

Article

New Routes to Mixed “Roots”

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Abstract: Developments in reproductive (e.g., assisted reproduction, surrogacy) and genetic technologies (commercial DNA ancestry testing) have opened new routes to mixedness that disrupt the relationship between multiracialism and family. Discussions of racial mixedness, both academic and lay, tend to refer to persons born to parents of different racialized ancestry. Multiracialism is also understood as an outcome of extended generational descent—a family lineage comprised of ancestors of varied “races”. Both modes of mixed subjectivity rely on a notion of race as transmitted through sexual reproduction, and our study of them has often focused on the implications of this boundary crossing for families. These routes to mixedness imply a degree of intimacy and “knownness” between partners, with implications for the broader web of relationships into which one is born or marries. Assisted reproduction allows for the intentional creation of mixed-race babies outside of sexual reproduction and relationship. These technologies make possible *mixed race by design*, in which one can choose an egg or sperm donor on the basis of their racial difference, without knowing the donor beyond a set of descriptive characteristics. Commercial DNA testing produces another route to mixedness—*mixed by revelation*—in which previously unknown mixed ancestry is revealed through genetic testing. Ancestry tests, however, deal in estimations of biogenetic markers, rather than specific persons. To varying degrees, these newer routes to mixedness reconfigure the nexus of biogenetic substance and kinship long foregrounded in American notions of mixedness, expand the contours of mixed-race subjectivity, and reshape notions of interracial relatedness.



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1. Introduction

The study of multiracialism largely centers on the nexus between sex, intimacy, and kinship across racial boundaries. Both academic and lay notions of mixed-race subjectivity rely on a notion of race as transmitted through sexual reproduction and we think about that racial transmission in genealogical terms. Terms like ‘mixed race’ and ‘multiracial’, for example, are used to refer to persons born to parents categorized as racially different. Multiracialism also references extended generational descent—a family lineage comprised of ancestors of varied “races”. Interracial intimacy is understood to have implications for the broader web of relationships into which one is born or marries and for racial boundaries as such.¹

Developments in reproductive and genetic testing technologies have opened new routes to mixedness that disrupt this relationship between multiracialism and family. Because these technologies delink intimacy from reproduction and are enmeshed in commercial transactions, they reframe the kin-centric articulation of mixedness that undergirds the social significance of interracialism in the United States. This paper explores some of the ways they do so and speculates on the implications of this disruption for how multiracialism is understood. I emphasize the kinds of questions those who study multiracialism might pursue given these developments.

Assisted reproduction technologies (ART)—in vitro fertilization, artificial insemination, and gestational surrogacy—make possible the creation of babies outside of sexual reproduction and relationship. ART users choose gamete providers or “gestational carriers”

on the basis of select traits (height, for example, or race). These technologies make possible what we might call *mixed race by design*, in which one can select for racial difference when choosing an egg or sperm donor, without knowing the donor beyond a set of descriptive characteristics. Mixedness acquired through sex and marriage entails a degree of intimacy and “knownness” between partners. Mixedness acquired through ART creates babies through strangers. While *unknown* as a person, however, the donor’s race is both known and *chosen*. Similar to adoption decisions, ART as a consumer-driven transaction makes more obvious the logics of race embedded in family formation precisely because those choices must be explicitly stated. As with adoption markets, ART makes legible the different economic and social value attributed to race.

Commercial DNA ancestry tests (DNA) offer another route to mixedness in which previously unknown or unconfirmed mixed ancestry is putatively revealed through testing results. While ART expresses an intention to create mixed race kin, genetic testing references the actions of others in the past. DNA test results offer the possibility of becoming *mixed by revelation*, a route to mixedness that prompts a reimagining of that past and one’s present identity and group membership. Like ART, DNA disrupts the conventional relationship between multiracialism and family. Rather than genealogy—a mode of tracing ethnicity through the tracing of relatives (specific persons) back through time—genetic ancestry tests deal in the presence of certain genetic markers and probabilities based on population estimates. Unlike conventional routes to ethnic identity paved with family ritual and stories, this route to mixedness is more like a private toll road, corporate-designed and controlled and built on proprietary information accessed through a fee.

Both ART and genetic ancestry testing provide a new context for assessing the salience and meaning of multiracialism. While I draw from the literature that examines the impact of these technologies on how race is understood, I read for how it speaks to the specificities of multiracialism as both an experience and analytically important area of race studies. What informs a desire to create mixed-race children detached from a relationship? How are the consequences of that decision for the child and the family understood? Are genetic ties to unknown ancestors or donors understood in kin terms, and if so, how? In so far as these new routes to racial mixedness—increasingly available, common and likely to be more so in the future—disrupt the relationship between sex, intimacy, kinship, and race, how might they shift our study of interracial intimacy’s significance?

2. Race and the Genealogical Imagination

The emphasis on the relationship between sex, intimacy, kinship, and race in studies of multiracialism stems from the historical significance of that nexus in creating the category of race as such (DaCosta 2020).² In the United States, racialization was forged on an explicit denial of interracial kinship, particularly between blacks and whites. Both in slavery and then through “anti-miscegenation” laws and the threat and enactment of violence, interracial families were made illegal, taboo, stigmatized, and abnormal. Throughout most of US history, the major privileges that family membership could provide and which have been understood as definitional of its importance—access to a family name, a household, care, and the transfer of cultural, economic (inheritance), and symbolic capital (legitimacy) from one generation to the next—were restricted within racial lines. These policies and practices made the interracial family a cultural oxymoron (DaCosta 2007), even if sexual encounters across racial boundaries, particularly within the institution of slavery, were not uncommon. Indeed, racial classification in the US was built on the denial of interracial kinship³, manifest in the “one drop” principle for classifying blacks, dominant for most of the twentieth century, according to which any amount of known African ancestry, however small, “made” one black. In the assignment of racial categories, in other words, some ancestors have counted more than others.

