

Discussing race and genetics online:  
A qualitative interview study

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**Abstract**

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Scientific racism maintains unjust racial hierarchies by portraying racial inequality as an inevitable result of innate differences between races. Proponents of modern scientific racism often cite geneticists' ability to predict racial categorization from genetic ancestry as proof that there are significant biological differences between races. These ideas are often spread through online discourse and have been used to support White Supremacist "replacement" theories and justify racial violence. To investigate the prevalence of scientific racism in "civil conversations" online, semi-structured interviews were conducted with 9 adults, recruited from the social media site Reddit, who reported having conversations about race and genetics online. Participants commonly engaged in conversations about the scientific validity of race and the significance of genetics in between-group IQ differences. Many participants explained differences in health outcomes between races as being the result of personal choice, influenced by culture and other environmental factors. Some participants associated genetics in general with racism, while generalizations made about race attributed to "culture" did not have the same associations.

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## **Preface**

The question that informed study design was, “What motivates discussions about race and genetics online, and what is the impact of these conversations on opinions relating to race and genetics?” Or, asked more directly, “Are overt White Supremacists manipulating conversations in online spaces as a way of radicalizing unsuspecting young white men into committing acts of racial violence and domestic terrorism?” Whether this is happening or not is still unknown, as this small, exploratory study was never intended to provide a conclusive answer.

On May 15<sup>th</sup>, 2022, I prepared a draft for my first presentation about this research. In this PowerPoint, I asked the question “are people using genetics to spread white supremacy online?” and responded with the extremely inadequate answer of “potentially.” Even worse, I added that “many fields are better prepared to answer this question than Public Health Genetics.” Or, stated more directly, “I don’t know, don’t ask me.” Feeling satisfied with the state of my presentation, I emerged from the isolation of a weekend of work and decided to check my personal Reddit account. It was on Reddit that I learned that 10 people had been murdered in their local grocery store in the name of White Supremacy (Michel et al., 2022). This horrific act of racial violence had happened only a few hours before I decided that studying radical right-wing terrorism shouldn’t be a high priority for public health, or me personally.

The biggest tragedy of that event is the loss of lives and the pain of those who were directly impacted by that violence. For me, it also served as a cruel reminder of the real-world consequences of online radicalization. That is the danger associated with making a mistake when researching extremism. Underreporting the significance and threat of white supremacist radicalization could draw resources away from efforts to combat a very real source of terrorism. On the other hand, overreporting the reach of White Supremacists’ could serve to amplify their message and normalize racial violence.

Further emphasizing the stakes of correctly reporting my findings are the words of my research subjects stuck in my head. In conducting these interviews, we talked about research ethics, researcher motivation, and how ideas spread on the internet.

You always want to consider what's the impact of the study. What's the potential impact of my study? (P4).

...research should be published as research and the facts should be the facts. But as soon as it becomes public knowledge, it's like, well, what message are you trying to convey? (P2).

I have spent a lot of time trying to examine if I am unknowingly putting information out there that will reinforce current unjust racial hierarchies. While I've done what I can to mitigate that risk, there are so many factors at play that mistakes are almost guaranteed.

One concern that participants had about research that did not ring true for me was reports being influenced by "politics."

I think the state of academics is such that you can... Well, there's plentiful examples, if you don't- if you say the wrong thing, it could be game over for you, permanently (P3).

While I hold no false notion that I am able to completely divorce my own experiences from my interpretation of data, any conclusions presented here have come from following the data. My writing is no doubt influenced by the concern that my work could have possible negative consequences to public knowledge, public discourse, and public safety. However, what is not informing this work is a pressure to "say the right things" regardless of the truth. If I was concerned that saying "the wrong thing" would be "game over" I would have chosen to study almost anything else. I welcome good faith disagreement with any interpretation offered in this document. However, anyone approaching this document under the false assumption that my writing is an attempt to satisfy a "politically correct" or "woke" agenda, will fail to engage with the message in any meaningful way.

I am not ready to make a statement about the influence of overt White Supremacists on discussions of race and genetics, or the influence of discussions of race and genetics on radical overt White Supremacy. I have, however, collected evidence on the matter. In lieu of speculating an answer to the question, I present what I believe to be some of the best evidence supporting and refuting the theory that White Supremacists are intentionally recruiting people through arguments based in genetics.

The best evidence supporting this theory comes from the experience of Participant 5, who has had years of experience talking about race and genetics on a subreddit where biological determinism is common. In addition to being personally familiar with the phenomenon in question, he is also a historian who has studied the history of science and race. As a result, he has spent a lot of his time thinking about the impacts of these conversations. He told me he has “witnessed particular incidences” where people who believe in white genetic superiority will “intentionally downplay those beliefs,” or “wrap them up in a different kind of package to present it as something other than what they really mean.” When asked why he continues to have these conversations, he told me with what felt like a true sense of sincerity,

[If] I see that the next Christchurch shooter was a regular user on [my community], like that would just absolutely destroy me (P5).

The most compelling evidence I have seen refuting the theory that arguments based in genetics are being used to “recruit” comes from Participant 3. When he was asked about concerns he had over racially motivated violence he clarified, “Like those tiki torch dudes?” This was in reference to the 2017 Unite the Right rally in Charlottesville, VA, which resulted in the death of one counter protester and the injury of 35 more (Pearce, 2017). He continued,

I think the demand for that type of thing is much larger than the supply. I think, uh... left-leaning progressive people enjoy these stories, and they want, they desire these stories. And when they get one, they amplify it to the maximum ability. Not only because it supports their kind of belief system, but I think it satisfies a... they enjoy it (P3).

While I disagree with his assertion that White Supremacy does not pose a significant danger, I do believe that there is some truth to the idea that stories of radicalization and violence can serve as entertainment, especially for white people who are not in danger of this violence themselves. While research and journalism are important, there is a fine line that separates being an agnostic witness from being an exploitative and consumptive spectator, something of which those of us who study White Supremacy must be aware.

## **Study Overview**

The purpose of this study is to explore how scientific arguments based in genetics are used to refute and endorse systemic and overt White Supremacy in online discussion boards claiming to host intellectual conversations on divisive issues. Semi-structured interviews were conducted with nine adults who had discussed race and genetics, race and IQ, race realism, or Human Biodiversity (HBD) online. All but one interview was conducted virtually face-to-face through video. The interview guide contained questions about participants' "genetic origins," their experience learning about genetics, and their experience talking about race and genetics online. A sample of the questions about online discussions include, "How genuine do you think people discussing race and genetics are typically?" and "Have you ever been accused of being racist while discussing race and genetics?" The analysis strategy was data-driven. Analysis steps included close reading, inductive coding, writing notes, identifying patterns, formulating questions, and writing descriptions.

All participants were laypeople in terms of genetics and discussed race and genetics recreationally. Discussions about race and genetics most often involved debate about the causal significance of genetics in mean IQ differences, especially between white and black Americans. Another common topic of conversation was the legitimacy of race as a means of biological categorization. In the context of IQ and other purported racial differences, conversations compared the role of genetics to that of "culture," or more specifically culturally ascribed behaviors. By focusing on the role of culture over other environmental factors, many participants ultimately assigned responsibility for differences in outcomes between races, including health differences, on the impacted minority groups themselves. For some, attributing any racial differences to genetics was seen as a form of racism, even among individuals who cited cultural differences as a justification for racial segregation.

