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# 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."

## RESPONSE TO MY CRITICS: THE LIFE OF CHRISTIAN RACIAL FORMS IN MODERN SCIENCE

by Terence D. Keel

*Abstract.* In what follows, I first deal with some of the major philosophical objections raised against my claim that Christian thought has given us racial science. Then, I take on points of dispute surrounding my use of Hans Blumenberg's notion of reoccupation to explain the recurrence of Christian forms within modern scientific thinking. Finally, I address some historiographic issues surrounding my assessment of Johann Blumenbach and the origins of racial science.

*Keywords:* biology; Christianity; Creator; culture; determinism; epistemology; genetics; God; interdisciplinarity; philosophy of science

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I am grateful for this opportunity to debate and discuss *Divine Variations*. The observations raised by my critics have provided a chance to restate, clarify, and expand the major claims I've made about the religious prehistory of racial science.

In what follows below I address the objections to my claim that the race concept in science is a descendant of Christian ideas. Then I explain how Hans Blumenberg's notion of reoccupation helps explain the recurrence of Christian forms within modern science. Lastly, I take on a range of historiographic issues surrounding my assessment of Johann Blumenbach and the emergence of modern race science.

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## CULTURE AND THE WILL TO KNOWLEDGE IN SCIENCE

Could the church be racist? And, in what sense could this racism be handed down from the ancients to the moderns? These are the questions that Yiftach Fehige and Ernie Hamm raise in response to my book, though they arrive at different assessments of the connection I make between Christianity and racial science. Fehige, who agrees in principle with my argument, concedes that Christianity and racial science share common intellectual territory but only where “reasoning patterns unrelated to racial thinking were in place in Christianity that made racism possible in the context of modern science” (Fehige 2019, 230). The problem with suggesting that elements within Christian thought were once race-neutral and then later inspired racism is that it leaves intact a conception of the early church and premodern Christianity that is free of racial thinking. We are left then with what we’ve always believed: racism is a squarely modern invention with no prehistory or intellectual precedents in the premodern world. Momentarily, I will explain why this vision of Christianity and the race concept can no longer be sustained. But for the time being, it is important that I explain how this reading commits us to associated beliefs that reinforce a triumphant secularism in modern science.

If we view racial science as a distortion of an original colorblind religious truth, then its emergence appears to be the result of a self-conscious ideological manipulation of Christianity by modern thinkers. But this projects far more agency to modern subjects than what the historical record supports. The history of racial science is not filled with actors in full possession of reason, thinkers who use concepts merely as tools, who move ideas according to their will as opposed to having their will moved by ideas. What I have found instead are historically situated subjects who have not succeeded in emancipating the will to knowledge from culture, religion, or ideology. Modern thinkers have struggled to explain human diversity from within inherited cultural assumptions that have structured the very terms of their scientific analysis and prefigured the intellectual horizon for conceptualizing race.

Josiah Nott and the American polygenists of the nineteenth century who I discuss in Chapter 2 of *Divine Variations* are illustrative here. During their time, they were reputable men of science who were read on both sides of the Atlantic, and in the case of Nott had influence over government census categories (Keel 2018a, 75). Polygenists were aware that on the issue of race, Christianity held the scientific imagination hostage and compromised the ethnology of those partial to scripture and theology. In Nott’s evaluation of John Bachman’s 1850 publication *The Doctrine of the Unity of the Human Race* (Bachman was a rival of the polygenists who was also a proslavery Lutheran minister and South Carolinian botanist) Nott that he and his fellow polygenists

have never, in the whole course of our lives, risen from the perusal of any work with such bitter feelings of mortification and disappointment—mortification, from its utter want of Christian charity and courtesy, and disappointment, from its loose statements of facts, its endless assumptions, and entire want of rigid, scientific reasoning. (Nott 1851, 116)

Bachman believed that white Europeans had an obligation to be stewards over the so-called inferior races by virtue of sharing a common ancestor. Slavery for him was a benevolent political expression of this social and paradoxically moral obligation. Both Nott and Bachman agreed slavery was a natural system for sustaining a white American republic. Yet, these shared political beliefs along with a highly celebrated career as regional naturalist were not enough for Nott to consider Bachman a fellow scientist. Nott believed that Bachman's conclusions were compromised by a religious commitment to shared human ancestry; he had not emancipated himself from his Christian culture and could not see the distinction between religion and scientific truth. Nott's understanding of science, at least in principle, was antithetical to scientific thinking led by religious ideas as opposed to the free will of the observer. Nott's expressed goals were to use scientific empiricism and sober ethnological analysis "to cut loose the natural history of mankind from the Bible, and to place each upon its own foundation, where it may remain without collision or molestation" (Nott 1849, 7).

