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YouTube Kids: The Effect of YouTube on Children's Racial Beliefs

By

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Abstract

To what extent might YouTube influence children's beliefs about racial outgroups? Though it is well established that children can learn about group dynamics within their racial world from patterns in their daily environments, the majority of research in this domain has focused on in-person environmental dynamics. The current study examines whether YouTube exposes children to negative outgroup behaviors, potentially affecting their beliefs. In an online questionnaire, dyads of parents and 8-13 year-old children (N = 200 dyads) described children's daily YouTube usage. We found that time spent on YouTube each week was not associated with increased perception of negative racial patterns on YouTube (B = 0.00, p = .397), nor was time spent on YouTube associated with an increase in prejudice against racial outgroups (B = 0.00, p = .376). However, male participants (t = -2.45, p = .029) and participants with higher parasociality scores (B = 0.81, SE = 0.08, p < .001) displayed greater prejudice. These findings suggest that prejudice is predicted by more than just online exposure to negative racial patterns; children's identities and preferences may play a larger role.

YouTube Kids: The Effect of YouTube on Children's Racial Beliefs

Is YouTube making children more racist? Despite sounding like the cultural fear-mongering often associated with screen time and development, such a question refers to real concerns that psychological research has yet to address: what are children really learning from YouTube, particularly with regard to race?

Literature Review

Much of the literature on how children learn about their racial world places great emphasis on the transmission of information that is explicitly about race: how parents talk about members of other racial groups, how and whether schools portray the histories of marginalized groups, how peers may communicate stereotypes, etc. (Hughes & Watford, 2022). In this view, ethnic-racial socialization, or the ways in which agents transmit messages about ethnicity and race to children, occurs through direct verbal instruction. However, in addition to more explicit transmissions of racial knowledge, children are simultaneously exposed to a barrage of more implicit environmental inputs—who they live near, for instance, or who they see on screens—which may also affect these conceptions (Hughes et al., 2023).

Not only does ethnic-racial socialization occur with explicit instruction, but so too do children attend to the racial patterns and organizations embedded into their environments and social settings (Hughes & Watford, 2022). Such environmental racial patterns—who tends to hold positions of authority, who tends to receive discipline in school, etc.—constitute racial regularities, or "persistent patterns in the relative social experiences of, or roles occupied by, two or more racial (or racialized groups) within a setting" (Hughes & Watford, 2022). In response to such patterns, children engage in racial learning, or the meaning-making of external messaging so as to form their own conceptions of how race works in their social world (Hughes & Watford,

2022). As such, when exposed to consistent, repeated regularities, children draw inferences as to why such patterns exist and persist; they may accept that such patterns as necessary features of 'the way things are,' or may even create explanations for such patterns (e.g. "White families live in big houses because they work hard" in contrast to "Black families live in big houses because they got lucky") (Hughes et al., 2023; Rizzo et al., 2022).

One resultant psychological process that can arise due to racial socialization is racial essentialism. Psychological essentialism is a set of cognitive biases that predispose individuals toward the belief that members of a category are alike in non-obvious ways, where certain categories have inductive potential (where novel category members share known traits), an innate and stable basis for membership, and sharp boundaries with other categories (Gelman, 2004; Mandalaywala et al., 2019). Children are particularly prone to essentialist thinking, where they will extend prior knowledge of categories to new members (Gelman, 2004). Racial essentialism is a belief in the intrinsic nature of racial difference, or a belief in the generalizability of individual qualities to a group based on trait-similarity (Waxman, 2021). As such, if children are exposed to greater environmental input regarding members of a certain category, through induction, they are more likely to project what they have learned onto novel members of that category (Gelman, 2004). Greater exposure to negative environmental patterns regarding racial outgroups may thus predispose children to racial essentialism, or the extension of those stereotypes to members of the same group. This suggests that features of specific environments such as racial regularities not only affect explicitly articulated beliefs but implicit understandings of one's social environment. As such, to fully understand how children's conceptions of race form, we must examine the ways in which environments containing ontologically inaccurate racial regularities affect their racial learning.

One such environmental stream of input regarding race and racial regularities is social media. Children today have unparalleled access to social media platforms: YouTube, TikTok, Twitch, and more. On these sites, the sheer amount of content posted often outpaces enforcement of content guidelines, making it difficult to know exactly what children are seeing or learning from the content they are consuming. Unlike media such as television or movies, social media platforms are populated by both media corporations and individual content creators. YouTube is a social media platform that is particularly popular amongst children; many children use YouTube regularly: one third of parents of children aged 11 and younger surveyed by Pew Research Center indicated that they let their children use YouTube regularly (Smith et al., 2018). Further, amongst tweens and teens, video logs and gaming videos—types of content usually generated by influencers, not corporations—are the two most popular genres watched (Rollins et al., 2022).

Despite massive popularity, research on the effects of YouTube and other forms of social media on children's race-related attitudes and behaviors has not been methodologically systematic (Ward & Bridgewater, 2023). Though YouTube has become a regular part of children's lives, it is still unknown how YouTube may be affecting children's conceptions of racial categories and associated beliefs about race. However, some research has emerged describing racial regularities on YouTube: in a review conducted by Common Sense Media, in YouTube videos watched by children under the age of 8, prominent characters of color were far more likely to engage in violent behaviors or inappropriate language, and were less likely to appear alongside educational content (Rollins et al., 2022). In another content analysis of the most popular YouTube videos at the time, more than three-fifths of videos in the sample included racial stereotypes, most of which reinforced and perpetuated them (Guo & Harlow,

2014). Taken together, we see that YouTube contains racial regularities in the form of stereotypes, which children may be accommodating into their beliefs, but there has not yet been any research confirming this connection.

While there is a body of research aimed at understanding how certain aspects of children's environments contribute to the formation of racial attitudes, there is not as much focus on how YouTube, or other social media platforms, function as sites of racial socialization and learning via racial regularities. Similarly, though there have been some content analyses regarding the racial character of YouTube videos, such studies have yet to be done in conjunction with psychological measures of racial beliefs and attitudes. Due to this lack of research into how social media ecologies contribute to kids' racial beliefs, I thus ask the question: are children for whom stereotypical social media is a part of their daily environment more likely to develop stereotyping or prejudicial racial beliefs and attitudes?

Present Study

This study will examine the relationship between YouTube usage and children's development of racial beliefs to understand whether and the degree to which YouTube may be a site of ethnic-racial socialization where children develop stereotypes regarding those of other races.

First, I hypothesize that time spent on YouTube and children's observation of racial regularities should covary; as children spend more time on YouTube, they may observe more negatively valenced, stereotypical racial regularities including people of color (Guo & Harlow, 2014; Rollins et al., 2022). Thus, I also hypothesize that if children spend more time on YouTube, they will display more fixedness in their beliefs regarding racial outgroups. While some children may not be consciously aware of on-screen racial regularities, these dynamics may

still affect their beliefs about race (Hughes & Watford, 2022). As such, I hypothesize that the relationship between children's time spent on YouTube and their exhibited racial beliefs will be mediated by their observations of negative racial regularities.

One additional factor that may moderate the relationship between time spent on YouTube and racial attitudes is whether a child's favorite YouTuber is of a race other than their own, via the parasocial contact hypothesis. Parasocial interactions are perceptually intimate experiences with media figures, where there is a lack of cognitive and behavioral difference between these interactions and those which occur in 'real life' due to attraction, perceived homophily, and empathy (Schiappa et al., 2005). Over time, repeated interactions become one-sided, parasocial relationships, which are considered analogous, in many ways, to interpersonal relationships (Schiappa et al., 2005; Wong et al., 2022). The parasocial contact hypothesis suggests that when individuals have limited real life interpersonal contact with minority groups, the formation of parasocial relationships with outgroup media figures may reduce stereotyping and prejudice in similar ways to interpersonal relationships (Schiappa et al., 2005; Wong et al., 2022).

Much of the parasocial contact hypothesis literature explores the prejudice and stereotype reduction made possible by parasocial relationships with television characters, yet the growing popularity of social media presents another medium through which parasocial relationships may be formed. If positive parasocial contact hypothesis effects may be observed when individuals form relationships with characters in other media, so too should these effects be observed when individuals have parasocial relationships with outgroup influencers (Banas et al., 2020). Thus, I pose my final hypothesis: the relationship between the amount of time that children spend on YouTube and their racial stereotyping will be moderated by whether they have a parasocial relationship with a favorite YouTuber of a race other than their own. Specifically, if children

have a favorite YouTuber of a race other than their own and they have a parasocial relationship with this YouTuber, they will display less racial stereotyping.

