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Genetic Ancestry Testing among White Nationalists

Abstract

Using a data set drawn from the website Stormfront, this paper presents a qualitative analysis of online discussions of white nationalist individuals' genetic ancestry test (GAT) results. Seeking genetic confirmation of personal identities and having a strong ideology of the genetic basis of race and the value of white "purity," white nationalists using GATs are sometimes confronted with information they consider evidence of non-white or non-European ancestry. Despite their essentialist views of race, Stormfront posters use GAT information to police individuals' membership far less commonly than working to develop a variety of scientific and anti-scientific responses enabling them to repair identities by rejecting or reinterpreting GAT results. Simultaneously, however, Stormfront posters use the particular relationships made visible by GATs to debate the collective boundaries and constitution of white nationalism. Bricoleurs with genetic knowledge, white nationalists use a "racial realist" interpretive framework that departs from canons of genetic science but cannot be dismissed simply as ignorant.

Genetic ancestry tests (GATs) are marketed as a tool for better self-knowledge.

Purporting to reveal aspects of identity and relatedness often unavailable in traditional genealogical records, GAT marketing touts the capacity to reveal one's genetic ties to ethnic groups, ancient populations and historical migrations, and even famous historical figures. Recently, members of the American white nationalist movement and the emergent alt-right have eagerly discussed GAT and advocated their use in online forums (Reeve 2016, Zhang 2016). White nationalist figurehead Richard Spencer notoriously tweeted out his 23andMe "ancestry."² Observers note a spirit of ironic provocation among alt-right users (Reeve 2016) as they, for example, challenge each other to use a GAT to prove they aren't secret

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² <https://twitter.com/richardbspencer/status/816721891331375104?lang=en> (accessed August 22, 2018). Though the tweet's screenshot only displays ancestry summing to 96.3%. Interestingly, Spencer seems to have made his 23andMe results publicly available and the site's updated ancestry composition report claims that Spencer has a Mongolian and a North African as fourth to sixth great grandparents. See <https://you.23andme.com/published/reports/37920f26c710401d/> (accessed August 22, 2018). Spencer has not addressed this so far as we know.

members of the “Jewish Internet Defense Force” (Zhang 2016) or seek to explain European civilization as linked to traces of Neanderthal genes that GATs can reveal (Keel 2010).

But this opportunity to genetically “know thyself” can come with significant risks. Craig Cobb had gained public notoriety and cult status among white supremacists for his efforts to buy up property in Leith, ND, take over the local government, and establish a white supremacist enclave. In 2013, Cobb was invited on The Trisha Show, a daytime talk show, to debate these efforts. Another guest on the show yelled at Cobb, “You have the blood of negroes in your body right now! You are not 100% white!” And Cobb accepted a challenge to take a GAT. Several months later Cobb returned to the show only to be laughed off the stage as GAT results showed 86% European and 14% African ancestry.

Even as Cobb’s efforts to take over Leith were failing and he was facing terrorism charges for pointing a gun at townspeople, he was aiming to recuperate his public white identity. Cobb had his DNA retested, gained lay expertise to debate the science, and wrote a lengthy essay in March 2015 criticizing the methods of The Trisha Show’s GAT, asserting the superiority of an Ancestry.com test which declared his ancestry to be overwhelmingly European. He denounced the initial company DNA Solutions as part of a Jewish conspiracy to spread “junk science” whose “intent is to defame, confuse and deracinate young whites on a mass level—especially males” (Cobb, 2015). White nationalist responses to Cobb were varied: Some mocked and trolled him, but others accepted his exoneration and offered congratulations (Cobb, 2015).

The Cobb example puts on parade many of the key issues and misconceptions of the relationship between white nationalism and GATs. The initial challenge demonstrated a common assumption that GAT and true genetic science about race will discredit white

nationalists and their ideological commitments to the purity and superiority of the white race. After all, hasn't genetics (together with anthropology, sociology, and history) demonstrated the biological incoherence of race? Hasn't it demonstrated that all humans trace their origins to a common African ancestor? And hasn't it demonstrated that "pure" populations don't exist? Further, the initial part of the story suggests that white nationalists are ignorant, anti-science, and can thus be ridiculed and dismissed. But Cobb's second chapter begins to trouble this account as he re-engages GATs and finds data and interpretations of the science (and the testing companies) that confirm his ideas of whiteness. Cobb thus demonstrates his willingness to take genetic science seriously and to make it confirm at least some ideas about white nationalist identity.

The purpose of this paper is to engage the use of GATs by white nationalists more systematically. We use a unique dataset from the white nationalist online bulletin board Stormfront comprised of discussion threads where users post and discuss the results of genetic ancestry tests. Our main questions are: How do white nationalists understand GAT and interpret them viz-a-viz their identity? How are white nationalists' ideas affected by GAT? Or, more precisely, how do GATs encourage them to debate the boundaries and constitution of white nationalism?

The next section motivates these questions by tracking recent sociological work on GATs and identity. Then describe the online research setting and our data. The empirical part of our paper is organized by a flow chart that maps the range of white nationalists' responses to "good" and "bad news" posts about GAT revelations. We find that despite white nationalists' strong ideological commitments to essentialist understandings of race and racial purity, discussion is devoted primarily to strategies for repairing or dismissing

anomalous individual GAT results but also to rethinking tenets of white nationalism in the wake of those same results' collective implications. We conclude by considering the connection of technology with racial cognition and implications for the politics and ethics of population science.

Background and literature

Recent science and technology studies research has focused on the destabilization of the race concept, racial categorization, and understanding of racial differences as a key and ongoing process emerging from contemporary genetics (Bliss 2012, Duster 2006, Epstein 2007, Fullwiley 2008, Reardon 2005). Conceptually and practically, geneticists find themselves rejecting race as a way of characterizing human difference, yet unable to fully abandon it (Fujimura and Rajagopalan 2011, Gannett 2014, Morning 2011, Panofsky and Bliss 2017). And while STS scholars have traced the many contradictions and shortcomings of the emerging scientific politics of ethnic and racial diversity, inclusion, and difference (e.g., Epstein 2008), the social, cultural, and political logic of the field has come a very long way from the eugenics and overt scientific racism that has historically had an overwhelmingly loud voice (Kevles 1985, Provine 1986, Panofsky 2014). This unsettled space is opening up new possibilities for the “social life of DNA,” including the emergence of politics around new (non-racial) biosocial identities (Rabinow 1996), political projects using DNA to pursue political or racial reconciliation (Nelson 2008, 2016, Smith 2016), and even perhaps the transformation and loosening of the racial order itself (Hochschild et al. 2012, Rose 2007).

Genetic ancestry tests are poised to play an increasing role in this domain. By early 2018 industry estimates suggested that over 12 million Americans (~1 in 25) had taken a

GAT.³ GATs are probably the most common direct contact that most people have to the “genomics revolution.” The tests are usually marketed celebrating the virtues of inclusion and diversity—find out how your ancestry fits in a multicultural world. Despite this message, GATs fit squarely into the ambiguous and ambivalent representation of racial and ethnic difference that characterizes the broader science of genetics.

GAT construction and assumptions

It is worth turning for a moment to how GATs work and some of the complexities of interpreting their meaning for identity. There are two basic technologies in play. The first, using autosomal DNA, compares genetic variants across an individual’s genome to the frequency of those variants in a set of pre-defined reference populations. Through a statistical process, parts of the individual’s genome are inferred to derive from the populations to which they are most similar. The company then informs the individual that her or his ancestry is X% population 1, Y% population 2, Z% population 3, etc. The populations are determined by the company’s reference samples and might be defined racially/continentally, ethnically, in terms of modern nation states, etc.

The second technology uses Mitochondrial DNA (MtDNA), which is passed directly from mothers to children, and Y-Chromosome DNA, which is passed directly from fathers to sons. Because Y and MtDNA don’t recombine during sexual reproduction, geneticists have understood non-functional mutations (which accumulate at a slow, clock-like rate) as branching points in human history that can be arrayed into trees of human ancestry. By mapping the distribution of sets of these mutations (called haplotypes) in current human populations, genetic anthropologists have been able to trace historical relationships and

³ <https://www.technologyreview.com/s/610233/2017-was-the-year-consumer-dna-testing-blew-up/> (Accessed 9/4/18).

migration patterns among them, and also to show the ultimate common ancestry within the last 100-200 thousand years of all modern humans to individuals in east Africa. In GATs, companies can identify the haplogroup in a person's MtDNA to identify her or his maternal lineage or in a man's Y or MtDNA to identify his paternal lineage. An individual's lineages can then be described in terms of current populations that share them, and inferences can be made about the historical origins of anyone's maternal line or a man's paternal line.

Critics have argued that the inferences individuals can make about their identity on the basis of GATs are much less certain than the marketing of these tests often implies (Bolnick et al. 2007, Lee et al. 2009). GATs sold directly to consumers take as their starting point genetic assays, prior findings, datasets, and statistical strategies common to human population genetics and genetic anthropology. But the dozens of private companies that market these tests each use their own panels of DNA markers, reference groups, databases, statistical algorithms, and information communication strategies, most of which are regarded as trade secrets (Royal et al. 2010). Thus they trade on the authority of science but do not adhere to scientific standards of openness and accountability, nor are there industry standards (Lee et al. 2009). There has been anecdotal evidence, at least, that an individual may obtain different results from different companies and that companies may tune their results to emphasize what they believe customers want to hear (Duster 2011).

