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Racial Differences in Legal Socialization Models Across Adolescence and Emerging Adulthood

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Objective: White and non-White adolescents report different experiences in the legal system. This disparity impacts their evaluations of, and attitudes toward, legal authorities such that non-White and older adolescents tend to perceive the legal system more negatively. Yet, many researchers assume that the process of legal socialization, which involves internalizing norms and information about the law and the legal system, is universal for all ages and races. Hypotheses: We hypothesized that legal socialization models would change over the course of adolescent development and would differ by race. Method: We used data from two longitudinal studies to examine racial differences in the integrated legal socialization model in early, middle, and late adolescence. Study 1 included 140 young adolescents (59% White, 41% non-White), and Study 2 included 296 midadolescents (82% White, 18% non-White) followed into late adolescence/emerging adulthood. Results: Study 1 identified differences in the integrated legal socialization model for young White and non-White adolescents. Normative status predicted rule-violating behavior for White participants, whereas no predictors or mediators related to rule-violating behavior for non-White participants. In Study 2, legal and moral reasoning during midadolescence became relevant in the model for both groups. Enforcement status predicted rule-violating behavior for non-White youth, whereas normative status continued to predict rule-violating behavior for White youth. In late adolescence/emerging adulthood, differences in the model shifted toward the relation between reasoning and legal attitudes. Conclusions: Our findings suggest that legal socialization is a developmental process occurring and changing throughout adolescence and that this developmental process differs for White and non-White youth.

Public Significance Statement

The findings of this study indicate that legal socialization may not be a "one-size-fits-all" process across youth of different racial backgrounds. It is important that researchers explore the different cognitive processes that occur in adolescence, in addition to youths' differing experiences with the law, to better understand legal socialization for youth of color. Practitioners and policy makers should also take a tailored and more sensitive approach when implementing delinquency-reduction techniques and programs for youth of different racial backgrounds.

Keywords: legal socialization, racial differences, delinquency, rule-violating behavior, adolescents

In 2015, *The New York Times* posted a short documentary titled "A Conversation With My Black Son" (Gandbhir & Foster, 2015). This documentary outlined the conversation that occurs in many

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households across the United States, in which parents of Black children talk to them about how to interact with law enforcement. Research supports the notion that the experiences of White and non-White adolescents in the legal system are vastly different, which impacts evaluations of, and attitudes toward, legal authorities (April et al., 2022; Fine & Del Toro, 2022; Malone Gonzalez, 2019; Nellis & Richardson, 2010; Peck, 2015; Piquero et al., 2005; Puzzanchera, 2009; Tyler & Huo, 2002). Yet, with few exceptions (Fine et al., 2017; Woolard et al., 2008), little research has examined how differences in age and race relate to delinquent and rule-violating behavior. Given that life-course offenders often commit serious, delinquent behavior beginning in early adolescence, it is important to understand and inhibit delinquent activity and other rule-violating behavior among youth (Fine et al., 2021; Nivette et al., 2020; Pina-Sánchez & Brunton-Smith, 2020).

One way that researchers have attempted to predict delinquent activity is by studying the process of legal socialization. Legal socialization involves internalizing norms and information about the law and legal system, which leads to the development of a sense of right and wrong (Tapp, 1991). Traditional work has approached legal socialization through a cognitive developmental lens, consistent with our approach in the current article (Levine & Tapp, 1977; Tapp, 1991; Tapp & Kohlberg, 1971). More recent research produced an integrated model of legal socialization, which successfully predicts youths' rule-violating behavior (Cohn et al., 2010; Cohn & White, 1990; Trinkner & Tyler, 2016). However, researchers have assumed that the process of legal socialization is universal for all ages and races. To date, little research has examined whether these variables influence the ability of models of legal and moral reasoning to predict rule-violating behavior. Therefore, our purpose in the present study was to explore racial differences in models of legal and moral reasoning in a sample of early adolescents, midadolescents, and late adolescents/emerging adults.

