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

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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.

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

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. (D. L. 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 (D. 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 (D. L. 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" (D. L. 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 (D. L. 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") (D. Hughes et al., 2023; Rizzo et al., 2022). Further, this learning may be yet more implicit: when tested in the same environment, young children show levels of implicit biases, unconscious mental associations based on race or other social categories, similar to those of adults (Payne et al., 2017) 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 attitudes, so as 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.

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 hypothesize that if children spend more time on YouTube, they will display more fixed beliefs regarding racial outgroups. While some children may not be consciously aware of on-screen racial regularities, these dynamics may still affect their racial attitudes (D. L. Hughes & Watford, 2022). As such, I hypothesize that the relationship between children's time spent on YouTube and their exhibited racial stereotyping 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. This theory suggests that when individuals have limited real life interpersonal contact with minority groups, the formation of parasocial (one-sided) relationships with outgroup media figures may reduce stereotyping and prejudice (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 includes dyads of parents and children between the ages of 8 and 13 years old. 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 (D. L. Hughes & Watford, 2022). As such, this age range allows me to observe how the observation racial regularities present on YouTube may affect children's stereotyping and prejudicial attitudes, and how such a phenomenon develops. 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 been collected in March of 2025 from families recruited via Qualtrics Panels. 200 dyads were collected; the final sample contained 200 parents and 200 children (M = 10.9, 0 girls). Participating families receive two Qualtrics surveys to be completed asynchronously, and receive compensation (as determined by Qualtrics Panels) after both surveys have been completed. First, parents complete a demographics and YouTube usage survey, then children complete their own survey.

Measures

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 (for instance, time spent on YouTube on an average day).

In the child survey, children answered questions related to their YouTube usage, such as time spent on YouTube and their favorite genre. Next, they either answered more questions pertaining to YouTube content, or their general racial attitudes; either block of questions appeared randomly, so as to reduce order effects. In the racial attitudes section, children answered questions regarding outgroup prejudices, as rated on a Likert scale (all coded such that 1 = *Really disagree* and 5 = *Really agree*). They also completed one friend choice item, as a measure of racial preference. 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, as rated on the same Likert scale as in previous questions.

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”). Higher scores in this domain demonstrate more fixed evaluations of outgroup members, suggesting an underlying racial essentialism, or a belief in the intrinsic nature of racial difference (Waxman, 2021).

Time spent on YouTube, reported by parents, is the primary predictor of racial attitudes. 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. These answers were combined to create an hours per week score.

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 (D. L. 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 who did not look like them expressed each behavior.

Children’s parasocial relationships with YouTubers, a potential moderator in the relationship between time spent on YouTube and negative racial attitudes, was 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. Children also completed a friend choice measure, adapted from Amemiya and Bian (2024); this measure captures children’s explicit racial preferences with regard to peers.

All measures used in adult studies have been specifically adapted for child readability. Table 1 reports the reliability of all questionnaires used, within the present sample.

Table 1

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

Measure	Alpha	Evaluation
Group Malleability	0.86	Good
Homophily (Appearance)	0.91	Great
Homophily (Appearance)	0.87	Good
Parasociality	0.83	Good
Racial Regularities	0.71	Acceptable