Methods

Participants and Procedures

This study included dyads (N = 200 dyads) of parents and children between the ages of 8 and 13 years old (*M*age = 10.9, SD = 1.97, 101 girls). Though children may express negative racial attitudes prior to this point in development, during early adolescence, children develop the ability to recognize and reflect on the racial patterns and dynamics present in their environments (Hughes & Watford, 2022). As such, this age range was selected in part to capture how age might affect the relationship between the observation racial regularities on YouTube and children's racial beliefs (though ultimately, no age effects were observed). Additionally, children in this age range are capable of self-sufficiently completing the asynchronous online survey, reducing the likelihood that lack of survey comprehension would confound results. Participants were recruited through Qualtrics Panels, allowing me to obtain a representative sample of parents and children; other studies have used Qualtrics Panels with similar methods and populations (Byrd & Ahn, 2020).

Data was collected in March of 2025 from families recruited via Qualtrics Panels. Participating families received two Qualtrics surveys (one for the parent and one for the child) to be completed asynchronously, and received compensation (as determined by Qualtrics Panels) after both surveys were completed.

Measures

Parent Survey

In the parent survey, participants answered questions related to parent and child demographics (child age, race/ethnicity, parent income and level of education, etc.), as well as questions regarding their child's YouTube usage. Parents reported the amount of days their child spends on YouTube in an average week, as well as the amount of time their child spends on YouTube in an average day. Responses were combined to create an hours on YouTube per week score.

Child Survey

Children first answered questions related to their YouTube usage, such as time spent on YouTube and their favorite genre. Next, they either answered a block of questions pertaining to YouTube content, or a block of questions assessing racial beliefs. Blocks of questions appeared randomly for each participant to reduce order effects.

YouTube Content. In the YouTube content section, children were asked to think of their favorite YouTuber as they answered questions related to whether they have a parasocial relationship with that YouTuber, as well as their observations of racial regularities on YouTube.

Parasociality Children's parasocial relationships with YouTubers, a potential moderator in the relationship between time spent on YouTube and negative racial attitudes, were measured using a composite score of two questionnaires: perceived homophily in behavior and appearance (adapted from McCroskey et al. (1975)) and parasocial interaction with a YouTuber (adapted from Sung et al. (2023)). After listing and being prompted to think about their favorite YouTuber, in these questionnaires, children indicated the degree to which their favorite

YouTuber looks, acts, and thinks like them, as well as whether this YouTuber could be their friend.

Racial Regularities. Racial regularities, hypothesized to mediate the relationship between time spent on YouTube and children's racial attitudes, were measured using racial regularities questionnaire items created for this study. As racial regularities are defined in terms of consistent and repeated racialized patterns in a particular environment (Hughes & Watford, 2022), this measure was designed to capture potential behavioral patterns in racial outgroups that may appear on YouTube. This measure was created using patterns in YouTube videos as captured in a large-scale content analysis by Rollins et al. (2022), and included both positive and negative behaviors. Children were asked whether they agreed that people with different skin colors than their own expressed each behavior (e.g., "On YouTube, when I see videos of people who do not have the same skin color as me…they hurt other people in the video.").

Racial Beliefs. In the racial beliefs section, children answered questions regarding outgroup prejudices, as rated on a Likert scale (all coded such that 1 = *Really disagree* and 5 = *Really agree*). Children also completed a friend choice task.

Racial Beliefs. Beliefs about groups, particularly in terms of group malleability, were chosen as the primary outcome measure to assess racial attitudes, stereotyping in particular. Such questions, adapted from Halperin et al. (2012), address whether children have fixed or malleable views—stereotypes—regarding outgroups (e.g. when prompted to think about groups with different skin colors than their own, children are asked the extent to which they agree with the statement, "These groups of people can't really change the way they act"). Responses were combined into a single malleability beliefs score: higher scores in this domain demonstrate more fixed beliefs and evaluations of outgroup members, suggesting an underlying racial essentialism

(Waxman, 2021). As essentialism is rooted in environmental, cultural, and contextual experiences (Hughes et al., 2023), more fixed racial beliefs should also reflect some degree of the racial regularities present in child's world, potentially capturing those on YouTube.

Friend Choice. Children also completed one friend choice item. Adapted from Amemiya and Bian (2024), this item measures children's explicit racial preferences with regard to peers. Participants were shown an array of 10 photos of 10-11 year old children (ages around the median of the age range of children sampled). Photos were varied by race to reflect diverse racial demographics, and each photo was gender matched. Alongside these photos, children were asked: "Imagine that you have one seat left at your lunch table. Which of the kids below would you invite to sit at your table?" Though this item assesses children's racial preferences, it appeared outside of the racial attitudes question block to reduce the influence of these measures on one another.

All measures used in the child survey were adapted for child readability as needed. Table 1 reports the reliability of all questionnaires used, within the present sample. Here, moderate to high alpha (between 0.7 and 0.9) indicate that the measures used were largely reliable: each of the measures below may be assessed to be both internally consistent and to have adequately captured corresponding psychological constructs (Tavakol & Dennick, 2011).

Table 1

Reliability of Questionnaires

Reliability (assessed through Cronbach's Alpha) of questionnaires used, within sample.

Measure	Alpha
Malleability Beliefs	0.86

Measure	Alpha
Homophily (Appearance)	0.91
Homophily (Behavior)	0.87
Parasociality	0.83
Racial Regularities	0.71

Results

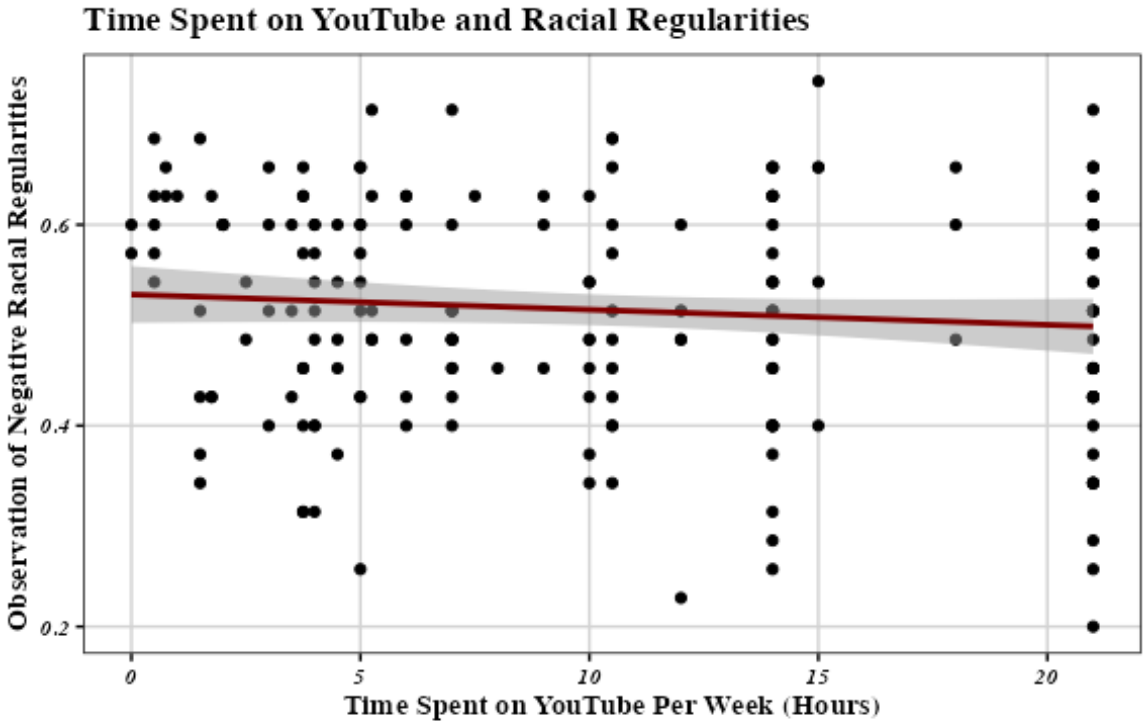
Regularities, Beliefs, and Time Spent on YouTube

To test my first hypothesis that increased time spent on YouTube would covary with children's observations of negative racial regularities, I calculated the correlation between children's time spent on YouTube per week and racial regularities scores. On average, children watch 10.66 hours of YouTube per week. However, time spent on YouTube was not significantly correlated with children's perceptions of racial regularities (r = -0.09, 95% CI [-0.23, 0.04], p = 0.182). This lack of relationship was confirmed by regressing regularity scores on time spent on YouTube ($F(3, 196) = 2.99$, $p = .032$, $R^2 = 0.04$); though the overall model is significant, time was not a significant predictor of children's observations of racial regularities ($\beta = -0.1$, $p = .174$). The significance of this model comes from the addition of gender ($\beta = 0.15$, $p = .040$), added as a control alongside age ($\beta = 0.13$, $p = .071$). Such controls were added so as to curtail variance, as well as to account for age and gender as potential confounds. The role of gender is explored more thoroughly later in this section, as well as in Section 2.3. In the current sample, time spent on YouTube was not correlated nor predictive of children's observation of racial regularities. In general, children's observations of racial regularities in YouTube videos were not significantly different from a neutral reference point ($t(199) = 1.85$, $p = .065$, 95% CI [0.5, 0.53], $M = 0.51$), and there was much variance in scores overall, as shown in Figure 1.