Legal Socialization

Legal socialization is the process by which individuals develop their understanding of the law and attitudes about the law and legal institutions. Traditionally, cognitive functioning drives the legal socialization process (Cohn et al., 2010; Trinkner & Tyler, 2016). Researchers have used measures of both legal and moral reasoning to assess youths' levels of cognitive ability, which develops as children age (Finckenauer, 1995; Kohlberg, 1984; Piaget, 1965). This research suggests that adolescents who possess greater reasoning skills are able to make more complex legal and moral decisions as they develop (Grant, 2004; Raaijmakers et al., 2005). Whereas legal reasoning involves how people develop a sense of awareness about the law and evaluate legal rules of society, moral reasoning focuses on judgments of right and wrong for various moral issues (e.g., rule-violating behavior; Cohn & White, 1990; Kohlberg, 1984; Levine & Tapp, 1977; Tapp & Kohlberg, 1971). Previous research has documented that individuals with lower levels of legal and moral reasoning are more likely to engage in rule-violating behavior (Cohn & White, 1990; Grant, 2004; Nelson et al., 1990; Stams et al., 2006). For instance, researchers have found that delinquent adolescents reported significantly lower levels of legal and moral reasoning than nondelinquent adolescents (Finckenauer, 1995; Stams et al., 2006). These findings also hold true over time, with similar patterns found in later adulthood (Raaijmakers et al., 2005).

Cohn et al. (2010) developed an integrated model of rule-violating behavior, which posits that legal attitudes mediate the relation between reasoning (both moral and legal) and rule-violating behavior. Specifically, this model focuses on two legal attitudes: normative status (i.e., how much individuals approve of various behaviors) and enforcement status (i.e., how much people who commit the behaviors should be punished). Cohn and colleagues argued that legal and moral reasoning do not directly translate into behavior. Instead, reasoning contextualizes rule-violating behavior within social structures and normative beliefs about the behaviors. These social learning references act as a conduit through which cognitions in reasoning are filtered and expressed as delinquent behavioral engagement (or the lack thereof). One study found that students who approved of enforcing sanctions against rule-violating

behavior were less likely to engage in delinquent behavior (Cohn et al., 2012). In another study, which documented the indirect effect of legal reasoning on rule-violating behavior, college students with low levels of legal reasoning reported greater normative status and lower enforcement status, which in turn predicted greater rule-violating behavior (Cohn & White, 1990). Yet, researchers have assumed that this legal socialization model and its components are universal for all ages and races.

Influence of Age and Race

From the inception of legal socialization theory, researchers have acknowledged the process of legal socialization as inherently developmental (Cohn & White, 1990; Levine & Tapp, 1977; Tapp & Kohlberg, 1971). Tapp and Kohlberg (1971) introduced the concept of legal reasoning, following a similar structure to Kohlberg's other work on moral reasoning (Kohlberg, 1984), which posits that individuals work through stages of reasoning ability. Children and adolescents start with very basic reasoning capacity, focused more on external controls, and develop more complex reasoning as they age and gain more insight into the underlying concepts and structures of the law (Tapp & Kohlberg, 1971). However, this approach assumes that individuals share a common understanding and belief about the systems, structures, and purpose of law on which to reason. In fact, the majority of these early studies relied on mostly White middle to upper middle-class samples in developing their stage theory (Cohn & White, 1990; Kohlberg, 1984; Levine & Tapp, 1977; Tapp & Kohlberg, 1971). Therefore, it is likely that these theories and models hold true for White youth, but little evidence exists to show how these models might apply to youth who are not White.

The lack of consideration of diverse experiences with and understandings about the law in the theory could contradict the association between reasoning ability and progression through stages. For example, expectations of discriminatory treatment in the legal system might change the way in which youth reason about the law and legal actors, resulting in greater focus on areas in legal reasoning that have historically been associated with lower and less mature reasoning levels, such as fear of punishment. From this perspective, the relationship between reasoning, attitudes derived from social learning, and behavior might look very different for youth of color.

Research from other areas of legal socialization has found that both age and race influence adolescents' understanding and perception of the legal system (Fagan & Tyler, 2005; Fine et al., 2017). For example, Fine et al. (2017) found that adolescents' attitudes toward the justice system became more negative as they aged. Older adolescents and emerging adults have more opportunities to interact with the legal system than younger adolescents because they have had more time for interactions to take place. These interactions can be both direct (i.e., involved as the victim or perpetrator) and indirect (i.e., observed friends' or family's interactions; Fagan & Tyler, 2005). In youth, direct interactions may involve communicating with school resource officers, being stopped by police, and/or being arrested, whereas indirect interactions include observing family members and/or friends communicating with legal authorities. Researchers have found that individuals who encounter the legal system more frequently tend to hold less favorable views of it (Brown & Benedict, 2002; Woolard et al., 2008). Therefore, older adolescents and emerging adults may also hold more negative attitudes and perceptions toward the justice system because they have more opportunities to interact with it, and this in turn may change developmental trajectories through the cognitive aspects of legal socialization.