The centrality of kinship to the construction of race in the US is a manifestation of the “genealogical imagination” (Zerubavel 2012; Tyler 2005), a way of figuring relatedness common to all systems (e.g., family, clan, tribe, ethnicity, and nation) that use descent as

a basis for establishing group membership. Zerubavel (2012) argues that genealogy as a system of charting relatedness to our ancestors and relatives has “become the predominant framework within which we now think about relatedness in general” (130). “A genealogical vision of co-descent”, he writes, “helps connect in our minds various relatives (from siblings, through second cousins, to any other human beings) as individuals, it also seems to provide the mental cement necessary for constructing actual communities. In other words, it also constitutes a formidable basis for group formation” (Zerubavel 2012, p. 46).

“Ethnicity is kinship writ large” (Cornell 1996) in the sense that relationships to co-ethnics are understood as being like extended family relationships. Co-ethnics are understood to be closer to each other, socially and genealogically, than to members of other ethnic groups. Though we tend to think of descent as biologically conferred, it is culture, not nature, that shapes how we “live” genealogy—what forms of relatedness we recognize or deny, celebrate or denigrate. “Ideologies of ethnic or racial delineation and hierarchies of exclusion are thrown into sharp relief by the specifics of actual lines of descent and interrelationship” (Rains 2006, p. 130). Genealogies, in other words, express and shape the boundaries of ethnoracial groups, and as such, in studying them we can also uncover the logic underpinning the ethnoracial distinctions they express. That logic is revealed in part by the disjunctures between those lines of descent and the stories we tell about them.

Genealogy is a logic and practice that links together ideas about “who” we are as members of families with “what” we are ethnically or racially. We often learn what ethnic or racial groups we belong to, and what that means, through the stories family members tell us. More fundamentally, we *imagine* family relatedness and ethnoracial relatedness in the same way—as characteristics acquired through birth (and therefore natural)—and we symbolize them both in the language of “blood”.

Our “genealogical imagination”, however, goes beyond analogy. The genealogies we use to record, narrate, recall, and recount family relationships are the same ones we use to establish our belonging in ethnic groups. Fundamentally, genealogies are origin stories: tales we tell ourselves (and each other) about who we are and where we come from—who are our *kin* and who are our *people*. We trace our ancestors, in other words, to tell us how we as individuals came to be, and also how we came to be *raced*.

Because ART and DNA disrupt the link between intimacy and reproduction, and in so doing, the link between descent, personhood, and social context, they remove the aspects of kinship that have been central in the phenomenology of mixedness and the cultural and social meanings attached to it. When mixed-race children can be made without in-laws or spouses, and with only the most rudimentary facts of a donor’s personhood, gone too are the dynamics of marriage, co-parenting, and being in social space as an interracial family that have structured widely shared experiences of multiracials, and which undergird the analytical significance of multiracialism in studying racial boundaries.

Genetic ancestry tests do not allow for the genealogical narration of ethnicity—the delineation of generations of co-descendants in relation to common ancestor(s), and their “closeness” to each other determined by the “distance” in generations from that common ancestor. The genealogical narration of ancestry entails an assessment of relatedness that depends on a knowledge of persons in relationships of “blood” over time. Conventional ethnic origin stories create *ancestry* through the knowledge of *ancestors*—particular persons, their names at least, if not details of their biographies or the particularities of their personalities.

What happens to the genealogical reckoning of identity in the absence of conventional ties to ancestors? How do people make sense of mixed roots accessed through new routes? Do they read them in family-like ways? Do they imagine the unnamed ancestors who are the source of their mixedness? Might they downplay the relevance for kinship or genes for establishing racial membership? Does revealed mixed ancestry change how they understand themselves and what race means? Do they make claims in the present on the basis of their unnamed and unknown progenitors?

3. Mixed by Design

I am an American woman, of Ashkenazi Jewish ancestry, and I strive to live my life as an active agent against racism and white supremacy. I am beginning to consider having children and am open to bearing a child as a single mother. It is possible to sort through sperm donors by race, eye color, education level and so on. If I choose a donor of color, am I condemning my child to be born into a system designed not to serve them? Or can I use my white privilege to help them fight that system? Would my future child of color feel separated from their heritage with me as their mother? If I choose a white donor, am I succumbing to racist ideas of what traits are “desirable”, or taking the “easy road” in knowing my child will look more like me? What do you think? ([Appiah 2020](#))⁴

This letter appeared in the New York Times’ Ethicist column in 2020. The Ethicist at this time is the philosopher of race and identity, Anthony Appiah, himself the child of an interracial couple. Though the letter writer does not specify the race of the donor “of color”, Appiah assumes a black donor and proceeds to assuage the letter writer’s concerns about racial inequality, racial identity, and being a visibly interracial family, noting the ways that African Americans have navigated her concerns. His decision to focus on the most fraught form of interracial intimacy in US culture, that between blacks and whites, perhaps best serves the point he wants to make—that the significance of mixed/race is less obvious or fixed than she presumes. For Appiah, while mixed/black children and interracial kin may face some particular challenges, they are not determinative of wellbeing or insurmountable.