However, some of this variance may be explained by children's gender, whether in terms of gendered usage or content.

Figure 1

Relationship between children's per-week YouTube watching and observation of racial regularities.



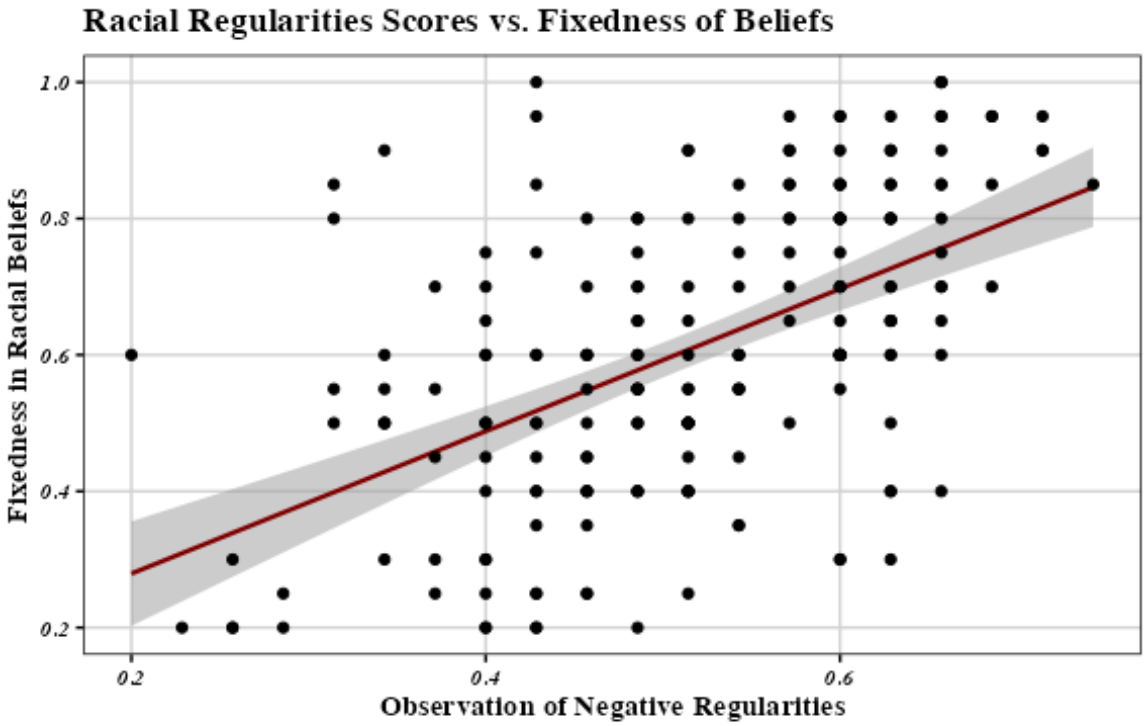
Note: With greater time spent on YouTube, children do not observe significantly more negative racial regularities.

It was also hypothesized that as a result of the relationship between time spent on YouTube and racial regularities, children who spend greater time on YouTube would display more fixed racial beliefs regarding outgroups. Regressing racial beliefs against time spent on YouTube, controlling for regularities, age, and gender, time spent on YouTube significantly predicted more fixed racial beliefs ($F(4, 195) = 22$, $p < .001$, $R^2 = 0.31$). However, despite a significant positive association, the effect size of time alone on racial attitudes was low ($\beta = 0.12$, $p = .039$). Racial regularity scores significantly predicted racial beliefs: increases in racial

regularity scores were significantly associated with increases in fixedness of racial beliefs (β = 0.54, $p < .001$), as shown in Figure 2. Though there was no observed relationship between time spent on YouTube and racial regularities, nor did the average participant observe significantly negative racial regularities, racial regularities on YouTube may still play a role in children's racial beliefs. Neither age nor gender were significant in this model.

Figure 2

Correlation Between Racial Regularities and Racial Beliefs



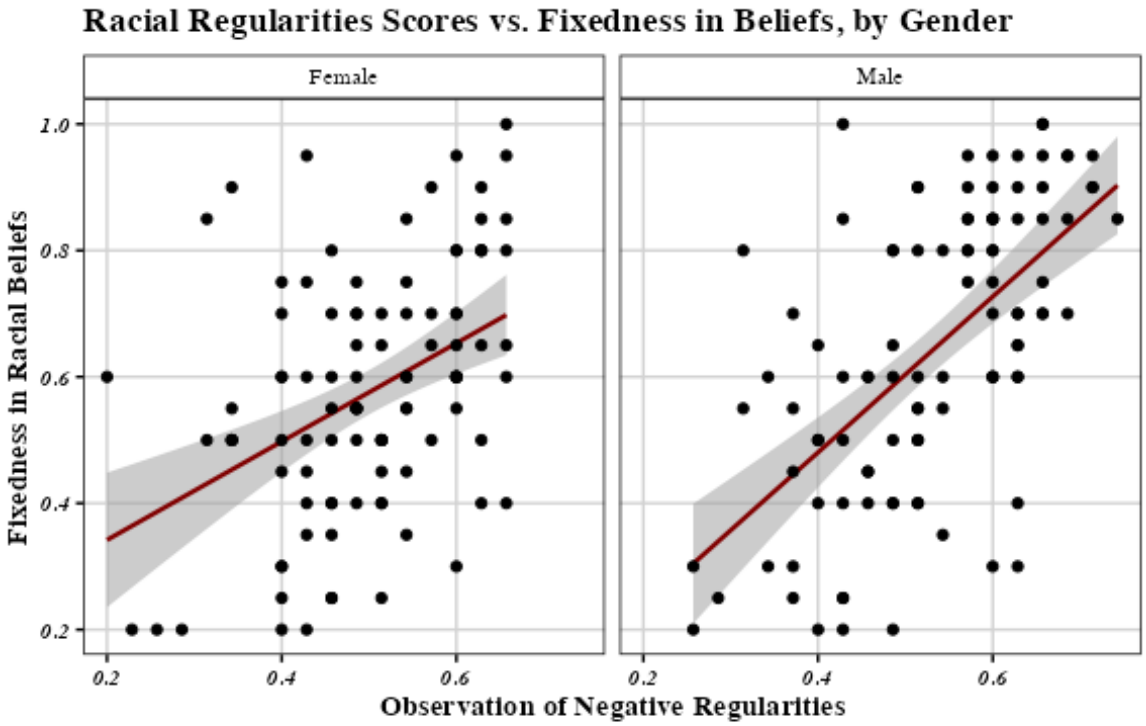
Note: Greater observations of negative racial regularities positively and significantly predict fixedness in racial beliefs.

Though gender did not significantly predict racial attitudes in the previous model (β = 0.08, p = .176), it significantly predicted children's observations of racial regularities (β = 0.15, p = .040). Considering the strength of the correlation between children's observation of racial attitudes on YouTube and their reported racial attitudes, I examined this discrepancy. I conducted two-sample t-tests with racial attitudes and racial regularities: there were significant

differences between genders in both reported racial attitudes (t = -2.2, p = .029) and racial regularities (t = -2.01, p = .045). Further, one-sided t-tests revealed that male participants displayed significantly more fixed racial attitudes than female participants (t = -2.2, p = .014) as well as significantly more negative racial regularities (t = -2.01, p = .023). It is thus clear that in this sample, as shown in Figure 3, gender affects children's expression of more fixed racial attitudes as well as observations of negative racial regularities on YouTube: a child's gender is associated their racial attitudes insofar as gender predicts children's observation of negative racial regularities, which itself then predicts racial attitudes.

Figure 3

Racial attitudes and racial regularity scores, by gender



Note: Male participants' observed more negative racial regularities and expressed greater fixedness in racial beliefs.