GATs embody a particular understanding of kinship that makes some kinds of relationships and histories visible and others obscure (Gannett 2014, Nash 2015, TallBear 2013). For example, the maternal and paternal lineages (made visible with MtDNA and Y-chromosome haplogroups) are but two of the thousands of lineages comprising one's background, and individuals with the same maternal or paternal haplogroups can vary

widely in the rest of their ancestry (Emery et al. 2015). Crucially, the populations that GATs compare individuals to are not objective entities, but reflect the judgments of creators. Present day populations may make the most intuitive sense to creators and consumers of GAT, and may be the most convenient (i.e., have available data), but they may not be the best way to make inferences about the past or to portray individuals' ancestry (Nash 2015). GATs often portray populations more coherent and distinctive from others than history and even genetic data might warrant. Many present day populations (like Italians or French), did not exist in the same way just a few hundred years ago. There is no objective way to define a population or to decide which individuals should be picked to be their genetic representatives (Bolnick et al. 2007, Royal et al. 2010). Thus how individuals *should* interpret GATs and what *can legitimately* be inferred from them is far from clear (and might vary from test to test).

GATs, identity, and racial conceptions

Research has begun to engage how GATs are affecting how people think about race and racial differences in general as well as their own identities. Several theorists, following the logic of how GATs are represented by marketers, the media, and some genetics researchers, argue that people may interpret them deterministically (Bliss 2012, Bolnick et al. 2007, Duster 2011, Elliot and Brodwin 2002, Nordgren and Juengst 2009, Phelan et al. 2014, Wagner and Weiss 2011). This was confirmed empirically in a survey by Phelan et al. (2014) that shows people interpret GATs as demonstrating race and racial differences to be genetic. This is true whether the GAT is framed as demonstrating the genetic determination of race or the genetic incoherence of race due to the admixed character of human populations (see also Phelan et al. 2013).

If research of the impacts of GAT on ethnic cognition (Brubaker et al. 2004) in general points toward the genetic reification of race and racial difference, studies of how people apply GATs to their *own identities* show a more fluid picture. In her study of African American roots-seekers, Nelson (2008) found that GAT results often produced initial “genealogical dislocation” of surprising results, but GATs did not determine individuals’ responses. Rather they incorporated results into their identities partially and selectively through a process of “affiliative self-fashioning.” Likewise Shim et al. (n.d.) found that a group of Latina and African American women who received genetic ancestry information incidentally as part a broader genetic health study were unmoved by previously unknown information because most considered their ancestry to be “all mixed up anyway.” Roth and Ivemark (2018) interviewed 100 users and found that GAT information encouraged identity changes conditional on users’ prior identity aspirations and appraisals of what changes might be acceptable among their peers.

Users’ race or ethnicity may mediate these impacts of GAT on their identity. Nelson (2008, 2016) links African Americans’ resistance to GAT narratives through affiliative self fashioning to cultural skepticism towards genetics and biomedicine conditioned by a history of exclusion and racist exploitation (e.g., Roberts 2011). Shim et al.’s (n.d.) interviewees’ prior assumptions about the mixed nature of their ancestries insulated them from surprise. Roth and Ivemark (2018) found that whites, were much more likely to be dissatisfied with the supposed blandness of their identify and have a pre-existing desire to burnish it with some racial or ethnic ties, and thus were more likely to change self-conception after a GAT. They interpret this propensity as a form of racial privilege

characteristic of the costless and optional forms of identity available to whites but not non-whites for whom identity ascription has greater social structural stakes (c.f., Waters 1990).

Whiteness, white nationalism, and identity

A major lesson of scholarship on GAT is that their meaning is not set in the abstract but given by the particular identity dilemmas of the groups using them (Davis 2004, Nelson 2016, Smith 2016, TallBear 2013). Scholars of “whiteness” have emphasized its contradictory and complex character; whiteness is in “crisis” even as it maintains political and cultural hegemony (Hughey 2012, Winant 1997). On the one hand it is conceived of as neutral, empty, the absence of race. This gives whites ethnic options to choose identities within whiteness costlessly (Waters 1990), but leads to a sense of whiteness itself as a kind of identity deficit and to assertions of whiteness per se as politically aggressive and supremacist (Hughey 2012). On the other hand, Harris (1993) has argued, whiteness has been inscribed in American culture, institutions, and law as a form of property. Predicated on racial purity and always at risk of being “devalued,” whiteness is a form of structural privilege animated by processes of exclusion.

White nationalism is situated at the heart of this tangle. U.S. White nationalism comes in many varieties including the Ku Klux Klan, Neo-Nazis, Christian Identity, and others, and though they have internal conflicts and different agendas there are core shared ideas (Adams and Roscigno 2005, Blee 2002, Ferber 1998, Zeskind 2009). Primary is the idea that race is the command variable in human society determining hierarchies of culture, politics, and history, and authentic collective identity. Crucial to this is a commitment to “race realism” that holds races and the differences among them are genetically given and transmitted through blood (social constructionism is ridiculed as a cultural Marxist conspiracy). Though generally viewing whites as racially superior, white

nationalists see whiteness as under constant attack.⁴ Part of this is biological: White blood or genes may produce white superiority, but breeding with non-whites undermines those qualities and leaves indelible traces of non-white ancestry for many generations. Thus, whiteness is at risk from race mixing, and preserving racial “purity” is of paramount importance. Part of this is cultural: they believe that white history, which is a story of wealth, innovation, and domination, should rightly be celebrated whereas the celebration of “diversity” and ethnic history celebrates only non-white groups and makes whiteness a source of shame. Part is political and institutional: public policies seem geared to compensate all non-white groups and to secure their numerical and political ascendance (through immigration, education, welfare, etc.). Dissatisfied with the “colorblind” solutions of mainstream conservatism, white nationalists insist instead on active “white pride” and explicit policies to support white people (Winant 1997).

GATs potentially intersect many of white nationalists’ concerns. But considering that GATs are an unruly technology that may deliver surprising and difficult to interpret results it is an open question how do white nationalists interpret GATs and apply them to their concerns? Given the fact that GATs are built on a platform of population genetics that generally does not support strong racist conclusions (Royal et al. 2010, Shriver and Kittles 2004), how do GATs affect white nationalists’ commitments to “race realism”? Do they employ the same kind of passive essentialist cognition highlighted by Phelan et al (2014) in the general public, or do they think about GATs differently? If previous research grounds affiliative self fashioning in African Americans’ experience and assumptions about mixed ancestry, and selective appropriation of GAT results in whites’ aspirations to

⁴ Some claim not to be promoting white supremacy, but only celebrating white culture and character along the lines laid out by multicultural celebrations of diversity (Hughey 2012).

compensate for the perceived blandness of whiteness, how do white nationalists who have strong commitments to white purity and disdain for those who would aspire to “exotic” ancestry interpret GAT evidence of racial impurity or mixture?

Research setting

To study white nationalists’ uses and interpretations of GATs, we examined posts from Stormfront.org, the largest online discussion forum dedicated to “white pride worldwide” (Daniels 2009). Founded in 1996, Stormfront was one of the first right wing websites that went beyond promulgating propaganda to using Web 2.0 technology to enable anonymous member discussion and participation in forums and blogs. The Stormfront site boasts one million archived threads and over twelve million posts by 325,000 or more members.⁵ Caren, Jowers, and Gaby (2012) found that from 2001-2010 Stormfront had 50,000 unique individuals contributing about seven million posts. In 2010 alone, there were 400,000 visitors and four to five million page views per month, an amount of traffic that is roughly equivalent to the popular left wing politics site DailyKos.org. Users come from all around the US and the world, but concentrate slightly among states in the American west. Users are also probably are somewhat older on average and have slightly different concerns than those who have recently driven the flurry of alt-right online activity (Nagel 2017). And while Twitter, Reddit, and other social media outlets coupled with backchannel communication have allowed white nationalists (and other) movements to reach new audiences for recruitment and mobilization (Donovan 2016),

⁵ Statistics were gathered from the Stormfront webpage’s self-reporting and does not include information on lurkers (i.e. those that visit but do not sign into an account): <https://www.stormfront.org/forum/> (accessed, May 30, 2017).

Stormfront is still the most popular far right site, and its longevity makes uniquely valuable for tracking white nationalist opinion.⁶

Stormfront serves as a platform for white nationalism and is something of a hybrid between a social movement and a community. It offers anonymity and connection amongst the white nationalists who might be geographically dispersed and isolated in their own communities, yet it rarely results in the organization of active “in real life” campaigns (Abel 1998, Daniels 2009, Hara and Estrada 2003). Yet the shaping of identity and ideology as well as reach and scale are key features of social movement organization and Stormfront perhaps white nationalism’s strongest locus for these (Caren, Jowers, Gaby 2012).

In recent years, Stormfront has subtly shifted its emphasis away from the ideal of a social movement driven by political mobilization and toward one that cultivates an identity community. In the 1990s, its mission description reflected the militancy of its founder is Don Black, a white power activist who had spent time in prison for attempting an armed invasion of Dominica in 1981: “Stormfront is a resource for those courageous men and women fighting to preserve their White Western culture, ideals, and freedom of speech and association -- a forum for planning strategies and forming political and social groups to ensure victory.”⁷ More recently, Stormfront’s description parallels the language of left-leaning identity movements: “We are a community of racial realists and idealists. We are White Nationalists who support true diversity and a homeland for all peoples. Thousands

⁶ See https://www.alexa.com/topsites/category/Society/Issues/Race-Ethnic-Religious_Relations/Race_and_Racism/Supremacy_and_Separatism/White/Organizations (accessed September 7, 2018).