Appiah’s response to the letter writer’s concerns about racial identity most clearly convey his take on ART and interracial kinship. “Nor should you worry about your child’s being alienated from paternal heritage”, he writes. “President Barack Obama, a person of color raised by a white mother and grandparents, turned out OK. So, choose what you like or don’t choose at all. Children are always a surprise. They’re never exactly what you expected—and that will be true whatever it says on the donor form about the racial identity of your child’s father”.

This reply treats the choice of the race of donor—the signal difference between ART and conventional routes to mixedness—as a relatively neutral one (“choose what you like or don’t choose at all”). His “six of one, half dozen of the other” tone stems from a read of the salience of race as having very little bearing on what the resulting child will be like (“Children are always a surprise”). He reads the effect of her choice on the child’s sense of ethnoracial belonging in the same breezy way he treats the possible choice of an “other” race donor on the child’s appearance and disposition as being of no particular concern (“Nor should you worry about your child’s being alienated from paternal heritage”). Invoking Barack Obama’s upbringing in a household with his white mother and grandparents—and *without* the presence of his black father—as someone who “turned out OK”, Appiah suggests that forming a secure sense of self and ethnoracial belonging for mixed race children does not depend on the presence of both parents.

Appiah’s response presumes that the experience of ART-created mixed babies will be essentially similar to that of those formed through conventional means. He does not address how the ART process itself creates a difference from conventional means of reproduction that may differentially shape the experience of a mixed-race child. The Obama example is instructive. While Obama was not raised in the same household as his father, he knew who his father was, had met him, and knew much about his biography and lived reality, as well as details about his half-siblings. Obama, of course, has written eloquently about his longing for that absent father and the ways that his self-fashioning (in ethnoracial and other terms) drew from his father’s example ([Obama 1995](#)). One wonders what might be different about that experience had Obama had but the barest details (or none at all) about his genetic father, as do most children born of ART. To the extent that Appiah does not address the difference between genetic and social parentage, he elides what are potentially important distinctions in the experience.

Appiah never poses directly what is perhaps the most obvious question given the salience of race in matters of sex and kinship: why *would* one proactively choose to make a mixed-race child through ART? He addresses the reasons often given *not* to have a mixed-race child (“But racism isn’t a reason not to have a child who is black, any more than anti-Semitism would be a reason not to have a child who is Jewish (as any child you bore, by traditional rabbinic law, would be”), but not the affirmative choice to do so outside family and cultural community. He leaves entirely untouched the political significance the letter writer attributes to bearing (or not) a mixed-race baby (“If I choose a white donor, am I succumbing to racist ideas of what traits are “desirable”?), in which the mixed-race baby is a signifier of anti-racist politics. Both elisions suggest questions worth pursuing: Where does the desire for a mixed-race child come from? What specific meanings are attached to mixedness for those using ART? What uses do they serve?

4. ART and Racial Matching

There is an extensive literature on ART and race (Deomampo 2016; Quiroga 2007; Russell 2018; Thompson 2009; Twine and Smietana 2021), much of which shows that most commissioning parents seek to racially match gametes to one or both parents or to existing children in a family. Racial matching is often used as a strategy to signify kinship outside of a biogenetic relationship. In interracial and queer families (and interracial queer families), decisions about racial matching in gamete selection take on added complexity and symbolic importance. Physical likeness as approximated by race of donor becomes a means of enacting kinship (Murphy 2015), establishing resemblances that stand in for biogenetic links to parents or siblings (Newman 2019; Keaney 2019) or ethnic group members (Hudson 2015), or minimizing the differences with which members of non-normative family formations have to contend (Nordqvist 2012). In her study of interracially partnered lesbians, Alyssa Newman (2019) analyzes the “biomatching tradeoff” these couples face when both partners seek to carry pregnancies conceived with their own egg. Her respondents either prioritize racial similarity between siblings or between a child and mother. Either strategy, Newman writes, “reproduced biogenetic understandings of the family or race, thus preserving both the logics and the models of these hegemonic constructs (Newman 2019, p. 711).

The literature on ART and interracial family formation charts the ways that racial matching is indexed to particular relationships, especially those between intended parents, their children, and extended families. Yet the example in the Ethicist column is not about racial matching but choosing racial difference—to conceive a mixed race baby as a single woman, a choice that is indexed to something other than the particular relationships (spousal, filial, etc.) that the symbolics of race and phenotype are usually called upon to mediate. If, as Newman notes, “Reproductive technologies beget multiple strategies for the social conferral of parental status, whereby intent, participation and the act of commissioning establish connection outside of a biogenetic relationship” (Newman 2019, p. 713), what does our letter writer’s choice connect her to? Because ART offers the possibility of creating multiracial kids outside of a relationship, queer or otherwise, it potentially shifts the concerns to which race is typically indexed in family formation. Moreover, it prompts us to ask whether and how race is made meaningful in such contexts.