Table 2

Amount of Friend Choice Race/Ethnicity Match by Gender

	Total	Female	Male
Mismatch	120	62	58
Match	80	39	41
Total	200	101	99

Finally, turning to the friend choice measure as a gauge of racial attitudes, there were no significant differences between children who chose a friend of the same race/ethnicity as their own and children who did not, in terms of racial attitudes, observations of racial regularities, parasocial relationships with YouTubers, nor choice of favorite YouTuber. However, as seen in Table 2, children were more likely to choose friends of a different race/ethnicity than their own, and this pattern was consistent across gender. Relative to chance (where each child is equally likely to choose a same- or different- race friend), children were significantly less likely to choose friends of the same race (Proportion = 0.4, 95% CI [0.33, 0.47], p = .006).

Parasocial Relationships with Favorite YouTubers

I hypothesized that having a parasocial relationship with a YouTuber of a race other than one's own would moderate the relationship between the amount of time children spent on YouTube and their racial attitudes. In the present sample, 65 children's favorite YouTubers were of a matching race/ethnicity (Match) and 68 were of a different race/ethnicity (Mismatch). 67 children did not specify an identifiable favorite YouTuber (None). YouTuber race/ethnicity was coded using publicly available online information, and children's race/ethnicity was reported by parents. To test a potential relationship between parasociality, race/ethnicity match, and racial attitudes, I first conducted an ANOVA so as to assess whether there were significant differences

in racial attitudes between favorite YouTuber race/ethnicity match types. This test revealed that there were significant differences in racial attitudes across favorite YouTuber groups ($F(2, 197) = 4.83$, $p = 0.009$). A post-hoc Tukey's HSD test showed that racial attitudes in the Mismatch group were significantly different than those of children in the Match group (Mismatch-Match: M difference = -0.11, 95% CI [-0.2, -0.02], p = 0.008.). Children with a favorite YouTuber whose race/ethnicity matched their own expressed more fixed racial attitudes than those whose favorite YouTuber was of a race/ethnicity other than their own. No significant differences were observed between Mismatch and None (None-Mismatch: M difference = 0.08, 95% CI [-0.01, 0.16], p = 0.096.), nor between Match and None (None-Match: M difference = -0.04, 95% CI [-0.12, 0.05], p = 0.600.).

To better understand the relationship between parasociality with a favorite YouTuber and racial attitudes, I created a regression model with racial attitudes as the outcome. This model contained: race/ethnicity match categorical variable, parasociality score, racial regularities score, and time. I also included an interaction between race match and parasociality so as to test my primary hypothesis, as well as an interaction term between parasociality and time, to evaluate how parasociality might change with time spent on YouTube. This model was significant overall, and explains much of the variance in racial attitudes in this sample ($F(8, 191) = 28.82$, $p < .001$, $R^2 = 0.55$). Children's observations of racial regularities (centered around a neutral midpoint of 0.5, Table 3) remained a strongly positive significant predictor of racial attitudes ($\beta = 0.43$, $p < .001$). The composite measure for parasocial relationships with one's favorite YouTuber (across appearance, behavior, and perceptions of possible friendship; also centered around a neutral midpoint of 0.5), was also a strongly positive and significant predictor of racial attitudes ($\beta = 0.69$, $p < .001$). Though having a favorite YouTuber of a racial or ethnic group

other than one's own (Mismatch) did not itself significantly predict racial attitudes (compared to Match), the interaction effect between Mismatch and composite parasociality was significant (β = -0.23, p = .027). Though having a favorite YouTuber of a race other than one's own did not itself predict lower racial attitudes, it attenuated the otherwise positive effect of parasociality with a favorite YouTuber. Parasocial relationships with YouTubers were predictive of higher racial regularities overall, but such an effect was moderated by having a favorite YouTuber of a different race or ethnicity than one's own. Such an effect may be visualized in Figure 4.

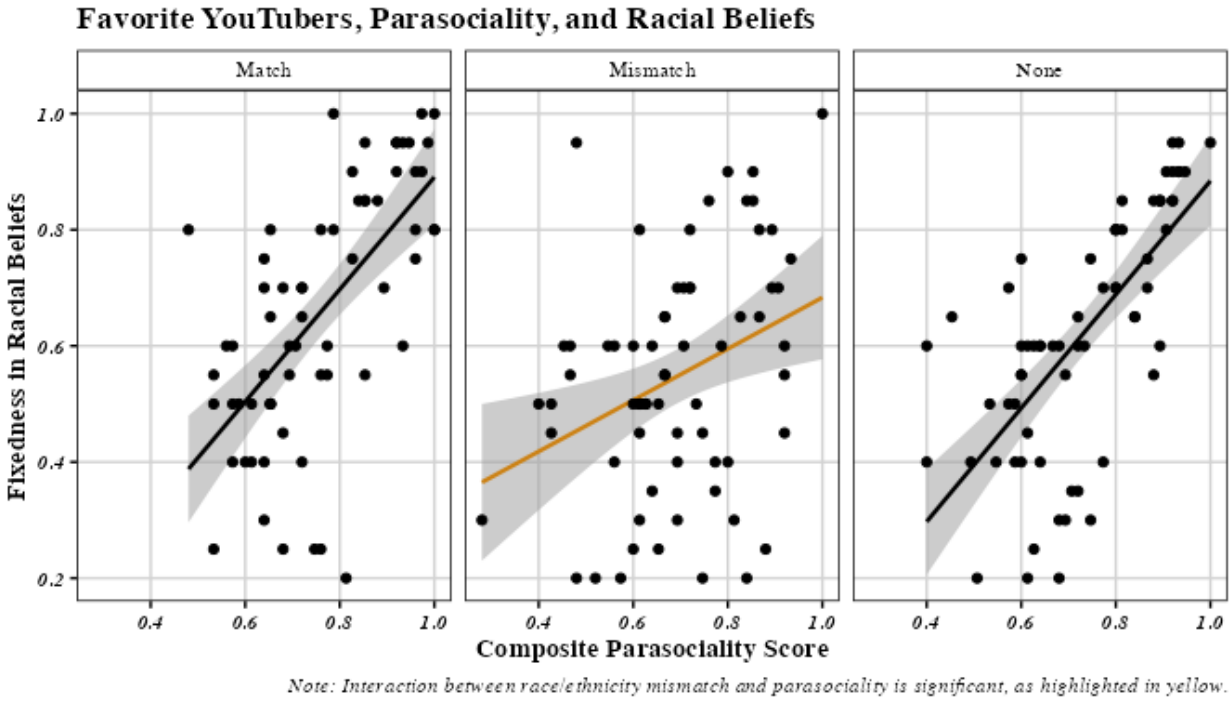
Table 3

Regression Predicting Malleable Score (Predictors Centered at 0.5)

Predictor	B	SE(B)	t	p
Intercept	0.37	0.05	8.13	<.001
Mismatch (vs Match)	0.02	0.05	0.39	0.694
None (vs Match)	-0.06	0.05	-1.25	0.212
Parasociality (centered)	0.99	0.16	6.35	<.001
Regularity (centered)	0.83	0.10	8.16	<.001
YouTube Time	0.01	0.00	3.48	<.001
Parasociality x Mismatch	-0.39	0.18	-2.22	<.05
Parasociality x None	0.06	0.18	0.31	0.756
Parasociality x YouTube Time	-0.02	0.01	-2.55	<.05

Figure 4

Parasocial relationships with YouTubers of in or outgroups and racial beliefs



Additionally, in this model, time remains a significant predictor of racial attitudes (β = 0.3, $p < .001$), consistent with previous models. Further, there is a significant interaction between time spent on YouTube and parasociality score (β = -0.28, p = .011); as time spent on YouTube increases, the positive association between parasociality and fixedness of racial beliefs decreases.

Exploratory Analysis: Gender Effects In Context

Considering the previously observed association between gender and racial regularities, I conducted exploratory analyses to determine the degree to which gender may play a role in children's YouTube usage, particularly with regard to favorite YouTuber choice and potential gendered differences in racial attitudes and regularities. From previous analyses, it is clear that in

more robust models, the effect of gender disappears, despite there being significant gendered differences in children's racial attitudes and observations of racial regularities.

First, I examined the degree to which gender might affect parasociality. Past research has shown that boys are perhaps more likely to engage in parasocial relationships than girls (Gleason et al., 2017). In this sample, boys were more likely to express higher parasociality than girls ($F(1, 198) = 8.33$, $p = .004$, $R^2 = 0.04$), though the effect size was fairly low. Then, as prior one-tailed t-tests have shown that boys are more likely to express observing negative racial regularities as well as more fixed racial attitudes, as well as the moderating effect of having a different YouTuber of a race/ethnicity other than one's own, I conducted a chi-squared test to see the extent to which favorite YouTuber race/ethnicity is related to gender. This test revealed that there are significant differences between boys and girls in whether or not their favorite YouTuber is of a race other than their own ($\chi^2(2) = 14.59$, $p < .001$). In Table 4, the directionality of this effect may be observed: boys in this sample were more likely to have a favorite YouTuber of the same race as their own, while girls did not.