A wealth of research has also documented that legal attitudes and perceptions of the justice system vary by race. For instance, Whites hold more positive evaluations of, and attitudes toward, the legal system and legal authorities than non-Whites (Peck, 2015; Piquero et al., 2005; Tyler & Huo, 2002). People of color, including youth of color, are also more likely than Whites to perceive the police as unfair and less legitimate and to report greater distrust of authority (Geistman & Smith, 2007; Piquero et al., 2005; Tyler & Huo, 2002; Vidal et al., 2017; Woolard et al., 2008). Further, Black adults hold less favorable views of the honesty and fairness of judges than Whites do (Rottman et al., 2003; Tyler, 2001). Woolard et al. (2008) also found that racial minorities anticipate greater injustice in the legal system than their White counterparts. Researchers have shown that these differences shift as individuals age. For example, older Black adolescents and adults anticipated more unfair treatment and more punishment than did younger Black teens (Woolard et al., 2008).

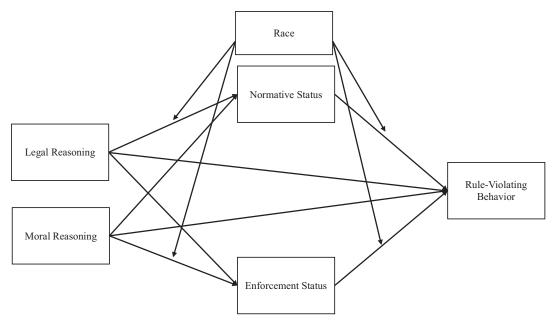
Previous researchers have theorized that these differences emerge because of the different social experiences of various racial groups. For instance, the connection between cognition and attitudes may differ because of the youth's experiences with the legal system, including disproportionate minority contact (i.e., a disproportionate number of youths of color who come into contact with the juvenile justice system, regardless of their involvement in criminal behavior; Nellis & Richardson, 2010; Puzzanchera, 2009). Further, people of color, specifically Blacks and Latinos, are overrepresented in disadvantaged communities and are more likely to be exposed to violence and other deviant behavior, such as the use of illegal substances (Peterson & Krivo, 2005; Sampson & Bean, 2006).

With a few exceptions, much of the research to date has used combined samples consisting predominantly of White participants and has at most controlled for race (Fine et al., 2019; McLean et al., 2019; Mulvey et al., 2014; Peck, 2015; Schlager & Simourd, 2007); few researchers have actually attempted to examine how cognitive legal socialization might differ by race. By not addressing race, these scholars assume that models of legal socialization work regardless of race. However, given racial and ethnic differences in legal attitudes and perceptions, it is possible that studies would yield different findings for youth who are not White. In fact, previous research documented differences in the ability of measures to predict misconduct for White and non-White individuals, with better predictive validity for Whites (Holsinger et al., 2003; Whiteacre, 2006). If there are racial differences in a variety of other legal attitudes, it is likely that there are differences in these attitudes as well. Therefore, the present study adds to the literature by testing the moderating effects of race on the integrated model of legal socialization.

The Present Studies

The integrated model of legal and moral reasoning suggests that legal reasoning is indirectly related to rule-violating behavior and that moral reasoning is directly and indirectly related to rule-violating behavior through enforcement and normative status (Cohn et al., 2010). Given that different racial and ethnic groups, specifically the Latino and Black communities, often hold significantly different views and perceptions of the legal system than White individuals do, it is likely that race may moderate the mediation pathways between legal and moral reasoning and/or attitudes (i.e., enforcement status and normative status) and rule-violating behavior (see Figure 1). Our goal in the present study was

Figure 1
Study 1: Race as a Moderator in the Integrated Legal Socialization Model



Note. In this model, legal attitudes (normative status and enforcement status) mediate the effect of legal and moral reasoning on rule-violating behavior.