Further research about race and genetics discourse will explore how conversations that people participate in, observe, and are exposed to online influence their understanding of race. Future work should also investigate how these discussions impact knowledge and impressions about genetics as a subject, and trust of scientific and medical research in general.

## **Background**

### **White supremacy is a public health crisis**

In its current usage, white supremacy can be understood in two different ways. The first ‘White Supremacy’ is a set of personal beliefs in an inherent white racial superiority. The second meaning of white supremacy is the complex set of social systems that artificially advantage members of the dominant majority (Bonilla-Silva, 1997). There is substantial overlap between these “types,” but each can be thought to contribute to the public health crisis of racism in different ways.

It is well established that health outcomes are not equal across racial groups in the United States (National Institute of Minority Health and Health Disparities, 2021). There is extensive evidence that those inequalities are the result of racial discrimination at the personal, interpersonal, institutional, and structural level (Jones, 2000). It is through these different levels of discrimination that pervasive white supremacy results in a health care system that delivers better outcomes for white patients than non-white patients. These unjust differences in aggregate are referred to as racial health disparities. These disparities are a large part of the public health crisis that is racism.

The more overt ‘White Supremacy’ poses its own threat. In addition to contributing to systemic racism, this form of White Supremacy too frequently inspires violence. A belief shared by most White Supremacists is the idea that the white race is in imminent danger of being eliminated, either from the planet or their seat of power. This idea, sometimes called “The Great Replacement” or “white genocide” is invoked to justify violence against people who are seen as a threat. The Anti-Defamation League (ADL) reports that extremists have directly referenced the language of “The Great Replacement” in at least four mass killing events between 2018 and 2021, with a total of 86 people killed (ADL, 2021). With the attack in Buffalo in May of 2022 this figure has now increased.

### **Race as a method of categorization**

Overt White Supremacy relies on a definition of race as being so fundamental to someone’s identity that it justifies its role as the primary thing upon which to judge

someone. Historically, both religion and science have been used to explain this fundamental difference (Roberts, 2011). Modern accounts of this difference are “race realism,” or “human biological diversity” or “HBD.” *American Renaissance*, also called “AmRen,” is a pseudo-academic race realism website that is run by a well-known white nationalist named Jared Taylor. On the “About” page, the website advocates for “the study of all aspects of race, whether historical, cultural, or biological,” and defines this approach as race realism (*American Renaissance*, 2022).

This understanding of race is inherently unscientific. Anthropologists have firmly established the social construction of race as evidenced by its historical construction in the accumulation and exertion of power, incoherence as category over time, and its variability across human societies (Wagner et al., 2017). Further, genetic variation between people is minimal and gradual. Humans are 99.9% identical to each other at the single nucleotide level, and the small amount of variation that does exist is a gradient, not categorically split between races (Duello et al., 2021).

## **White supremacy and genetics online**

Sociologist Aaron Panofsky describes several ways that White Supremacists are using genetic information (2020). Online resources are compiled to present White Supremacy as a reasonable position. These come in two forms, either as collections of “memes” or other images intended to be humorous, or by providing quasi-scientific information. One website supporting human biological diversity (HBD) contains links to 900 scientific and pseudoscientific publications separated into 20 categories ranging from “Plants and Animals” to “HBD and Crime.” Some articles are written by legacy white nationalists as well as a new generation of racial “scientists” who produce their own research supporting race realism. Other citations reference mainstream academic articles published in high-profile journals such as *Nature* or *Science*. Most of these articles do not support biological racism on the surface but can appear to when presented under leading headings and surrounded by White Supremacist rhetoric. For example, under the heading of “On the Biological Reality of Race” is a citation for a *Nature* article titled “Let’s celebrate human genetic diversity” (Lahn and Eisenstein, 2009). The link provided opens to a blog

post by notorious race realist Steve Sailor, which editorializes the article. The original article is not linked within the blog and is inaccessible for those without institutional access. Presented together, these varied sources make scientific racism seem enduring, current, and mainstream.

On a white nationalist forum, a discussion about the topic of spreading racist beliefs was analyzed by the Southern Poverty Law Center. One commenter said, “If your prospect is an ‘objective’ type nothing beats race realism.” Another commenter described the true intent of race realism as, “presenting racism in a ‘we’re just being reasonable/this is what the science says, why are you acting so upset?’ type of way,” (Miller, 2018). This provides evidence that a “reasonable” framing of race realism is an intentional style of argument used by race realists to discourage dissent.

## **Research on race and IQ**

One of the most influential works in the canon of race science literature is *The Bell Curve: Intelligence and Class Structure in American Life*, written by Richard Herrnstein and Charles Murray. Based on research financed by The Pioneer Fund, an organization dedicated to the research of human differences, the book examines the impact that IQ has on social success, argues that IQ is fixed by genetics much more than it is shaped by environment, and presents evidence that the average IQ of black Americans is a full standard deviation lower than the average IQ of white Americans (Herrnstein and Murray, 1994). The book drew a lot of attention, for its biased statistical assumptions, and its racist policy suggestions (Fischer, 1996).

More than twenty-five years have passed since the publication of *The Bell Curve*, but new readers are still finding and reading the text. Some renewed attention to the book was due, in part, to the 2017 guest appearance of its author, Charles Murray, on the popular podcast *Waking Up*, later renamed *Making Sense with Sam Harris* (2017).

## **Rhetoric of science and strategic essentialism**

“Strategic essentialism” was introduced by Rhetoric of Science scholar Celeste Condit (2019). Rhetoric of Science is part of the larger field of study called Science and Technology Studies (STS) which examines how scientific knowledge is constructed. Rhetoric of Science specifically looks at the role of language in the creation, dissemination, and uptake of scientific knowledge. The concept of “strategic essentialism” was informed by Condit’s experience interviewing laypeople about their personal accounting of the causal relationship between genetics and other factors. Participants did not neatly fall into buckets of “genetic-essentialist” or “non-genetic-essentialist,” but rather would produce conflicting statements with varying levels of essentialism based on the particular context of the question. Strategic essentialism describes laypeople’s ability to hold nuanced and multi-factorial accounting of causality in their minds and employ only the language that will best help them achieve their communication goal in that moment.

## **Methods**

### **Human subjects considerations**

Prior to any participant contact, the study protocol was submitted to the University of Washington's Human Subjects Division. This study was granted an exemption from IRB review, as it was determined by staff to be low risk. Before posting a research invitation in each internet community, the moderators of the community were asked for permission and given an opportunity to decline. Each participant was told what the purpose of the study was before the interview began, and each was asked for their permission before and after recording began. No identifying participant information was requested or collected.

### **Researcher positionality**

Study design, participant recruitment, interviews, and data analysis were all done by me. Therefore, my own experience as a public health genetics student, a casual Reddit user, and a white woman undoubtedly influenced the study. For example, racial concordance with white participants may have facilitated candid answers, while participants of other races may have felt inhibited due to racial discordance. The impact of these and other identities were considered in the study design process, and throughout the course of the study.