Table 4

Amount of Favorite YouTuber Race/Ethnicity Matches by Gender

	Sum	Female	Male
Match	65	25	40
Mismatch	68	47	21
None	67	29	38
Sum	200	101	99

As there is a significant relationship between gender and favorite YouTuber race match, a significant relationship between gender and parasociality, as well as previously observed

interaction effects between parasociality and YouTuber race match, I created a model with all three variables: I regressed parasociality against gender and the YouTuber race match groups, so as to see the extent to which each independently predicted parasociality. The overall model was significant ($F(3, 196) = 4.16$, $p = .007$, $R^2 = 0.06$); gender significantly predicted parasociality ($\beta = 0.16$, $p = .024$), as did having a favorite YouTuber of a race other than one's own ($\beta = -0.17$, $p = .045$). Though I tested more complex models to further examine relationships among gender, parasociality with a favorite YouTuber, and racial attitudes, model fit assessments (using Akaike and Bayesian Information Criteria) indicated that the two simpler models reported above were the best fits for this data.

In the present sample, boys were more likely to have a favorite YouTuber of the same race/ethnicity, and they were more likely to demonstrate greater parasociality with their favorite YouTubers. Additionally, having a favorite YouTuber of a different race negatively predicted parasociality. As shown previously, greater parasociality predicted more fixed racial attitudes, yet this effect was attenuated by a favorite YouTuber being of a race other than one's own. This moderating effect of race/ethnicity mismatch on the relationship between parasociality and racial attitudes may be due to lower levels of parasociality observed in children with outgroup favorite YouTubers. Further, when children had a favorite YouTuber of the same race/ethnicity as their own, they were more likely to express fixed racial attitudes. Given that boys were more likely to have a same-race/ethnicity favorite YouTuber and display greater parasociality, there may be an indirect association between gender and fixed racial attitudes. Although gender itself did not predict racial attitudes in the present sample, gendered patterns in YouTuber preference and parasociality might. As such, exploratory analyses show that there is no direct effect of gender

on racial attitudes; rather, there are potential *indirect* effects of gender on racial attitudes through gender's influence on YouTube usage.

Finally, Figure 5 depicts the race and gender demographics of the favorite YouTubers children reported. When children reported a favorite YouTuber, the overwhelming majority were White men. This demographic skew amongst favorite YouTubers is reflected in Figure 6; children of color had the largest proportions of favorite YouTubers whose race/ethnicity did not match their own. It is important to note that this plot flattens heterogeneity within non-White racial groups, but considering past research examining differential media usage between White and children of color Ward and Bridgewater (2023), this differentiation has been made for the purposes of this analysis. Further, White male participants had the largest proportion of race-matched favorite YouTubers, and considering the overwhelming male majority of favorite YouTubers, it is likely that many of these favorites are male. As one component of the parasociality composite score is homophily in appearance, perhaps YouTube's demographic skew toward White male YouTubers is driving the relationship between gender, race-match, and parasociality. However, such an effect does not necessarily translate to offline contexts. In the Friend Choice plot within Figure 7, children across all race and gender groups chose friends of racial groups other than their own (as discussed previously, at a statistically significant rate compared to a neutral midpoint). It is thus possible that the demographic impact on YouTube usage is more so related to the demographics of YouTube itself.

