
Red and Yellow, Black and Brown

Decentering Whiteness
in Mixed Race Studies

EDITED BY JOANNE L. RONDILLA,
RUDY P. GUEVARRA JR., AND
PAUL SPICKARD



RUTGERS UNIVERSITY PRESS

NEW BRUNSWICK, CAMDEN, AND NEWARK, NEW JERSEY, AND LONDON

Neanderthal-Human Hybridity and the Frontier of Critical Race Studies

TERENCE KEEL

Geneticists recently discovered we had sex with Neanderthals almost forty thousand years ago.¹ The “mixed” children we created would go on to reproduce with other humans, passing on a genetic legacy that continues to live on in the genomes of people today.² The categories we use to capture human becoming fail to describe the children of these early intraspecies unions. This is to say these mixed people don’t fit neatly within our understanding of human ancestry and race. This is partly due to the fact that this was a “preracial” mixing event. Also at play was the fact that we have not accepted the full humanity of Neanderthals. Thus mixing with them generates some troubling conceptual problems for how we view the children we ostensibly made together.

When humans first slept with Neanderthals we had not fully diversified into the populations that scientists frequently define as “races” or the three major continental groups (i.e., African, Asian, European). By race here I am referring to the post-Enlightenment notion that humans belong to one of four homogenous populations that can be linked back to Africa, Asia, Europe, or the Americas. There were no people who fit this definition of race forty thousand years ago. The early humans who left Africa and first encountered Neanderthals in the Middle East were what scientists called the first anatomically modern humans, *Homo sapiens*. In less technical terms these were “simply humans,” without a race and more or less identical to the people they left behind in Africa.

It would be tempting to call Neanderthals a race—perhaps one of the first “races” to be differentiated from other humans. We shared a common ancestor with them roughly between 560,000 and 765,000 years ago.³ The small population that would eventually become Neanderthals left the mother continent

and made their way into Europe by walking out of North Africa and across the Middle East somewhere between 270,000 and 440,000 years ago. They then trekked across Europe, settling as far west as Portugal, eventually becoming isolated from those of us who remained in Africa. This separation lasted for about 250,000 years, which according to scientists was long enough for both us and them to develop distinct biological and cultural characteristics.

Historically, scientists and the larger lay public have been unwilling to grant Neanderthals the status of being fully human; or at least human like the anatomically modern *Homo sapiens*. Neanderthals were thought to belong to a branch of the evolutionary tree that was entirely distinct from us. Indeed, they were believed to be so divergent biologically that procreation with humans was assumed to be impossible. Only in the past few decades have scientists reconstructed this vision and brought Neanderthals back into the human family.⁴

Were we to embrace them as fully human, the question of what *kind* of human they were would remain open for interpretation. Should we call them European? Perhaps, but certainly not in the sense that we would think of the French or Germans. Neanderthals occupied regions in Eastern Europe, and present-day Asian populations have on average 1.38 percent Neanderthal DNA in their genome.⁵ This percentage is higher than the average amount of Neanderthal DNA in present-day Europeans, 1.15 percent.⁶ Might we call Neanderthals Asian then? A compelling case could be made here, but again their timeline of existence puts them too far in the past to be classified under post-Enlightenment racial categories in the same way we use the concept of Asian to describe Han or Japanese populations.

Neanderthals are race-less—they have not been given membership in one of the four subpopulations that make up the so-called “human races.” Racialization, as we know from Michael Omi and Howard Winant, is fundamentally an act carried on by “historically situated projects in which human bodies and social structures are represented and organized.”⁷ Yet history shows us that Neanderthals have not filled a large enough place within the Western scientific and cultural imaginary to become the focus of racializing projects and consequently earn the distinction of becoming one of the human races. The issue here is not merely one of biology but one of the politics of human belonging. People cannot claim being Neanderthal in the same way they can claim Mayan or Cherokee ancestry. Neanderthals have not passed along cultural practices that we recognize as sociologically (or “racially”) unique and therefore legitimate in the sense of telling us something about the complexity of our own (human) ancestry.

Thus it appears that enduring the processes that result in “being raced” provides the credentials for being human. Race, however, can serve this purpose only when we delimit the lives of people to specific moments in time.

Manipulate this timescale and human life becomes an undifferentiated mass of existence, making it impossible to distinguish ourselves from our great-grandchildren, Mesopotamians, chimpanzees, and amoebas.

The story of how humans became part Neanderthal presents us with an opportunity to think about mixing events that predate the emergence of “Whiteness” as an analytic category and therefore incorporate large evolutionary timescales into our thinking about human ancestry. Critical engagement with genetic science and human evolution prior to European colonial expansion has not been well represented within the field of race studies. The preference for working within more recent time frames of course reflects the unique political and social commitments of many scholars invested in exposing how the legacy of European colonialism, slavery, American imperialism, and Jim Crow shaped and constrained the conditions under which racial mixture in the “New World” took place. Scholars who study race and mixed people have gone to great lengths to demonstrate how monoraciality—a concept derived from the one-drop rule, which posits that individuals can truly belong to only one race—suppresses the lived experiences of people who possess and inhabit multiple ancestries.⁸ In this essay I show how being part Neanderthal further exposes the fallacy of monoraciality largely because humans have never been pure. We have been mixing with people outside of our imagined lineage long before the so-called “races”—as we know them—existed and certainly before any notion of “Whiteness” could be projected onto our developmental past. In other words, we were mixed before we spread into the major continents of Europe and Asia. Being mixed is the ontological baseline for what it means to be human.