to examine where differences between White youth and non-White youth might exist in the model and how these differences shift over time as youth age into adulthood. This study serves as a step toward identifying more diverse perspectives and considerations in the existing theories of cognitive legal socialization. We used data from two longitudinal studies to examine racial differences in the integrated model of legal and moral reasoning in early adolescence, midadolescence, and late adolescence/emerging adulthood. We constructed three hypotheses. The first hypothesis was that the integrated legal socialization model would change across the different stages of adolescence to reflect developmental trajectories. Second hypothesis was that the integrated legal socialization model would differ between White and non-White participants: The model for White participants would conform to previous research on the integrated legal socialization model, whereas the model for non-White participants would diverge from previous findings. Our third hypothesis was that the differences in the integrated legal socialization model between White and non-White participants would change across different stages of adolescence as youth develop.

Study 1: Racial Differences in Early Adolescence

Study 1 tested the integrated model of legal and moral reasoning (Cohn et al., 2010) in a sample of early adolescents. Participants completed measures of legal and moral reasoning, legal attitudes (i.e., enforcement status and normative status), and rule-violating behavior. We aimed to examine differences in enforcement and normative status between White and non-White young adolescents. Further, given that younger youth have less developed reasoning abilities, we expected that the differences in legal attitudes (i.e., enforcement status and normative status) for White adolescents and non-White adolescents would moderate the mediation pathways between legal and moral reasoning and rule-violating behavior in the integrated models.

Method

Participants

Participants were 140 middle school students (62% female) from two New Hampshire middle schools, taken from a supplementary sample of youth from a follow-up to the original New Hampshire Youth Study (NHYS), a longitudinal study of adolescent legal socialization in New Hampshire. Time 1 measures were collected in the fall of students' sixth grade year, Time 2 measures were collected during the spring of the sixth grade year, and Time 3 measures were collected during the fall of students' seventh grade year. At Time 1, students were 11.65 years old on average (SD =0.92) and identified as White/Caucasian (59.36%), Hispanic/Latino (14.49%), Asian American (5.65%), Black (4.95%), and other/ multiracial (15.57%). Census data were compared with these demographics to determine how representative the sample was to the general population (U.S. Census Bureau, 2022). The sample was drawn from two large urban areas with more than 112,000 residents in one and 89,052 in the other. Race/ethnicity in the largest urban area was 75.5% White, 6.54% Hispanic, 5.13% Black, 5.13% Asian, and 2.97% multiracial (two or more races). Race/ethnicity in the other urban area was 74.3% White, 12.49% Hispanic, 3.53% Black, 7.62% Asian, and 5.22% multiracial.

This breakdown is fairly representative of the population for most groups where the data were collected, with underrepresentation of White individuals (U.S. Census Bureau, 2022). To assess attrition, we used the binary logistic regression method (Nicholson et al., 2017; Sweeten, 2012) predicting dropout rates from all study variables, which showed no association between attrition and demographic variables (see Table 1).

Measures

Demographics. Participants reported their sex, race, and family wealth as an indicator of socioeconomic status (SES). We measured family wealth using a comparative family wealth item previously used with an adolescent population (Eder, 1985). This item asked, "Families are different in the amount of money they have. How would you rate your family?" (1 = very little money available to 5 = lots of money available; family wealth at Time 1: M = 3.31, SD = 0.84). This was chosen instead of a traditional measure of SES because it was a more youth-centered assessment that is subjective in nature and easy to comprehend with the youth age range in the present study (Goodman et al., 2003).

Everyday Legal Reasoning. The Everyday Legal Reasoning (Cole et al., 2013, 2021) scale measured participants' legal reasoning ability. This scale uses 17 scenario-based items related to reporting rule violation or upholding a rule in which participants report how likely they would be to respond similarly to the actor in the scenario (1 = I definitely would not do to 7 = I definitely would do). An example of a reporting item is "I witness a man robbing a store. After the robber is captured, I am asked to talk about what I saw in court. I agree." An example of an upholding item is "A friend tells me that they have a fake ID to buy alcohol and that they can get me one too. They ask me if I want it. I decline the offer." A composite of the 17 items was calculated to create participants' Everyday Legal Reasoning scores (Time 1: M = 4.72, SD = 1.16, Cronbach's α = .93), with higher scores representing greater legal reasoning ability.