⁷ <https://web.archive.org/web/19980611143823/http://www.stormfront.org:80/> (accessed September 11, 2018)

of organizations promote the interests, values and heritage of non-White minorities. We promote ours. We are the voice of the new, embattled White minority!”⁸

Stormfront’s shift to an identity-based framework for describing their purposes has several other implications. First, it enables white nationalists to differentiate themselves from white supremacists. Stormfront portrays its mission as advocacy for “true diversity” and the “embattled White minority,” that white Europeans “are a distinct an unique people with our own culture, history and destiny” whose “bio-diversity” is as important to preserve as any endangered species.⁹ They thus claim not to advocate “supremacy” as in the domination or extermination of any other races, but their sense of white preservation is dependent upon race consciousness, racial separation and purification, the sense that interracial mixing puts whiteness at risk, and constant denigration of “egalitarians,” Jews, and non-white people. This is supremacy by any reasonable definition.

Second, it aims to sidestep two kinds of conflicts. One the endemic infighting among different factions and movements on the racist right—neo-Nazis, KKK, skinheads, Christian Nationalists, and now the alt-right (Ferber 1998, Nagel 2017)—conflicts Stormfront discourages in the name of white pride. Another is conflicts or hierarchies among whites nationalities or ethnicities: “White people are the descendants of all historically European peoples...[we celebrate] the cultural diversity of the White race.... Our watchword is no more brothers’ wars” (Law 2006).

But finally, the identity framework amplifies the question of “who is white”? In an oft-referenced policy statement Stormfront senior moderator John Law (2006) offers several definitions: “non-Jewish people of wholly European descent. No exceptions. And if

⁸ <https://www.stormfront.org/forum/> (accessed September 11, 2018).

⁹ See <https://www.stormfront.org/forum/t579652/> (accessed June 2, 2017).

you tell us you're not, we will believe you," or "no discernable trace of non-White admixture," or "if a person looks White and thinks of himself as White and is the kind of person our other members wouldn't mind their sisters marrying-and if we know he is no more than one-sixteenth non-White, we consider him White." Law advances these definitions as straightforward rules aiming to put to rest the endless questioning and debate of "who is white" by sympathetic Stormfront members as well as trolling egalitarians seeking to tie up white nationalism in contradictions. But the debate refuses to end because these definitions all have the problem of how one knows. The last one relies on relationships among white nationalists, but in an online forum it's hard to tell who looks and acts white. What are boundaries of Europe and whiteness given historical fluctuations? Further, criteria like "discernable" and "wholly" beg for clarification. Do they contradict one-sixteenth?

And thus GATs stir this already bubbling cauldron. GATs might offer invaluable information for those obsessed with questions of personal ancestry and biological identity, especially for the many who can't trace their family trees deeply. GATs are designed to discern admixture and document diversity, and thus they would seem to have tremendous potential for addressing the epistemological problems of white identification and diversity preservation that John Law references. But in rendering ancestry and admixture not only visible but also quantifiable, GATs raise the question of what's acceptable. Do white nationalists on Stormfront follow Law's "no exceptions" rule when GATs reveal ancestry they'd consider discrediting? Or do they have other ways of interpreting GATs? Given GATs, how do white nationalists answer the question of who is white?

Data and Methods

Our data on white nationalists' responses to GAT come from discussions culled from Stormfront. Using a variety of keyword searches on Stormfront's native search engine, we downloaded every instance we could find of individuals posting their GAT results and subsequent discussions of those results. We identified 639 posts where users revealed their GAT results in some way between 2004 (about when GATs first became available) to May 2016 (when data collection ended). These posts occurred within 70 different discussion threads; all of the posts within these threads—3,070 total—were downloaded, read, and coded by the research team. Our methodological appendix provides details.

The data, while remarkable for the insights they yield about white nationalists' concerns, debates, and styles of thought, also have some specific limitations. First, the choice to post one's GAT results is completely voluntary and there are no checks on veracity. Given the pressures about purity and membership, we might expect people to withhold results revealing ancestry considered problematic or to report "whiter" results than they actually received. This makes the problematic results that people actually do post all the more interesting.

Second, the data structure is complicated, which makes most kinds of quantifications and generalizations difficult. It is tempting to think of each GAT reveal as a distinct contest—a result is posted, there is a discussion, and the community reaches a decision about how to interpret the result (and whether to celebrate or ostracize the poster). But in reality these are not discrete contests, but complex, overlapping, meandering conversations that might cover multiple result reveals (disclosing different kinds of personal information) and other issues simultaneously. It isn't always possible to tell which earlier post a response is addressing, and conversations may occur across

multiple threads, or may lay fallow for a long time only to be later revived. Any particular result might draw a range of responses from supportive to hostile, and thus “outcomes” of debates can be difficult to determine. Further, Stormfront discussions sometimes concern whether a post is authentic or that of a “troll” trying to stir conflict.

For all of these reasons, the analysis in this paper focuses on a general mapping of the range of responses and discursive strategies by which white nationalists deal with the GAT results. We do not attempt detailed analysis of the conditions under which certain individuals receive different responses to their results or the “careers” of particular topics or individuals over time. The results do not lend themselves well to precise quantification and the few numbers we present here only serve to illustrate general trends or comparisons within the corpus. Finally, the analysis in this paper is largely synchronic, and we leave it to future research to show how white nationalist responses to GATs have evolved over time as the technologies themselves have developed.

Findings

Here we analyze different ways that Stormfront users post their GAT results, react to the posts of others, and also generally debate the meaning of GAT. Notwithstanding the difficulties discussed above in quantifying these results, we wanted a sense of the balance of “good” and “bad” news portrayed. Thus we took a subsample of 153 the 639 result reveals where the precise GAT technology could be ascertained and detailed results were given. These seemed to be the most complete, direct, and unambiguous reveals—though not necessarily representative and unreliable for establishing rates, they are lower bounds in terms of counts. Table 1 shows our codes for the posters’ own interpretations of their results. About one third simply provide the results without comment or question, about one third present “good news” in the sense of a confirmation of prior beliefs or welcome

unknown ancestry, and one third present a problem: either unwelcome news or problematic uncertainty about one's ancestry.

TABLE 1
GAT Consumer Result Reactions

Posted test results with no reaction or explanation	51
Confirmation of prior knowledge	28
Welcome surprise	25
Unwelcome surprise	28
Uncertain of how to interpret results	21
Total number of cases	153

We see that many GAT users are willing to appeal to fellow Stormfront posters for interpretive help or moral support in the face of problematic news. None of these represented a public conversion moment where the user personally renounces or publicly criticizes white nationalism after learning of personal non-white ancestry—if GAT caused any such conversions, they did not occur publicly on Stormfront.

Table 2 reveals the counts of our top-level codes for responses to posters' results for any of the 639 cases. Categories are listed in order of how often they appear, while categories of response directed in some way at the person of the poster are italicized. The main finding here is that there are vastly more reactions about the interpretation of the tests themselves than reactions to the individuals posting the results, either emotionally supportive or denunciatory. Furthermore, emotionally supportive responses roughly balance out responses that take the results literally (as opposed to suspiciously) and shame, exclude, or denounce the poster as not white. The willingness to share problematic results and the low frequency of denunciations suggest that the John Law's criterion for who is white does not function like a rule on Stormfront. Furthermore, the wide range of

discussion suggests GATs don't have a clear meaning and represent a problem to be worked through by Stormfront users.

TABLE 2
Range of Stormfront Members' Reactions to Original Posters' GAT Results

Provides an educational or a scientific explanation	1260
Suggests that better data analysis is available or to move your data	224
Delegitimize genetic tests	224
Reject testing company outright	135
Suggest there are technical/statistical error in tests	114
<i>Emotionally supportive statement</i>	111
Racist claim/rant not targeted at person or test	98
<i>Suspicion that the original poster is a troll</i>	72
<i>Shaming or exclusion of original poster</i>	65
Refute the test results on scientific grounds	45
<i>Suggests that poster misinterpreted test results</i>	44
<i>Calling the original poster "not white"</i>	42

Italics mark reactions to posters personally

Our next step was to inductively generate a classification scheme of Stormfront posters' responses to GAT users' posts, which we have portrayed as a flow chart (Figure 1). This is a map of the cultural logic that implicitly organizes the collective pattern of GAT reactions. The point of this paper is not to analyze in depth the conditions under which certain claims elicit sets of responses. We are explicating the shape of a cultural space but not analyzing individuals' trajectories through the space.

FIGURE 1: White Nationalist GAT Results Responses Flow Chart

In the analysis below, we will progress through the different possible responses that are represented by the different squares on the figure. We start by considering the GAT results that posters consider “good news” regarding their identities (red squares). Then we turn to the more interesting cases where posters reveal results that they consider “bad news” in that some proportion of non-white or questionable ancestry is revealed (yellow squares and subsequent branches). First we consider cases where Stormfront responders work to repair the poster’s “spoiled identity” (Goffman 1963), either by rejecting GAT as a basis of knowledge about identity (purple squares) or engaging in a scientific reinterpretation of the results to minimize the damaging results (green squares). These cases all involve ways of discrediting or minimizing the impact of GAT, but we turn next to examples where Stormfront members engage these “bad news” posts by accepting GAT

results (red and gray squares). One set of these includes boundary work to expel posters with spoiled identities, but the second set contains examples of ways that Stormfront posters are using GAT to rethink the boundaries of whiteness and the project of white nationalism.