### **Reddit communities as a point of participant identification**

To understand the experience of individuals who had engaged in discussions about race and genetics online, potential participants were identified through the social media website, Reddit. Reddit is separated into smaller forums called subreddits. Subreddits are referred to by their unique URLs, which always starts with "r/" and do not contain spaces. Names are often descriptive. For example, r/funny is a subreddit where people post things they think are funny. Subreddits are usually devoted to discussing a specific topic and volunteer moderators are able to create and enforce rules about what content is allowed in their community. These specialized communities allow researchers to communicate with

individuals based on membership in identity or interest groups (Shatz, 2016). The demographics of participants in each subreddit vary widely, depending on the group, therefore selection of subreddits chosen for participant recruitment significantly influenced whose experiences were included in the study (Brubaker et al., 2021). Reddit allows users to post links, text, images, or videos. Reddit users can respond to each other through public comments or private messaging. To post on Reddit, individuals must create an account with a username. No personal information is required to make the account. Users are not anonymous, but are pseudonymous, meaning their posts and comments are publicly attributed to their username, but not associated with their personal identity.

Recruitment started with the subreddit r/IntellectualDarkWeb. Introduced in 2018 by a New York Times article (Weiss, 2018), the term “Intellectual Dark Web” refers to a group of public commentators who identified themselves by their ability to have rational conversations about polarizing topics and a shared opposition to anything viewed as identity politics. Members of this community include popular clinical psychologist Jordan Peterson, podcaster Joe Rogan, and social commentator Sam Harris. The Reddit community r/IntellectualDarkWeb does not have any official affiliation with any of these individuals, but it shares many of the same values that brought these media personalities together.

I chose to begin recruitment here due to the group’s self-identification as a place for “free dialogue held in good faith” and “civil conversations” on a range of controversial topics. My hypothesis was that these views might make this community especially vulnerable to accepting white supremacy based on genetic arguments. This combination of values gives an advantage to arguments based in “fact” above ethical or emotional arguments against racism. Initial observation of this community showed that the group had previously engaged in several discussions about race as a biological reality, also known as race realism. While community members presented a wide range of opinions in these conversations, individuals who identified with race realist sentiments were not censored or removed from the discussion.

To connect with individuals in this community, I publicly posted an open invitation to participate in research. The invitation specified that potential participants must have experience talking about race and genetics online, be interested in discussing their experience, agree to be recorded, and be 18 years or older. The post encouraged interested

individuals to reach out through Reddit's internal messaging system, or by emailing a Gmail account set up for this study ([geneticsresearchstudy@gmail.com](mailto:geneticsresearchstudy@gmail.com)).

Concurrent with data collection and preliminary analysis, research invitations were posted in additional subreddits that were suspected to contain people who had discussed race and genetics outside of an academic setting. These subreddits were r/JordanPeterson, r/SamHarris, r/Destiny, r/dieversity, and r/WorldNationalists. In addition to passive invitations, active recruitment was done by directly messaging people who had publicly engaged in conversations about race and genetics on subreddits where an invitation had been posted. If the person expressed interest in the study, they were screened for the rest of the criteria before scheduling an interview.

## **Participant sampling**

Sampling for this study was done purposefully, rather than randomly. Participants were not chosen to collect the most representative sample of all Reddit users, but recruitment efforts aimed to represent the scope of people discussing race and genetics online. Techniques of "maximum variation sampling" were used when making decisions about which subreddits to post research invitations on, and which individual users to message invitations to (Creswell, 2007).

All individuals who responded to the research invitation were offered the opportunity to participate in an interview, with the exception of one person whose initial message suggested that participation may be detrimental to them, due to unusual privacy concerns and fear of government surveillance.

## **Drafting the interview guide**

Data for this study were collected using semi-structured interviews following an interview guide. To address the research question, discussions addressed participant's knowledge of and history with genetics, their understanding of the relationship between race and genetics, their opinions about issues related to race and genetics, their experience discussing race and genetics online, their personal feelings regarding these topics.

Several qualitative methods texts were consulted while drafting the interview guide (Creswell, 2007; Tolley et al., 2016; Quraishi and Philburn, 2015). Borrowing from methods of phenomenology, questions in the interview guide focused most on participant experience.

The interview guide was piloted three times before data collection began. Two of the pilot interviews were conducted with fellow public health genetics students, and one was with the moderator of r/IntellectualDarkWeb who I had talked to previously about recruiting in that community. Changes were made after each pilot interview to improve the clarity of questions and eliminate questions that were not producing relevant responses. Additional changes were made to the interview guide following the first interview, however main questions remained stable after that interview. For the full interview guide, see [Appendix 1](#).

## **Data collection**

Data was collected through semi-structured in-depth interviews. I conducted all interviews virtually face-to-face through Zoom, with one exception. To create an environment where participants felt comfortable sharing personal experiences, without feeling so comfortable that they were at risk of divulging more than they wished to, I spoke with a generally warm and professional tone (Quraishi and Philburn, 2015). I reacted to surprising statements in a neutral way and tried to reflect the tone and demeanor of participants.

Interviews roughly followed the interview guide, which was sequenced so that more personal questions were asked after rapport had been established. To encourage participants to share their own experience, I typically allowed them to talk without interruption, even when straying from the original question. As a result of this, most interviews went over the expected time, and the order of questions was often changed to follow the natural flow of conversation. Interviews lasted between 60 and 110 minutes. The main questions on the interview guide were:

- What is your history with genetics?
- What do you know about your own genetic origins?

- Tell me about your experience discussing race and genetics online, including race realism, race and IQ, and HBD.
- During these conversations, are you more influenced by scientific evidence, or personal accounts?
- How genuine do you think people discussing race and genetics are typically?
- How do you think your personal politics influence your understanding of race and genetics?
- Have you ever been accused of being racist while discussing race and genetics?
- Tell me about a time when you thought a conversation about race and genetics crossed the line into racism.

Additionally, participants were presented two vignettes to explore participant reactions to hypothetical scenarios (Tolley et al., 2016). The first scenario presented a quote from the CDC regarding racial health disparities in the United States. Participants were asked how they explain those differences, and asked to rank the relative impact of genetics, environment, personal choice, and discrimination. The final scenario asked about a fictional research finding where a minor allele with a higher frequency in “black Americans” (more accurately: people with African ancestry) compared to “white Americans” (more accurately: people with European ancestry) was found to be associated with increased rates of incarceration for violent crimes. The wording of the question was intended to mimic a popular press reporting of a research finding. The fictional finding could be interpreted either as a legitimate result of a longitudinal study, or as a flawed interpretation of an association that failed to account for the prior probability of incarceration and population-specific allele frequencies. The intention of this question was to assess what level of credibility participants had about this finding and what additional questions they would like answered about this finding. Participants were reminded several times during the interview that this example was fictional. Both vignettes were presented only to participants living in the US or Canada, due to concern that an international participant’s answer would be substantially influenced by the wording of the question and the interview itself, due to limited experience with the cultural context of the question.

The conversations were recorded and then transcribed, using the transcription service Rev, with the exception of the final interview. I checked transcripts for accuracy through several iterations to ensure they were as faithful to the interview as possible.