Nott was clear about his intentions as a scientist, but his theory of separate human origins remained circumscribed by a Christian cultural inheritance. His account of race required a creator God (Keel 2018a, 66–72) and the timeline of human development he used to challenge the theory of shared human ancestry continued to rely on a shortened period for human life on Earth (Keel 2018a, 72–74). Even Nott's seemingly blasphemous impulse to reject common human ancestry follows an intellectual pattern performed nearly two centuries earlier by the Calvinist biblical scholar Isaac de La Peyrere in his 1655 work *Prae-Adamitae* (Keel 2018a, 58–63). We find in the secular science of the American polygenists Christian ideas about God the creator, beliefs about the predestined end of different human groups, use of the story of Noah's sons to explain European descent, a shortened timeline for human creation, and appeals to the inherent order of God's creation via the natural law. Nott's critical assessment of the limits of theological and biblical reasoning produced a scientific theory of race that simultaneously voided and reoccupied the epistemic authority made possible by a religious inheritance he looked to transcend. In this reoccupation, the scientist remains tethered to Christian questions it believes can be answered through secular reason. It would have been nearly impossible for the polygenists to concede that modern science was incapable of producing its own account of the origin and meaning of human racial differences. It never occurred to them to ask if the race concept was only

intelligible against the backdrop of globalized Abrahamic faith traditions, and taken out of that context its meaning was lost. There is true irony here in that doubting the Christian idea of shared human ancestry could have inspired the belief that no conceptual system has complete purchase over the story of human beginnings. Such a conclusion would have left the question of race unanswered. However, the pull toward a coherent vision of nature was too great and the need to reestablish the white republic on a new foundation too strong.

Thinkers throughout the then burgeoning biological and social sciences felt the lure of nineteenth-century scientists toward Christian conclusions. As Jonathan Marks notes in his response to my work, theological concerns were an unavoidable feature of the nineteenth-century debate between Ernst Haeckel, Alfred Russell Wallace, and E. B. Tylor over the proper scientific explanation for the appearance of the savage in human history. Marks writes,

Today of course we spurn Haeckel's racist naturalism and Wallace's divine interventionism, leaving us with Tylor's anthropology as the normative scientific explanation for human mental and behavioral diversity. Nevertheless, for a brief period, circa 1870, they all coincided and vied with one another as the study of nature, religion, and culture all developed in rough synchrony. (Marks 2019, 246)

Marks and I agree that the history of biology, race, and theology over the course of the nineteenth century were inextricably linked. What I've argued in *Divine Variations* is that this shared common ground predates modern ethnology and stems ultimately from a racial consciousness indigenous to Western European Christian thought. This vital prehistory created the conditions of possibility for Wallace to propose divine intervention to explain human culture and for Nott to maintain that the story of Noah was a cultural relic of Europe explaining only the ancestry of whites.

#### COLLATERAL TRADITIONS

Returning again to the question: In what sense has Christianity given us racial science? I argued in *Divine Variations* that from its inception Christianity has been a tradition engaged in racial reasoning (Keel 2018a, 58). Ernie Hamm denies this possibility and takes issue with my attributing a racial consciousness to the early followers of Jesus. Although he concedes that othering of the Jew is a consistent problem in the history of the church, Hamm does not believe this to be a problem of race. I am aware that my vision of Christianity sits at odds with the conventional understanding that the early followers of Jesus transcended social divisions and were thus racially unmarked. Church scholarship in the last decade, however, has fundamentally challenged this view, revealing the racial reasoning and beliefs used by the writers of the New Testament, the Patristic fathers, and the

medieval church (Buell 2005, 2009a, 2009b, 2014; Carter 2008; Boyarin 2009; Jennings 2011). I cite this new scholarship in *Divine Variations*, and it is worth revisiting some of the key insights from this literature.

Denise Buell's work on second- and third-century church sources has been particularly important for confronting the specter of Christianity's racial inheritance. Her work reveals that the early followers of Christ spoke in two tongues: Christians saw their community being open to all people (universalism) while at the same time described themselves as members of a distinct racial-ethnic group (Buell 2014, 42). Buell shows that in the Septuagint (the Greek translation of the Bible), Christian writers use the terms *genos*, *ethnos*, and *laos*—terms that have been translated, respectively, as race/generation, ethnicity, and people—to demarcate who is and who is not a follower of Christ (Buell 2009b, 162). These ancient racial designations, though not entirely synonymous with modern usage, created space for imagining Christians as a unique, homogeneous, transhistorical population. She explains that the Patristic Fathers Justin Martyr and Clement of Alexandria spoke of Christians as a new race: God's chosen people who may be accounted for through patrilineal descent from Abraham, Israel, or Christ (Buell 2014, 42–44). For example, in the biblical text 1 Peter 2:9, Christians are defined in terms of a

Chosen generation, a royal priesthood, a holy nation, His own special people, that you may proclaim the praises of Him who called you out of darkness into His marvelous light; who once were not a people but are now the people of God.