If we take this seriously, however, there remains a fundamental tension between knowledge about our biological selves and the pragmatic goals of mixed race scholarship. The latter has highlighted the experiences of multi-ethnics and especially first-generation mixed race people as exceptional—if not biologically then certainly socially and culturally. I use the story of Neanderthal-human hybridity to show how the seeds of this tension rest in our use of time to demarcate human belonging and in our cultured belief that human origins mark an exceptional moment of creation. The way beyond this tension involves keeping clear the distinction between claiming that mixed people are socially and politically unique rather than biological exceptions.

Deconstructing the Myth of the Neanderthal

Depictions of the Neanderthal as a hulking, primitive brute abound in popular culture. In 1953 there was the popular black-and-white film, *Neanderthal Man*, where a biologist develops a serum that reverts animals back to their primitive ancestors. After the biologist uses the formula himself, viewers witness

his gruesome atavistic devolution into a Neanderthal, replete with protruding browridges, facial hair, and poor dental hygiene. In present-day popular culture Neanderthals are puns for car insurance commercials and the word of choice for describing misbehaving athletes and politicians. They also appear in children's movies such as DreamWorks Animation's film, *The Croods* featuring a primitive Neanderthal family whose life circumstances irreversibly change after their daughter falls for an anatomically modern human named "Guy."⁹ It is clear that in our popular imagination calling someone a Neanderthal is not a compliment.

The common misperception that Neanderthals are either nonhuman or less than human can be traced back to initial studies of Neanderthals during the mid-nineteenth and early twentieth centuries. The first Neanderthal remains were discovered in 1856 deep inside a quarry mine in the Neander Valley of West Germany. Canyon workers found a remarkably narrow skullcap with protruding browridges and femur bones of such considerable weight and size that the first scientists who studied these remains believed this individual was certainly stronger and more robust than any known human.¹⁰ But the question remained, was this human?

During the mid-nineteenth century an evolutionary account of human origins was not widely accepted by early paleontologists.¹¹ Throughout most of that century, the Christian idea that humans were direct and unique creations of God continued to filter scientific ruminations over the origins and development of our species.¹² Also at play was the idea that human groups were designed with traits that rendered them naturally adapted to their indigenous environments. This conception of human development, which had profound implications for how modern thinkers viewed racial groups, was also a carryover from Christian natural theology.¹³ Darwin's evolutionary theory, however, suggested humans were neither created directly by God nor given all the traits they needed to survive. Instead, humans had adapted by developing new characteristics in response to a constantly changing environment. For evolutionists, human development was taken to be a linear progression up from primitive to more refined human types. Many scientists in the mid-nineteenth century, however, were slow to embrace this idea of human evolutionary development.¹⁴ As a result, evolutionists and traditionalists quarreled over whether the skullcap, browridge, and leg bones found in the Neander Valley were archaic remnants of a long-disappeared species or merely the dead body of a recently deformed human.¹⁵

By the early twentieth century a new component to the debate over the Neanderthal had emerged. Not only were scientists and traditionalists at odds over whether Neanderthals were an ancient species, evolutionists also argued among themselves over whether humans had directly evolved from them.¹⁶ The results of the latter dispute bear directly on the present-day misperception that Neanderthals were not fully human. In 1899 paleontologists discovered

uniquely refined, but nonetheless ancient, human remains in Krapina (present-day Yugoslavia) that appeared to coexist with Neanderthals.¹⁷ A similar discovery was made in the Grimaldi Caves on the French Mediterranean coast. Much like the fossils in Krapina, this "Grimaldi Man" possessed features strikingly similar to present-day humans, which included a smaller skull absent of browridges and an upright posture. As additional fossils similar to Grimaldi Man were discovered throughout Western Europe, scientists in the early twentieth century would call this population the Cro-Magnons, which later in the twentieth century would be recognized as *Homo sapiens*, the first anatomically modern humans to launch a sustained expansion out of Africa, roughly forty thousand years ago.

Shortly after the start of the twentieth century the renowned French paleontologist Marcellin Boule compared Grimaldi Man to the first complete skeleton of a Neanderthal found in the caves of Chapelle-aux-Saints.¹⁸ After this assessment Boule argued that Grimaldi Man, and the entire Cro-Magnon race to which he belonged, was more sophisticated, both biologically and culturally, than the Neanderthal. Not only did Cro-Magnons have an upright posture and a modern skull shape, their remains were found in caves across Western Europe that contained an elaborate tool culture and artwork that included engravings on stone and bone.¹⁹ Neanderthals, on the other hand, were found in places that appeared to lack these cultural relics. Boule, along with many other paleontologists of his time, assumed that humans must have been the descendants of an ancient population that possessed signs of genius, innovation, and aesthetic sensibility at the very beginning of their existence. With their hulking physical structure and no discernible signs of culture, Boule argued that the woefully primitive Neanderthals were not the direct ancestors of modern humans. He believed instead that humans must have emerged from the Cro-Magnons who lived side by side with Neanderthals but ultimately won the evolutionary contest between the two groups. As the historian Michael Hammond argues, Boule effectively removed Neanderthals from the human family.²⁰