The final participant interviewed would only agree to a text-based interview done through online messaging on an encrypted messaging service called Session. The messages were set to delete after 30 minutes; therefore, the conversation was reproduced verbatim in a Word document as the conversation was happening. This interview followed the interview guide somewhat, although the interview was abbreviated due to the reduced speed of a text-based conversation compared to a face-to-face one, and only one vignette was presented in part before the participant reported they had to leave after approximately 90-minutes.

## **Data analysis**

Analysis for this study was iterative, data driven, and drew from several methodological strategies (Creswell, 2007; Tolley et al., 2016). In addition to using the qualitative data analysis software Dedoose, I also annotated data and wrote descriptions in Word, and wrote many notes on paper. At times, coded excerpts of interviews were printed on paper, cut apart with scissors, and rearranged to look for patterns that may be obscured by the text around them. At other times, close readings were done of the entire interview transcripts, to look for patterns that may only be visible within the context of the full text around them. Interviews were coded twice with different codebooks. Coded interviews were reviewed for consistency of coding. Iterative analysis over time was used to increase consistency in the absence of a second coder.

Preliminary data analysis began while data collection was ongoing. While reading the transcripts I identified what felt like important “meaning statements,” defined as instances where participants described their own experiences discussing race and genetics online with minimal prompting from the question. For example, “tell me about your experience,” was considered a less prompting question than, “how genuine do you think people are being?” These meaning statements were used during recruitment to identify gaps in perspectives in the study sample. Meaning statements were also used to inform early codebook drafts.

Working drafts of the codebook were applied to several interview transcripts, then assessed for evenness of coverage and consistency of application. Codes that were used

very often, typically over 20 times in a single transcript, were split into narrower codes. Codes that were used infrequently and inconsistently across interviews were combined or eliminated. Three drafts of the codebook were applied to selected interviews before the structural codebook was finalized. These codes were applied to the interviews in the order they were conducted. For the first codebook applied, see [Appendix 2](#).

Coded transcripts were examined for emerging themes. For several codes, such as “personal knowledge construction” and “social knowledge construction,” coded excerpts were exported from Dedoose, and then examined together, looking for patterns in how participants were forming their own beliefs. Those excerpts were then printed and examined with the added layers of “facts related to racial difference,” “experience related to racial difference,” and “intuition about racial difference,” which were applied on paper with three different colored highlighters.

To understand the interviews in context, a close reading was done of four interview transcripts where participants had experienced the phenomenon in different ways (Participants 1, 2, 3, and 8). Through these repetitions of analysis, two key questions emerged from the data. These questions were “what is the influence of White Supremacists on communities that prioritize rational and intellectual conversations?” and “what exact meaning does the word genetics have in the context of discussions about race online?” The questions were broken down into smaller pieces, and the interviews were coded again looking for those themes. This second codebook is presented in [Appendix 3](#). The excerpts identified through this process were brought together and analyzed, to create a fuller picture of the nature of conversations about race and genetics that happen online.

## **Results**

### **Demographics**

Nine participants were interviewed for this study. Seven were identified for this study through their activity in forums devoted to free speech and rational conversation (r/IntellectualDarkWeb, r/SamHarris, and r/JordanPeterson) and two participants were recruited from a subreddit for global supporters of nationalism (r/WorldNationalists). Participants involved in the communities centering rational conversation came from the United States and Canada. The participants identified through the nationalist forum came from the United States and South America. One participant declined to answer demographics questions about age and location. Participants included seven men, one woman, and one demi-guy (someone who identifies with aspects of masculinity but does not fully identify as being male). Seven participants described themselves as white or Caucasian, one described herself as biracial, and one participant described himself as mixed-race by “social standards” and explained that when choosing between the options given on US census forms, he will select “Black” for race and “Hispanic” for ethnicity. Ages ranged from 22-51, with the mean age being 30.5. All participants had at least “some college.” Three participants were students in the process of completing degrees, several had completed bachelor’s degrees, and one participant had a PhD. For a summary of aggregated participant demographics, see [Table 1](#).

### **Online behavior**

Participants reported a range in their typical online behavior. Seven out of the nine participants reported having most of their online conversations on Reddit. Three participants also reported having online discussions on Twitter, although the consensus was that Twitter’s character restrictions were too restrictive to have meaningful conversations there. Participants also reported having conversations on the social messaging platform Discord; the message board Saidit, an alternative to Reddit with a more permissive content policy; and 4chan, an anonymous message board whose content policy is the most permissive and least enforced of the platforms listed.

One participant was most active on his YouTube channel, where he posts videos about “controversial and divisive issues” in order to “address political polarization.” Unlike the other participants, his online discussions are mostly face-to-face, done on video, and posted publicly on YouTube, where they are seen by people online as well as his friends and family.

**Table 1: Participant demographics**

<b>Gender (n=9)</b>	
Male and demi-male	8
Female	1
<b>Race (n=9)</b>	
White	7
Multi-racial	2
<b>Age (n=8) *</b>	
21-30	5
31-40	2
41 +	1
<b>Country of residence (n=8) *</b>	
The United States	6
Canada	1
Chile	1
<b>Educational attainment (n=8) *</b>	
Some college or two-year degree	4
Bachelor’s degree	2
Masters or PhD	2

\*One participant opted to not answer several demographics questions.

## Discussing the scientific validity of race

When asked to explain the relationship between race and genetics, all but one participant included in their answer an acknowledgement of the debate around whether race is a social category or a biological one. Four participants explicitly reported having conversations online about the scientific validity of grouping people by race. One participant described his experience posting an editorial calling for a new vocabulary distinguishing “race from genetic ancestry” in a community he is an active member of. He stated that out of 15 to 20 replies, all but one was “some flavor” of “race realism.” He went on to say:

They weren't really engaging with what the editorial said, uhm, they were just reacting to the title, which was something like "we need a new conversation around race." And essentially like all of the replies were a blanket assertion that there is a real biological difference between racial groups and anybody who denies that is just doing so for political reasons (P5).

Another participant who reported discussing the scientific validity of race shared his intuition that “there's some politics going on in this field of study.” He stated that when he spoke with “someone who actually kind of knows what they're talking about” they will “say that race has no biological basis” which he believes is “a misunderstanding of what is actually true”:

My intuition is that they're taking this fact that there's more variance within... races than there is... distinctions between races. Therefore, the way we talk in present day culture... because you can't say what's actually true, you have to say it politely or something (P3).

The only participant who did not reference the conversation around the scientific validity of race was the individual from Chile. Like the participants from the US and Canada, he was asked, “In your understanding, what is the relationship between genetics and racial groups?” After several talk turns going back and forth to clarify the question, which was

unusual for this interview, he answered that he personally used genetics to study “different ethnic groups” in order to see their “migration patterns through history” and the mark they leave in each part of the world. This understanding resembled the concept of ancestry, as opposed to race. Earlier in the interview, he had answered the demographic question “what is your race?” with:

I like to identify more with my heritage rather than like what race I am.  
But uhm... yeah, if you want to put it in your research, you want me to identify, white. I don't know. That's, that's my answer (P6).