“Good news” from GAT

Perhaps the most straightforward posts were results posters interpreted as confirming or enhancing their white identity bona fides:

I used 23andme. It came up 100% European. Mostly Irish and British with some Scandinavian. Pretty much what I expected but it was good to get it confirmed. (AltRightyThen, 09-28-2016)

I did my Y-67 and Autosomal tests through Family Tree DNA. All it did was confirm my ancestors were western European; primarily England, Wales and Scotland. I already had a paperwork trail before the DNA tests so the test was accurate for me. (jbgramps 07-10-2016)

These posters are pleased but not surprised by results that confirm what they already believed to be true about their ancestral origins.

But for other posters, the good news went further as they identified unknown components of their ancestry that confirmed their white identities in new ways. For example, one poster was thrilled with the “*pretty damn pure blood :D*” (Sloth 07-11-2010) that testing revealed. Sloth was surprised that “*even though im born in Finland I dont have much roots in here. The biggest % was from Iceland, then Ireland, then Scotland, Then Norway, Sweden and FI[nland] last but not least.*” Intrigued by the “Celtic” result, Sloth mused “*How can I have some Celtic roots if I have BLONDE hair, not red.*” But this result was considered interesting, not discrediting, and Sloth planned to get a Thor’s hammer tattoo and visit Iceland due to this new knowledge.

The good news can also allay fears about one's identity. For example, Shatzie (08-23-2013) had pursued testing out of a concern that "their might be american indian or jew in the mix because I tan really easily" but was relieved by the results:

*67% British isles
18% Balkan
15% Scandinavian...
100% white! HURRAY!*

Good news posts generally fail to draw much response, perhaps because they rarely pose a question. Occasionally, good news might draw congratulations from a poster's virtual friends and sometimes a scoffing response from someone critical of the decision to send one's DNA to companies that some Stormfront posters believe are parts of a Jewish conspiracy, a point we return to in a moment.

Though GATs draw little discussion so long as they deliver good news, they still have implications for white nationalism in general as well as these individual posters. For one, each additional example helps demonstrate the "purity" of the white race, or at least examples militate against the idea that many visibly white Americans have hidden non-white admixture. Additionally, it fits into white nationalists' claim to be advocating for "true diversity." An example of this transvaluation and appropriation of diversity can be seen in AngryGoy's signature, which reads:

*White people have
red, blond, light brown and dark brown hair
blue, green, light brown and dark brown eyes.
Non-White people have mostly Black hair and dark brown eyes.
YET it is the non-Whites that are referred as people of color????? (05-02-2013 e.g.,
color emphasis in the original)*

GAT results contribute to this effort by revealing that "ordinary" white people are, in themselves, already diverse amalgams of European nationalities. The sentiment that whiteness is bland, featureless, or a deficit is one that white nationalists are often

frustrated with, even when they express it (Hughey 2012), and they don't like the idea that some whites use GATs to search for "exotic" non-white ancestry to fill in this lack (Roth and Ivemark 2018). Yet GATs help them make visible and talk about European diversity and the deep ancestries that combine within the whiteness of which they are so proud. GATs are thus tools for seeing diversity within whiteness and for claiming diversity without having to admit non-whites as a part of it.

Rejecting "bad news" from GAT

A substantial, perhaps surprising, number of posts relates some kind of bad news revealed by GAT. It is perhaps somewhat surprising that posters would reveal bad news—even with the quasi-anonymity of the online handle, but such reveals often solicit advice about how to interpret or cope with the information. Such posts often elicit long series of responses some of which are supportive and others of which can be dismissive or cruel—about these more below. We have identified two basic ways that Stormfront posters seek to contain identity-damaging GAT results.

Rejecting the validity of GAT

The first of these is to reject GAT as a basis of knowledge about an individual's ancestry or racial identity. One version of this rejection is to champion traditional genealogical methods instead. For example, in response to a result that contradicted the poster's family history, one posting was:

My advice is to trust your own family tree genealogy research and what your grandparents have told you, before trusting a DNA test. These companies are quite liberal about ensuring every white person gets a little sprinkling of non-white DNA (we know who owns and runs these companies). Rather, these tests can be used to affirm what you know about your own European ancestral groupings, deep origins, etc.

It's also very unlikely for whites to be mixed if their genealogy shows all European ancestors 5 or more generations back. Rampant race mixing wasn't going on back then the way it is today. (Bellatrix 06-21-2015)

Genealogical research is a popular pursuit among Stormfront posters and they frequently describe it as the best way to learn about one's identity. Genealogy is more specific about identity—linking one to people from particular groups and places rather than vague populations from some unclear historical past—but also it is under the identity seeker's control.

A second justification for rejecting GAT results is that race or ethnicity is directly visible. In response to a poster's distress that GAT identified Jewish ancestry, Gladiatrix responds, "I wouldn't worry about it. When you look in the mirror, do you see a jew? If not, you're good" (05-26-2014). CatchTheInnocence mocked the form of the GAT by posting his own "test results": "And the mirror test results: golden/reddish beard, bright blue/green eyes with a beautiful yellow circle and a White mans nose" (07-07-2015). The idea behind the "mirror test"—a play on the GAT data reveal (Nelson and Huang 2011)—seems to be that a part of a true white nationalist consciousness is the ability *to see race* directly; or, more precisely, that non-white or Jewish ancestry will leave visible traces that the race-conscious will be able to see. From this perspective, if someone does not "look white" or if their appearance leaves room for doubt, then that person is not white. GAT thus adds nothing.

A third way to dismiss problematic results is to reject GAT themselves as produced by companies whose leaders have an anti-white bias. In the response above, Bellatrix accuses companies that offer GAT of having a pro-multiculturalism bias in which they try to confuse whites about their identity by attributing to them some non-white ancestry. Others

link this bias to a specifically Jewish conspiracy advanced by GAT companies, in particular 23andMe, which they believe are owned by Jews.¹⁰ For some, the conspiracy goes deeper:

I would be interested in taking a DNA test to explore my ancestry, but one thing prevents me. That is the fact that 23 and Me is Jewish controlled and it would not be surprising if all the others are too... it IS possible to develop synthetic disease that will kill only whites with a 100 percent death rate.... I think 23 and Me might be a covert operation to get DNA the Jews could then use to create bio-weapons for use against us. (ErikTheWhite 10-15-2016 quoting Volodyamyr)

For many Stormfront posters, one can discount GAT results because the putatively Jewish company ownership is invested in sowing racial doubt and confusion among whites. But furthermore, one should not participate in testing because it also empowers Jews and governments to surveil and ultimately to attack whites.¹¹ Though cast in implausible anti-Semitic and conspiracy theory terms, the critique here mirrors those of GAT critics who have noted the technology is between science and the market and lacking an objective standard companies may tell people what they believe they want to hear (Bolnick et al. 2007).

The Stormfront posters who reject the legitimacy of GAT do so based on the conviction that paper and pencil genealogy and perception grounded in racial-consciousness are superior forms of knowledge. Furthermore, many believe GAT companies to be biased, seeking to confuse whites. The common thread here (beyond the conspiracy mindset) is a distrust of elites and Jews and a valorization of tools of knowledge that can be controlled by oneself. Indeed some posters bemoan the lack of a “racialist” run GAT company, and others advocate downloading one’s genetic data (which some

¹⁰ For a full articulation of this point on a white nationalist blog see, <http://www.renegadetribune.com/the-jews-behind-23andme-and-family-tree-dna/> (accessed, April 25 2017).

¹¹ Not all Stormfront posters accept the extreme conspiracy theories about GAT: “I am sorry if you think it is an evil conspiracy. There is zero evidence to support that. Every White person I know who has taken any of these autosomal tests came back as White in some form or the other. They were never told that they are mixed” (SaxonCelticPride 09-17-2013).

companies allow), and taking it to sites like GED Match (<https://www.gedmatch.com/>) which they believe offer a more detailed and neutral depiction of ancestry.

Accepting but reinterpreting GAT

A second general strategy for dealing with “bad news” GAT results is to reinterpret the results within frameworks of genetic, statistical, or historical knowledge in order to undermine the most damaging interpretations. Here GATs are understood as legitimate in principal, but particular results are believed to be erroneous. Such discussions are usually in response to an original poster’s worried description of an anomaly—a person who “looks” white and believes his or her ancestry is white, but receives a GAT result with some ancestry from a non-white or Jewish ancestry. And the responses that aim at repair tend to be educational and reasoning through different ways of making the anomaly make sense.

The most common strategy is to chalk low levels of anomalous ancestry to “statistical error.” Posters often respond that ancestry percentages in the low single digits are not significant and can be discounted: “Every single White person I have spoken to who has taken this test ends up with less than 1 percent of some obscure region in their DNA. It's not worth stressing over” (SaxonCelticPride quoted in greengoddess 09-15-2013). Others put the threshold of non-concern at about 5%, sometimes citing the interpretative guidelines promulgated by GAT companies themselves.