This expulsion was compounded by French and British media depictions of Boule's work on the Neanderthal, which rendered them ape-like, savage beings, with only the slightest traces of humanity.²¹ Cro-Magnons on the other hand fared well in broader cultural depictions as they were typically shown as being only a few steps removed from present-day humans. These contrasting images of the "primitive Neanderthal" versus the "refined Cro-Magnon" would be appropriated and interpreted in many different ways throughout Europe and the United States, but overwhelmingly they reinforced the idea that Neanderthals were less than fully human, if human at all.²²

We continue to live with the distorted view of the "subhuman" Neanderthal as images of their primitiveness penetrate present-day media, popular culture,

and even linguistic idioms. Neanderthals remain synonymous with "primitive brute," despite the fact that paleoanthropologists since the early 2000s have steadily recovered a fossil record that demonstrates Neanderthals possessed at least two separate tool cultures, performed ritual burials, experienced social stratification, developed abstract artwork, cooked their meat and created dishes using ground acorns, and even cultivated herbal remedies for indigestion and pain relief.²³ Geneticists also learned that Neanderthals carried in their genome variants of the FOXP2 gene involved in modern human language ability.²⁴ With these discoveries, scientists have welcomed Neanderthals back into the human family and consider them a sister species to modern humans who shared a common ancestor with us nearly 830,000 years ago.²⁵

Our cultured perception about what it means to be human, not merely evolutionary processes, is what ultimately drove the Neanderthals into extinction. By this I mean that Neanderthals experienced a social death, which cost them the ability to be seen as human and therefore eligible to pass their inheritance down to us. Scientists in the nineteenth century studied the Neanderthal while still being committed to the Christian worldview that we were created in the image of God. This commitment drove scientists to cast Neanderthals from the family tree, as they were incapable of conceding that our earliest ancestors could lack the capacity for civilization, ingenuity, religion, and speech. So began the precipitous death of Neanderthals within the minds of experts and the popular social imagination. Belief in the ontological novelty of human creation prevented us, until recently, from considering not only that we were nearly identical to Neanderthals, but that their genes could live on in us, their human descendants.

The inability to think in large evolutionary timescales and our latent Christian hang-ups about what it means to be a member of our species are what lost the Neanderthal to history. In this regard, how we conceive of Neanderthals and mixed race people is beset by a similar set of problems. In both instances the time frames used to think about human becoming and the existential politics of being a recognized member of our species are the determining factors for embracing and legitimizing the lives of present-day people who claim a complex racial heritage.

Only *Some* of Us Are Part Neanderthal?

According to the most recent genetic studies, humans made contact with Neanderthals roughly forty thousand years ago in the Middle East as they migrated out of Africa. The group of humans (Eurasians) who exchanged DNA and culture with the Neanderthals would later become Asian and European. Initially, geneticists believed that Europeans and Asians possessed roughly the same amount of

Neanderthal ancestry (1–4 percent). Scientists therefore believed that Eurasians mated with Neanderthals before they branched into separate groups.²⁶ However more recent studies have lowered these percentages to an average of 1.15 percent for Europeans and 1.38 percent for East Asian populations.²⁷ To explain the different levels of Neanderthal DNA in Europeans, one team of geneticists proposed that Neanderthal genes were deleterious within humans. Therefore natural selection worked to remove these genes through a process of "purifying selection." Under this framework these geneticists claimed that East Asians were less effective at purifying their genome of harmful Neanderthal genes.²⁸ This model also assumed that there was only one major mating event between humans and Neanderthals, which took place before Eurasians branched into separate groups.²⁹ Geneticists have recently challenged this model, explaining instead that the different levels of Neanderthal DNA in Asians and Europeans are likely the result of multiple mating events between humans and Neanderthals, not of an inability of Asians to effectively eliminate harmful Neanderthal genes.³⁰ These same scientists also believe that the single mating event model could be plausible if Europeans mixed with other extinct humans, what they called a "ghost Eurasian population" that did not carry Neanderthal DNA and therefore diluted the percentage Neanderthal genes within Europeans.³¹

Geneticists continue to believe that Neanderthal ancestry is largely unique to the descendants of Eurasia. This includes Native Americans, Southeast Asians, Asian populations in the Pacific, populations in India, as well as Australian aboriginals.³² Geneticists, however, did find very faint traces of Neanderthal ancestry in West Africans, with them possessing about 0.08 percent Neanderthal DNA.³³ Scientists from the Neanderthal Genome Project (NGP) initially theorized that Neanderthals did not return to Africa once they left the continent three hundred thousand years ago.³⁴ Only two hundred fifty thousand years later did they reunite with humans. Scientists now believe this meeting took place in Northeast Africa and across the Middle East as modern humans were migrating to Eurasia. Subsequent studies have corroborated this theory as geneticists learned that the Masai people in East Africa have significant traces of Neanderthal DNA.³⁵ This suggests that humans who came into contact with Neanderthals most likely returned to the northeastern regions of the continent where Neanderthal DNA would become diffuse among East Africans but not farther south or west in the continent.

What then does this discovery mean for African Americans? African Americans are recently admixed populations; this means their DNA includes European ancestry in addition to the DNA of other population groups. About 24 percent of African American DNA comes from Europe.³⁶ Thus African Americans are in theory part Neanderthal if the percentage of European DNA in their genome also carries Neanderthal genes. This is an important caveat as scientists have

found that the location of Neanderthal DNA within members of the same population (for example Germans) varies widely.³⁷ In other words Neanderthal genes have not been passed down as a consistent block of genes within the human genome. So African Americans may or may not have Neanderthal ancestry; it all depends on where and how much Neanderthal DNA is found in their European ancestors.