Everyday Moral Reasoning. Because of the rotating nature of measures in the NHYS, a seven-item short version of the Everyday Legal Reasoning measure was used in the present study as it appears at both Time 1 and Time 4. Following previous legal socialization research using the integrated legal socialization model (Cohn et al., 2010), we used the seven-item Everyday Moral Reasoning subscale of Shelton and McAdams' (1990) Visions of Morality scale to

Table 1Study 1: Parameter Estimates From the Attrition Analysis for Early Adolescence

Variable	Estimate	SE	Exp(B)	z	p
Intercept	1.48	0.20	4.38	7.30	<.001
Family wealth	-0.17	0.23	0.84	-0.75	.453
Race	0.47	0.44	1.60	1.07	.285
Sex	-0.53	0.43	0.59	-1.24	.214
Rule-violating behavior	-0.01	0.10	0.99	-0.07	.943
Everyday moral reasoning	0.04	0.18	1.04	0.22	.824
Everyday legal reasoning	0.04	0.20	1.04	0.18	.855
Enforcement status	0.22	0.23	1.25	0.97	.332
Normative status	-0.46	0.66	0.63	-0.69	.488

Note. All coefficients are unstandardized from binary logistic regression analysis. SE = standard error.

measure moral reasoning ability. The Everyday Moral Reasoning subscale consists of brief scenario-based items that ask participants to rate their likelihood of performing a moral behavior in each scenario (1 = I definitely would not do to 7 = I definitely would do). An example item is "The school I attend needs volunteers who will come two hours early one evening next week to help set up for the annual parents' night. I volunteer and come two hours early." We computed participants' Everyday Moral Reasoning scores as an average of the seven items (Time 1: M = 4.49, SD = 1.15, Cronbach's α = 0.82), with higher scores reflecting more advanced moral reasoning.

Normative Status. To measure normative status, we asked participants the following question: "How much do you approve of" each of 26 rule-violating behaviors—0 (*strongly disapprove*), 1 (*disapprove*), 2 (*approve*), 3 (*strongly approve*; Cohn & White, 1990). The 26 different types of behaviors represent three general categories of rule-violating behavior, including assault, theft, and substance use. We calculated each participant's composite score (Time 2: M = 0.35, SD = 0.32, Cronbach's $\alpha = .94$), with higher scores indicating greater approval of rule-violating behavior.

Enforcement Status. We measured enforcement status by asking participants "should people be punished for" each of the same 26 behaviors used in the normative status measure (0 = no, definitely not) to 3 = yes, definitely; Cohn & White, 1990). We calculated each participant's mean score (Time 2: M = 2.29, SD = 0.55, Cronbach's $\alpha = .95$), with higher scores indicating greater favorability toward enforcing punishment for rule-violating behavior.

Rule-Violating Behavior. We measured rule-violating behavior using Wolpin's (1983) Delinquency Component of the National Youth Longitudinal Survey. Students reported how many times in the last 6 months they had engaged in each of the same 26 ruleviolating behaviors presented in the normative status and enforcement status measures, which represented behaviors falling into three general categories of rule-violating behavior: assault (e.g., hit or seriously threatened to hit someone), theft (e.g., knowingly stole or held stolen goods), and substance use (e.g., used marijuana). We created a variety rule-violating behavior score (see Cohn et al., 2010) indicating the overall number of specific behavior types engaged in during the 6month period (Time 1: M = 1.40, SD = 2.01; Time 3: M = 2.18, SD =3.02). Sweeten (2012) reviewed the different techniques for scaling criminal offending. He found that variety scales are preferred because they have high validity and reliability, they are not affected by highfrequency nonserious crimes, and they are relatively easy to construct.

Procedure

Participants completed the survey in mass testing sessions in their school cafeterias and sat one seat apart from each other to assure confidentiality. We obtained parental consent and participant assent before the start of data collection. After completing the survey, participants reported to a research assistant, who placed participants' study ID number onto the survey. We used ID numbers to track participant data across the three waves of data collection. We compensated participants in each wave with fruit snacks and a \$10 gift certificate to a national bookstore chain.