Rosanna Hertz and Margaret Nelson’s comprehensive study of ART parents (N = 212) and their children (N = 154) asks how parents and children make kin (or not) of their donors, each other, and (sometimes many) other genetic relatives. As with most studies of ART and race, almost all their respondents, whether gay or straight, chose racially matched donors. Donor choice, they argue, is inextricably linked to ideas about the self. “Fit... has to do with wanting a donor who is like oneself. Parents move back and forth between the donor profile and their own identities, now emphasizing this or that aspect of themselves and now focusing on this or that aspect of the donor. In the process they creatively reimagine themselves *and* conjure up a compatible donor” (27). What kind of self does having/mothering a mixed-race child potentially offer? Perhaps, as implied by the Ethicist letter, “designing” a mixed-race baby is imagined to convey or enact a

set of political priorities. Perhaps it expresses other fantasies of beauty, exoticization, or cosmopolitanism observable in other cultural constructions of mixedness (La Ferla 2003; DaCosta 2011; Deomampo 2016).

Hertz and Nelson note that ART users treat information on ancestry and race as clues to potential compatibility and comfort, if not simply conformity to racialized social expectations of the “good” family. These traits become a way to distinguish between special and “just any old” gametes, or they are seen as a proxy for the kind of person a commissioning parent *could* fall in love with.

Notably, of the nine African American women Hertz and Nelson interviewed, nearly all chose a white or racially mixed donor. They explained that choice as motivated by a desire to “match” the child to *extended kin*. Citing variable skin tones or intermarried relatives in their families, “by choosing a white or racially mixed donor they were doing what would best “fit” their child into a family of many different skin tones” (Hertz and Nelson 2019, p. 26). One respondent described her decision to choose a white sperm donor as “no big deal” since “race didn’t really matter to her because her extended family had already become multiracial by marriage”.

These respondents seem to both desire mixedness for their offspring while disavowing its significance. Jaya Keaney’s (2019) study of queer interracial families in Australia uncovers a similar dynamic in which some respondents downplay the significance of their children’s non-white ancestry or phenotype. What does such a rationale say about the meanings of race in families and the particular symbolics of and desires for mixedness that it demonstrates and simultaneously elides? What does it say that a black woman bearing a black child is implicitly understood by that mother as *not* fitting into a family because of expectations of that child’s presumed physical appearance in a mixed extended family? What dynamics are at play within that family or the experiences and psychology of the mother that make a child racially “matched” to her seem a *less* good fit than a mixed-race child?

The logic of “fitting in” and “matching” as a justification for creating mixed-race babies reproduces the logic if not the form of some of the most persistent reasons given by those who would *not* cross racial lines intimately. The idea that families should “match” in racial terms, even if the matching is multiracial or meant to enact queer kinship, underscores the primacy of race in families and suggests we need to learn more about the perceived costs, benefits, and consequences of racialization within *interracial* kin networks.

Because ART makes possible routes to multiracialism that bypass intimacy (coital or interpersonal), it also potentially reshapes the meaning of interracial relatedness in the US. Contemporary notions of mixed-race subjectivity are grounded in articulations of kinship and the ways race matters in family relations. Indeed, one of the central legitimating discourses of contemporary interracial intimacy, foregrounded in multiracial claims-making on state and society that emerged in the last generation, prioritized relationships of care, empathy, and love as a potent and necessary counterpoint to the peculiar stigma attributed to interracial sex and reproduction. In view of that history, interracial couples and mixed-race children are routinely interpellated as evidence of the triumph of love over “hate” or a source of hope for the weakening of racial antipathy and harbingers of social equality between groups (Roy 2017; DaCosta 2007; Steinbugler 2012; Childs 2005). In the absence of interracial sex and relationships, how might mixed-race children index racial identity, if they do at all? What significance might knowledge of their donor’s genealogical lineage play in establishing a sense of self or group belonging? How will/do donor siblings conceive of and navigate the racial differences among them?

Assisted reproduction technologies expand routes to multiracialism through the disarticulation of genetic substance, sex, relationship, and reproduction. Jaya Keaney’s (2021) examination of epigenetics and gestational surrogacy suggests the ways that “what counts as a “biological tie” for the inheritance of race” is more expansive than genetic ascriptions of race allow. The fertility industry figures gestational surrogates as contributing no genetic substance to the child they carry. As such, they are not understood to contribute anything

to the racial “inheritance” of that child. This logic also serves as a basis for negating their status as mother to that child. To the extent that epigenetics “highlights that gestational ties are biological relations”, in which “a surrogate’s race shapes the gene expression of a fetus in utero”, in cross-racial surrogacy arrangements, “a surrogate of color bestows an epigenetic legacy to a white child (Keaney 2021, p. 15). If, as Keaney argues, the “racializing womb” undermines the notions of racial purity that undergird “the broader genomic order”, it also extends the possibilities for indexing racial inheritance to biological connection and kinship status (e.g., to include the gestational surrogate), potentially broadening the ways that interracial relatedness is established and understood. More generally, ART expands the pathways through which people are interracially kinscribed—that is, made part of interracial kin networks as a result of the marital or reproductive choices of their relatives. Kinscription into interracial kinship, either through conventional or new reproductive technologies, is an underexplored dimension of the dynamics of interracial intimacy, one that has implications for whether and how interracial kinship changes racial boundaries (DaCosta 2020). In what ways do donors respond to the mixed-race offspring they may or may not have imagined when they donated their biogenetic material? Does the knowledge that they (may) have multiracial genetic offspring figure in how they think about race and relatedness?