Results

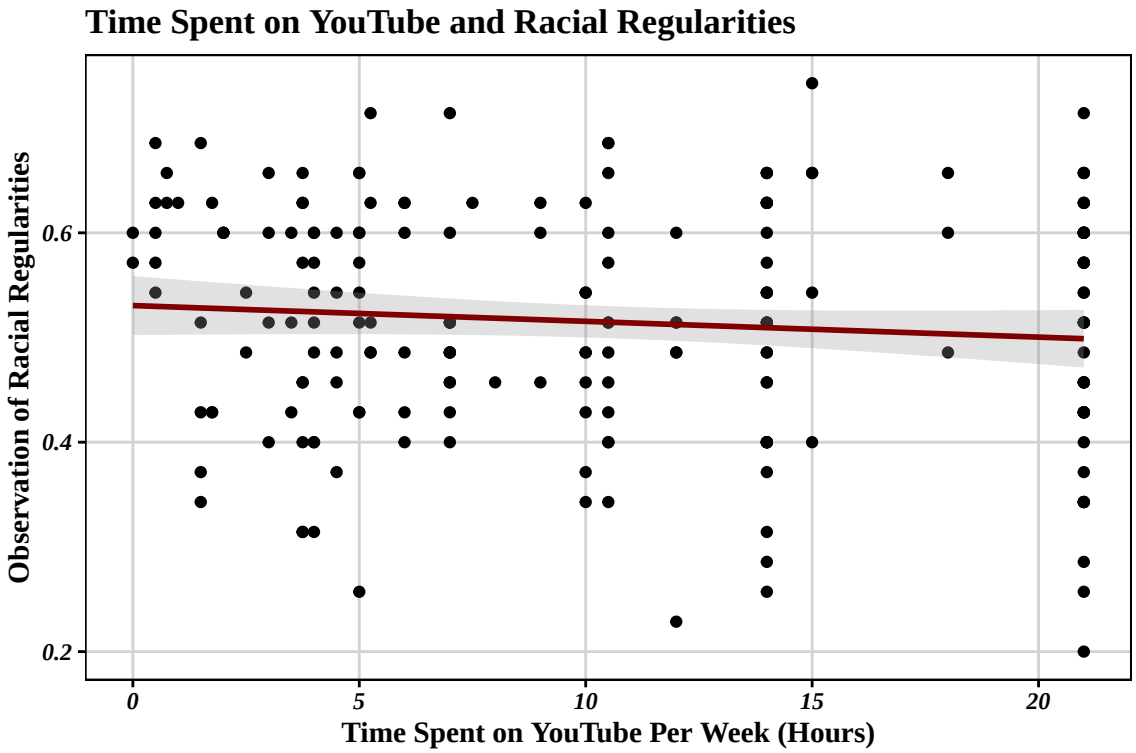
Regularities, Attitudes, and Time Spent on YouTube

To test my first hypothesis that increased time spent on YouTube should generally 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. 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 ($F(3, 196) = 2.99$, $p = .032$, $R^2 = 0.04$); though the overall model is significant, time is 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. 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

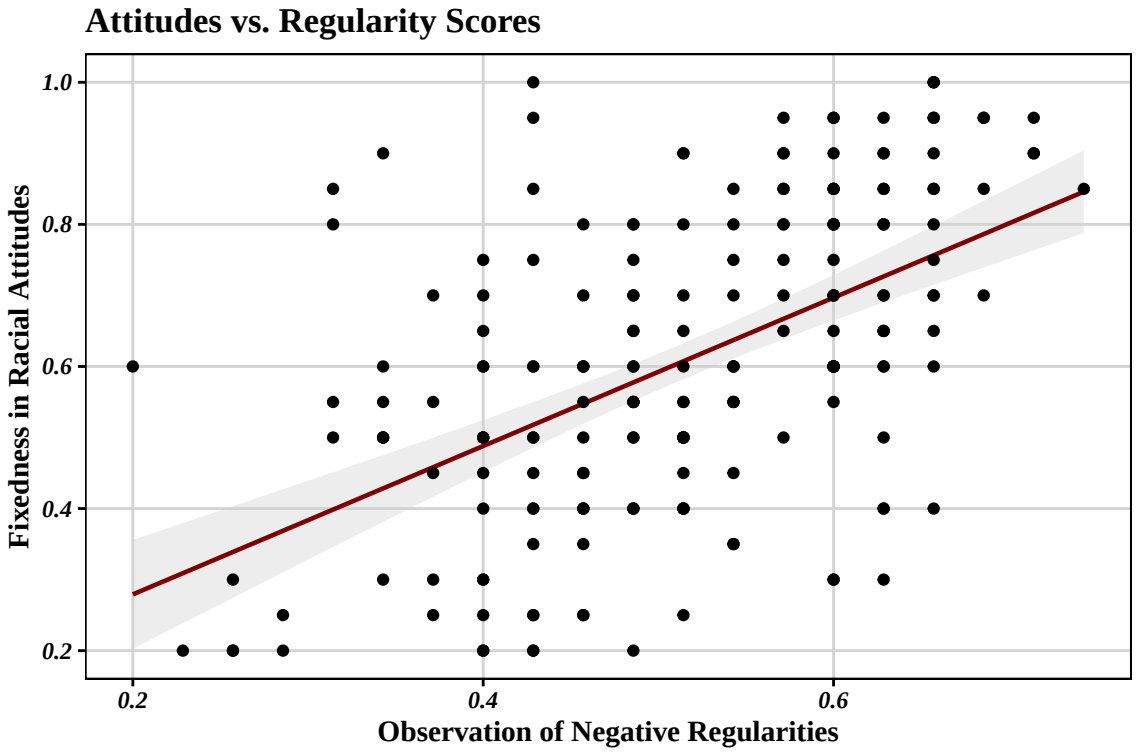
Relationship between children's per-week YouTube watching and observation of racial regularities