When he was asked about his understanding of whiteness, he said that he did not agree “with the concept of ‘whiteness,’” miming quotation marks in the air. He said that he found the concept of whiteness in America to be “rigid” and was not something that could be applied to the world. He continued:

The point is that I didn't like this rigidity of how it's mostly perceived in politics like that in the US that I think that they also export this way of thinking into the world. And so, I think that is very damaging (P6).

## **Discussing race and IQ**

Participants reported discussing differences in mean IQ between racial groups most often as the context of “race and genetics” conversations. “Race and IQ” was specifically given as a topic of conversation, so this was not entirely spontaneous. Seven participants reported having discussions about this topic, which usually revolved around deliberations about the causal role of genetics in mean IQ differences, especially between white and black Americans. One participant stated that race and IQ “seem linked” and stated his belief that the difference between races was “due to genes.” He went on to say that “blacks are more emotional” although he didn’t know if that was “uniquely genetic or a side effect of lower iq [sic] (P9).”

Four additional participants stated that the mean IQ for African Americans was lower than for white Americans and explained the difference as being a mixture of genetic,

cultural, and environmental factors. As a group, participants reported that many of their conversations about IQ were with people who put a higher significance on genetics than they themselves did.

So, a lot of people will just want to say, well, you know, there's differences in IQs... IQ is primarily genetic based, which I believe it is. And there are differences in IQ between races, therefore, it must be genetic. And that's their belief (P2).

While discussing the topic of IQ, five participants spontaneously brought up Charles Murray, or his most famous book, *The Bell Curve*. *The Bell Curve* was often given as an example of a source used to support a primarily genetic explanation of racial IQ differences. One participant reported that *The Bell Curve* was an influential book for him personally because it “proved that IQ was largely not genetic, almost virtually not genetic.” Another online poster referenced “Charles Murray” as being a way that people will put down or diminish black achievements.

Like I said, many of my closest friends are black and they're all professionals, they make good money, they run their business, they're really intelligent. And then you people want to throw Charles Murray at me (chuckles) (P8).

### **Juxtaposing genetics and culture**

Three participants independently introduced the idea of “culture” as an important piece of the puzzle when discussing race and genetics generally, and IQ specifically. These participants were especially interested in exploring where the line was between genetic causation or cultural influence on IQ. In doing so, the words “genetics” and “culture” would often occur in the same sentence. One participant recalled a debate he had with a white ethno-nationalist on his YouTube channel. He first reported that they did not discuss genetics, then upon further reflection he revised his answer:

Actually, no, we did actually [discuss genetics] a lot. Uhm... Culture and genetics, we were talking about what's more relevant, culture or genetics, and does genetics influence culture... (P2).

When explaining his understanding of the relationship between race and genetics, another participant stated that “race is perhaps conflated a bit with culture.” He explained that in his mind, “race and genetics” would be “ontologically synonymous or directly related.” As he said this, he held two fingers together to show their synonymous relationship, “and then there's culture (separating his hands). And I'm not sure where that fits in.”

The same participant who found Charles Murray to be personally influential described *The Bell Curve* as a “critique of African American culture.” This participant strongly and repeatedly asserted that “IQ is cultural” and has “nothing to do with genetics.” He did believe that some differences between racial groups were genetic.

I don't understand how athletics couldn't be genetics-driven, uhm, I can't become a bodybuilder. So, that seems like there has to be something, there's clearly a, uh... an African American athletic edge (P1).

After this confident statement attributing a genetic causation to athletic ability, he referred again to culture.

It makes sense that if you grew up in a culture where, or a country where being strong or being athletic was a more marketable, uhm... characteristic, that you would develop such (P1).

He explained the process of accepting a conceptualization of IQ as being cultural:

[*The Bell Curve*] just kind of confirmed something I had long suspected, in that [IQ] wasn't a genetic thing. It wasn't. I did not have to think about other races in that way, as being biologically more intelligent than the other, I could look at them as cultures and I could critique cultures as I critique my own culture (P1).

## **Associating genetic explanations with racism**

Four participants reported that genetics was introduced into the conversation by someone who they considered to be more racially discriminatory than they were, whether they used the term racist, ethnonationalist, or White Supremacist.

And the people who are like, we need to separate by... by the race, without exception... focus on the race and genetic component, because that's their evidence for whatnot (P2).

...they're advocating for policies to maintain racial supremacy, they have a belief in genetic superiority. I think somebody like that measures up to the category of White Supremacist, yeah (P5).

In the above quote, belief in genetic superiority is a criterion for defining someone as a White Supremacist. Another participant referenced the same logic when explaining why she was not racist:

I don't believe that like different groups of people are inferior to others genetically, like I genuinely don't believe that (P7).

When Participant 3 was asked if he had ever seen people online arguing that the idea of race was “exclusively biology,” he clarified, “I mean, like are you talking pure racist?” Similar associations with racism were not made for cultural explanations.

## **Explaining racial health differences**

Seven participants responded to the following vignette,

According to the United States' Center for Disease Control, “racial and ethnic minority populations experience higher rates of poor health and disease in a range of health conditions, including diabetes, hypertension, obesity, asthma, and heart disease, when compared to their White counterparts. The life expectancy among Black Americans is four years lower than that of White Americans.”

Participants responded to the open-ended question, “How do you explain that?” and were asked to rank, “genetics, environment, personal choice, and discrimination” which were presented in that order.

Of the seven participants who answered this question in full, a pattern emerged. The five white participants who answered this question all gave personal choice as one of the most important factors and emphasized that personal choice was a product of someone’s surroundings and circumstance. Within these five responses, another pattern was also present. The two participants who described themselves as being either “pretty left” or “very lefty” politically, both stressed the importance of discrimination on the environment and circumstances that influenced personal choice. In addition to highlighting the role of discrimination, they proleptically argued against a framing of personal choice as being a source of “individual responsibility.” The participants who did not identify as being on the left either dismissed discrimination or failed to discuss its importance at all, instead focusing on individual actions that could produce the reported difference in life expectancy. The answers shared by white participants as well as the answers unique to politically left or politically center/right participants are shown in [Table 2](#).

The participants who identified as multi-racial both struggled to answer this question, in a way that they didn’t with other questions. After being asked to rank “genetics, environment, personal choice, and discrimination,” one participant concluded her answer by summarizing, “implicit bias and racism would be number two, number two would be socioeconomic standing and number three would be personal choice.” While she was not the only participant who neglected to include genetics in her final ranking, she was the only participant who renamed discrimination and transformed “environment” into “socioeconomic standing.” While she also misspoke in these final rankings, that was not unique to her answer to this question.

Another multi-racial participant opened his response to the initial question by saying, “I explain it with... So part of... And I initially come up with questions.” He spoke about the large and diverse group that is “white people” and shared two different experiences from his life related to poverty and environmental health hazards. When asked to rank the four factors, he said, “I think the genetic piece only becomes important at the edge.” He went on to speak for 10 minutes and 54 seconds, before saying, “I went way off

the track there. What was the question?" His answer started with a summary of a conversation he had online with someone asking, "who would win in a race, a Kenyan or someone from MIT?" By the end of his answer, he was reading the chapter titles and summarizing the book *The Origins of Totalitarianism* by the Jewish political philosopher Hannah Arendt. No ranking was given as both of us had lost track of the question that he was answering by the time he had finished.