Still, genetic studies following the 2010 draft sequence of the Neanderthal genome have consistently confirmed that West and South Africans carry very little Neanderthal DNA.³⁸ The picture we are left with is one where only the descendants of Eurasia are truly part Neanderthal. This includes populations who mixed with Europeans following the colonization of the "New World" as well as Asian populations who left the continent. Neanderthal ancestry, according to the subtext of this new genetic study, is not a story shared by all humans. Geneticists have created a new narrative about human evolution where West and South Africans have been left out of the recent drama of human promiscuity and biological change.

Our Ancestors Were Not Pure

The fact that humans and Neanderthals reproduced successfully means that there was enough genetic similarity between the two in order to have children. But does procreation imply that Neanderthals were also human? There appears to be no clear or simple answer to this question, largely because this distinction rests on how one defines what it means to belong to our species. Here we are stepping into philosophical territory where statistical representations of Neanderthal genes in humans clarify as much as complicate the issue. This is because Neanderthal variation, according to the NGP, appears to fall within the range of *acknowledged* human genetic variation. In other words, the Neanderthal genome is not consistently different from the human genome, given what we know about human variation. We are genetically similar because roughly 830,000 years ago we were members of the same population. The genomes of Neanderthals and present-day humans are also similar because we recently shared genes with each other when creating Neanderthal-human hybrids about 40,000 years ago.

However, some geneticists argue that all of this speculation about the genetic similarity and distance of Neanderthals to certain human populations is precisely that. Since its inception as a method of analysis, many geneticists have been critical of admixture technology and the attempt to infer the genetic ancestry of a population based upon the collection of traits known as single nucleotide polymorphisms (SNPs), which are variations in the DNA nucleotide base pair pattern of A-T-G-C.³⁹ These SNPs are thought to occur when one base

pair switches to another nucleotide. Population geneticists interested in human difference claim that some populations carry a higher percentage of a collection of SNPs than other groups.⁴⁰ These SNPs have been given the technical term of an ancestry index marker (AIM) and are believed to tell researchers about the ancestral heritage of present-day people. In this most recent form of typological reasoning, geneticists claim to be capable of hypothesizing the various ancestries (genetic admixture) any given individual might possess.⁴¹ The public has grown familiar with this technology due to the popularity of various television documentaries on human genetic ancestry as well as the increased affordability of direct-to-consumer DNA ancestry testing.⁴² Biologists used SNPs and AIMs, along with other measures of genetic diversity, to locate Neanderthal genes within present-day racial groups.

Some scientists have been critical of this new method of reconstructing human ancestry largely because they believe geneticists interested in human difference fail to distinguish their work from the typological race studies of the nineteenth century.⁴³ Population geneticists Kenneth M. Weiss and Jeffrey C. Long, as well as computational biologist Brian W. Lambert, have been some of the most recent voices of opposition toward admixture technology and the use of computer software programs to calculate human ancestry. They have argued that contemporary geneticists inadvertently fall back onto racial typologies when they divide humans according to continental regions where specific genetic variations are assumed to have come into being. This has the effect of collapsing genetic ancestry due to gene flow with genetic ancestry due to environmental factors and other random changes that cause alleles to rise or fall in frequency. They affirm a view shared by other scientists that models of our genetic ancestry and lived human history represent two different things.⁴⁴ The former identifies a hypothesized continental origin based upon laboratory studies that carefully select a specific number of genetic traits, whereas the latter entails the lived experience of migration, mating, and cultural and environmental pressures that might cause a genetic trait to rise in frequency. This historical ancestry is remarkably complex and nearly impossible to know with any certainty.

According to Weiss and others, the trouble with admixture estimates is that the parental populations from which contemporary admixed individuals are thought to have descended are not alive to be sampled for the actual "parental" genetic markers.⁴⁵ Geneticists attempt to resolve this problem by sampling from contemporary populations, who then function as surrogates for the assumed parental groups in each continental region of interest.⁴⁶ Weiss and Lambert claim that this hypothetical representation of the origins of human diversity would be fine as a heuristic if not for the obvious fact that when the estimated parental populations are analyzed among themselves, their intragroup differences are

as great and in some instances greater than intergroup comparisons.⁴⁷ In other words members within so-called present day races appear to be more different from each other than from people outside their racial group. Weiss, Long, and other geneticists stress that intragroup variation shows us how the *lived ancestry* of a population is more varied and more precarious than what can be modeled within a scientific laboratory using computer software. But in an effort to render this otherwise complex lived biological history quantitatively, they argue, geneticists who employ admixture technology assume that the parental populations of present-day people were the single carriers of a particular set of traits at some time in the past. According to Weiss and Long,

Whether the investigator uses external information or makes estimates from the samples at hand, the parental populations are abstractions that conform to only the simplest kind of genetic structure. This structure places heavy emphasis on the idea that the world once harbored distinct and independently evolved populations that have now undergone admixture of an unstated type (often seeming to connote admixture due to colonial era migrations). The ideal markers for this kind of analysis are private to, and in high frequency in, only one of the putative parental populations, or at least display major differences in frequency among the putative parental populations.⁴⁸