5. Art, Commodification, and the Mixed Body

For all the talk of “choosing donors”, ART users are actually choosing which donor’s biogenetic material *to purchase*. ART is part of a more generalized commercialization of intimate life, in which market transactions increasingly mediate “personal” life. The “commodity frontier”, as Hochschild (2003) dubs this phenomenon, is a social and cultural leading edge where the market encroaches upon zones of life once situated (or imagined to be) outside of it. On the commodity frontier, various forms of care—labor, love, and empathy—are packaged in the form of expertise or a service and sold back to us. On the commodity frontier, social reproduction and reproduction itself become products to be bought and sold and our deepest personal connections can and are forged through market transactions.

Market transactions reveal the link between hierarchies of race and value. The “priceless child” does indeed have a price (Zelizer 1994), and the value attributed to children and reproductive labor is inextricably tied to race (Roberts 2002). The costs of adoption, for example, vary considerably by the race of the child in the US, with white children most expensive, black children cheapest, and mixed-race children somewhere in between.⁵ That price differential is often attributed to “demand”—that is, the desire, or lack thereof, of (white) parents for interracial kinship.⁶

ART expresses a particular approach to the body, one that is integrally tied to capitalist logics and which makes possible the commodification of body *parts* and reproductive services through the ART process. “The concepts of the integrity of the body and human dignity have given way to ideas of the divisible body and detachable organs as commodities”, writes Nancy Scheper-Hughes (2002, p. 62). As with adoption, the pricing of those body parts and services also reflects hierarchies of race and value. The costs of ART, as in other reproductive markets, are indexed to considerations about supply and demand, which are themselves tied to systemic racial inequality (Deomampo 2016; Parrenas 2015), and are indexed as well to the symbolics of race and the social value differentially attributed to people on the basis of race (Russell 2018; Thompson 2009).

While assisted reproduction technologies facilitate the creation of multiracial babies and interracial families, the industry tends to reinforce racial sameness within the family. Aziza Ahmed’s review of sperm bank practices shows the way that “ART represents a new mode of governing the family that facilitates and encourages the formation and creation of monoracial families” (Ahmed 2018, p. 2802). Nevertheless, the industry also helps to *produce* the desire for them. The creation and marketing of new biotechnologies, Scheper-Hughes argues, “has incited new tastes and desires for the skin, bones, blood,

organs, tissues, marrow and reproductive and genetic material of others” (Scheper-Hughes 2002, p. 64). These markets, in other words, may intensify the creation of mixed-race babies as desired or fetishized object, creating as it does the possibility of making mixed children freed from the complexities of interracial relationships and extended kin. In her study of Indian surrogacy clinics, doctors, and commissioning parents, Daisy Deomampo (2016) found that contrary to expectations, fourteen of the nineteen couples who used donor eggs “sought Indian egg donors with darker skin tones”. She finds that this choice expressed a desire for a “primordial ethnic authenticity”, in which expressions of desire for children who “looked Indian” were often interchangeable with expressions of desire for a child who “looked exotic”. Rather than subverting dominant hierarchies of racialized kinship that privilege whiteness and monoraciality, Deomampo concludes, they reinforced “essentialized notions of race and beauty and reflect new articulations of biological race” (p. 306).

ART also makes possible the creation of mixed-race children as *despised* object. Situations in which mistakenly implanted other-race sperm results in a mixed-race birth are referred to as “wrongful birth” cases in legal proceedings. In these scenarios, the resultant child is positioned as a defective product that its “parents” want to return and/or receive compensation for the perceived harm caused by the error (Paul-Emile 2018; Vigdor 2021). The extent to which that perceived harm inheres in racial mixedness *per se*, the biological unrelatedness of the child to one or both of the parents, or the perceived social costs of interracial kinship is unclear. Nevertheless, these cases provide an important site for exploring the dynamics of ART decision making and commodity seeking and their relation to racial reproduction and the symbolics of mixed racial subjectivity.

6. Mixed by Revelation

Easily accessible, ever-cheaper, heavily marketed, and incredibly popular, commercial DNA ancestry tests are a particularly relevant site to study contemporary meanings of multiracialism. Indeed, the logic and structure of their design *inevitably* produces readings of mixedness. They are called “admixture” tests, after all, and are oriented toward identifying the genetic markers indexed to sample populations in different geographical regions. Given long histories of human migration (is anyone 100% sure of anything?) and the intentional search for different geographically indexed markers, evidence of “mixture” will be found. At the same time, the possibility that the tests might reveal unexpected forms of mixedness is central to their popularity. Part of the intrigue of taking them lies in the possibility that they might *not* confirm family origin stories. In so doing, they may reveal hidden aspects of the self and one’s past. They indulge and elicit “what if” fantasies of possible other selves and other pasts.

If the assisted reproduction route to mixedness is largely *prospective*—that is, about making a choice to create mixedness in the future—DNA ancestry tests are *retrospective*, revealing mixed origins from the past. DNA ancestry tests promise to tell users “who they really are” (Marks 2001) and where they come from, not through a tracing of biologically related ancestors, as with conventional genealogical methods, but through identifying genetic markers. The use of these tests is often referred to as “genetic genealogy”, which raises the questions of whether and how this form of connecting the self to a past is understood as a connection to ancestry and kinship.