Far from being a community that transcends race, leaders of the early church drew from ancient racial practices to imagine themselves as a unique ethnic group with a distinct origin, inherited ancestry, and access to salvation (Buell 2009b, 162). These primitive ethnic ruminations, which in the gospel of John and the letters of Paul were often explicit in their opposition to Jewish belonging, are the unacknowledged ghosts of Christianity's racial inheritance—a past denied through a tradition of overstated claims about the universalism of the church (Buell 2014, 1).

Similar historiographic shifts have appeared in medieval and colonial studies with scholars reframing the church's hostility toward Jews in Europe and native people in Africa and the "New World" as racism derived from the core beliefs of the church and its theological ruminations on the origins and historical significance of Christian peoplehood (Carter 2008; Boyarin 2009; Jennings 2011; Gerbner 2018). If we believe science is an expression of our cultural inheritance (Pickering 1992), then historians documenting the development of the race concept must grapple with new scholarship on Christianity's racial legacy. *Divine Variations* was written in the wake of historiographic shifts outside of the history of science and integrates scholarship on the ethnic reasoning of the early church with that

written about the medieval world and colonial era to note the basic features of an intellectual inheritance that made modern racial science possible.

There is one aspect of this inheritance that has held a particularly powerful hold on the scientific imagination of modern thinkers: the theology of Christian supersessionism. As I discuss in the opening of *Divine Variations*, Christians' claims to having unique access to salvation and constituting a new chosen people had specific consequences for Christianity and Judaism (Keel 2018a, 8). New Testament authors along with the church fathers (especially Justin Martyr and Clement of Alexandria) formulated a theory that God established a new covenant replacing what had been made with ancient Israel, that Christian truth supersedes not only the ethnic beliefs of the Israelites but all racial groups. Christian supersessionist theology, as J. Kameron Carter writes, created the epistemic conditions for modern racial consciousness through the practice of establishing an (artificial) "other" to be replaced, absorbed, or denied by a distinct Christian social body (Carter 2008, 4). Christian supersessionism was a prominent feature of Western European thought during the early modern and colonial period, yielding what would become a conception of whiteness that Europeanizes the ancient Near East traditions of the Bible and (dis)places the Jew as a perpetual social other (Boyarin 2008; Jennings 2011; Keel 2018a, 9).

The theology of Christian supersessionism had direct consequences for the history of the race concept in modern thought and would become part of what I believe is a collateral tradition among Euro-American scientists. This concept was implicit in the historical narrative I developed in *Divine Variations* and the issues raised in this exchange have encouraged me to bring this idea of a collateral tradition to the center of my argument. I am using collateral in a biological sense as one might describe a living entity descended from a shared stock but constituting a separate line of ancestry. I am also using collateral in a spatial sense to describe that which is parallel and coterminous with existing beliefs, body of ideas, or people. A collateral tradition entails patterns of belief and reason descended from parental intellectual habits. These conventions find themselves in epistemic settings that are often foreign to their parent traditions. Collateral traditions are, therefore, not directly governed by actors who hold positions of authority in the traditions from which they were inspired. They develop instead outside of the authority governing their parental traditions yet still retain ancestral forms.

The scientific study of race in Europe and America has been sustained by collateral traditions descended from the early church. These traditions were developed largely by actors outside of church authority and thus independently of lived religious practice. Myths like Noah's three sons or the Fall narrative were productive for scientists studying human ancestry even if these beliefs were not prominent in the daily lives of religious practitioners. As Elizabeth Neswald writes, the historiographic

shifts in science and religion scholarship in recent years have exposed the tendencies of scholars to assume that religion (and science) appear in relatively undisguised form (Neswald 2019, 252). I agree with Neswald's assessment and argue that not only is there a tendency to believe religion doesn't wear disguises, but also that there is a tendency to believe that religious forms of expression can be called "religious" insofar as they appear in lived practice. The race concept in modern science has been made possible due to collateral traditions descended from Christian thought that have not always appeared in the daily lives of religious practitioners.

Christian supersessionism across the history of racial science exemplifies this point. Martin Luther's 1534 biblical illustration of Adam and Eve expresses the formal logic of Christian supersessionism in its Europeanization of the creation story in Genesis 1, turning a story derived from Near Eastern people into a universal narrative of human becoming with whites positioned as the start of human history (Keel 2018a, 38). Removed from its ancestral setting as a concept of Jewish chosenness, the idea of God's select people within Christian thought inspired a collateral tradition of whiteness understood as a preeminent human form that supersedes the Jews. In Luther's understanding of human creation, white Europeans come to occupy both the beginning and center of human history. Although his prominence in Christian thought would surely change, Luther in the eyes of the Catholic Church during the sixteenth century was a fringe and bothersome character; his reformation was by definition a challenge to doctrinal and papal authority. Yet, racializing Adam and Eve into European forms that reflected Luther's (along with Lucas Cranach's) own racial identity was consistent theologically with his insistence that salvation was contingent upon a direct relationship with the Divine not mediated by church authority or established doctrine (Keel 2018a, 35–42).

