God concept that previously resolved the problem of explaining how the organic world was given shape and form. Racial science reoccupies the epistemic authority on the question of human origins that was once enjoyed explicitly by Christian theology and the biblical tradition. The power of this authority has seduced Euro-American scientists into using the race concept to respond to questions about human life that originated within the Abrahamic faith traditions. Biological claims about homogeneous ancestors and enduring population characteristics reconstitute this worldview by trading on latent religious beliefs about God, creationism, nature, and chosen people that regularly contravene the rational limits that modern secular science has set for itself. In this transgression modern biology reproduces Christian assumptions it claims to have transcended.

This is part of the conceptual ancestry informing the search for a racespecific gene that explains variation between blacks and whites. The Wistar study and the countless others in pursuit of race-specific causes to disease are not merely looking for scientific data found in nature. These projects are also attempting to resolve a persistent theological curiosity about the creation of human life and the purpose of our differences. This search has reanimated a series of reasoning habits that place modern ideas in spaces once occupied by theological and biblical ideas. The consequence of this reoccupation for the history of Euro-American science has been the attenuated ability of biologists to comprehend human-made factors that make genetic variation possible.

REFERENCES

- Basu, Subhasree, Thibaut Barnoud, Che-Pei Kung, Matthew Reiss, and Maureen E. Murphy. 2016. "The African-Specific S47 Polymorphism of p53 Alters Chemosensitivity." *Cell Cycle* 15:2557–60.
- Blumenberg, Hans. 1981. *The Legitimacy of the Modern Age*. Translated by Robert Wallace. Cambridge, MA: MIT Press.
- Clark, Gregory. 2014. The Son Also Rises: Surnames and the History of Mobility. Princeton, NJ: Princeton University Press.
- Fowler, James H., Laura A Baker, and Christopher T. Dawes. 2008. "Genetic Variation in Political Participation." American Political Science Review 102:233–48.
- Grimm, Eleanor R., and Nanette I. Steinle. 2011. "Genetics of Eating Behavior: Established and Emerging Concepts." *Nutrition Reviews* 69:52–60.
- Keel, Terence. 2018. Divine Variations: How Christian Thought Became Racial Science. Stanford, CA: Stanford University Press.
- Plomin, Robert, and Sophie von Stumm. 2018. "The New Genetics of Intelligence." *Nature Reviews Genetics* 19:148–59.
- SIGMA Type 2 Diabetes Consortium, 2014. "Sequence Variants in SLC16A11 Are a Common Risk Factor for Type 2 Diabetes in Mexico." *Nature* 506:97–101.
- Wistar Institute Press Release. 2016. "Researchers Identify Gene Variant that May Contribute to Increased Cancer Risk in African Americans." Available at https://wistar.org/news/press-releases/researchers-identify-gene-variant-may-contribute-increased-cancer-risk-african