Figure 5

Demographics of favorite YouTubers reported by participants

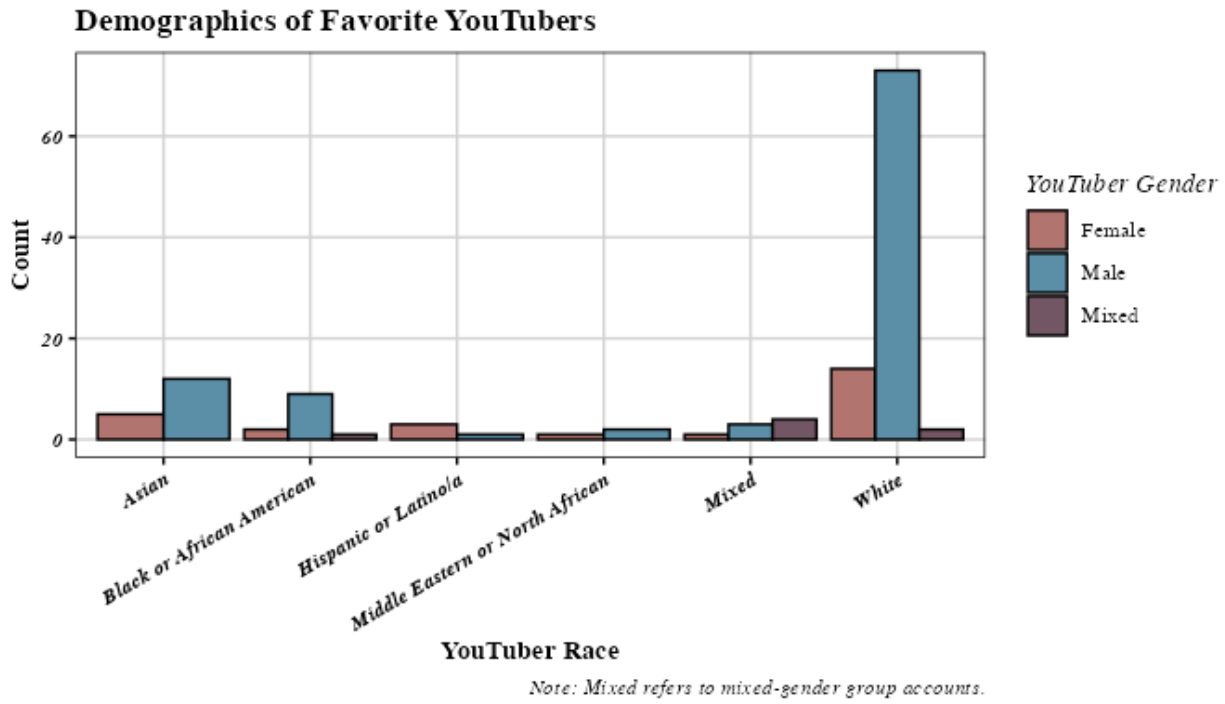


Figure 6

Demographics of Favorite YouTubers and Participants

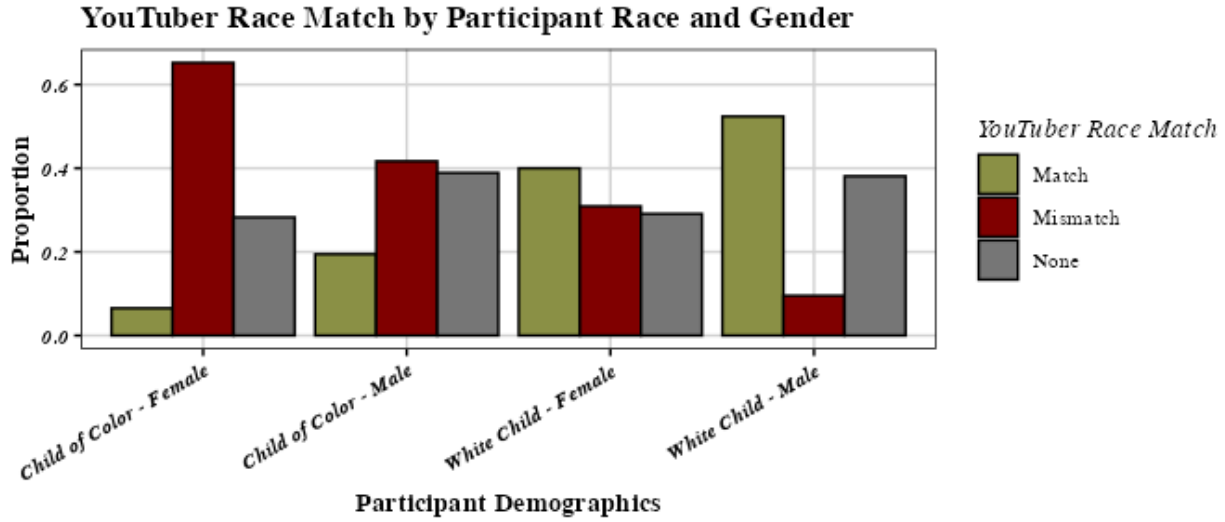
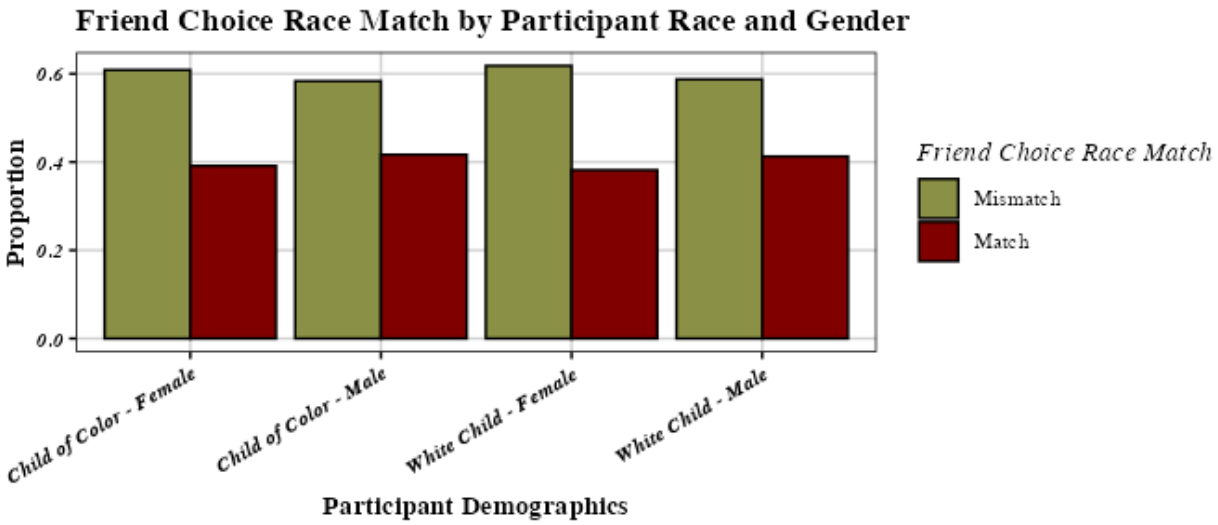


Figure 7

Demographics of Friend Choice and Participants



Discussion

I hypothesized a mediation model for the relationship between time children spend on YouTube and their corresponding racial attitudes. In this hypothesis, the more time a child spends on YouTube, the more racial regularities they should observe, thus leading to greater stereotyping of members of racial or ethnic outgroups. Though children's observations of negative racial regularities on YouTube significantly predicted racial attitudes in this study, time spent on YouTube did not significantly predict these observations. Rather, time spent on YouTube significantly predicted racial attitudes in models that otherwise controlled for racial regularities: in such cases, time spent on YouTube was positively associated with more fixed racial attitudes.

The lack of relationship between time spent on YouTube and children's observation of negative racial regularities on YouTube suggests that children are not consuming content that is overtly negative on average; spending more time on YouTube will not necessarily expose one to

more negative racial characterizations. The strong relationship between regularities and attitudes suggests several possibilities: a) children who report seeing more negative racial regularities on YouTube tend to develop more fixed racial attitudes, b) children who observe more negative regularities do so as a result of pre-existing fixed attitudes, or c) some third variable, such as prejudice or familial beliefs, both prime children to notice racial regularities and inculcate more fixed attitudes. The modest relationship between time spent on YouTube and fixed racial attitudes suggests that may be some other underlying mechanism—perhaps the way the content is presented on YouTube or a cognitive mechanism—contributing to this relationship. Or, it may be the case that having more fixed beliefs predisposes children to spending more time on YouTube, as opposed to other media or activities.

Though racial regularities may not mediate the relationship between children's time spent on YouTube and their stereotyping with regard to racial outgroups, children's relationships with their favorite YouTubers play a role. I hypothesized that the relationship between time on YouTube and racial attitudes would be moderated by having a parasocial relationship with a favorite YouTuber: if children who spend more time on YouTube develop more fixed racial attitudes regarding outgroups, having a favorite YouTuber of a race other than their own may attenuate such an effect. In general, having a parasocial relationship with a YouTuber strongly and significantly predicted more fixed racial attitudes. In other words, if a child reported a stronger parasocial relationship with their favorite YouTuber, they were more likely to have more fixed, less malleable, racial attitudes. However, having a favorite YouTuber of a race other than one's own significantly decreased this effect. Further, spending more time on YouTube significantly decreased the effect of parasociality on racial attitudes.

Considering the overall positive effect of parasociality on fixed racial attitudes, one might assume that spending more time on YouTube would augment such an effect, especially as time spent on YouTube is generally positively correlated with more fixed racial attitudes. This discrepancy suggests that as children spend more time on YouTube, they are potentially exposed to more content beyond that of their favorite YouTuber. Even if a child has a strong parasocial relationship with their favorite YouTuber, and such a relationship predicts more fixed racial attitudes, with greater time spent on YouTube in an average week, one is likely exposed to other content as that of their favorite has been completely consumed.

Lastly, in the present sample, gender was associated with greater parasociality, as well as having a same-race favorite YouTuber. Boys were more likely to report higher parasociality with their favorite YouTubers, and these favorite YouTubers were more likely to be of the same race/ethnicity as their own. Additionally, boys were more likely to observe more negative racial regularity than girls in this sample. Though there was no direct effect of a child's gender on their racial attitudes, these results suggest both a more general effect of gender on YouTube usage patterns, as well as a potential indirect effect of gender on racial attitudes through such usage. For instance, a boy with a same-race favorite YouTuber may have greater parasociality regarding this YouTuber, and he may then display more fixed racial attitudes. Such results could be due to boys being more likely to observe negative racial regularities, or one of the other possibilities discussed previously. It remains unclear why boys are more likely to report observations of more negative racial regularities. However, it is possible that gendered YouTube usage is perhaps a result of overall YouTuber demographics: favorite YouTubers reported by children were overwhelmingly male.

It is of note that the majority of favorite YouTubers reported by children were White men. This demographic prevalence poses several questions: to what extent are children's favorite YouTubers representative of the overall YouTube landscape? Are YouTubers more likely to become popular if they are White men due to algorithmic or systemic biases, preferences of viewers, or some reciprocal relationship between the two? When answered, such questions regarding the YouTube environment provide crucial context for the way in which it may operate as a site of socialization, particularly one wherein user interactivity plays a role in how such an environment is shaped (Ward & Bridgewater, 2023).

While some research has been dedicated to evaluating and understanding stereotypical and racialized content on YouTube and other social media, such as Rollins et al. (2022), no studies thus far have contextualized YouTube content alongside the children viewing it. The literature cited above has established that YouTube contains negative racialized content, but the way in which such content affects and is evaluated by children has been heretofore unstudied. The present study aims to understand YouTube as a salient site of racial socialization, a part of children's environment which contributes to their understanding of how race operates in the social world. Though no causal relationship has been established, this study links aspects of children's demographics and YouTube usage—gender, relationships with favorite YouTubers, and the degree to which children notice negative racial patterns on YouTube—to more general attitudes regarding outgroups.

Limitations and Future Research

One limitation of the present study is that there are still many underlying or unobserved factors of children's YouTube diets. Though some details, such as favorite YouTuber, were recorded, it remains unclear the more specific racial patterns in YouTube videos children watch.

In a pilot study, parents were asked to optionally report a more in-depth list of their child's YouTube top ten subscriptions as well as their recent YouTube viewing history. No parents reported this information. These features of regular YouTube usage would have provided a glimpse into children's larger YouTube environments, as well as a more robust view into the type of content they watch. Considering the effect of time on beliefs and the effect of noticing regularities on beliefs, knowing exactly what each child watches each day (particularly amongst children that watch many hours of YouTube each day) would allow future studies to more clearly parse how specific content patterns contribute to a child's evaluations of outgroups. Richer qualitative YouTube data, perhaps captured longitudinally, could situate YouTube as a more holistic environment and could begin to understand how personalized YouTube algorithms create differential content among children. Future research should continue to operationalize YouTube as an environmental site of racial socialization, and should continue to contextualize aspects of children's YouTube usage alongside psychological measures and other background characteristics. The survey in the present study was not only online and asynchronous, but standardized and multiple choice so as to reduce participant misunderstanding, at the expense of richer data. Interview-based data or more open-ended questions could allow future researchers to gain a better understanding of not only what children are seeing, but how such children make meaning of it.