When we find Christian supersessionism in Johann Blumenbach's racial science it appears even further removed from lived religious practice and church authority, yet still bears the formal logic of its parental concept of Jewish chosenness as well as the Christian notion of replacement (Blumenbach [1775] 1865). For Blumenbach, like Luther, the first humans are white Caucasians; their emergence, however, can be accounted for scientifically. Blumenbach makes no attempt to reconcile his conclusions with theological authority—a move that ironically is of the same spirit as Luther's insistence that knowledge of God need not be mediated by church authority. Despite this presumption of freedom, the range of possible conclusions to be drawn using ideas descended from the concept of chosen peoplehood and Christian supersessionism is not infinite. Blumenbach thus follows a pattern of reason found in the biblical creation narrative and Luther with his insistence that Caucasians were a primordial form that lacked human ancestors. Resembling the church, Caucasians emerged *ex nihilo* with no meaningful precedents to speak of (Keel 2018a,



29–42). As I explain in the first chapter, Christian supersessionist thinking and Europe’s denial of its Jewish roots was pervasive in eighteenth-century German culture and had advanced beyond exclusively theological concerns. During the time that Blumenbach wrote *On the Natural Varieties of Mankind* the formal logic of Christian supersessionism had come to shape legal debates over the extension of civic rights to Jews and moral philosophy itself (Keel 2018a; Keel 2018b). This explains why Immanuel Kant could say in Germany just two years before Blumenbach’s writings on race that “Christianity marked the total abandonment of the Judaism in which it originated, grounded on an entirely new principle, effected a total revolution in doctrines of faith” (Kant [1793] 1998, 6:127).

In the nineteenth century, Josiah Nott invokes supersessionist reasoning in his effort to remove scriptural authority over the science of “man” (Keel 2018a, 57–58). This marks, I believe, an important moment in the history of the race concept because it establishes when this collateral tradition attempts to formalize its distinction from Christianity by framing its origins as an explicit problem to be overcome. The American polygenists are a manifestation of Christian supersessionism turned against itself. Their legacy resides in the fact that they made it untenable for scientists to square racial science with the Bible and Christian theology. Whether or not they succeeded at this is secondary to the fact they set a precedent for scientific hostility toward preexisting religious and cultural knowledge about human origins. This epistemological shift explains the taken-for-granted supersessionism of the geneticist Spencer Wells who sees genetic knowledge of the journey of man out of Africa superseding the cosmologies and creation stories of non-European peoples (Keel 2018a, 1–6).

The movement of supersessionist theology beyond merely a concern with Jews signals the transformation of a Christian concept conceived in racial terms into an epistemic accomplishment, a standard of scientific achievement. What we see happening by the modern period are religious ideas that were race-explicit being used toward ends that present as race-neutral, objective, free of culture. This transformation of supersessionist theology into an epistemic accomplishment enabled moderns to see themselves as superior to religious primitives while embodying a universal representation of “man” via knowledge gained from science. This reproduces the reasoning of Christians who believed themselves superior to Jews and saw their transhistorical community as a universal representation of the salvation of “man” via their knowledge of Christ.

On this point, Peter Harrison and I come to similar conclusions about the theological origins of modern science. Harrison sees the emergence of a free-floating conception of religion during the time of the early church (Harrison 2015, 36–37). He writes, “In this new form of religiosity, cultic practice is interiorized so that the worshipper is not bound to a particular place. Neither . . . is Christianity limited to a particular time, since it was

argued that in some form, Christianity had existed since the beginning of time” (Harrison 2015, 36). Harrison notes that later downstream this understanding of religion created epistemic space filled by modern scientific objectivity. He explains:

It was the construction of “religion” in the early modern period, itself premised upon a unique understanding of religious identity forged by the early Christians in the first three centuries of the common era, that provided the prototypical model of a belief system for which is claimed universal and transcultural significance. (Harrison 2015, 191)