7. Genomic Articulations of Mixedness

Kim Tallbear (2013, p. 509) writes of the ways that “genomic articulations of indigeneity”, though seemingly compatible with indigenous articulations of indigeneity because they privilege ancestry, “fundamentally contradict” them. While indigenous articulations of indigeneity do take account of biological relatedness, its significance is neither fixed nor primary in structuring group membership. DNA ancestry testing potentiates a *genomic articulation of mixedness*, in so far as the results conveyed are indexed to racialized groups and places. Just like genomic articulations of indigeneity are increasingly invoked to structure

and adjudicate claims over indigenous group membership, one wonders if the growing use of ancestry test kits might displace an articulation of mixedness that is grounded in kinship.

Genomic mixedness revealed through ancestry tests shifts the locus of the meaning and significance of racial subjectivity from family members to corporations (Scodari 2017; Phelan et al. 2014). These corporate-generated test results are delivered with a ready-made interpretive frame around what that mixedness means. “The story of your ethnicity lives in your DNA”, say the corporate marketers at Ancestry.com (accessed on 20 October 2021),⁷ a narration that translates what genetic tests actually measure (the presence of genetic markers) into “ethnicity”, conjuring a hazy mix of place, culture, nature, and family lineage. As genetic markers are not self-evidently meaningful to consumers (or to scientists, for that matter (Fullwiley 2008)), the corporate marketers of genetic testing services supply a meaning for customers, in the form of impossibly precise percentages of ancestry derived from questionable biogenetic markers. The exclusive fill-in-the-blank ethnicity they are said to evidence, however, is a fiction (Marks 2001). Indeed, the results of genetic ancestry tests vary by the company doing the testing because “Each testing company builds its own reference data set, drawn primarily from its own customers, and each company also creates its own algorithm for assigning heritage” (Padawer 2018). Though the results consumers receive tell a story of ancestral inheritance in the language of precise percentages, they are rough estimates, with widely varying confidence levels, based on inferences that are dependent on those reference data sets.

Given the imprimatur of scientific authority granted to the biological sciences, it is reasonable to ask whether and how a genomic notion of mixedness changes the meanings of multiracialism and its relationship to notions of ancestry and kinship. Meaning, of course, is never static or solely determined by any one institution, be it state, family, or market. “How people determine what portions of their pie charts to claim and what portions to ignore is a complex process indeed”, writes Libby Copeland. “People filter their ethnicity estimates through a complex web of cultural and personal realities. They bring ideas about truth and authenticity, fantasies about different cultures, and notions of the past. They bring their loyalties and longings and resentments, not to mention their genealogical knowledge for times when the paper trail clashes with the genetic one. In other words, they don’t accept their results uncritically” (Copeland 2020).

Research on African American consumers of genetic testing offers insight into the variable ways that articulations of genomic mixedness are interpreted. Because it is widely acknowledged that African Americans have non-African ancestors, largely through slavery, revelations of racial mixedness generally do not come as a surprise. Instead, they are received as confirmatory of this generalized knowledge. Moreover, Foeman and Lawton (2021) find that when African American respondents receive test results indicating European ancestors, this does not change how they identify.⁸ Their work chronicles the stories respondents tell to make sense of those results, typically reading that genetic inheritance as a legacy of slavery. African American respondents, they note, are unlikely to turn those white ancestors into family members.

Roth and Ivemark’s (2018) research on ancestry test users finds that white test takers who find “evidence” of mixed ancestry are especially drawn to the “cultural cachet” of being multiracial, as opposed to “just blandly white” (Copeland 2020). In this rendering, genomic multiracialism has a symbolic function similar to white ethnicity, “as an identity that can claim both the privileges of whiteness and the rewards of ethnic distinctiveness . . .” (Donnell 2015, p. 107). Commercialized ancestry testing, suggests Tyler, “enables white Americans to claim mixed-race genealogical identities that take meaning and hold within the context of their white racial privileges within American society” (Tyler 2018, p. 5). Like many of Foeman and Lawton’s African American respondents, Roth’s white respondents do not seem to narrativize mixedness in kin terms.

Alondra Nelson (2016) finds that African Americans are less interested in discovering mixed origins per se than filling in the genealogical void wrought by the Middle Passage.

Ancestry tests are sought for the possibility they offer to locate the self in specific tribes or ethnic groups from which they descend. This desire is less about constructing a lineage capable of identifying individual ancestors, and more about identifying group belonging. Nelson's respondents approach genetic test kits as a forensic mechanism for getting at "the truth" of one's ancestry and belonging, useful tools through which to secure rights in a community, and possibly reparation for historical harms.

Like narrated memory of family stories and the genealogical records of formal bureaucratic institutions, DNA test results are used to locate people in descent-based groups. Far less so than family stories and even birth certificates, however, genetic markers have no obvious meaning or value in and of themselves. It may be that the genomic mixedness "revealed" by DNA tests is embraced because it can express a generalized longing for "roots", one that does not require cultural specificity or embedding in a particular community. Perhaps the frisson of commercial ancestry testing lies precisely in the *lack* of specificity and free-floating ancestry it indexes. The impossibility of identifying roots in a genealogical and biographical sense brings with it the possibility to reimagine the past and refashion the self in the present, without the need for the specific origins (or actual people) those tests claim to reference.