But there is a lot of obsessing and questioning about these small portions of “bad news” ancestry, so they are clearly considered dangerous. One individual writes, “Mine says 98% Europe and I will not be revealing the others that make everything add up to 100%. I view the rest as noise DNA that’s probably there from many hundreds of years ago during conquests between Europe and other places” (greengoddess 09-14-2013). It is “noise” so the poster feels justified in not revealing it (perhaps to avoid drawing negative

attention), but then she gives the noise an explanation in historical processes. Despite assurances of their insignificance, low percentages can be hard to ignore. As one posted:

They had me at 5% [non-European] and the rest European decent, whether it's legit or not I did the smart thing and went on the forum where they racially profile people by traits and race features all the time, they classified me and said I looked of Germanic, Celt stock and Borreby, Alpine like was the trait. (Ghostofwar1119 07-31-2015)

Concerned about the genetic results, this poster went to a crowdsourcing site where a person can submit his or her picture to be rated by peers for its European ethnic membership and was gratified that the suspicious DNA was at least not visible.

Finally, tiny percentages of non-white data can be seen again as part of the multicultural conspiracy of 23andMe and other GAT companies trying to sow confusion among whites:

EVERY single American's results that I have seen ALWAYS have this 0.1% non-white garbage....[results from 23andme are 'rigged'] for the very reason and cause of trying to spread multiculturalism and make whites think that they are racially mixed ... 23andme has been called out for it's new method of determining ancestry, this whole 0.1% or 0.2% african or native american (or whatever non white it may be) garbage is 100% falsified and inaccurate. (Herja 02-21-2014)

This poster disputes the scientific basis of disclosing very small portions of ancestry and thus attributes GAT companies' disclosure of the information as having anti-white motives.¹²

A more sophisticated strategy for reinterpreting problematic GAT results to be less damaging is to point out some version of correlation does not equal causation in the results. For example:

the main flaw is that they base your results on common dna segments. For

¹² Logically, though, if GAT companies were seeking to lie and confuse they would do so by skewing the results to appear significant rather than negligible.

instance if a significant number of Turks had a certain segment resulting from the Greeks who used to live there, a Greek taking the test might come up as part Turk, not because he has Turkish ancestry but because some Turks have Greek ancestry.

Bingo. This may even account for face-value White Americans who come up with a smidgen of Amerindian. It's not that the White folks necessarily have an Injun in their woodpile.... it's that the base population of Injuns from whom they analyzed the markers had some White in theirs. (Skyrocket 06-01-2014)

The poster points out that GAT companies estimate an individual's ancestry by comparing it to a reference group. But that reference group is defined by fiat since geneticists must generally sample from contemporary populations rather than historical populations believed to be their origins. This poster's critique, though without the racist overtones, echoes those of academic critics of GAT (Bolnick et al. 2007) and is one of the basic problems that population geneticists deal with in their work.

Other versions of this critique are made less on logical grounds, but in terms of elaborate historical theories that account for the mixture of white or European genes with non-white or non-European populations. For instance, one poster understood his/her ancestry to be Italian, "However, the DNA tests show that on both sides, I belong to haplogroup U5a1a, which means all my ancestors come from Northwestern Europe!"¹³ A responder explained the result in terms of the heterogeneous mix of peoples constituting Italy:

It's not really all that surprising, Italy is a fairly new country and before that there were quite distinct regions to it, it used to be Celts and Etruscans in the North, Greeks in the south Italics in the middle etc and later on the South became the Kingdom of Sicily, also Byzantine Greek occupation happened in large portions of it, in the Central and North and the South it passed into the hands of Lombards, Franks, Goths, etc, so it's not really all that surprising that your ancestry is from Northwestern Europe. (MaxVictory 01-04-2008)

¹³ Uncommented on by interlocutors is the odd reporting of the result: The haplogroup is only for the maternal line (and couldn't describe "both sides" let alone "all my ancestors") and many contemporary populations around Europe contain it in various frequencies.

In another example, a poster noted alarm at a GAT identifying “11% PersianTurkishCaucasus” ancestry. FadingLight responded, “these are OLD strains of White genetic material that turn up in odd places. Remember that Persia was a WHITE civilization to start with, and all of that surrounding area was White, too, until the Semites came” (10-09-2012). And in response to a person several years later who posted a small portion of “Senegal” ancestry, FadingLight raged:

See, THIS is why I don't recommend these tests to people. Did they bother to tell you that there were Whites in what is now Senegal all that time ago? No? So they led you to believe that you're mixed even though in all probability, you are simply related to some White fool who left some of his DNA with the locals in what is now Senegal. (07-01-2015)

Thus, anomalous results of current Stormfront posters are sometimes explained in terms of deep histories of whiteness including its ‘heroic’ conquests, ‘tragic’ incursions of non-white populations, and ‘foolish’ mistakes of whites.

What we have shown here is a strategy of coping with “bad news” that accepts the reality and relevance of GAT results but attempts to offer alternative explanations than those seemingly on offer from the testing companies. In this framework, the repair strategy is not to reject scientific or historical knowledge but to educate oneself to understand the construction of GAT results and to explain those results in alternate terms. This perspective is often supplemented with counter-historical knowledge that emphasize race as the driving force in history.

Accepting GAT results that deliver “bad news”

The sections above considered ways of repairing identities endangered by GAT “bad news” that worked by rejecting, displacing, or re-interpreting GAT results so as to minimize their impact. Now we turn to responses that accept the bad news—first on the individual

level and then how some have begin to think through the implications of the results for the boundaries of white nationalism and theories of race.

On occasion someone will post GAT results that have bad news that far exceeds the threshold of a few percent of non-European ancestry. Witness this exchange:

Orion22 (11-13-2014)

Hello,

Has anyone received their DNA result from saliva DNA test?

I received my results today, and I am 58% European, 29% Native American and 13% Middle Eastern.

I am pretty sure Middle Eastern is Caucasian too, as well as European, so it means I am 71% Caucasian?

...

Gargoyle (11-14-2014)

Looks like you won't be a member here anytime soon.

Orion22 (11-15-2014)

I am pretty sure you are NOT 100% pure either. Good luck with your DNA test, if you are North American, you will be surprised how much Native American DNA you have.

TommyGunOrange (12-01-2014)

you are seriously retarded and ignorant about genetic studies

...

no, you're just jealous because you want to be white but you cant and you hate the fact most white americans really are 100% white

...

its not our fault your ancestors were stupid fcking race mixers and race traitors

don't get mad at us just because you're stupid dirty dog

and for your info, the vast majority of genetic studies and results show that yes, the typical white American is 99%-100% white/European

...

go troll somewhere else, There must be a La Raza website out there somewhere. you'd feel more welcome among your half breed cousins.

...

TommyGunOrange's extraordinarily harsh response (edited down by about two thirds) was triggered first by the admission of Native American ancestry and then the defensive claim that lots of North Americans would share this background. The initial poster is perceived as a troll—why else would someone cop to this background among

Stormfronters—and is screamed at with a racist screed arguing that actually GATs overwhelmingly demonstrate evidence of white genetic purity.

Not all such bad news acceptances are quite like this. Another example, *Hello, got my DNA results and I learned today I am 61% European. I am very proud of my white race and my european roots. I know many of you are "whitter" than me, I don't care, our goal is the same. I would like to do anything possible to protect our white race, our european roots and our white families.* (RogerOne 12-31-15)

The response from FadingLight (01-01-16) was quick and harsh:

I've prepared you a drink. It's 61% pure water. The rest is potassium cyanide. I assume you have no objections to drinking it. (You might need to stir it first since anyone can see at a glance that it isn't pure water.) Cyanide isn't water, and YOU are not White.

FadingLight tells RogerOne to kill himself, invoking the common idea that 39% non-European ancestry would be clearly visible and also that non-European ancestry is like a poison. Beorma246 (01-01-16) responded a bit more mildly: “If you do care about the White race, don't breed with any White women. Therefore not polluting our gene pool.” Apart from the racist screaming denunciation, we see the two common responses for accepting bad news: kill yourself or at least don’t breed.

Interestingly, these kinds of response to bad news are fairly uncommon. As Table 2 shows, shaming or denunciation of someone with problematic results is far less common than repair through personal support or various GAT reinterpretations. Though more research will be necessary to see if it can be determined when individuals are enjoined to accept vs. repair bad news, the former seems to be reserved mostly for posters perceived to be trolling or provoking Stormfront members. Indeed, perhaps RogerOne is “only” counseled to consider suicide or celibacy rather than being denounced as a “stupid dirty dog” in a thousand word screed like Orion22 because he claimed a commitment to the cause and thus muddled his intentions. But more generally, we believe, but still need to

confirm, that bad news posters who have a record posting on other topics are likely to receive repair advice, whereas those who are newer to the board are more likely to be attacked—because they will be interpreted as people who have decided to post only to stir up reactions.

Limits of repair

What are the conditions and limits of GAT results that Stormfront members will entertain identity repair as opposed to denunciation? Are there specific ancestry ties or thresholds that are automatically beyond the pale for Stormfront? The short answer appears to be, no. Highly stigmatized backgrounds can be repaired while seemingly innocuous ones can become a problem. There are many examples of the former: aniaa (04-09-2010) reported that her white-appearing adopted sister was told she had an L3 MtDNA haplogroup which is characteristic of Sub-Saharan African populations, and all of the dozen or so responses were in the vein of explaining away or minimizing the results.¹⁴ A separate thread included about a half dozen posters discussing Ashkenazi Jewish ancestry in their test results.¹⁵ Though they considered multiple explanations for how it might have appeared (e.g., Jewish proximity to populations in Eastern Europe or Germany, 23andMe being a Jewish conspiracy), nowhere were these individuals' identities denounced. These and other examples of Jewish and black ancestry results

In contrast, the case from above of “PersianTurkishCaucasus”—literally Caucasian—ancestry was seen as a problem (perhaps because of the Persian part), though a repairable one. Furthermore, even tiny fractions of problematic ancestry can sometimes elicit

¹⁴ <https://www.stormfront.org/forum/t698418/> (accessed September 10, 2018).