Harrison concludes that “one of the reasons that our science makes universal claims, then, is that it borrows from ‘the Christian religion’ its notions of universal applicability” (Harrison 2015, 191–92). While I agree with Harrison’s analysis, there is more to be said of the connection between Christian universalism and modern science when integrating the insights of Buell and the new scholarship on the racial legacy of Christian thought. It was the explicitly racial, anti-Jewish supersessionist theology of the early church that created the conditions of possibility for Christian knowledge to be understood as having emancipated itself from ethnic particularism. Christian supersessionism made it possible for the church to claim universal and transcultural significance. Therefore, the ideal of scientific objectivity in Western Euro-American science is derived from a Christian culture that has valued not simply a freestanding epistemic space from which to assess other truth claims but also a collateral tradition of supersessionist reasoning about racial-religious others and their ontological and corporeal (re)placement into a universal story of human becoming (i.e., the universal body of Christ). My observations here are consistent with what Sylvia Wynter described as the Western European invention/overrepresentation of “Man,” whereby modern science naturalizes the “Judeo-Christian genre of the human” (Wynter 2003). The study of human diversity has been facilitated by the transformation of the explicitly racial thought of the early church into an epistemic accomplishment of Euro-American modern science that claims, paradoxically, to be race-neutral and capable of transcultural significance. The insistence that modern science merely uncovers the natural facts of human variation and racial differences are caused by nature (and not society) is a consequence of this epistemic accomplishment.

#### RELIGIOUS FORMS, SCIENTIFIC CONTENT

It may appear, as Hamm notes, that I am interested in an “undifferentiated Christian thought” by which I believe he means a form of Christianity that does not vary across traditions of practice (Hamm 2019, 237). This is an important observation that allows me to expand on my earlier discussion of collateral traditions and clarify the distinction I make in *Divine Variations*

between Christian forms and Christian content. What interests me are the continuity of Christian intellectual *forms*: queries and rational patterns about the powers of a Creator God, the idea of shared human ancestry, and the notion that Christian truth is universally applicable and supersedes the traditions of the ancient Israelites. These religious ideas constitute parent intellectual formations found within Catholic and Protestant traditions. Without question the application and development of these religious concepts vary across *lived* Christian practice. This I believe has to do with subjection of these ideas to the varying needs of religious authority, changing forms of biblical interpretation, and social contexts under which such ideas were to be used in daily practice. I find very little variation, however, in the formal structure of these concepts as they appear within the collateral traditions, which shaped the beliefs and questions of scientists studying race. Within the epistemic setting of ethnology, evolutionary anthropology, and genetic science, these religious intellectual forms were not subject to the demands of lived Christian practice and were instead deployed within a system of scientific thinking committed to “discovering” constant laws of human development and heredity. It was a perfect pairing. The reification of these Christian rational forms was remarkably productive for simplifying the answers that were possible for explaining the source of racial differences. To assume at the outset races share a common ancestor, or that nature/God designs traits that persist without variation over multiple generations, significantly limits the problems that must be solved *en route* to explaining the origin and consequences of human biological diversity. Since at least the eighteenth century, these ossified Christian forms provided a stable epistemic space for scientific thinkers to develop content about the mechanism and consequences of human diversity. One of the great benefits of inherited cultural formations is the epistemic security they create.

Herein lies the crucial distinction between form and content relevant for the history of the race concept in science. What I see happening is the development of new content about race by modern scientists that fills the epistemic space secured by this formal Christian inheritance—one that plays itself out in collateral traditions embedded within scientific thought. In *Divine Variations*, I turn to Hans Blumenberg’s distinction between form and content to help explain the persistence of Christian theological structures within modern science. For Blumenberg, “it is in fact possible for totally heterogeneous contents to take on identical functions in specific positions in the system of man’s interpretation of the world and of himself. In our history this system has been decisively determined by Christian theology” (Blumenberg 1981, 64). What Blumenberg is suggesting here is that ideas that vary among themselves can occupy the same position within a larger system of inquiry and reason. I maintain that a range of scientific content about race has been articulated within the space carved out by Christian rational forms.

Take, for example, the range of scholarly and scientific use of the story of Noah's sons to imagine shared human ancestry. In the minds of the encyclopedists that followed in the footsteps of Isadore of Seville, Shem, Ham, and Japheth were variously designated as the progenitors of one of three continental human populations: Africans, Asians, and Europeans (Braude 1994). For Luther during the Reformation all three sons appear as European. In the writings of Blumenbach in eighteenth-century Göttingen, the core of this tripartite account of racial ancestry is kept in place even while adding two intermediate racial groups to complete his human taxonomy. For the geneticists working on human–Neanderthal relatedness, three continental races were crucial to their findings (Keel 2018a, 114). Although it is true that the content of this tripartite racial division has changed in the time between Seville and the researchers on the Neanderthal Genome Project, what persists is the space and need to imagine human development from homogeneous ancestors and that Nature/God is ultimately responsible for the differences between the races. What persists is the space and need to imagine that there are a select few with access to transhistorical knowledge of the origin of human life that supersedes primitive accounts of who we are. Christian forms have endured; intellectual and scientific content within these forms has varied.