Analytic Strategy

We used Hayes' (2018) PROCESS program Version 4, an SPSS macro for conducting mediation and moderation analyses, for the

current analyses. For the moderated mediation model, we included a dichotomized representation of participant race (0 = White, 1 = non-White) as a moderator of direct, indirect, and total effects of legal reasoning and moral reasoning on rule-violating behavior for the moderated mediation models. We calculated indices of moderated mediation to assess the conditional effects of the direct, indirect, and total effects to explore potential differences in the integrated legal socialization model by race. PROCESS allows only one predictor to be specified for the purpose of examining indirect effects; therefore, we rotated the two predictors to assess all indirect effects. Sex, family wealth, and rule-violating behavior at Time 1 were covariates in the analysis. We examined all measures for multicollinearity in the model and did not identify indications of high multicollinearity; all tolerance values were greater than .50 and variance inflation factors were less than 2.00.

Results

Integrated Legal Socialization Model Replication

We assessed whether normative status and enforcement status mediated the effect of legal reasoning and moral reasoning scores on rule-violating behavior. Neither legal reasoning nor moral reasoning significantly predicted normative status or enforcement status. Only rule-violating behavior at Time 1 was a significant predictor of normative status (b = 0.04, SE = 0.01, p < .001), and rule-violating behavior at Time 1 (b = -0.10, SE = 0.03, p < .001) and sex (b = 0.03) 0.28, SE = 0.13, p < .001) significantly predicted enforcement status. In predicting rule-violating behavior, only normative status (b = 2.10, SE = 0.86, p = .02) and rule-violating behavior at Time 1 (b = 0.49, SE = 0.10, p < .001) were significant predictors (see Table 2, for complete results). Using a model with 5,000 bootstrapped samples and α set to .05, we examined the indirect effect of legal reasoning on rule-violating behavior through normative status and observed no significant indirect effects for either legal reasoning on rule-violating behavior or moral reasoning on rule-violating behavior (see Table 3).

Integrated Legal Socialization Model Moderated by Race

We added the dichotomized race moderator (White/non-White) to the integrated legal socialization model to examine moderation of the direct and indirect pathways. Results showed that the relation between normative status and rule-violating behavior was significantly moderated by race (b=-3.81, SE=1.88, p=.04), with conditional effects revealing that normative status significantly predicted rule-violating behavior for White participants (b=3.64, SE=1.15, p=.002) but was not a significant predictor of rule-violating behavior for non-White participants (b=-0.18, SE=1.53, p=.91; see Figure 2). Race did not moderate other individual paths (see Table 4, for complete results).

We used a model with 5,000 bootstrapped samples and α set to .05 to examine moderation of the indirect effects; however, because both legal reasoning and moral reasoning were not significant predictors of either normative status or enforcement status, we did not identify significant indirect effects for White and non-White participants. Further, indirect effects did not differ for White and non-White participants, likely because effect sizes for neither of these groups were significant (see Table 5).

Table 2Study 1: Replication of the Integrated Legal Socialization Model for Early Adolescence

	Normative status			Enf	forcement	status	Rule-violating behavior		
Variable	b (SE)	p	95% CI	b (SE)	p	95% CI	b (SE)	p	95% CI
Everyday legal reasoning	03 (.02)	.09	[07, <.01]	.05 (.06)	.44	[08, .18]	03 (.18)	.86	[39, .33]
Everyday moral reasoning	.01 (.02)	.55	[02, .04]	01(.06)	.93	[12, .11]	01(.16)	.95	[32, .30]
Normative status							2.10 (.86)	.02	[.39, 3.80]
Enforcement status							44(.25)	.07	[93, .04]
Sex	07(.04)	.06	[15, <.01]	.28 (.13)	.04	[.01, .54]	07(.38)	.85	[83, .68]
Family wealth	03(.02)	.22	[07, .02]	06(.07)	.38	[21, .08]	.20 (.21)	.33	[21, .61]
Rule-violating behavior at Time 1	.04 (.01)	<.001	[.03, .06]	10 (.03)	<.001	[16,03]	.49 (.10)	<.001	[.30, .69]
Model	F(5, 13'	7) = 9.76	p = .001	F(2, 13	7) = 4.35	p = .001	F(7, 135)) = 11.18	p < .001
R^2		.26	•		.14			.37	

Note. All coefficients are unstandardized. Boldface indicates significant results. SE = standard error; CI = confidence interval.