¹⁵ See <https://www.stormfront.org/forum/printthread.php?t=1012896&pp=100> (accessed July 26, 2018). The thread ended in a pages long fight between Craig Cobb and someone called Sluggo about whether the former was a “genetic n.”

denunciations (see demines and auswhite below), while a fairly substantial percentage might not though 5% is frequently mentioned as a threshold of concern. There is no sustained conversation about what levels, backgrounds, or evidence of mixture constitute irredeemable transgressions; the discussion remains in an ambiguous space that paradoxically combines vigorous intolerance and constant negotiation.

Rethinking the boundaries of whiteness and the project of white nationalism

Discussions of GAT among Stormfront posters go beyond the interpretation of results for an individual's own identity and extend to consider how group definitions of whiteness and white nationalism should be redefined. The following exchange after auswhite posted results that revealed a tiny portion of non-European ancestry shows how GAT poses simultaneous risks for individuals and white nationalism writ large:

demines (08-28-2013)

As per Stormfront's rules, you have to be of wholly European descent to be white. <https://www.stormfront.org/forum/t579650/> [the link to John Law's rules discussed earlier]

auswhite (08-28-2013)

I am of wholly European descent. Both my lines trace back to Europe, the last names are European the religion practiced on both sides were European, my Italian grandfather went to school with catholic nuns for crying out loud. Just because I took a test and it came back with 0.25% nonEuropean does not mean I am not white The thought of even considering myself nonwhite has never crossed my mind. I am white in body soul and spirit through and through.

bioprof (08-28-2013)

That rule will have to be updated in the face of genetic testing. A new standard will have to be set based on modern technology. The OPs genome showing some tiny degree of admixture is going to show up in a massive number of individuals of European descent. Strict adherence will result in very few individuals qualifying for Stormfront.

demines challenges auswhite's claim to be white based on the GAT result (though normally this kind of result would produce repair responses). auswhite replies defensively to establish his ancestral and personal white bona fides. And then bioprof recognizes the

broader problem, which is that on the strict genetic rule articulated by John Law and others, white nationalism would run out of legitimate members.

One line of conversation thus concerns what are the genetic markers of legitimate whiteness or European-ness. In particular, posters discuss the haplogroups that differentiate among Y chromosome and Mt DNA lineages and debate whether particular ones are white and European. For example, jypski3 (09-25-2015) asked whether the Y chromosome J2 haplogroup is authentically European, and posters debated its supposed Mesopotamian Semitic origins, relation to other haplotypes, and distribution into Europe by Neolithic peoples.¹⁶ In a different thread, “Which is the pure white haplogroup?,” a poster referred to a Y haplogroup map of Europe: “I see that R1a, R1b and I are the prominent European haplogroups” (HaplogroupQuestions11, 06-21-08). Semitic-Arab responded that those are the Indo-European/Aryan haplogroups (06-23-08). And SabreWolf, picking up the thread after several dormant years, explained “I, J, R, L and their subclades are the major Caucasoid haplogroups....There are African-Americans with R1b, but that does not make them White. Haplogroup is only useful for tracing the migration path, not to confirm race of individuals” (04-04-2014).

The broader question is whether these haplogroups allow study and appreciation of the history and heritage of whiteness and European-ness in general or the policy application, “Should people be discriminated against based on MtDNA and YDNA?” as one thread put it.¹⁷ There was disagreement about the haplogroups’ utility because of the anomalies of deep ancestry—“by your argument Hitler is not ‘White’ since his E1b1 YDNA is more common in North Africa” (TennVol88, 05-15-2013)—but a consensus that MtDNA

¹⁶ See <https://www.stormfront.org/forum/t1122696/> (accessed May 1, 2017).

¹⁷ See <https://www.stormfront.org/forum/t964324/> (accessed September 10, 2018).

and Y-DNA can't do this work on their own without autosomal DNA, which is more racially informative because it makes up the bulk of one's ancestry.

But even if white nationalists largely agree that autosomal DNA is the right biological substrate, how it should be used is another matter. The frequent discussions about what percentages of non-European ancestry are worrisome are at least implicitly about what is the admissible threshold of whiteness in the community. In response to this question, some reject GAT as informative offering cultural and political criteria instead: "Most WN's do not hold to a "one-drop" rule. If you look White, live White, identify White, if your grand-parents and great-grand-parents looked White/lived White/identified White—that is often sufficient....Not to mention that many WN's distrust the DNA services" (Thomas Stuart 01-09-2014). One great-grandparent would be about 12.5% of one's ancestry, however, and thus having about 5% non-white ancestry is like having one bi-racial great-grandparent, which might be part of the anxiety.

Some have discussed using racial genetic clusters produced by Principle Components Analysis plots of autosomal DNA as a membership criterion. Population geneticists produce such plots through a dimensional reduction of the correlation structure among hundreds of thousands of autosomal variants. Racial realists on Stormfront and elsewhere often celebrate such plots because they can group individuals by genetic similarity into clusters that can roughly correspond to socially defined racial groups even though the analysis does not include information about those groups a priori (Fujimura and Rajagopalan 2011). Thus some propose "If their point on a PCA diagram does not fall within the white cluster, they are not white. If it does, they are" (Peace Through Stormfront, 07-09-2015). This solution avoids having to identify authentically European haplogroups

or to identify an ancestry percentage, but the problem becomes how to identify whether an individual plotted at the edge of a cloud-like cluster is in or out.

A post by sparrow attempts a complicated solution to the problem of membership criteria.

I don't think there is going to be one giant super-nation, I expect there to be multiple smaller nations, possibly confederated in some way. I predict that each nation will have its own unique definition of "White", each nation having its own standard of what constitutes appropriate genetic compatibility. So in one nation having Ghengis Khan as your ancestor won't disqualify you, while in others it might. Hypothetically, I might take a DNA test and find that I don't qualify for every Nation and every Nation's Standards, though I'm sure that at least one of those nations (and probably many of them) will have standards that would include me, because I'm pretty sure that whatever Genetic mix I have is probably shared by a certain % of the White Population where that particular mix is actually the baseline normal. I don't have to be granted "Status" everywhere, I 'm pretty sure I will be granted "Status" somewhere. That of course is speculative future that we're not really at yet. (01-09-2014)

This response imagines a future of multiple genetically defined white nations that will set different levels of strictness according to ancestry affiliation and fraction, and individual whites will find membership in one or more of them. But we can see in this discussion two basic approaches. The first is to emphasize a white nationalism that uses appearance, culture, family background, and political commitment to define membership, and the other is one that takes more seriously how a system might put genetics at the core without collapsing under overly rigid definitions of purity.

Some Stormfront posters have begun to theorize race in ways that are specifically informed by the lineage logic of GATs. In particular, to distinguish between better and worse forms of non-white inheritance, they use the difference between GATs based on the non-recombining Y and Mt DNA, which identify individuals' patrilineal and matrilineal ancestries, and those based on recombining autosomal DNA, which give percent similarity to particular populations. AngryGoy explains the idea:

HOWEVER, When it comes to direct maternal and paternal lines, I'm a strict ONE DROP fanatic! In particular the direct maternal line for females and the direct paternal line for males. The reason why I'm more liberal with autosomal DNA is that non-White autosomal DNA can be cut in half every generation from 25, 12.5, 6, 3, 1.5, .75 and so on to the point where the non-White admixture is irrelevant. On the other hand, I am more strict with Y and mtDNA haplogroups because these haplogroups are passed from father to son, mother to daughter, and remain virtually unchanged indefinitely for 10 to 20 to 30 generations!... I will be somewhat relieved if I find out the bi-racial female has a White Mother or the bi-racial male has a White father. I don't applaud or condone any bi-racial person with a White partner, BUT, the bi-racial female with a White Mother or the bi-racial male with a White father are the lesser of two evils when it comes to potential assimilation. (11-23-2012)

This is an updating of a one-drop rule that measures the long term “danger” of non-white ancestry in terms of the possibility that it can be “diluted” in subsequent generations of white-only interbreeding. A non-white father of boys or a non-white mother of girls is a problem will allow the non-white essence to be transmitted unchanged down lineages.

While non-white fathers of girls or non-white mothers of boys are less dangerous because non-white Y and MtDNA will not be passed on to children.