The modern study of race is a response to inherited religious questions that set into motion the scientific will to knowledge about the source and meaning of human differences. This explains, as I mentioned earlier, why we find far less agency than what we might assume of modern thinkers studying race. Modern scientists have felt compelled to reoccupy old answer positions generated by theological reasoning about the totality of the world and human history. Blumenberg writes,

Theology created new “positions” in the framework of the statements about the world and man that are expected, “positions” that cannot simply be “set aside” again or left unoccupied in the interest of theoretical economy. For theology there was no need for questions about the totality of the world and history, about the origin of man and the purpose of his existence, to be unanswerable. (Blumenberg 1981, 65)

He adds further,

The modern age's readiness to inherit such a mortgage of prescribed questions and to accept as its own the obligation to pay it off goes a long way toward explaining its intellectual history. (Blumenberg 1981, 65)

In my reading of Blumenberg, Christian theology created epistemic space for asking questions about the natural world that modern thought has inherited and filled with a range of new ideas. Blumenberg's notion of reoccupation, in my assessment, creates the opportunity to discern

enduring questions and rational forms that delimit, structure, and often foreclose our explanations of human difference.

There are, however, aspects of Blumenberg's theory of modernity that insufficiently dealt with the epistemic consequences of Christianity's fraught relationship with Judaism. Attending to this insufficiency, however, fell beyond the scope of my goal in *Divine Variations*, which was to lay the historical groundwork for unearthing the theological heritage of modern racial science. Even now I do not have the space to do justice to the full range of issues at stake here. I would like, however, to briefly note one aspect of Blumenberg's account of the legitimacy (and ultimately freedom) of modern thought that sits at odds with my argument for the continuity of Christian supersessionism into modern thinking.

For Blumenberg, the notion of "reoccupation" helps identify inherited moments where modern thought uncritically pursues questions it does not have the resources or obligation to answer (Blumenberg 1981, 65). One prominent example he used in *The Legitimacy of the Modern Age* was the notion of progress. Blumenberg famously argued against the philosopher Karl Lowith that although the modern notion of progress is derived in part from Christian eschatology, moderns have broken from the ancient world by rejecting its unsurpassability and developing a philosophy of history focused on understanding the conditions that make human life possible (Blumenberg 1981, 125–26). Christian eschatology was oriented around an event that ruptures and transcends history; modern progress pulls from moments in the present to imagine a future that is immanent not transcendent (Blumenberg 1981, 30). Blumenberg would go on to argue that to avoid perpetually taking up as their own the questions of the past moderns must assert themselves against forms of their inheritance that are inconsistent with the conditions of truth found in the modern world (Blumenberg 1981, 64–65). Through this form of "self-assertion," a concept he borrows in part from Nietzsche, moderns free themselves from a theological past that ultimately calls into question their freedom and the legitimacy of their representations of human life in the world (Blumenberg 1981, 125–28). One consequence of this self-assertion is leaving certain historical questions unanswered, thereby retreating into the self-defined limits moderns have established for themselves and ultimately offering protection from a self-defeating hubris that believes moderns should provide better solutions to problems that troubled our ancestors (Blumenberg 1981, 64–65).

I share with Blumenberg the conclusion that there are self-defined limits to our thinking that ought to be heeded so as to avoid the pursuit of questions that cannot be answered according to the norms and conditions of contemporary knowledge. An underlying premise of *Divine Variations* is that the race concept is an illegitimate idea for modern science because it has been disproven according to the standards of modern thought and because race carries with it latent ideas about God the creator and biblical

descent that foreclose alternative ways of imagining the sources of human variation.

If we were to follow Blumenberg, there is an underappreciated virtue to leaving certain questions unanswered and reinvigorating intellectual humility as a form of epistemic practice for modern science. However, I do not believe self-assertion is the mechanism to get us there. The obvious question appears to be self-assertion over whom? And, to what end? Western Christianity is haunted by a self-conscious rejection of its Jewish roots, and it is difficult to distinguish this denial from the ethic of self-assertion Blumenberg believes it is the key to modern freedom. What Blumenberg calls self-assertion appears to be a Christian holdover from the theology of supersessionism and the appropriation of Jewish chosenness. As I documented in *Divine Variations*, the path that led to contemporary racial science was one pursued through an ethic of self-assertion against primitive religious systems of belief, non-European creation stories, and preexisting knowledge about the origin of human life.

To return to Hamm's suggestion that I have offered an account of Christianity that does not vary across religious traditions: This lack of variation has proven productive for scientific projects committed to creating a stable and predictable account of the laws that control human biology and therefore also human racial differences. The historical record shows that the content of scientific theories of race have varied even among those modern thinkers who have been in pursuit of problems derived from Christianity. We are dealing here not with an undifferentiated Christianity, but the continuity of religious forms filled with heterogeneous scientific content.