Further, I was unable to capture the precise cognitive mechanisms that could perhaps clarify why some children attend to racial regularities in YouTube videos. The strong association between observations of racial regularities with children's beliefs that racial outgroups are fixed in their behaviors suggests that racial essentialism plays some role in children's evaluations of YouTube videos, and future research should more explicitly test features of social cognition,

such as essentialism or developmental intergroup theory, alongside YouTube-based environments and interventions. Similarly, though gendered patterns of YouTube usage has been observed, particularly with regard to choice of favorite YouTuber and observations of racial regularities, future research should evaluate the role of gender socialization in children's YouTube usage, as well as differences in YouTube content and environment as experienced by children of different gender orientations.

Lastly, as this is a correlational study, I am unable to make causal claims regarding the relationship between YouTube usage and racial beliefs. As discussed, pre-existing racial beliefs may themselves contribute to a child's observation of racial regularities, as well as who their favorite YouTuber is. Further, as the age range in this study was limited to children between the ages of 8 and 13, it is unclear how long-term YouTube usage may causally contribute to changes in how children develop racial beliefs. Causal inference methodologies or studies with longer temporal scales should further contextualize YouTube usage within long-term psychological development, and should attempt to establish the directionality of the relationships between racial beliefs, parasociality, and observations of racial regularities.

Considering the dearth of research on how social media platforms affect children's racial attitudes and behaviors, this study provides key insights into the extent to which various aspects of social media usage may contribute to racial socialization. Beyond understanding the YouTube environment in terms of racial patterns, this study demonstrates the importance of attending to relationships children form with online personalities: forming parasocial relationships with ingroup YouTubers was strongly predictive of more fixed racial beliefs, and such a relationship was highly reduced when children formed relationships with outgroup YouTubers. Additionally, boys were far more likely to form ingroup parasocial connections. It is not clear why such

associations occur, but this finding shows that beyond more global racial patterns on YouTube, particular sources of YouTube content are deserving of greater examination.

Though future researchers and parents should be aware of and evaluate the extent to which parasocial relationships with YouTubers (within a gendered and racialized YouTube environment) may be affecting children's perceptions of their racial world, in a friend choice scenario, children did not significantly choose ingroups. This suggests that though there is some cause for concern regarding strong ingroup parasocial connections, online preferences do not necessarily translate into real world preferences nor behaviors. Similarly, children *on average* do not report observing considerably negative racial patterns on YouTube. Researchers should continue to delve into the ways in which YouTube usage and environments contribute racial socialization, but this study does not necessarily support the claim that YouTube is making children more racist through racial learning. This study sits at the intersection between children's social cognition, the structure of the racialized social world, and social media. Though no definitive claims may be presently made, avenues for future research are promising; this is one step toward elucidating how our children are affected by the changing media landscape.

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Appendix A

Parent Survey

Informed Consent.

UNIVERSITY OF CHICAGO

Consent Form for Participation in Online Research

IRB Study Number: 25-0046

Study Title: YouTube and Social Attitudes

Principal Investigator: Katherine O'Doherty

Student Researcher: Reilly Amera

You are being asked to take part in a research study. This form has important information about the reason for doing this study, what we will ask you to do, and the way we would like to use your information if you choose to be in the study.

Why are you doing this study?

You are being asked to participate in a research study about your child's YouTube usage and ensuing social attitudes. The purpose of the study is to gain a better understanding of how children think about the content that they consume from YouTube.

What will I be asked to do if I am in this study?

You will be asked to provide demographic information and answer questions regarding your child's YouTube usage habits. Participation should take about 10 minutes.

What are the possible risks or discomforts?

To the best of our knowledge, participating in this study has no more risk of harm than the risks of everyday life. As with all research, there is a chance that confidentiality of the information we

collect about your child could be breached – we will take steps to minimize this risk, as discussed in more detail below in this form.

What are the possible benefits for my child or others?

You are not likely to have any direct benefit from being in this research study. This study is designed to learn more about generalized trends in children's attitudes regarding their social world and YouTube. The study results may be used to help parents, children and media creators in the future.

How will you protect the information you collect about me, and how will that information be shared?

All data collected will be kept in a password-protected computer. Results of this study may be used in publications and presentations. Reports of research findings will not cite any information that might lead to the identification of any individual participants.

Financial Information

Participation in this study will involve no cost to you nor your child. In exchange for participation, you will be compensated the amount you agreed upon before you entered into the survey.

What are my rights as a research participant?

Participation in this study is voluntary. You may withdraw from this study at any time - you will not be penalized in any way or lose any sort of benefits for deciding to stop participation. The decision of whether or not to participate will not prejudice future relations with the University of Chicago.

Who can I contact if I have questions or concerns about this research study? If you or your child have any questions, you may contact:

Reilly Amera, M.A. Student Department of Psychology ramera@uchicago.edu

or

Katherine O'Doherty, Ph.D Associate Instructional Professor, Department of Psychology kodoherty@uchicago.edu

If you have any questions about your child's rights as a participant in this research, you can contact the following office at the University of Chicago:

Social & Behavioral Sciences Institutional Review Board University of Chicago 1155 E. 60th Street, Room 418 Chicago, IL 60637 Phone: (773) 834-7835 Email: sbs-irb@uchicago.edu

Consent to Participate.

Consent to Participate in Research I have read this form and the research study has been explained to me. I have been given the opportunity to ask questions and my questions have been answered. If I have additional questions, I have been told whom to contact. I give my consent to participate in the research study described above.

[] Agree [] Disagree

Demographics.

Child's Gender Identity

[] Male [] Female [] Non-binary/third gender [] Prefer not to say [] Other

What is your child's birthday?

Select [Month] [Day] [Year]

What is your child's race/ethnicity? (Please select any and all that apply)

[] American Indian or Alaska Native [] Asian [] Black or African American [] Hispanic or Latino/a [] Middle Eastern or North African [] Native Hawaiian or Other Pacific Islander [] White [] Some Other Race [] Multi Racial

[Parent 1] What is the highest degree or level of education you have completed?

[] Less than high school [] High school degree or equivalent [] Some college [] Bachelor's degree (e.g. BA, BS) [] Master's degree (e.g. MA, MS) [] Doctoral Degree [] Other

[Parent 2] What is the highest degree or level of education you have completed?

[] Less than high school [] High school degree or equivalent [] Some college [] Bachelor's degree (e.g. BA, BS) [] Master's degree (e.g. MA, MS) [] Doctoral Degree [] Other

Which of these categories best describes your total combined family income for the past 12 months?

This should include income (before taxes) from all sources, wages, rent from properties, social security, disability and/or veteran's benefits, unemployment benefits, workman's compensation, help from relatives (including child payments and alimony), and so on.

[] Less than $5,000 []$5,000 through $11,999 []$12,000 through $15,999 []$16,000 through $24,999 []$25,000 through $34,999 []$35,000 through $49,999 []$50,000 through $74,999 []$75,000 through $99,999 []$100,000 or greater [] Do not know [] No Answer

Where is your family located (City, eg: Chicago)?

Where is your family located (State, eg: NJ)?

YouTube Usage.

Does your child have their own device? [] No [] Yes

What is the primary device with which your child accesses YouTube? [] iPad tablet [] Android tablet [] iPhone [] Android phone [] Some other device

Does your child have their own YouTube account? [] No [] Yes

If YES to previous question, is your child's account a YouTube Kids account? [] No [] Yes

Are there parental controls on your child's YouTube account? [] No [] Yes

If YES to the previous question, what controls?

In an average week, how many days per week does your child use YouTube?

[] None [] 1 day [] 2 days [] 3 days [] 4 days [] 5 days [] 6 days [] 7 days

On an average day, how much time do you estimate your child spends on YouTube?

[] 0 minutes [] 15 minutes or less [] 30 minutes or less [] 45 minutes or less [] 1 hour or less [] 1.5 hour or less [] 2 hours or less [] More than 2 hours [] Other

Who is your child's favorite person or channel to watch on YouTube?

What do you notice about your child's behavior after spending time on YouTube? Is there anything you're concerned about? Is there anything that has surprised you?

Use the scale to indicate how much you agree with the following statements.

Participants rated each item on a 5-point scale (1 = None at all, 2 = A little, 3 = A moderate amount, 4 = A lot, and 5 = A great deal).

- I know what kind of content is popular on YouTube (e.g. particular creators, genres, videos, etc.)
- I am very involved in my child's YouTube usage.
- My child is learning a lot from educational information they have found on YouTube.
  - This is an attention check. Choose "A lot."

- I have positive feelings regarding YouTube and YouTube content.