Study 2: Racial Differences in Midadolescence and Emerging Adulthood

In Study 2, we tested the integrated model of legal and moral reasoning (Cohn et al., 2010) in a longitudinal sample of participants from midadolescence to emerging adulthood in order to replicate the results from Study 1 and explore how differences in the model might change over time as youth age into adulthood. Participants completed measures of legal and moral reasoning, legal attitudes (i.e., enforcement and normative status), and rule-violating behavior over the course of 7 years. We expected to replicate the original legal socialization model more consistently at both midadolescence and emerging adulthood because reasoning abilities become more developed in this time frame and likely begin to align with and contribute to legal attitudes and behavior. In examining differences by race, we expected the midadolescence results to be fairly similar to the early adolescence results, with some differences between White and non-White participants, particularly in the relation between legal attitudes and rule-violating behavior. However, we also expected that these differences might shift by emerging adulthood, given that older youth will have developed more complex reasoning abilities and desisted from adolescent limited behaviors (e.g., experimentation with substance use, petty theft, graffitiing).

Method

Participants

Participants were 296 adolescents (60.41% female) from the original NHYS. In the original sample, we selected two cohorts, one from middle school and another from high school. This sample represents the original middle school participants and is different from the cohort of participants in Study 1. For the purpose of this

study, we took complete participant data from Waves 5 to 10 of data collection, hereinafter referred to as Times 1 through 6, respectively. Measures were collected at the following times—Time 1: Fall 2008, when participants were in the eighth grade; Time 2: Spring 2009; Time 3: Fall 2011; Time 4: Fall 2012; Time 5: Fall 2013; and Time 6: fall 2014. At Time 1, participants were 13.26 years old on average (SD = 0.56) and identified as White/Caucasian (82.30%), Hispanic/Latino (5.00%), Asian (3.00%), Black (2.80%), Native American (1.1%), and other/multiracial (5.80%).

Census data were compared with the sample demographics to determine how representative the sample was to the general population (U.S. Census Bureau, 2022). The four communities in the sample were two large urban areas, with more than 112,000 residents in one and 89,052 in the other, and two smaller communities, with 31,305 and 12,027 residents, respectively. The urban areas were overrepresented because they had five high schools and seven middle schools; the smaller communities had two high schools and two middle schools. Race/ethnicity in the largest urban area was 75.5% White, 6.54% Hispanic, 5.13% Black, 5.13% Asian, and 2.97% multiracial (two or more races). Race/ethnicity in the other urban area was 74.3% White, 12.49% Hispanic, 3.53% Black, 7.62% Asian, and 5.22% multiracial. In the larger of the two smaller communities, the racial/ethnic composition was 92.2% White, 3.04% Hispanic, 0.69% Black, 1.50% Asian, and 3.05% multiracial. In the smaller of the two smaller communities, the racial/ethnic composition was 81.9% White, 4.00% Hispanic, 3.76% Black, 6.66% Asian, and 5.87% multiracial. The sample was underrepresentative of all non-White groups.

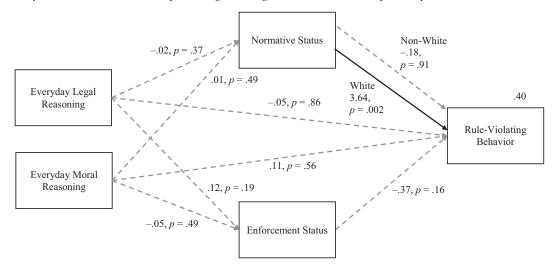
Using the same attrition analysis method as in Study 1, we found that binary logistic regressions predicting dropout rates from study variables showed that male participants dropped out at a significantly disproportionate rate compared with female participants. No

Table 3Study 1: Direct, Indirect, and Total Effects Predicting Rule-Violating Behavior at Time 3 in Early Adolescence

		Indirect eff	fect [95% CI]	
Variable	Direct effect [95% CI]	Normative status	Enforcement status	Total effect [95% CI]
Everyday legal reasoning Everyday moral reasoning	03 [39, .33] 01 [32, .30]	07 [25, .02] .02 [-06, .13]	02 [13, .03] <.01 [08, .09]	12 [49, .25] .01 [31, .33]

Note. CI = confidence interval.