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 will display more negative racial attitudes toward outgroups. Regressing racial attitudes against time spent on YouTube, controlling for regularities, age, and gender, time spent on YouTube significantly predicts more fixed racial attitudes ($F(4, 195) = 22$, $p < .001$, $R^2 = 0.31$). 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 attitudes: increases in racial regularity scores were significantly associated with increases in fixedness of racial attitudes ($\beta = 0.54$, $p < .001$), as shown in Figure 2. As such, 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 attitudes. Neither age nor gender were significant in this model.

Figure 2

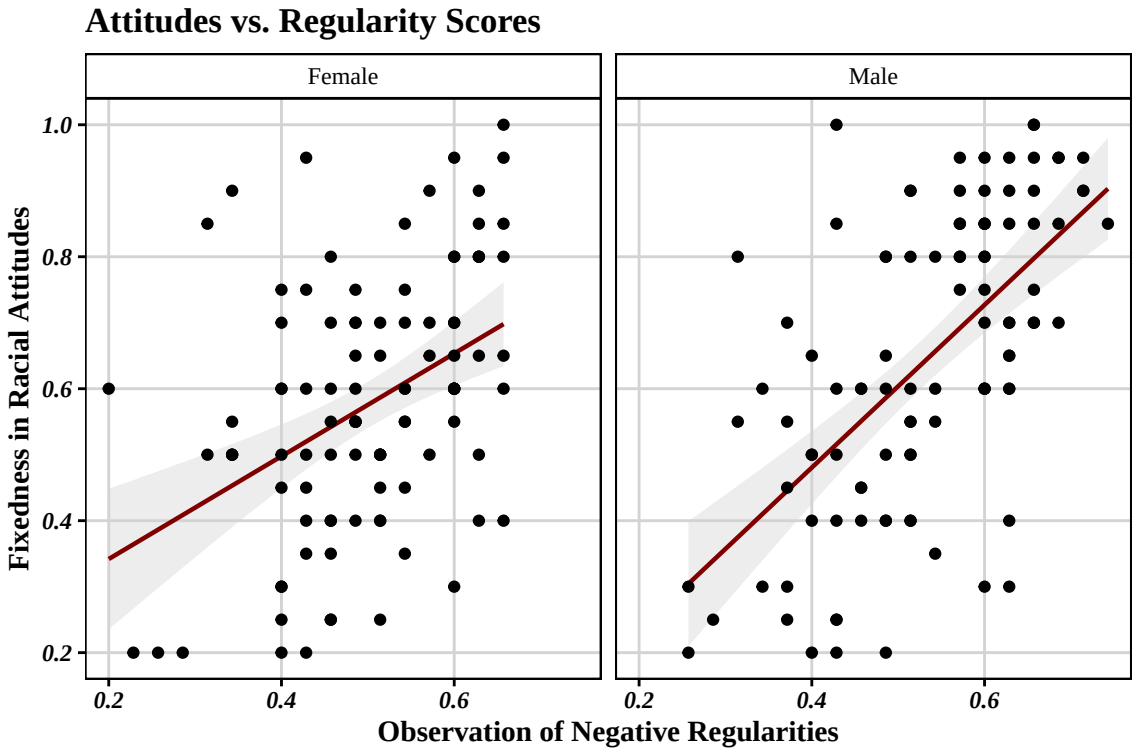
Correlation Between Racial Regularities Score and Racial Attitudes Score



Though gender did not significantly predict racial attitudes in the previous model (β = 0.08, p = .176), it did significantly predict 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). As such, it is 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



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.