White participants' answers typically referenced an association between belonging to a minority group and poverty, and an association between poverty and poor health. What the answers of the two multi-racial participants had in common was that they both commented on who was actually represented by a question comparing "White Americans" and "Black Americans."

Whereas there may be black people [...] that are poor, but that's not an all-encompassing thing that every single black person experiences, whereas I think racism through implicit bias is definitely something that all black people experience (P7).

...when we're comparing such a large group of people that's diverse within itself, because... you know white people is a big category. It includes a lot. People can migrate here, and they turn from French to white just on appearance alone until they start speaking. Minorities don't have that luxury (P8).

## **Interpreting genetic findings**

The second vignette presented to the group of seven participants was,

A researcher finds that people with a specific mutation in the *ABCD* gene are 5 times more likely to go to prison for a violent crime at some point in their life than people with the more common, unmutated *ABCD* gene. The version associated with higher rates of imprisonment is more common in black Americans than white Americans.

**Table 2: White participants of explanations of racial health differences**

<p><b>White respondents accounting of the importance of personal choice</b></p>	<p>Environment would be number one. I think that goes hand in hand with personal choice. I think that's how people develop their decision making (P1).</p>
	<p>I think environment and genetics combine to influence personal choice (P2).</p>
	<p>You can't isolate personal choice. Personal choice is a function of someone's history (P3).</p>
	<p>Personal choice, that's a charged word when it comes to race [...] Maybe personal choice is second [...] Like, personal choices are affected by our environment, and I don't say that necessarily with the judgment that others might say it with (P4).</p>
	<p>When I say something is due to environmental conditions or socioeconomic conditions [...] That could include what people might think of as personal choices, right (P5).</p>
<p><b>Answers unique to the political center or right*</b></p> <p>*did not self-identify as "left"</p>	<p>Frankly in today's age, I don't see a lot of discrimination. I don't see a significant amount (P1).</p>
	<p>And I would put discrimination last. I don't think that higher rates of obesity can be laid at the feet of racial discrimination (P2).</p>
	<p>So right off the bat, so this four-year gap, my first question is how many of that's due to violent basically people killing, being killed in street fights? How much is due to suicide, right (P3).</p>
<p><b>Answers unique to the political left**</b></p> <p>**self-identified as "left"</p>	<p>Well, discrimination is part of the environment. I would put that as number one (P4).</p>
	<p>So, it's certainly possible that like choice is involved there. But with the kind of way I look at and understand the world, I would still say that's a reflection of environmental and socioeconomic conditions. That that culture comes out of the conditions that people find themselves in (P5).</p>

After the statement, participants were asked, “What should the researcher publish about this discovery?”

Responses were varied and were not predicted by the same racial demographics and political affiliations that emerged when discussing racial health differences. There was a range in how scientifically significant participants found this fictional research finding. Some participants identified this finding as an association, which they didn’t assign a lot of significance to, while others found the finding to be more meaningful, demonstrated below.

If this was true, if you have something that is essentially completely random and you can't even blame it on... For example, if black people underperform because they're raised by bad parents, you can make the argument that's not the white man's fault. You can make an argument. But in this case there's, I think, the beauty of this question is there's no argument to be made. You've isolated something that is... You can't argue it away with rhetoric. So here you are. It's basically a flip of the coin, and black people always come up statistically worse and it objectively harms them. So it's excellent. This is an excellent question to ask people. (P3)

Another dimension of variation between answers was whether participants felt more strongly that something socially beneficial could emerge from this research or felt that the potential for social harm from reinforcing negative stereotypes of black Americans would outweigh any potential benefits. To see example quotes from each of these intersecting perspectives, see [Table 3](#).

**Table 3: Range of responses to fictional genetic association**

	<b>Potentially harmful</b>	<b>Potentially beneficial</b>
<b>Meaningful</b>	<p>I don't know if publishing this would be helpful because I think that it would just paint the African American community in a negative light [...] But I think that specifically saying that "Oh, this community is genetically inferior," would create a lot of harm without solving anything (P7).</p>	<p>What I would do is study it and then kind of somehow make it hidden and then leak it through the conspiracy community. So, it's like, "Why are you hiding something that is beneficial to your case?" Just to throw a wrench in people's thinking. That's what I would do. That's the only way I can think of to make it actually have a beneficial impact otherwise it's just going to be more of the same (P3).</p>
<b>Not meaningful</b>	<p>Maybe you can go to a very low impact journal and be like, I have this study that found this one correlation. Maybe they'd publish it, maybe they wouldn't. But like, I think that even if you don't think of the racism part, just being a good scientist, I would hope you have something more than just this one finding from your sample... (P4).</p>	<p>Like if somebody told me about that, if that gene was there, that would be quite helpful. But I don't really think— it doesn't seem to me that the science is far enough there that we can really be making those claims or taking them very seriously (P1).</p>

## **Discussion**

While discussing the broad topic of “race and genetics” on the internet, participants often talked about whether race is a scientifically valid way to group people. Another common topic of conversation is the significance of genetics when explaining differences between mean IQs across races and comparing the role of genetics to the role of culture in determining IQ. Many participants associated genetic or biological explanations with racism. When participants were asked to explain racial health differences, white participants felt that much of that was due to personal choice, although those who politically identified with the left felt that those choices were significantly influenced by interpersonal and structural racism. Participants had a range of responses to a fictional research finding about an association between a minor allele that is more common in “black Americans.” Reactions varied in terms of how important people found the finding and whether they believed that this research was more beneficial or detrimental to society.

### **“Strategic essentialism” at work**

Participants were not consistent in their accounting of the role of genetics. This was demonstrated when Participant 1 asserted that increased athletic ability must be driven by genetics before he continued on to say that same ability would be a result of living in a culture that valued athletics as a skill. This type of response is consistent with prior research and the concept of “strategic essentialism” (Condit, 2019). Condit described instances of “strategic genetic essentialism,” where laypeople used the language of genetic essentialism to serve a specific communication goal. While they may articulate an entirely determinist viewpoint in that moment, this does not necessarily reflect their fundamental belief system. The results from this study are consistent with Condit’s definition of “strategic essentialism.” In addition to strategic genetic essentialism, participants made similarly inconsistent and unequivocal statements regarding culture as being a deterministic force. This can be thought of as a strategic cultural essentialism.

Participants’ choice of words that signal either genetic or cultural essentialism may inform their underlying communication needs or purpose. In the preceding example,

Participant 1 invoked genetics as an explanation for why he “can’t become a bodybuilder.” If athletic ability is primarily genetic, then becoming a bodybuilder is biologically predetermined. One possible explanation for why genetic essentialism is deployed in this statement is to diminish the speaker’s responsibility for his own physique. A genetics framing establishes muscle mass as something that is a biological inevitability, instead of the result of dedicated training.

In many situations, a compelling argument for why someone is invoking either genetic determinism or cultural determinism may be because that is where their interpretation of the evidence leads them. Because Participant 1 uses both to describe athletic ability, it suggests the possibility that he believes both culture and genetics are responsible for that trait but puts a different importance on each one depending on context.