But bioprof posted a rejoinder to this idea:
What?! I don't get this. mtDNA and Y-DNA have little influence on genetic expression when compared to autosomes. I do see your "washing out" of autosomes reasoning, but I also see long-term admixture of those genes more problematic. Once that admixture begins in a population it just builds and builds until you have Brazil. (11-23-2012)

The response is that the idea of differential genetic dilution might make sense in the abstract, but that the non-recombining parts of DNA are not responsible for racial phenotypes. Furthermore, once non-white DNA is admitted into the gene pool it cannot be controlled and the practical outcome will be a racially heterogeneous population. What we can see in this debate is a tension between bioprof's phenotypic and pragmatic understanding of the genetics of race and AngryGoy's logical and essentialist

conceptualization, both of which have genetic connections but different practical implications.

bioprof's comments reflect both white nationalists' obsession with the idea of genetic mixture as pollution (with Brazil as the dystopian endpoint), but also the anticipation of a future where GATs might reveal "genetic expression" of racial traits. Lurking around the edges of some discussions is the question of what genes are responsible for *looking and acting* white, and that this information might be more important than that about *being* white. This possibility is invoked in a discussion about acceptable thresholds of Jewishness, Blomov writes "SE Europeans have quite a bit of Middle Eastern admixture so 12% Jewish is technically not a deal breaker. The problem is there is no genetic test that measures quality" (5-3-18). Today, most discussion concerns genetic ancestry in the abstract because this is the focus of most direct to consumer genetic tests at this point. But discussion is anticipating the increased availability of genetic links to physical, behavioral, and cognitive traits. Keel (2010) has shown how white nationalists use GAT revelations of partial Neanderthal ancestry (which geneticists also link to trait differences in contemporary populations) to explain purported white physical traits and intellectual superiority. White nationalists have also chugged milk at rallies taking genetically influenced adult lactose tolerance as a sign of whiteness.¹⁸ (Both examples are ironic because African's supposed shared ancestry with non-*sapiens* human species has long been a staple of scientific racism (Gould 1996) and genetic lactase persistence evolved in several African and Middle Eastern traditionally pastoral populations (Gerbault et al. 2011).) Consumer genetic tests are increasingly offering genetic trait prediction—from

¹⁸ <https://mic.com/articles/168188/milk-nazis-white-supremacists-creamy-pseudo-science-trump-shia-labeouf#.3SmMIE3V1> (accessed September 7, 2018).

hair and eye color, to tasting preferences, to IQ—which will provide white nationalists ample material for adding notions of “genetic quality” to their evolving identities, boundaries, and racial theories.

Discussion

GATs have been among the most publicly visible and available products of the recent genetics revolution. Companies have pitched them as an opportunity for individuals to know themselves better, and GAT advocates have celebrated their potential to foster connections and understanding in a racially and ethnically fragmented world.¹⁹ Though research is accumulating on the identity implications of GAT for various groups, ours is the first to ask how white nationalists think about GATs, their meaning for individuals’ identities, and their implications for white nationalism writ large. The animating puzzle is that white nationalists promulgate an absolute definition of white European-ness, but GATs sometimes, perhaps often, deliver results that *prima facie* violate that definition. Thus do white nationalists use GATs to enforce the definition, or do they find other accommodations?

In our dataset of discussions of GAT reveals on Stormfront, we found that while white nationalists did use GAT results to enforce the preexisting identity definition, they expended much more time and ingenuity on identity repair and GAT reinterpretation. In this paper we did not attempt to trace the evolution of these responses or the conditions under which an individual post might receive one set rather than another, instead we sought to map the cultural logic of responses as a flow chart (Figure 1).

¹⁹ Indeed the travel booking site momondo.com has marketed their services with a series of melodramatic web films giving people GATs, taping their reactions, and encouraging travel to explore background and experience otherness. See https://www.youtube.com/channel/UCxpbnnGX6raZfTJcdt5_7Ag (accessed May 26, 2017).

Some posters reported “good news” that confirmed expected or hoped for white or European backgrounds. While drawing comparatively little discussion, such posts allow individuals to tout their white European-ness and also to bolster the broader ideal of white purity.

More complicated, though, were responses to “bad news” GAT results depicting some fraction of the poster’s ancestry as non-white or non-European. The first branch of responses sought to reject the bad news in one of two basic ways. One was anti-GAT, perhaps even anti-science: denying the tests’ capacity to deliver legitimate knowledge about white identity due to GATs’ supposed tainting by a Jewish conspiracy or GATs’ inferiority to knowledge derived from traditional genealogy or white racial consciousness. The second branch accepted GAT as legitimate knowledge in general, but rejected a particular individual’s result or certain types of identity inferences. These rejection strategies use a set of intellectually sophisticated, though white nationalist inflected, statistical, logical, or historical critiques of genetic research to reinterpret the damaging results in ways considered more salutary.

In contrast to these responses seeking to repair “bad news,” another branch of responses accepted it. At the individual level, this meant a person posting bad news drew charges of being “not white” and calls to leave the group, commit suicide, or at least not breed. Crucially, though, such responses were less frequent than repair responses, were often mixed in with repair responses, and were targeted most often at those who were perceived as trolls (posting fake results to elicit a fight) or reacting defensively. Finally, at the group level, some took the “bad news” from GATs as the occasion to reimagine (though

certainly not abandon) racial hierarchies and white nationalism as a whole. About this more below.

This study reveals several insights about white nationalism on Stormfront. First, it is a community as much as an ideology. The membership rule—“non-Jewish people of wholly European descent. No exceptions. And if you tell us you’re not, we will believe you”—is articulated with rigid, ideological bluster. Despite this many posters are willing to appeal to the group with problematic results, and the group applies the rule only occasionally and flexibly. Ironically, denizens of Stormfront have an interest in flouting this rule to maintain the community, while it is in the more offline world where a poster’s more liberal friends and family are likely to insist on its rigid application to be able to point out white nationalist hypocrisy and deny the possibility of identity repair.²⁰

We might expect white nationalists are particularly vulnerable to the unsettling of seemingly settled personal and group identities coupled with technological confusion over interpretation that Nelson (2008) has called “genealogical dislocation,” especially given scholars’ portrayal of whiteness as subject to a permanent crisis (Hughey 2012, Winant 1997) and white nationalists’ fetishization of genetic distinctiveness, purity, and hierarchy. This situation would seem to make white nationalists more vulnerable to small genetic “anomalies” especially in contrast to some people of color, blasé to GAT results, believing themselves to be “all mixed up anyway” (Shim et al. n.d.). But it turns out that white nationalists employ a version of “affiliative self-fashioning” (Nelson 2008)—accepting and incorporating seemingly “objective” GAT results mainly insofar as they fit prior aspirations for community attachment. White nationalists’ relatively rigid views on biological racial

²⁰ Thanks to Dan Navon for suggesting this connection.

purity do not make them uniquely vulnerable to genetic information. In Nelson's account, affiliative self fashioning is largely an individual response of conditioned by African Americans' historical experiences with racist and exclusionary scientific and medical institutions. In contrast the white nationalist version is a community product developed in Stormfront discussions over time.²¹

Though opponents of white nationalism, especially in the public sphere, have accused them of ignorance, this would be the wrong interpretation of their views of GATs. Stormfront posters employ a variety of scripts and cognitive strategies: including the anti-Semitic conspiracy thinking, the valorization of racist knowledge and consciousness, and critical analysis dependent on genetic, statistical, and historical reasoning but shot through with presumptions about white superiority in history. We can see across these responses two patterns identified by the sociology of science. On the one hand rejections of GAT often display mistrust of experts and valorization of community-based consciousness and knowledge (Wynne 1992), and on the other hand through the appropriation, adaptation, and refracting of genetic, statistical, anthropological, and historical materials through a white nationalist lens some have certainly acquired a form of lay expertise (Epstein 1995).²² Some of the differences in the ways white nationalists view GATs are differences among individuals—the relatively more conspiratorially minded versus the relatively more scientifically minded. However, Stormfront is a racist public sphere where white nationalists bearing different mindsets do more than debate and exchange ideas, but also

²¹ Future work will track the temporal development of community understanding and responses to genetics.

²² This dynamic can be seen in a Stormfront discussion thread about GAT that has been continually updated since 2003. Several individuals, such as JohnJoyTree and GreenGoddess, have established themselves as authoritative voices on genetics over time. See <https://www.stormfront.org/forum/t96295/> (Accessed May 28, 2017).

where some engage in racist bricolage (Levi Strauss 1966) combining arguments, materials, ideas, scripts, frameworks, and thought styles, that may ostensibly be contradictory, into new forms of racist cognition (Brubaker et al. 2004). Thus, for example, some might argue GATs are valid tools and tainted by a Jewish conspiracy; that race is both visible and hidden; that the one drop rule is absurd and any racial admixture is an abomination.

GATs are also having complicated and contradictory effects on white nationalist ideology. On one side, they see GATs as confirming and advancing core aspects of white nationalism. They believe GATs confirm race realism—that racial groups and differences are a biogenetic fact—and demolish social construction—which they usually see as a “cultural Marxist” conspiracy to project race as pure imagined fiction. GAT results show that the community ideal of white, European “purity” is an empirical reality for at least some individuals. And GATs, which display fractional membership in different European nationalities, allow white nationalists to demonstrate diversity within whiteness, without people of color, and have thus abetted their argument to be champions of true diversity, not supremacy. Furthermore, with GATs, such claims are not mere assertions, but are made visible and endowed with the authority of genetics.