In other words, geneticists who develop models of our ancestors assume that they were pure given the frequency of certain SNPs when compared to other groups. However SNPs that have reached a high frequency within one population and not another are rare because the overwhelming majority of our genes are derived from a common ancestor. Weiss and Long argue that genetic variation across so called racial groups say more about the geographical conditions that forced certain alleles into high frequency than they reveal a moment of unique population differentiation.⁴⁹

Despite this realization, many scientists continue to use SNPs to hypothesize moments in our evolutionary past when our ancestors were theoretically less mixed and more homogenous than we are now. This hypothetical reasoning—and the technology used to support this form of racial thought—organizes the heterogeneity of our mixed biological inheritance and re-creates the idea that present-day groups descended from idealistically pure ancestors. Moreover, this contemporary form of racial typology helps sustain the belief—derived from the Abrahamic faith traditions that shaped Western racial thinking—that the single most important moment within the life of a so-called racial group is its inception and differentiation from other members of our species.⁵⁰

However, the genetic profile of present-day people is mixed with the ancestries of populations from around the globe. This mixture reflects the lived

history of humans reproducing across geopolitical boundaries and in the case of Neanderthals with humans considered extinct. Humans are not pure biological units. We are instead mongrel creatures with the history of our mixed ancestors buried within our biology. Never has this been more clear than after the sequencing of the human, and now Neanderthal, genome.

Herein lies a crucial problem for the conceptualization and study of race. Unlocking the human genome has shown us that in the present moment all humans are thoroughly mixed. This heterogeneity, however, can be minimized or enhanced given, first, one's commitment to the idea that present-day people descend from "pure" races and, second, the time frame used to study human mixing and evolution.

We might call the first approach to race neo-polygenist in its orientation insofar as human difference comes to overshadow similarity shared across human groups. For example, geneticists interested in sorting the racial ancestry of present-day groups tend to limit their analysis to often no more than the past five to ten thousand years. Anything further back in time places humans in Africa during the time before large-scale "racial" differentiation is thought to have occurred. Thus looking back forty thousand years in the past won't tell you much about French or Native American ancestry.

The second approach to studying race we might call neo-monogenist. This approach gives primacy to the similarity shared across human groups, thereby creating a bulwark against the belief that humans fit neatly into biological divisions across the major continents. For example, if one were interested in showing the similarities that exist across human populations, one might look at the genetic structure of humans that was established earlier than five to ten thousand years ago. There one will find that the great majority of genetic diversity that humans currently carry can be traced back to Africa, before we spread across the different continents. Prior to thirty thousand years ago humans were equally genetically diverse, mixing throughout the African continent and carrying the genes of early human groups who either went extinct or were eventually absorbed by *Homo sapiens*. In other words, our ancestors were just like we are now: one large mixing population made up of highly genetically diverse people who do not easily fit into racialized groups.

Temporality, however, is an important factor not just for genetic science but also for scholars who study race and mixed people. Either we can view present-day mixed race people as ontologically distinct from their ancestors (the neo-polygenist approach) and therefore focus on specific kinds of mixture (e.g., Black/Latino, Asian/Black, East African/Swiss, etc.) within a delimited geopolitical time frame (e.g., post-European exploration, or post-*Loving v. Virginia*), or we can view present-day mixed race people as equally varied as their ancestors (the monogenist approach). The trouble with the neo-polygenist approach

to conceptualizing present-day people is that it distorts the fact that relatively recent human mixing, say in the past five thousand years, pales in comparison to the amount of mixing that went into creating and consolidating the range of genetic variation (or what geneticists call substructure) that make us *Homo sapiens*. Scales of time matter when thinking about human diversity. Thus to say that mixed race people are biologically exceptional overestimates the significance of recent mixing events from an evolutionary perspective. It also inadvertently re-creates our past ancestors as if they were somehow pure. Humans now and in the past have always already been mixed. This is the all important lesson that must be learned from our evolutionary history. Mixed race people are not biologically unique nor exceptions to what it means to belong to our species.

Social versus Biological Timescales

The British American anthropologist Ashley Montagu wrote nearly sixty-five years ago that “in looking at the races of mankind today, what we see are largely the stages of development which they are in at our particular time. The varying manifestations of physical traits, which they exhibit, are not ‘end-results’ but bills of exchange, as it were, drawn on the bank of time, negotiable securities which can be turned into the coin of any realm with which it is sought to have biological relations.”⁵¹ Montagu’s commentary on the 1950 UNESCO Statement on Race served as a warning to post-World War II scientists about the temporal and philosophical limits of using race to account for the causes of human variation. Implied in his analysis was the importance of viewing human populations as unstable biological entities that transcend the concepts we use to define them. Montagu believed this evolutionary vision of human biology was in jeopardy when scientists lost sight of the heuristic nature of racial categories and delimited the long process of human development to a specific moment of time. When this occurred, Montagu warned, it was fairly easy for scientists to believe race could explain something essential about the internal workings of human biology.