When Participant 1 describes athletic ability as genetic, it is initially only in reference to himself. It is when he expands the discussion to include the “African American athletic edge,” he switches away from genetic essentialism to a cultural understanding. In this context, athletic ability is the result of being in an environment that advantages being strong, therefore there is a greater incentive to develop your own athletic ability. The stark switch indicates that there may be rhetorical value in using culture to explain racial differences over biology, even as Participant 1 is trying to explain athletics as being genetics driven.

### **Associating genetics and racism**

One reason that participants may avoid employing genetic essentialism to explain racial differences is its connotation with racism. Participants indicated throughout interviews that statements about genetic causality were mostly endorsed by people who believe in white racial superiority, and genetic explanations were often equated to racism. This is evidence that in these online communities, genetics is thought of as being inherently tied with racism. If this thinking becomes more mainstream, that could have negative impacts on work to research and implement genetic medicine.

This was also seen as an issue when participants discussed the fictional research finding. One participant expressed concerns that a genetic association could “paint the

African American community in a negative light,” and described the finding as a sign that one community is “genetically inferior.” In the absence of additional information, her interpretation of an allele associated with higher rates of imprisonment led her to making a negative value judgement about all African Americans.

Participant 3 interpreted the same research finding as evidence that disproportionate rates of imprisonment for black Americans were not “the white man’s fault.” I believe the most likely explanation for his interpretation is that he erroneously applied an understanding of Mendel’s law of segregation to this question. Taught that each allele in a heterozygous parent has the same chance of being inherited, he may have extrapolated to assume that the odds of any individual having a given allele would be 50/50. Therefore, he believed that genetic inheritance was a measurable outcome independent from larger social and cultural contexts, even when told that the allele has different frequencies in different populations.

Both of these participants who believed this finding was beneficial also had associations between genetics or biology and racism. When looked at together, these findings may suggest that for some people, genetics is associated with racism because they believe that scientific results that support a racial hierarchy reflect the natural state of the world. Even as they report that race is a social designation and that culture is more important, they still accept a biological explanation for racial differences.

### **Problems with genetic and cultural essentialism in the context of race**

Regardless of whether racial differences were explained by culture or biology, both arguments have the same flaw, which is that race is an artificial grouping that does not correspond to culture or biology. In the same way that race is a crude proxy for genetic ancestry, it is also not indicative of cultural diversity. When racial differences are accepted as meaningful, it validates race as a method of categorization regardless of whether those differences are explained by cultural, environmental, or genetic factors. This could be what Participant 8 referenced when he stated that “white people is a big category” when asked to explain a four year life expectancy gap between white and black Americans. His evasion of the question could be seen as resisting the classification it relied on.

## Limitations

The ability to interpret some questions may be impacted by selection bias in the sample. For example, participants were asked how genuine they believed people were while discussing race and genetics online. The sample overwhelmingly agreed that people are overall quite genuine online, even if they change a few factual details about themselves. However, by only interviewing people who responded to an invitation from a stranger online asking to record them talking about race, there was a selection bias towards people who generally assume others to be honest online. Additionally, users who worried that they may incur negative consequences as a result of sharing their views about race and genetics may have been less likely to participate, skewing the sample towards people who believe their views align with what is socially acceptable. These forms of bias were unavoidable in this study design. However, future research may require participant incentive payments to try to increase the likelihood of participation from individuals who are more cautious. In this study, both the selection bias in sampling and the small number of participants limits the ability to confidently generalize findings from this sample of participants to the larger community they belong to.

Participant answers could also be impacted by self-censorship - a form of response bias - in an effort to put forward what they consider to be a more socially presentable image. The desire to gain social acceptance is something that is at play when participants talk about race and genetics online. Therefore, participants exhibiting a similar self-censoring behavior provides an opportunity to observe how participants use specific language to protect themselves from negative assumptions.

Another limitation introduced in this study comes from the fact that a single researcher designed the study, conducted interviews, and analyzed the data. In the absence of study staff to conduct interviews, or additional coders in analysis, I consulted with mentors throughout the project, who assisted in making sure appropriate methods were used. This study was also impacted by my own identities. Participant responses during interviews were almost certainly informed, at least in part, by me being a white woman. I used my first name during the recruitment process, which may have caused potential participants to have assumed my gender. This may have impacted the sample selection,

with people who didn't want to talk to a woman not responding. However, it may be more likely that using a traditionally feminine name and a feminine appearance during the interviews was an advantage. Almost all participants were men, and when they spoke about their discussions online there was typically an assumption that the person they were talking to was a "guy" or a "dude." I think it is plausible that these men were more likely to open up and share their experiences with a non-threatening woman. Racial concordance may have had a similarly disarming effect on white participants. Several participants expressed concerns about appearing on video while scheduling interviews, but after seeing me on the call they quickly turned their cameras on. The only participant that was not true for was the participant who identified as black. He turned his camera on 39 minutes into the recorded interview when referencing his appearance in a story. Racial concordance with the interviewer may have empowered him to turn his camera on earlier, but even with the discordance he did eventually reach that level of comfort. Therefore, researcher identity is not necessarily a limitation of the research, but a factor that must be considered during analysis.

## **Future research**

Due to human subjects concerns, the study did not include participants under eighteen. Several participants referenced people they had discussions with being "kids" which could include anyone from young adults to school aged children. Recruiting minors in an online environment presents challenges. As someone who has participated in public message boards since I was twelve years old, I can point to personal experience when I say that many children online are unlikely to reveal their age. In my case, this was due to a combination of safety concerns as well as concerns about losing credibility within the community. The influence these conversations have on minors is an important part of the research question, but this study was not prepared to capture it. Therefore, future research should examine the online activity of minors. This may be better initiated in person, through a trusted community connection, rather than by posting invitations online.

Additional attention should be paid to the way that discussions in online community may also influence opinions about other marginalized groups. While this study specifically

addressed discussions about race and genetics, participants also brought up the role of genetics as it related to sex, gender, and disabilities. The intersection between each of these factors is extremely different, but all are important for genetics researchers to consider. Particularly, genetics was invoked in several instances to reinforce gender roles based on chromosomes, which may be used to justify the legislation limiting the rights of gender and sexuality minorities that is becoming more common across the country (ACLU, 2022).

## **Conclusion**

Participants did report that they had seen genetics used to justify racism and racist policies. However, genetics was not the only way that people generalized regarding race. When emphasizing that race is a social category rather than a genetic one, individuals working in genetics should not be so focused on scientific refutations of race that they unintentionally endorse generalizations grounded in cultural essentialism. Additionally, it is important for genetic researchers to realize that there may be associations between genetics at large and racism. Researchers should think carefully about how they are using race in studies so as to not incidentally validate race as a method of categorization.