#### HISTORIOGRAPHICAL ISSUES SURROUNDING BLUMENBACH

Finally, I'd like to address a few historiographical issues surrounding my placement of Blumenbach at the genesis of modern secular racial science. Hamm in his assessment writes that

Any history has gaps and *DV* has to be highly selective, yet it would have been good to have been given some account of why Blumenbach is chosen as the starting point for "racial science." (Hamm 2019, 237)

Where we begin our recounting of the history of modern race science is crucial for shaping the conclusions we draw from this history. Since at least John Greene's 1959 work *The Death of Adam* conventional wisdom has been that modern scientific study of race freed itself from Christian theology around the Enlightenment (Greene 1959). I write on page 17 of my book,

*Divine Variations* opens with the eighteenth-century ethnologist Johann F. Blumenbach, whose 1775 work, *On the Natural History of Mankind*, is often

represented as precipitating the secular turn in the modern study of race. (Keel 2018a, 17)

In the footnote of this passage I cite two of the most comprehensive and influential histories of racial science to date, both of which render Blumenbach as a post-Enlightenment figure who inspired an epistemological shift from Christian traditionalism to modern secular science: Stephen Jay Gould's *The Mismeasure of Man* and Audrey Smedley's *Race in North America: Origin and Evolution of a Worldview* (Gould 1996; Smedley 1999). Equally influential is George Frederickson's *Racism: A Short History*, which like Gould and Smedley cites Blumenbach as one of the leading figures of eighteenth-century ethnology who "opened the way to a secular or scientific racism by considering human beings part of the animal kingdom rather than viewing them in biblical terms as children of God endowed with spiritual capacities denied to other creatures" (Frederickson 2003, 57). My study begins with Blumenbach to make a historiographic intervention and challenge the resounding consensus by scholars of race and evolutionary biology who have positioned him as the figure who turned the study of race into a secular activity.

Hamm also writes,

Readers are not told what it is that makes Blumenbach secular or why his racial theories were understood as such by those who came later. It is difficult to see how anyone could read Blumenbach at any length and see him as secular. (Hamm 2019, 237)

Given that the historiography has taken for granted Blumenbach's secularity as an Enlightened figure who precipitated modern racial science, questioning what makes Blumenbach secular is precisely the point of determining if his account of race holds up to critical reassessment.

Some of the claims about Blumenbach's secularism are worth consideration. On page 30, I wrote that Blumenbach "believed that observable laws and uniform forces, not God, governed nature" (Keel 2018a, 23). As Charles Taylor explained in *A Secular Age*, European naturalists and American Deists during the eighteenth century began to "drift away from orthodox Christian conceptions of God as an agent interacting with humans and intervening in human history; and toward God as architect of a universe operating by unchanging laws" (Taylor 2007, 271). The belief that nature was governed by an impersonal order "reflected a deep-seated moral distaste for the old religion that sees God as an agent in history" (Taylor 2007, 274). It would not be incorrect to say that Blumenbach's formative drive was conceived with a preference for scientific naturalism over and against a vision of the world where God continued to govern the affairs of the living directly (Keel 2018a, 26–29). Citing the changes in the German university during the time that Blumenbach wrote *On the*

*Natural History of Mankind*, I also note Jonathan Sheehan's observations about Göttingen, adding on page 24 that

There was a structural secularization happening in the German academy at this time, during which institutions like Göttingen University broke from confessional theology and took the lead over intellectual matters once primarily in the hands of the Lutheran Church. Blumenbach was a part of this institutional division of labor between the religious and the secular. (Keel 2018a, 24)

Finally, following Robert Richards, I also note that Blumenbach "founded the Department of Ethnology at Göttingen with the intention of freeing the study of human origins from the partisan concerns of the church, thereby allowing naturalistic explanations on the wide diversity of biological life to be debated among scholars and budding German Romantic intellectuals" (Keel 2018a, 24). Despite these hallmarks of secularism, I concluded that Blumenbach's racial science remained delimited by Christian rational forms concerning God's creativity (Keel 2018a, 28), human descent (Keel 2018a, 35–42), the uniqueness of the human form (Keel 2018a, 33, 37), and Christian supersessionism (Keel 2018a, 50–52).

Lastly, Hamm cites Blumenbach's denial of the universality of Noah's flood as evidence that he also endorsed an extended antiquity of human life. To the extent that this is true, thinking beyond the biblical framework does not mean one has transcended its conceptual limits. At the time that Blumenbach wrote *On the Natural Varieties of Mankind* biblical history and the Earth's history were severed. As I explained,

Although the advent of eighteenth-century biblical criticism in Germany and the establishment of the antiquity of the earth with the birth of modern geology during the early nineteenth century fundamentally reversed the relationship between the Bible and secular knowledge—and effectively decoupled human history from history of the earth—natural historians until the time of Darwin continued to fit secular knowledge about human descent and variation into a biblically delimited time frame. (Keel 2018a, 41–42)