Montagu’s poetic observation remains relevant for thinking about scales of time and the study of race. Specifically, it helps us see that a distinction needs to be made between sociopolitical timescales and biological timescales. We can think of sociopolitical timescales as referring to observations about human life and cultural heritage delimited by specific social and political periods of time. Many scholars of race work almost exclusively within sociopolitical timescales. For example, one might think of the lives of Black or Mexican Americans under the conditions of Jim Crow—a period lasting between the end of the nineteenth century and the end of the twentieth—as a sociopolitical timescale. Within this temporal framework, scholars of race might deploy specific concepts like Black, Negro, or Mexican, along with a host of other interpretive tools, to describe

developments that shaped the cultural, political, and even biological (e.g., health, behavior, and reproductive practices) experiences of the people designated by these categories. To do work of this kind one must believe, at least provisionally, that the category “Black,” or “Mexican,” refers to a specific group of people under particular sociopolitical conditions. Race work of this sort is generally driven by a pragmatic goal—usually one that bears directly on the present needs of the observer—and therefore we are not in a position to doubt the racial categories being used. For example, one can’t study or understand the effects of antimiscegenation laws during the 1920s over the lives of Black and Mexican people, without believing that indeed these people exist and that there were laws designed specifically against “Blacks” and “Mexicans.”

Of course these people were not fully determined by their immediate sociopolitical conditions. They were much more than racial minorities stigmatized and targeted by the structural racism of their historical setting. They were also the carriers of a biogenetic history vastly older than the temporal limits placed on them by Jim Crow laws. This was a mixed biogenetic history far more varied and unstable than what the concept “Black” or “Mexican” could adequately capture. This complex biogenetic history makes up what might be called a biological timescale. This refers to processes of human development that have unfolded over periods of time that radically exceed the concepts (e.g., race) we use to capture human becoming. The effects of social life are capable of shaping and augmenting this human becoming. But our biogenetic history cannot be reduced to any given sociopolitical moment. When human becoming is placed on a biological timescale, race as we know it breaks down and the subjects we study blend into one another. One simply has to look at human genetic diversity over the course of the past forty thousand years. There we find that genetically all humans are 99.9 percent the same, that there are more intragroup differences inside so-called races than between different populations, and that the biogenetic history we carry does not correspond to the concepts we use to make sense of it. This is what was revealed after the sequencing of both the human and Neanderthal genomes. This is what it means to say there are no genes for race.

The tension between sociopolitical and biological timescales should serve as a reminder for those who study race and mixed race people that our constructions and racial heuristics can always be otherwise. On this point Montagu wrote, “[The] best we can do at the present time is to describe populations, and while our classifications may be interesting, we must be careful not to take them too seriously. The danger we must avoid is becoming either the *caretakers* or the *captives* of our own arbitrary classificatory schemes.”⁵² The fictions we create to make sense of human life within a given historical and political moment will always fail to capture the biogenetic mixture that resides within us. The key is to not believe that our racial fictions are reality.

We Are All Mongrel

Finding bits of Neanderthal in our genome forces us to acknowledge the opacity of the human past and challenges our cultured assumptions about our ontological uniqueness and the division between the human and the nonhuman world. For nearly 150 years scientists assumed that modern humans were free of Neanderthal ancestry. Yet as members of the NGP explain, not only was the discovery of Neanderthal DNA in present-day humans entirely unexpected, they also learned that there are potentially many other extinct early humans (such as a group they called Denisovans) whose DNA lives on in our genomes. Svante Paabo, one of the leading paleogeneticists on the NGP, explained, "This was an amazing finding. We had studied two genomes from extinct human forms [Neanderthal and Denisovan]. In both cases we had found some gene flow into modern humans. Thus, low levels of mixing with earlier humans seemed to have been the rule rather than the exception when modern humans spread across the world. This meant that neither Neanderthals nor Denisovans were totally extinct. A little bit of them lived on in people today."⁵³ We might say that all humans are mongrel, in the sense that it may be impossible to recover the many different early and more recent human ancestors who contributed to our genetic inheritance. In biological terms, mongrels are not merely organisms with a mixed heritage. They are beings where only part of their ancestry is known or recoverable. To say that we are all mongrel therefore is to acknowledge that our ancestry will never be fully known.

Of course to call ourselves human, and not merely advanced primates or even Neanderthals, implies that we know who and what makes us unique as a species. Securing this knowledge, however, remains one of the most elusive tasks in modern science. The unexpected discovery of Neanderthal DNA in the human gene pool belies the idea that human identity is unique, stable, and transparent to our inquiring minds.

At the same time, finding Neanderthal DNA in present-day humans puts on display how biological heterogeneity, or "being mixed," is in fact the default human ontological position. Humans were mixing before they became "races." At no point in our history has there been a member of our species not mixed with another human and nonhuman group. At a biological level, being mixed is the norm, not the exception, to human existence. "Purity," monoraciality, and indeed race itself are powerful human creations. For races exist only when thinking about human becoming within a specific moment in time while also assuming that this marks an ontologically novel or significant instance of human becoming. These temporal and conceptual constraints are at play when scientists assume human diversity can be reduced to fundamentally three ancestral groups. These assumptions are also at play when we view mixed race people as biological exceptions

to being human otherwise. In both cases we have yet to relieve ourselves of the burden of explaining human existence under the terms laid out before us by Christian natural⁷ theology, where life at its origination is believed to be ontologically new and distinct. Our racial formations continue to venerate the myth of Adam and Eve.

But what does this mean for the field of mixed race studies, which has a political and social investment in recovering and advocating for the experiences of mixed people within a context where their existence is denied by the hegemony of monoracial norms?⁵⁴ Might conceding that all humans are mixed undermine these goals?