Parasocial Relationships with 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 and ethnicity, and racial

attitudes, I first conducted an ANOVA so as to assess whether there were significant differences in racial attitudes between favorite YouTuber 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.). 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.). As such, children with a 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.

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: the 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 ($F(8, 191) = 28.82$, $p < .001$, $R^2 = 0.55$). Turning now to the results of this model, as displayed in Table 1, children's observations of racial regularities (centered around a neutral midpoint of 0.5) 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 ($\beta = -0.23$, $p = .027$). Though having a favorite YouTuber of a race other than one's own did not itself predict lower racial attitudes, it attenuates

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 1

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 × Mismatch	-0.39	0.18	-2.22	<.05
Parasociality × None	0.06	0.18	0.31	0.756
Parasociality × YouTube Time	-0.02	0.01	-2.55	<.05

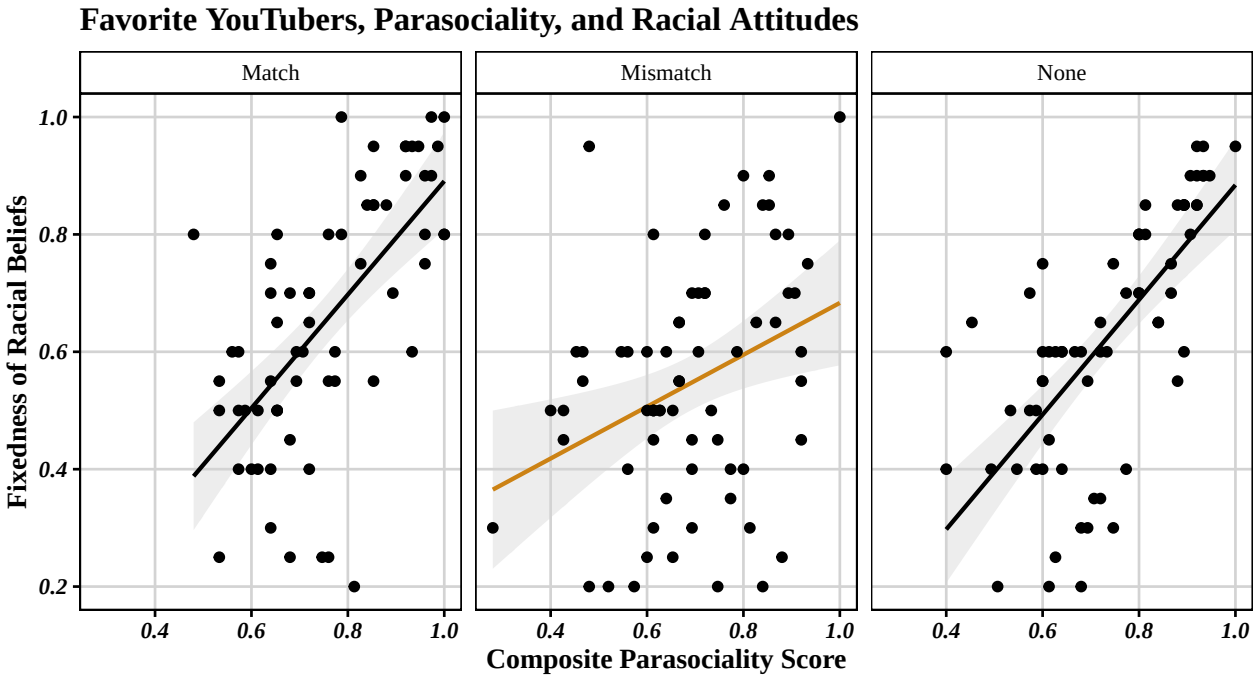
Additionally, in this model, time remains a significant predictor of racial attitudes ($\beta = 0.3$, $p < .001$), consistent with previous models. Further, there is a significant interaction between time spent on YouTube and parasociality score ($\beta = -0.28$, $p = .011$); as time spent on YouTube increases, the effect of parasocial relationships with favorite YouTubers decreases.