Still, for some, genetic ancestry test results are described in familiar terms and are imagined as capable of connecting one to "distant cousins" in ancestral "homelands", a usage which may be especially sought in recovery projects in places where interracial intimacy has been systematically denied and/or so extensive that its traces are no longer well defined. Alison Donnell's read of the iCARA (Irish Caribbean Ancestry—Reconnecting through DNA) Project, developed to locate descendants of Irish migrants to the Caribbean and recover shared genealogical ties across racialized boundaries, is instructive here. "Its foundational vision is of a unified Irish community of 'cousins' whose shared genetic ancestry functions as a presumed reason for global community. In this way iCARA reproduces an otherwise invisible and unknowable identity under the rubric of historical retrieval and validation: 'in the absence of documentation to the contrary, the location of the Clan Homeland may be as close as we can get to defining the Ancestral Homeland of the Caribbean & Irish cousins'" (Donnell 2015, p. 111).

Popular television programs that feature historical and genetic genealogical methods to "find roots" encourage a reading of genetic markers in kin-like ancestral ways. Henry Louis Gates, Jr., literary scholar and host of one of the more famous programs of its kind, *Finding Your Roots*, routinely does so. Scodari's (2017) description of the episode depicting Gates' conventional and genetic genealogies illustrates how the meaning attributed to genetic markers morphs into markers of ancestry and kinship:

"... Gates, Jr. acknowledges results from conventional genealogy signaling Irish ancestry on his paternal line on the celebrity profile genealogy series *African American Lives* 2... In Ireland, inspection of his Y-DNA test results ratifies his descent from the infamous warlord King Niall of the Nine Hostages, something that he, an African American, shares with many Irishmen. The Ireland sequence goes on to feature Gates's interactions with his newfound clan reflecting puzzlement, amusement, and ultimately acceptance. The narrative suggests that hybridity revealed via DNA can, under the right conditions, expand horizons. However, oppressive cultural contexts, such as the historical reality of slave rape that likely produced the Irishness evidenced in Gates' Y-DNA, and which might summon hegemonic meanings for people inside and outside of Ireland, [are] absent from the segment".

This framing of the presence of a genetic signature on the Y chromosome, shared by literally millions of people, as a marker of descent from a particular individual illustrates as well the slipperiness of "genetic genealogy". That Niall of the Nine Hostages is "regarded by some historians as more legend than real" (Wade 2006) betrays the certainty and specificity of claims that genetic signatures can trace descent to individuals, a reading that turns those individuals into ancestors and relatives.

The personalization of genetic signatures as markers of relatives, ancestry, and ethnicity devoid of historical context illustrate how genomic articulations of mixedness also have the potential to decontextualize and flatten the contours of multiracialism. They allow for (and are often read as) evidence that “we’re all mixed” which encourages an interpretation of mixedness as both universal and located in the body. Of course, however, the social significance of mixedness lies not in biogenetic substance *per se*, but in the significance attributed to that “substance” and the social consequences for those crossing racial boundaries.

8. Concluding Thoughts

Technologies of ART and DNA testing offer new routes to mixed roots, expanding the ways that a person may come to understand their racial positioning in mixed terms. In different ways, both disrupt the conventional nexus between sex, intimacy, and kinship across racial boundaries that has so powerfully shaped interracial subjectivity and experience. They make possible a reworking of conventional genealogical renderings of race and kinship.

In what ways these technologies will reshape the salience of kinship in shaping meanings of multiracialism, and multiracialism for shaping meanings of kinship, remains to be seen. The meanings people make of genomic mixedness or mixedness produced through ART are bound to vary in relation to class, gender, sexuality, and, of course, race. Karla Hackstaff’s (2009) study of genealogists whose lineages include African and European ancestors finds that *how* they interpret biological relatedness and negotiate the meanings of their multiracial ancestry “depends on and interacts with [their] standpoint on an ethno-racial continuum” (192). Her respondents identify differently, as either African American, multiracial, or white, and the discovery or confirmation of mixed ancestry is differently understood in relation to that “standpoint”.

Because they emphasize biogenetic substance as the route through which race and kinship are transmitted, the capacity of ART and DNA testing to reinscribe essentialist readings of race and family is real. Some research finds that DNA testing reinforces essentialist views of race (Phelan et al. 2014), while other researchers find evidence that they both reinforce and undermine essentialist thinking (Roth et al. 2020). Similarly, while ART users very carefully consider and choose donors on the basis of racial characteristics, they do so for a variety of reasons, sometimes reflecting racial essentialist views and sometimes in an effort to resist them (Hertz and Nelson 2019; Russell 2018; Newman 2019).

Genealogical and genetic articulations of ancestry and race both reproduce and rework ideas about connection and difference within families and across racial lines. The social and political uses to which they are put, however, are not determined by the logic of descent they express. As Catherine Nash reminds us, “Accounts of ancestry can serve all sorts of arguments” (Nash 2008, p. 25), progressive and retrogressive alike. Hackstaff (2009) sees the “potential in bio-based genealogy to transform our current racial “common sense” by reconstituting our social histories; paradoxically, genealogists can use the static framework of biological lineage to track a new telling of history, generating a new “common sense” where historical narrative rests uneasily with essentialist claims . . . [T]he unknown or unexpected gives genealogists pause, requiring them to consider tacit assumptions about identity. How do we reconcile our current experience with unforeseen family stories and identities of the past? Such “discoveries” of past social constructions, can serve as points of leverage to pry open artificial categories of race and family formations and initiate progressive social change” (192).