Here we arrive again at the tension between biological and social/cultural timescales, which I believe invites a healthy moment of self-reflexivity for those of us who study race. The vast scale of human evolutionary time—periods that involved countless mixing events—should push us to see that the temporal frameworks and concepts we use to study race are socially and politically useful fictions designed for present-day concerns. For example, when we capture the experiences of a first-generation multiethnic we must not lose sight of the fact that this is a temporally and socially delimited rendering of human becoming. These people are actually constituted by evolutionary processes that involve innumerable mixing events. Thus when we give preference to more recent mixing events (for example under the conditions of American colonialism or Jim Crow) it is crucial to remember that we are doing so for social and political reasons; we are creating heuristics designed to address needs and problems unique to these events and our present lives. In other words we are drawing attention to the novelty or exceptions that mixed race people represent for our social and political frames of reference. This is fundamentally different from claiming that mixed race people constitute biological exceptions to what it means to be human.

Of course there is always a danger that the work these heuristics perform may lead us into mistaking these fictions for reality, having us believe that mixed race people are in fact biologically unique. Keeping sight of the fact that human mixing predates race itself—that human evolutionary time escapes the frameworks we use to tame it—can create a bulwark against taking our own constructions too seriously.

Were we to push the frontier of our own social and political investments this might give us the language to talk about what it means to live within a liminal space between timescales that mark our immanent sociopolitical needs and biological timescales that are infinitely vaster than our concepts about race. To do this we must think more critically about human evolutionary history and how we belong to a species in a constant state of becoming and always already mixed. The death and resurrection of the Neanderthal show us that human

evolutionary time is virtually meaningless until we give meaning to it. In this moment of rediscovering our Neanderthal inheritance we have an opportunity to yet again ponder what it means to be a perpetually mixed species that can be captured provisionally by sociopolitical framings but ultimately belongs to processes of becoming that exceed comprehension. Maybe then we could build a new set of heuristics around our past that reminds us that being mixed is fundamentally what it means to be human.

NOTES

1. Richard Green et al., "A Draft Sequence of the Neanderthal Genome," *Science* 328 (May 7, 2010): 710–722.
2. I am intentionally oversimplifying here to make the point that we are part Neanderthal and that there is considerably less distance between us than we have been socialized to believe. Neanderthals were much more than the few alleles that have persisted in the genomes of present-day people. It would be wrong to assume that their complex biological history, what I refer to later as a biological timescale, has been passed along to us in its entirety, or that an entire species can be reduced to a few genes.
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4. Green et al., "Draft Sequence of the Neanderthal Genome," 710.
5. Sriram Sankararaman et al., "The Genomic Landscape of Neanderthal Ancestry in Present-Day Humans," *Nature* 507 (March 2014): 354.
6. *Ibid.*, 354.
7. Michael Omi and Howard Winant, *Racial Formation in the United States*, 3rd ed. (New York: Routledge, 2014).
8. G. Reginald Daniel, Laura Kina, Wei Ming Dariotis, and Camilla Fojas, "Emerging Paradigms in Critical Mixed Race Studies," *Journal of Critical Mixed Race Studies* 1.1 (2014): 13.
9. *The Croods*, directed by Kirk DeMico and Chris Sanders (Glendale, CA: DreamWorks, 2013).
10. Friedemann Schrenk and Stephanie Muller, *The Neanderthals* (New York: Routledge, 2009), 1.
11. Michael Hammond, "The Expulsion of Neanderthals from Human Ancestry: Marcellin Boule and the Social Context of Scientific Research," *Social Studies of Science* 12.1 (1982): 4–6.
12. Marianne Sommer, "Mirror, Mirror on the Wall: Neanderthal as Image and 'Distortion' in Early 20th-Century French Science and Press," *Social Studies of Science* 36.2 (2006): 210–215.
13. Terence Keel, "Religion, Polygenism, and the Early Science of Human Origins," *History of Human Sciences* 26.2 (2013): 3–32.
14. Sommer, "Mirror, Mirror on the Wall," 210–215.
15. *Ibid.*, 210–215.
16. Hammond, "Expulsion of Neanderthals," 5–7.
17. *Ibid.*, 5–7.
18. *Ibid.*, 2.
19. Sommer, "Mirror, Mirror on the Wall," 214.
20. Hammond, "Expulsion of Neanderthals," 5–6.
21. Sommer, "Mirror, Mirror on the Wall," 216–225.
22. *Ibid.*, 216–225.
23. See Karen Ruebens, "Regional Behavior among Late Neanderthal Groups in Western Europe: A Comparative Assessment of Late Middle Paleolithic Bifacial Tool Variability," *Journal of Human Evolution* 64.4 (October 2013): 341–362; William Rendu et al., "Evidence Supporting an Intentional Neanderthal Burial at La Chapelle-aux-Saints," *Proceedings of the National Academy of Sciences of the United States of America* 111.1 (January 2014): 81–86; Karen L. Privat, Tamsin O'Connell, and Michael Richards, "Stable Isotope Analysis of Human and Faunal Remains from the Anglo-Saxon Cemetery at Berinsfield, Oxfordshire: Dietary and Social Implication," *Journal of Archaeological Science* 29 (2002): 779–790; Joaquin Rodriguez-Vidal et al., "A Rock Engraving Made by Neanderthals in Gibraltar," *Proceedings of the National Academy of Sciences of the United States of America*, 111.37 (2014): 13301–13306; Amanda G. Henry et al., "Microfossils in Calculus Demonstrate Consumption of Plants and Cooked Food in Neanderthal Diets," *Proceedings of the National Academy of Sciences* 108.2 (2011): 486–491; Karen Hardy et al., "Neanderthal Medics? Evidence for Food, Cooking, and Medicinal Plants Entrapped in Dental Calculus," *Naturwissenschaften* 99.8 (2012): 617–626. Also, for a comprehensive discussion of the recent scientific discoveries about Neanderthal culture and their similarity to modern humans, see Dimitra Papagianni and Michael A. Morse, *The Neanderthals Rediscovered: How Modern Science Is Rewriting Their Story* (New York: Thames & Hudson, 2013).
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26. Green et al., "Draft Sequence of the Neanderthal Genome."
27. Sankararaman et al., "Genomic Landscape of Neanderthal Ancestry," 354; Jeffrey D. Wall et al., "Higher Levels of Neanderthal Ancestry in East Asians Than in Europeans," *Genetics* 194.1 (2013): 199–209.
28. Sankararaman et al., "Genomic Landscape of Neanderthal Ancestry," 355–356.
29. *Ibid.*, 356.
30. Benjamin Vernot and Joshua M. Akey, "Complex History of Admixture between Modern Humans and Neanderthals," *American Journal of Human Genetics* 96.3 (2015): 448–453.
31. *Ibid.*, 450.
32. Sankararaman et al., "Genomic Landscape of Neanderthal Ancestry," 354.
33. *Ibid.*, 354.
34. Green et al., "Draft Sequence of the Neanderthal Genome," 710–722.
35. Wall et al., "Higher Levels," 200–201.
36. Katarzyna Bryc et al., "The Genetic Ancestry of African Americans, Latinos, and European Americans across the United States," *American Journal of Human Genetics* 96.1 (2015): 42.
37. Green et al., "Draft Sequence of the Neanderthal Genome."
38. Matthias Meyer, et al., "A High-Coverage Genome Sequence from an Archaic Denisovan Individual," *Science* 338.6104 (2012): 222–226; Wall et al., "Higher Levels," 200; Sankararaman et al., "Genomic Landscape of Neanderthal Ancestry," 354.
39. Duana Fullwiley, "The Biological Construction of Race: 'Admixture' Technology and the New Genetic Medicine," *Social Studies of Science* 38.5 (2008): 701–702.
40. *Ibid.*, 704–705.
41. *Ibid.*, 701–706.