On the other side, technical affordances of GAT—the kinds of belonging and difference it makes visible—have encouraged white nationalists toward innovative rethinking of the boundaries and hierarchies of whiteness. GAT has led white nationalists to debate whether a genetic test of whiteness is possible and what it might look like. For example, they have begun to think of particular MtDNA and Y chromosome haplotypes as typically European (and many others as disqualifying) and the virtues of different

representations of autosomal DNA from ancestry percentages to principle component analysis plots. GAT has thus helped effect a transition in the debates about membership criteria from, “Non-Jewish people of wholly European descent. No exceptions” to, “What is the specific threshold?” now that quantitative genetic estimates are available. GAT has sharpened the divide between an absolute definition of belonging and one that has to contend with quantitative gradations and different compositions of whiteness. This debate has immediate political stakes: Is white nationalism an elite club for pure whites or a movement that will have to make compromises to be numerically effective?

GAT has also helped open up a contest between the idea that all race mixture pollutes whiteness and that some might be “diluted away” so long as it does not affect the non-recombining paternal or maternal lineages—an updating of the one drop rule. Furthermore, it has helped open up debate about what exactly is despoiling about racial mixture: is it specifically racial traits that might be carried on particular genes, invisible essences carried with haplogroups that don’t manifest racially, or the uncontrollability of genetic mixture in general? All these positions can be seen in the final exchange above about more and less dangerous mixing.

GATs—MtDNA and Y chromosome haplotype lineages and autosomal ancestry estimation—have made particular kinds of relationships visible and thus particular boundary and identity problems and solutions imaginable to white nationalists. They are changing the ideologies of white nationalism, or at least opening up debates and differences of opinion that might lead to changes. While GATs are shaping the possibilities of racist ideas and cognition, it seems that they are not making white nationalists more, and certainly not less, racist. This is consistent with research showing the dispositional,

addiction-like, character of white nationalist ideas (Simi et al. 2017), and also with an understanding of white nationalism, like other ideologies, being comprised of both conscious principles, ideas, and arguments but also being animated by structured, unselfconscious social imaginaries (Taylor 2002)—in this case about race, racial difference, and racial conflict constituting the fundamental dimensions of social reality.

What are some policy implications of our results? We presented this project at the American Sociological Association meeting on August 13, 2017, the day after the white nationalist “Unite the Right” riot in Charlottesville, VA, and as a result it received copious media attention. Much of the coverage was accurate, but there was a prominent mistaken schadenfreude misinterpretation that saw GATs as delivering a comeuppance to ignorant white nationalists. Several tweets and one article suggested crowd-funding GATs for white nationalists because the results would surely shame them off the path of evil.²³ But our study shows nearly the opposite: First, the idea that GATs would reveal most white Americans to have mixed racial ancestry is wrong; fewer than 10% of Americans who consider themselves white would receive GAT results that revealed more than about 10% Native American or African ancestry (Bryc et al. 2015). And even those that did could appeal to Stormfront and elsewhere for ready-to-hand scientific and anti-scientific rationales for explaining away such results. The rationales are robust and well thought out—conspiracy thinking is notoriously difficult to disconfirm, and while the scientific parts of white nationalists’ interpretations are often at odds with the ways geneticists, anthropologists, historians, and sociologists interpret these data they are not crudely or

²³ See <https://reason.com/blog/2017/08/18/free-idea-lets-give-23andme-genetic-test> (accessed September 7, 2018)

simply “incorrect” in a way that could be addressed through education or public understanding efforts.

It is probably the prevailing view among geneticists that while different socially-defined racial groups do have minor aggregate genetic differences, race is not a genetic concept (Bliss 2012, Morning 2011, Reardon 2005). Human Genome Project director Francis Collins famously said, “Those who wish to draw precise racial boundaries around certain groups will not be able to use science as a legitimate justification” (quoted in Bliss 2012, 1). In one sense Collins is right; this paper is all about white nationalists’ struggles with the “precision” of their ideological expectations about race. But Collins was incorrect to expect that the genetic data would force an abandonment of strong views of race.

Contemporary genetics has made culturally available a large set of fairly technical tools for understanding human differences. Most of these tools are open ended and can be used credibly (if not always equally accurately) to drive both anti-racial and racial, egalitarian and anti-egalitarian narratives about humanity. To take just one example, the global distribution of mtDNA enabled geneticists to declare the common ancestry of all humans regardless of race or ethnicity (Cann et al. 1987), but they also enable the tracking of ancient patterns of migration and relatedness among populations. Global distributions of mtDNA can be portrayed in many ways, two of which are shown in Figure 2. The image on the left from the GAT company Family Tree DNA, portrays the modal haplogroup typical of many global populations to indicate migrations and relationships among ancient populations. But it also seems to indicate that particular places have particular genetic types and thus is easily assimilable to white nationalists’ views of the tight relationship between place and race (Zeskind 2009, Daniels 2009, see also Nash 2015). The right hand

image uses pie charts to convey the mtDNA variation in each geographic population. This very different depiction of the same data indicates that no population is genetically pure, none has a characteristic haplotype, nor do haplotypes follow racial boundaries. Yet some Stormfront posters cite approvingly figures like these as confirming their ideas about racial genetic difference.

Figure 2—Two Portrayals of MtDNA Haplogroups²⁴

This situation presents an ethical and political problem for scientific experts of human biodiversity. They are worried about racist misappropriations of their work and are increasingly willing to denounce them (Reich 2018, Coop et al 2014, Panofsky 2014b). While the promulgation of egalitarian statements by genetics authorities is important, what has lagged behind are the means for correct, robust, and circumspect interpretation of genetics research by the public in a way that is adequate to the explosion of new material. The conjunction of the polyvalent availability of genetics research, white nationalists' sophisticated misappropriations of genetics information, their skepticism of experts and

²⁴ See <https://www.familytreedna.com/learn/ftdna/our-three-basic-tests/> (accessed September 10, 2018), and <http://www.scs.illinois.edu/~mcdonald/WorldHaplogroupsMaps.pdf> (accessed September 7, 2018).

relative immunity to countervailing evidence, and the lack of cognitive tools among the general public for nuanced, non-racialized interpretations of genetics (Phelan et al 2013, 2014), presents a dangerous situation. White nationalists' interpretations of genetics could appear sophisticated and compelling compared to the thinness of public discussion of egalitarian alternatives. Challenging racist public appropriations of science will require geneticists and other scientists to invest in efforts to go beyond asserting egalitarian conclusions toward cultivating cognitive resources for more sophisticated public thinking about genetic difference, and may also require scientists to rethink their research paradigms and reflexively interrogate their own knowledge production.

Methodological Appendix

While there is much discussion of genealogy and family lineage, we sought out threads related to GATs specifically to see how white supremacists coped with these scientific results. To find threads containing ancestry test results, we used Stormfront's search engine and combed threads containing the following words or company names:

1. DNA Test (57 Threads)
2. Haplotype (678 Threads)
3. Haplogroup (1250 Threads)
4. Autosomal (583 Threads)
5. mtDNA (1250 Threads)
6. YDNA (192 threads)
7. 23andMe (276 Threads)
8. Ancestry.com (704 Threads)
9. AncestryByDNA (158 Threads)
10. GEDMatch (30 Threads)
11. National Geographic (1250 Threads)
12. FamilyTreeDNA (144 Threads)
13. DNA Solutions (1 Thread)

Stormfront only provides the top 1250 matches for each search. After searching for these terms individually, we sorted through the 6,753 threads to remove duplicates. Of the remaining threads, we compiled a database of seventy threads containing one or more DNA ancestry test results. Across this corpus of seventy threads, we found 639 posts where members describe their family's lineage, where 153 of those members included their entire DNA testing results, where they identified DNA testing company, such as 23andMe, Ancestry.com DNA Solutions, Family Tree DNA, National Geographic and more.

If a post contained a DNA ancestry test result, we coded it for the type of test result including mtDNA, Y-DNA, or Autosomal. We then categorized how the original poster reacted to the results using the following codes: confirmed prior knowledge, uncertain, welcome surprise, or unwelcome surprise. From here, we were able to see how other members reacted to the original poster and marked a range of response types based on if

the results were accepted or rejected. Responses that aimed to repair the identity of the original poster were coded in the following categories:

1. Emotionally Supportive
2. Suggests that better data analysis is available or to move your data
3. Reject testing company outright
4. Suggest there are technical/statistical error in tests
5. Delegitimize genetic tests
6. Suggest that poster misinterpreted test results
7. Refute the test on scientific grounds
8. Provides an educational or a scientific explanation

In instances where responders attacked the original poster, we applied the following codes:

1. Racist claim or rant not targeted at person or test
2. Shaming or exclusion of original poster
3. Suspicion that the original poster is a troll
4. Calling the original poster “not white”

As discussions developed within threads, we marked posts that provided scientific evidence or education advocating a particular reading of the results or advocated for a specific understanding of genetics. Here is a list of those codes:

1. Citing a text or author (book/article)
2. Explains GAT quantification and/or haplogroups
3. Makes appeal to theories of DNA and Genetics
4. Provides a definition of “who is white” or “whiteness”
5. Discussion of whiteness as culture, not just biology
6. Educational post directly commenting on original posters’ GAT results
7. Explains relationship of nations and races
8. Racist attack against a racialized group using scientific explanation
9. Refutation of GAT on scientific grounds
10. Very general explanation of genetics meant to educate all readers

To ensure intercoder reliability each thread was analyzed by at least two coders. We are unable to make broad quantitative claims from these data for two reasons. One, the search function of Stormfront artificially limited the scope of our keyword queries. Two, posting DNA ancestry test results often provokes a rich discursive discussion that requires qualitative contextualization. That is to say, posts are relational to the debates not only

within a single thread, but also across the entire message board, as well as to the white nationalist movement.

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