What seems certain is that ART and DNA will have increasing influence on the contours of multiracialism going forward. Intense marketing and cheaper prices will only increase their use and social acceptance, while the social networking technologies and corporate entities that undergird and facilitate their influence are only becoming more powerful. Machine learning, the digitization of bureaucratic records of all kinds, and the linking of those records to individuals and individuals to each other create an ever-

expanding network and concomitant expansion of the possibilities for “finding your (mixed) roots”. Mergers between conventional genealogical websites and genetic ancestry testing services under one corporate structure (such as Ancestry.com) (accessed on 20 October 2021) seamlessly link genetic and conventional genealogy together, readily accessible for a fee.

The logics and techniques undergirding ART and DNA ancestry tests (the divisible body, commodification, geneticization, digitization, crowd-sourcing, and social networking) will only intensify, producing new knowledges and linkages between people, *past and present*. As the number of people using these services increases, so do the networks created, and the communication of those connections to parties that may or may not want to know about them (Benjamin 2019; Stamm 2018; Zuboff 2021).⁹

The impact of these future developments on multiracialism, though yet to be discovered, will manifest themselves in all the varied sites and ways that race is constituted. That said, as much as we should seek to understand the meanings people make of the new technologies and the desires they express about race and kinship, we should also maintain a critical stance to them and the “racecraft” (Fields and Fields 2012) they perform. Genetic markers that get interpreted as signs of ancestry and race, and are in turn read in kin-like ways, are neither themselves “races” or “relatives”, even if our imaginations make them so.

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Notes

- ¹ I use the term “multiracialism” to refer to the general phenomenon of racial boundary crossing in intimate contexts and the social relations they engender. Increasingly, scholars are using the terms “mixedness” and “mixing” to emphasize the crossing of salient social boundaries, not their particular bases (e.g., ancestry, tribe, physical appearance, nationality, language, or religion) and to facilitate comparative analysis (Rodriguez-Garcia 2015). This reminds us that what constitutes mixedness is contextual and part of an ongoing process. Mixedness is visible as such because it violates in some way prevailing norms of group membership even as it reflects a change in those norms.
- ² Inter-marriage, mixed race births, and identifications, and the law, social practices, and policies governing them are a key component of comparative race analysis. Changes in rates of inter-marriage, mixed race births, and the degree of fluidity/fixedness of racial identifications and categorizations are examined for what they reveal about the structure of racial stratification and the social consequences of racial difference in a given place and time (Wacquant 1997; Skidmore 1993; Bonilla-Silva 2010; Telles 2004; England 2010; Telles and Sue 2009; Osuji 2013). The salience of inter-marriage as a marker of acceptance as social equals (Alba and Nee 2003; Qian and Lichter 2007; Kalmijn 1998; Alba 2009; Merton 1941; Drake and Cayton 1945; Gordon 1964) is debated (Rodriguez-Garcia 2015; Bohra-Mishra and Massey 2015). Numerous scholars explore racialized differences among family members (DaCosta 2007; Dalmage 2000; Childs 2005) and the various ways interracial kin navigate their relationships with each other and their respective communities, emphasizing the kinds of labor (“racework”, Steinbugler 2012), resources (“racial capital”, Waring 2016), and skill (“racial literacy”, Twine 2010) required to do so.
- ³ Moreover, the denial of kinship distilled in racial classifications facilitated the panoply of segregationist policies under Jim Crow, the corraling of resources for whites, and reinforced a belief in the realness of race as difference and legitimate basis upon which to exclude and oppress.
- ⁴ <https://www.nytimes.com/2020/06/16/magazine/how-should-i-think-about-race-when-considering-a-sperm-donor.html> (accessed on 10 January 2022).
- ⁵ A recent account of variable pricing of children by race in the US describes “The cost to adopt the Caucasian child was approximately \$35,000, plus some legal expenses”. “Versus when we got the first phone call about a little girl, a full African-American girl, it was about \$18,000 ... The cost for adoption of a biracial child was between \$24,000 and \$26,000”. <https://www.npr.org/2013/06/27/195967886/six-words-black-babies-cost-less-to-adopt> (accessed on 2 January 2022).

- 6 “Non-white children, and black children, in particular, are harder to place in adoptive homes . . . So the cost is adjusted to provide an incentive for families that might otherwise be locked out of adoption due to cost, as well as “for families who really have to, maybe have a little bit of prodding to think about adopting across racial lines”. <https://www.npr.org/2013/06/27/195967886/six-words-black-babies-cost-less-to-adopt> (accessed on 2 January 2022).
- 7 [Ancestry.com](#) landing page describing Irish ethnicity (accessed on 20 October 2021).
- 8 Most Americans (74%) whose reported family tree indicates a mixed racial background report they are only one race. A Pew Research Center report on multiracial America finds “an overwhelming majority identified as having a multiracial background *do not* choose more than one race to describe their own race or origin” (Parker et al. 2015, p. 36).
- 9 “Surveillance capitalism”, as Zuboff (2021) dubs it, emerges from this linking of user-generated data, the profit potential of which was understood from the beginning by Big Tech. “Storage is cheap. Cameras are cheap. People will generate enormous amounts of data”, Mr. Page said. “Everything you’ve ever heard or seen or experienced will become searchable. Your whole life will be searchable”.

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