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## Appendix:

### Appendix 1: Interview Guide

<b>Demographics Questions</b>	
<ul style="list-style-type: none"> <li>• How old are you? (If declined, confirm that they are over 18.)</li> <li>• What is your gender?</li> <li>• What is your race?</li> <li>• What is the highest level of education you've completed?</li> <li>• What country do live in? Have you ever lived in another country? Which one(s)?</li> </ul>	
<b>Main Question</b>	<b>Possible Follow Ups</b>
<b>What is your history with genetics?</b>	<ul style="list-style-type: none"> <li>-What do you know about genetics?</li> <li>-Where did you get that knowledge?</li> <li>-How do you learn new information about genetics?</li> </ul>
<b>What do you want to know about your own genetic origins?</b>	<ul style="list-style-type: none"> <li>-Where did that knowledge come from?</li> <li>-What do you wish you knew about your genetic origins?</li> <li>-How do you feel about your genetic origins?</li> </ul>
<b>Tell me about your experience discussing race and genetics online, including race realism, race and IQ, and HBD.</b>	<ul style="list-style-type: none"> <li>-Where do these conversations happen?</li> <li>-Tell me about a specific conversation you had about race and genetics online.</li> <li>-What do you get out of these conversations?</li> <li>-How do conversations about race and genetics compare to other conversations online?</li> <li>-How do these conversations compare to how you talk offline?</li> </ul>
<b>During these conversations, are you more influenced by scientific evidence, or personal accounts?</b>	<ul style="list-style-type: none"> <li>-How do you judge the quality of evidence?</li> </ul>
<b>How genuine do you think people discussing race and genetics are typically?</b>	<ul style="list-style-type: none"> <li>-How can you tell if someone is (participating in good faith/being honest)?</li> <li>-Have you ever been less than genuine when discussing race and genetics?</li> <li>-Should someone's motivation impact their credibility? Why or why not?</li> </ul>
<b>How do you think your personal politics influence your understanding of race and genetics?</b>	<ul style="list-style-type: none"> <li>-How would you describe your personal politics?</li> </ul>
<b>Have you ever been accused of being racist while discussing race and genetics?</b>	<ul style="list-style-type: none"> <li>-How (did/would) that make you feel?</li> <li>-What could someone call you that would upset you?</li> <li>-How do you define racism?</li> </ul>

<p><b>Tell me about a time when you thought a conversation about race and genetics crossed the line into racism.</b></p>	<p>-What would it take for you to think a conversation was racist?</p>
<p><b>Vignette Questions</b></p>	
<p>According to the United States' Center for Disease Control, "racial and ethnic minority populations experience higher rates of poor health and disease in a range of health conditions, including diabetes, hypertension, obesity, asthma, and heart disease, when compared to their White counterparts. The life expectancy among Black Americans is four years lower than that of White Americans."</p> <ul style="list-style-type: none"> <li>• Why do you think that is?</li> <li>• How does that make you feel?</li> <li>• How do you rank the importance of genetics, environment, personal choice, and discrimination in creating these health differences?</li> <li>• How would your ranking change if you were explaining the differences in social outcomes, like income and employment, between races?</li> </ul>	
<p><b>This is a fictional, hypothetical research finding:</b></p> <p>A researcher finds that people with a specific mutation in the <i>ABCD</i> gene are 5 times more likely to go to prison for a violent crime at some point in their life than people with the more common, unmutated <i>ABCD</i> gene. The version associated with higher rates of imprisonment is more common in black Americans than white Americans.</p> <ul style="list-style-type: none"> <li>• What should the researcher publish about this discovery?</li> <li>• How could this discovery be used to help society?</li> <li>• How do you feel about this discovery?</li> </ul>	

## Appendix 2: First codebook applied

Code	Description
cdc differences	Structural code to capture answers to the first vignette.
ABCD	Structural code to capture answers to the second vignette.
definitions of race	Descriptions of how people, either the participant or others, define and operationalize the concept of race
scientific understanding	Explicit talk about scientific knowledge, including genetics or biology
genetic essentialism	Statements that fall on the spectrum of "genetic essentialism," whether that is endorsing or condemning that view
personal knowledge construction	How are people creating their own understanding of complex scientific or social topics?
societal knowledge construction	How does society create an understanding of complex scientific or social topics, where do they fail to do this?
influencing beliefs	How do others intentionally try to influence the way that people think and talk about this topic?
emotion	Talking about a feeling, in themselves or someone else, or displaying signs of that feeling without explicitly saying it
motivation	What personal feelings do you/someone else get out of having these conversations?
personal identity	How do people develop their own identity, especially regarding race and ancestry?
environment	Descriptions of the environment as a causal factor
<i>child code</i> : culture	Explicit talk about culture, especially cultural differences between groups as causal
stereotypes	People talking about stereotypes, invoking them or discussing the impacts
racism reactions	Reactions to the label "racist" and accusations of discrimination
racism impact	The effects of racism, either structural or personal, real or hypothetical, contemporary or historical
example conversation	What happened during a specific conversation, or a very regular pattern?
conversation generalizations	Broad statements about the ways that conversations online tend to play out.
offline	What is different between in person conversations and online ones?
shit stirring	Someone who is trying to incite an emotional response exclusively for their own enjoyment
talking about race	What is it like to discuss race specifically, either online or in person? For an individual or for an academic.
trying to figure out race	Discussion about people trying to understand more about race or their feelings about it through online discussions.

extremism	White supremacy, terrorism, violence, something that the speaker considers outside the bounds of reasonable discourse
governance	Relates to power, institutional politics, policy, and government interventions
political identity	Discussions about political identity, behaviors attributed exclusively to political motivation
sexes	Discussion of differences between sexes or genders
names	What public figures are being referenced and cited as influencing understanding? Not names of subreddits, first mention only.
<i>child code:</i> charles murray	Explicit mention of Charles Murray or The Bell Curve.

### Appendix 3: Second codebook applied

Code	Description
Content attributed to...	
<i>child code:</i> bad faith or external actors	Participants discuss online content they attribute to a bad faith contribution from someone outside their community. Ambiguous attribution should be coded under the parent code.
<i>child code:</i> good faith community members	Participants discuss online content that they attribute to members of the community it is posted in, as a good faith contribution, or both.
Gaps in knowledge and confusion	Participants discuss the things that they don't understand, related to genetics, race, or both of them together.
Personal motivation and objectives	Participants explicitly discuss what their intended outcome is from having conversations about race and genetics online, or they otherwise indicate their goals when discussing their reactions to various outcomes in conversations.
Suspected motivation and objectives	Participants explicitly discuss what they suspect other users are trying to accomplish intended outcome is from having conversations about race and genetics online, or they otherwise indicate their goals when discussing their reactions to various outcomes in conversations.
Significance of...	
<i>child code:</i> culture	Participants discuss what makes culture relevant to discussions of race, or the influence of culture on people's behavior.
<i>child code:</i> environment	Participants discuss how environment is relevant to discussions of race, and how environment can influence behavior and outcomes. Discrimination is included in the environment.
<i>child code:</i> genetics	Participants discuss what makes genetics relevant to discussions of race, or the importance of genetics research.
Relationship between...	
<i>child code:</i> culture and genetics	Participants discuss the ways that culture and genetics are distinct, at odds, or are conflated, or the two are conflated by participants.
<i>child code:</i> environment and genetics	Participants discuss the ways that environment and genetics are distinct, at odds, or are conflated, or the impact of the environment on genetics, and vice versa.