Charles Lyell in his *Principles of Geology* did the most to expand European thinking about the antiquity of the Earth (Lyell 1830). However, Lyell did so by detaching Earth and animal history from calculations about the length of time humans lived on Earth. He did not make these calculations until much later with his *Geological Evidences of the Antiquity of Man* (1863). It is worth noting that the passage Hamm references of Blumenbach doubting in 1806 the universality of Noah's flood, Blumenbach is explicitly discussing animals. Hamm, citing Blumenbach writes,

But, as one of the most sagacious and also certainly one of the most orthodox of theologians, R. Walsh [sic, Walch], has assured me, we are far from doing the slightest violence to the authority of Holy Scripture, when we deny the universality of the flood of Noah; and in like manner I cannot for my own



part form any satisfactory idea, after what I gather from the history of animals themselves, about the universality of that deluge. (Hamm 2019, 237)

Blumenbach surely had his doubts about the recent creation of the Earth. But these suspicions did not prompt the need to expand human antiquity or theorize how long it took the Caucasian to become African. Debates over the human timeline began in earnest during the middle of nineteenth century, nearly eighty years after Blumenbach published his first draft of the *Natural History of Mankind*. Robert Chambers's *Vestiges of the Natural History of Creation* (1844) and Charles Lyell's *Geological Evidences of the Antiquity of Man* (1863) had done the most to explicitly theorize both the duration of time needed and the mechanisms involved for change to occur within a species. Despite having a mechanism to account for change in living organisms, in none of the multiple editions of *Natural History of Mankind* does Blumenbach find it necessary to account for how long it took for humans to descend into separate races. We know Blumenbach observed that ancient Egyptians maintained their physical traits over a thousand years (Greene 228). Yet, there is no evidence that he squared these observations with temporal estimates for how long it took other races to emerge.

Blumenbach's biblical traditionalism also appeared in his assessment of human domestication. As I explain in my book, Blumenbach's thoughts on Peter the Wild lead him to believe that humans were a naturally domesticated species fit with the power of reason and invention needed to respond to a variety of climate, soil, and environment (Keel 2018a, 33). Natural domestication is consistent with the larger division between Earth history and human history shared by naturalists in the eighteenth century, in that it relieved Blumenbach of having to account for the origins of culture from prehuman history. Natural domestication is also more consistent with biblical creationism and the theological belief that human beings were made in God's image than it was with the notion that Blumenbach followed an Enlightenment tradition of producing a consistently secular account of human origins and development. Despite the challenges to the Earth's history created by modern biblical criticism and the nascent geological sciences, human antiquity occupied a privileged place within the system of belief shaping modern science until the work of naturalists of the nineteenth century, which includes the American polygenists who were explicit in turning time into a problem for human racial descent. Blumenbach's denial of the universality of the flood is not sufficient grounds for believing that he conceived of time as problem for human development or that he rejected the biblical concept of recent creation and descent from a shared form.

#### FINAL THOUGHTS

The history of the race concept in modern science shares a bond with Christianity that is far more extensive and sublimated than what we tend

to recognize. The generous engagement and criticism of *Divine Variations* has helped me to clarify the philosophical and conceptual stakes of this entanglement. The presence of the race concept in modern thought makes it difficult to maintain the belief that Christianity and Euro-American science severed ties at the end of the nineteenth century. Equally difficult is sustaining the perception that modernity has emancipated itself from the ideas—which is also to say the people—of the ancient world. Yet these two closely held notions have become integral to our understanding of what it means to be a modern subject whose subjectivity, health, and life chances are governed by biological and social sciences (Latour 1993; Rose 2006). We arrive here at a paradox: we desire to have contemporary science freed from the ideas of our ancestors (which is an impulse often naturalized as though it does not have a social-cultural history) and yet genetic studies of ancient DNA produce knowledge claiming that the lives of people living more than thirty thousand years ago continue to shape our health and behavior (SIGMA Type 2 Diabetes Consortium 2014). It is as if we value the bodies of the past and not the ideas, beliefs, and habits produced by them. This implicit hostility toward the past appears to reflect an intellectual horizon prefigured by histories of biology that celebrate the achievements of secularism over religion, that mark the decline of Christianity over modern thought, that celebrate the replacement of theology with science. From this vantage point pro-secularist histories render the emergence of racial science either as an irrefutable truth to be faced by left-leaning social constructionists, or as episodic aberrations to be corrected by sober and rational science. We have been less inclined to consider that race in science derives from questions and beliefs that are not purely scientific. Entertaining this possibility is vital if we are to understand the persistence of the race concept in modern science.

By telling an alternative story about the origins and development of racial science, my hope for *Divine Variations* is that it opens up new possibility for framing human diversity. I also hope that it shows how an interdisciplinary study of race can generate insights about the origin and limits of modern thought itself.

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