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45. Weiss and Long, "Non-Darwinian Estimation," 706; Weiss and Lambert, "Does History Matter?," 97.
46. Weiss and Lambert, "Does History Matter?," 95.
47. *Ibid.*, 95.
48. Weiss and Long, "Non-Darwinian Estimation," 705.
49. *Ibid.*, 705.
50. Keel, "Religion, Polygenism."
51. Ashley Montagu, *A Statement on Race: An Extended Discussion in Plain Language of the UNESCO Statement by Experts on Race Problems* (New York: Henry Schuman, 1951), 56.
52. *Ibid.*, 56–57.
53. Paabo, *Neanderthal Man*, 246–247.
54. Marc P. Johnston and Kevin L. Nadal, "Multiracial Microaggressions: Exposing Monoracism in Everyday Life and Clinical Practice," in *Microaggressions and Marginality: Manifestation, Dynamics, and Impact*, ed. Derald Wing Sue (Hoboken, NJ: John Wiley, 2010), 123–144.

Epilogue

Expanding the Terrain of Mixed Race Studies

What We Learn from the Study of Non-White Multiracials

NITASHA TAMAR SHARMA

Critical mixed race studies is an emerging field of study that is developing with greater clarity. Yet it—like the experiences of multiracial people—struggles with underrecognition and misrepresentation. Part of this is demographic: self-declared multiracials were only 3 percent of the US population in 2013, representing 9.3 million Americans.¹ And part is institutional: many universities do not offer courses on multiracial experiences. The development of critical mixed race studies out of and away from mixed race studies further accounts for its low profile. Many scholars in mixed race studies have focused on the "what are you" question faced by "ethnically ambiguous" people and analyzed identity formation through first-person narratives. Critical mixed race studies presents more expansive and theoretically *critical* questions, methodologies, and politics that look, for instance, at multiracialism across the globe and at the relationships of mixed race people to other communities of color. The essays in this volume fill a particular blind spot in mixed race studies: its tendency to privilege Whiteness by focusing on multiracials who are part White while neglecting dual (or more) minority mixed race people.

Red and Yellow, Black and Brown: Decentering Whiteness in Mixed Race Studies highlights the anxieties as well as intellectual and popular potential of critical mixed race studies. The essays cohere around describing the definitions, experiences, and implications of multiracialism among people who do not identify as being part White.² Chapters include personal stories of struggle growing up as Blasian (Houston and Mendoza Stickmon) and Indipino (Desai). Other chapters (Romo, Want) challenge stereotypes of multiracials that have included the "tragic mulatta" and the "happy hapa."³ Verónica Castillo-Muñoz offers an important historiographical account of intermarriage among Indians, Mexicans,