Exploratory Analysis: Gender Effects

Considering the previously observed association between gender and racial regularities, I conducted some exploratory analyses so as 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

Figure 4

Parasocial relationships with YouTubers of in or outgroups and racial attitudes



Note: Interaction between race/ethnicity mismatch and parasociality is significant, as highlighted in yellow.

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. I wanted to examine this discrepancy further.

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 1, 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 1

Proportions of Favorite YouTuber Race/Ethnicity Match by Gender

	Male	Female
Match	0.200	0.125
Mismatch	0.105	0.235
None	0.190	0.145

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 ($\beta = -0.17$, $p = .045$).

Thus far, in the present sample, there were significant gender differences in racial attitudes and observation of racial regularities, and gender was significantly associated with children's parasociality as well as whether or not their favorite YouTuber was of a race other than their own. As such, I then tested the degree to which gender effects hold in more complex models. I regressed racial attitudes against parasociality and gender, as well as the interaction effect between parasociality and gender. This model is strongly significant ($F(3, 196) = 34.61$, $p < .001$, $R^2 = 0.35$), as are the individual effects of parasociality ($\beta = 0.42$, $p < .001$), gender ($\beta = -0.17$, $p = .118$), and the interaction effect ($\beta = 0.31$, $p = .019$). However, regressing racial regularities against parasociality and gender, as well as the interaction effect, though the overall model is

significant ($F(3, 196) = 29.03$, $p < .001$, $R^2 = 0.31$), only racial regularities remain significant. This seemed unusual due to the previously observed gendered differences in racial regularities.

Lastly, I created a complete model regressing racial attitudes against parasociality, racial regularities, gender, and gender. Here, the overall model was highly significant ($F(4, 195) = 47.43$, $p < .001$, $R^2 = 0.49$). Parasociality ($\beta = 0.45$, $p < .001$) and observations of racial regularities ($\beta = 0.42$, $p < .001$) remained significant predictors of racial attitudes, which is consistent with previous models. As has occurred in previous models, gender was no longer a significant predictor of racial attitudes ($\beta = 0.01$, $p = .844$). These exploratory analyses of the potential effect of gender 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.

Discussion

I hypothesized a mediation model for the relationship between time children spend on YouTube and their corresponding racial attitudes. In this hypothesis, time spent on YouTube predicts greater observations of negative racial regularities, thus predicting 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 their fixed attitudes, and 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. 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, no YouTuber's content is exhaustive: 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.

Limitations and Future Research

One limitation of the present study is that there are many underlying or unobserved factors of children's YouTube diets. Though some details, such as favorite YouTuber, was recorded, it

remains unclear the more specific patterns in YouTube videos children watch. Considering the effect of time on attitudes and the effect of noticing regularities on attitudes, knowing exactly what children watch 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.

Further, as this study was conducted online and asynchronously, I was unable to capture more qualitative data or cognitive mechanisms that could perhaps clarify why children attend to racial regularities in YouTube videos. Questions were 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 content is evaluated.

Lastly, as this is a correlational study, I am unable to make causal claims regarding the relationship between YouTube usage and racial attitudes. As discussed, pre-existing racial attitudes may themselves contribute to a child's observation of racial regularities, as well as who their favorite YouTuber is. Longitudinal studies or randomized controlled trials of YouTube diets may allow future researchers to understand the causal direction of the relationships observed in this study.

Considering the dearth of research on how social media platforms affect children's racial attitudes and behaviors, this study provides insights into the extent to which various aspects of social media usage contribute to racial socialization, and highlights key avenues for future research.

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