Some parents report concerns about the content they have observed on YouTube (such as stereotypes, violence, swearing, etc.). Have you experienced these concerns? If you can remember examples (of channels or videos), please describe them below.

Informed Consent on Behalf of Child

UNIVERSITY OF CHICAGO

Parental Permission Form for Child's Participation in Online Research

IRB Study Number: 25-0046

Study Title: YouTube and Social Attitudes

Principal Investigator: Katherine O'Doherty, Ph.D

Student Researcher: Reilly Amera

Your child is being asked to take part in a research study. This form has important information about the reason for doing this study, what we will ask your child to do, and the way we would like to use information about your child if you choose to allow your child to be in the study.

Why are you doing this study?

Your child is being asked to participate in a research study about their social attitudes as well as attitudes regarding what they see on YouTube. The purpose of the study is to gain a better understanding of how children think about the content that they consume from YouTube.

What will my child be asked to do if my child is in this study?

Your child will be asked to answer questions related to social attitudes, and patterns of behaviors they observe on and off of YouTube, and their favorite YouTubers. Participation should take about 10 minutes.

What are the possible risks or discomforts to my child?

To the best of our knowledge, participating in this study has no more risk of harm than the risks of everyday life. As with all research, there is a chance that confidentiality of the information we collect about your child could be breached – we will take steps to minimize this risk, as discussed in more detail below in this form.

What are the possible benefits for my child or others?

Your child is not likely to have any direct benefit from being in this research study. This study is designed to learn more about children's attitudes regarding their social world and YouTube. The study results may be used to help parents, children and media creators in the future.

How will you protect the information you collect about my child, and how will that information be shared?

All data collected will be kept in a password-protected computer. Results of this study may be used in publications and presentations. Reports of research findings will not cite any information that might lead to the identification of any individual participants.

Financial Information

Participation in this study will involve no cost to you nor your child. In exchange for participation, you will be compensated the amount you agreed upon before you entered into the survey.

What are my child's rights as a research participant?

Participation in this study is voluntary. Your child may withdraw from this study at any time - you and your child will not be penalized in any way or lose any sort of benefits for deciding to stop participation. The decision of whether or not to participate will not prejudice future relations with the University of Chicago. If your child decides to withdraw from this study, the researchers will ask if the information already collected from your child can be used.

Who can I contact if I have questions or concerns about this research study?

If you or your child have any questions, you may contact:

Reilly Amera, M.A. Student

Department of Psychology

ramera@uchicago.edu

or

Katherine O'Doherty, Ph.D

Associate Instructional Professor, Department of Psychology

kodoherty@uchicago.edu

If you have any questions about your child's rights as a participant in this research, you can contact the following office at the University of Chicago:

Social & Behavioral Sciences Institutional Review Board

University of Chicago

1155 E. 60th Street, Room 418

Chicago, IL 60637

Phone: (773) 834-7835

Email: sbs-irb@uchicago.edu

Parent Consent on Behalf of Child. **Parental Permission for Child's Participation in Research:** I have read this form and the research study has been explained to me. I have been given the opportunity to ask questions and my questions have been answered. If I have additional questions, I have been told whom to contact. I give permission for my child to participate in the research study described above.

[] Agree [] Disagree

Thank you for taking this survey! Now, open the child survey, and hand it off to your child!

Appendix B

Child Survey

Informed Consent.

In this project, I want to learn more about how kids your age make sense of things. I have an activity that you can do today to help with my project.

If you want to do this activity, there are no right or wrong answers. It is OK if you decide to help us, and it is also OK if you don't want to and say "no." Your parent said it was OK for you to be in this project, but now it is up to you. If you don't want to do this activity, you don't have to.

Do you want to participate in this activity? [] YES [] NO

Age. How old are you, in years?

YouTube Usage.

How often do you use YouTube each week?

[] Never* [] 1 day [] 2 days [] 3 days [] 4 days [] 5 days [] 6 days [] 7 days

*If [NEVER] is selected, the next three questions do not appear.

When you use YouTube, how much time do you usually spend on YouTube?

[] 15 minutes or less [] 30 minutes or less [] 45 minutes or less [] 1 hour or less [] 1.5 hour or less [] 2 hours or less [] More than 2 hours

What kinds of videos do you watch the most?

[] Crafts/do-it-yourself (DIY) [] Educational [] Makeup/Fashion [] Sports [] Gaming/Let's Play [] Compilations [] Vlogs [] Other

How often do you watch YouTube Shorts each week?

[] Never [] 1 day [] 2 days [] 3 days [] 4 days [] 5 days [] 6 days [] 7 days

When you use YouTube Shorts, how much time do you usually spend on YouTube Shorts?

[] 15 minutes or less [] 30 minutes or less [] 45 minutes or less [] 1 hour or less [] 1.5 hour or less [] 2 hours or less [] More than 2 hours

NOTE: Question blocks below appeared in a randomized order.

Racial Malleability Beliefs. *Adapted from Halperin et al. (2012). Participants rated each item on a 5-point scale (1 = Really disagree, 2 = Disagree, 3 = Neither agree nor disagree, 4 = Agree, and 5 = Really agree).*

In this part, we want you to think about groups of people who have a different skin color than you do.

- These groups of people can't really change the way they act.
- These groups of people might change the way they act, but the important parts of who they are can't really be changed.
- If these groups of people do violent things, they can never change their ways.
- Every group of people has basic moral beliefs that can't really be changed.

Parasociality.

Think of your favorite YouTuber. Write their name below!

Perceived homophily in appearance items adapted from McCroskey et al. (1975). Participants rated each item on a 5-point scale (1 = Really disagree, 2 = Disagree, 3 = Neither agree nor disagree, 4 = Agree, and 5 = Really agree).

Imagine your favorite YouTuber as you answer the following questions.

- This person looks similar to me.

- This person has an appearance like mine.
- This person has a similar skin color to mine.
- This person wears similar clothes to mine.
- This person has similar hair to mine.

Perceived homophily in behavior items adapted from McCroskey et al. (1975). Participants rated each item on a 5-point scale (1 = Really disagree, 2 = Disagree, 3 = Neither agree nor disagree, 4 = Agree, and 5 = Really agree).

Imagine your favorite YouTuber as you answer the following questions.

- My favorite YouTuber thinks like me.
- I like to compare my ideas with what my favorite YouTuber says.
- My favorite YouTuber behaves like me.
- My favorite YouTuber is similar to me.
- If you are reading, choose "Agree."
- My favorite YouTuber has the same interests as me.

YouTuber parasociality items adapted from Sung et al. (2023). Participants rated each item on a 5-point scale (1 = Really disagree, 2 = Disagree, 3 = Neither agree nor disagree, 4 = Agree, and 5 = Really agree).

Imagine your favorite YouTuber as you answer the following questions.

- I think my favorite YouTuber could be a friend of mine.
- If I met my favorite YouTuber, we would get along well.
- My favorite YouTuber would fit into my friend group.
- I would like to have a friendly chat with my favorite YouTuber.

- I like to compare my ideas with what my favorite YouTuber says.

Racial Regularities.

On YouTube, how often do you watch videos with people with a different skin color than you?

- Very often - Often - Sometimes - Rarely - Never

When you watch videos on YouTube, are there more people in the videos who do have the same skin color as you, or more people who do not have the same skin color as you?

- More people who DO have the same skin color as me - More people who DO NOT have the same skin color as me - I don't know

Racial regularities items created based on YouTube content analysis (Rollins et al., 2022). Participants rated each item on a 5-point scale (1 = Really disagree, 2 = Disagree, 3 = Neither agree nor disagree, 4 = Agree, and 5 = Really agree).

On YouTube, when I see videos of people who do not have the same skin color as me…

- … they are mean to the other people in the video.
- … they hurt other people in the video.
- … they are nice to other people in the video.
- … they use bad or inappropriate words.
- … I am able to learn new things from them.
- … they act like other people who look like them.
- … when they are around other people, they are a leader.

Friend Choice. *Adapted from Amemiya and Bian (2024).*

Imagine that you have one seat left at your lunch table. Which of the kids below would you invite to sit at your table?

Friend Choice Image

[] Kid 1 [] Kid 2 [] Kid 3 [] Kid 4 [] Kid 5 [] Kid 6 [] Kid 7 [] Kid 8 [] Kid 9 [] Kid 10

Debrief.

Thank you for taking this survey! In this study, I hope to understand how YouTube can change or not change the way kids see other people in the world.

If you or your parents have additional questions about this study, please email the lead researcher, M.A. student Reilly Amera (ramera@uchicago.edu), or the principal investigator Dr. Katherine O'Doherty (kodoherty@uchicago.edu). Thank you again for your participation!