Figure 2
Study 1: Moderated Mediation of the Integrated Legal Socialization Model for Early Adolescence



Note. Control variables and covariances have been omitted from the figure for clarity. All coefficients are unstandardized. Paths represented with more than one line indicate conditional effects for significant path interactions with race. Solid lines indicate significant paths; dashed lines indicate nonsignificant paths.

other demographic variables were linked to attrition. Binary logistic regressions predicting attrition from all study variables showed a significant association between dropout rate and legal reasoning, with a predicted change of odds of 29% per unit increase (see Tables 6 and 7, for complete results).

Measures

We used the same survey measures as in Study 1 for Study 2. See the Study 1 Method, for descriptions of each measure.

Demographics. Participants reported their sex, race, and family wealth as an indicator of SES (family wealth at Time 1: M = 3.12, SD = 0.76; family wealth at Time 4: M = 3.11, SD = 0.75).

Everyday Legal Reasoning. Because of the rotating nature of measures in the NHYS, we used a seven-item short version of the Everyday Legal Reasoning scale in the present study as it appears at both Time 1 and Time 4. We calculated a composite of the seven items to create participants' Everyday Legal Reasoning scores (Time 1: M = 5.35, SD = 1.18, Cronbach's $\alpha = .87$; Time 4: M = 5.26, SD = 1.22, Cronbach's $\alpha = .86$), with higher scores representing greater legal reasoning ability.

Everyday Moral Reasoning. We computed participants' Everyday Moral Reasoning scores as an average of the seven items (Time 1: M = 4.37, SD = 1.19, Cronbach's $\alpha = .84$; Time 4: M = 4.45, SD = 1.09, Cronbach's $\alpha = .81$), with higher scores reflecting more advanced moral reasoning.

Table 4Study 1: Moderated Mediation Analysis Results for Early Adolescence

	N	Normative status			Enforcement status			Rule-violating behavior		
Variable	b (SE)	p	95% CI	b (SE)	p	95% CI	b (SE)	p	95% CI	
Everyday legal reasoning	02 (.03)	.37	[08, .03]	.12 (.09)	.19	[06, .30]	05 (.25)	.86	[55, .46]	
Everyday moral reasoning	.01 (.02)	.47	[02, .05]	05(.07)	.49	[18, .09]	.11 (.19)	.56	[27, .49]	
Race	.11 (.22)	.61	[33, .55]	.55 (.76)	.47	[96, 2.06]	3.54 (3.59)	.33	[-3.57, 10.65]	
Everyday Legal Reasoning × Race	01 (.04)	.85	[09, .07]	15 (.14)	.30	[43, .13]	.22 (.40)	.59	[58, 1.02]	
Everyday Moral Reasoning × Race	01(.04)	.76	[08, .06]	.12 (.13)	.35	[13, .37]	51(.37)	.17	[-1.23, .22]	
Normative status							3.64 (1.15)	.002	[1.37, 5.91]	
Enforcement status							37 (.26)	.16	[88, .15]	
Normative Status × Race							-3.81 (1.88)	.04	[-7.53,10]	
Enforcement Status × Race							71(1.05)	.50	[-2.79, 1.38]	
Sex	08 (.04)	.05	[16, <01]	.27 (.14)	.05	[<.01,.55]	05(.39)	.89	[83, .72]	
Family wealth	03(.02)	.23	[07, .02]	03(.08)	.67	[18, .12]	.20 (.21)	.36	[23, .62]	
Rule-violating behavior at Time 1	.05 (.01)	<.001	[.03, .07]	09 (.04)	.01	[16,02]	.45 (.11)	<.001	[.23, .66]	
Model	F(8, 13	31) = 5.9	3, p < .001	F(8, 131)	= 3.2	28, p = .002	F(12, 12	7) = 6.95	5, p < .001	
R^2		.27	•		.17	•		.40	•	

Note. All coefficients are unstandardized. Boldface indicates significant results. SE = standard error; CI = confidence interval.

 Table 5

 Study 1: Direct, Indirect, and Index of Moderated Mediation Effects Predicting Rule-Violating Behavior at Time 3 for Early Adolescence

		Normat	ive status	Enforcement status			
Conditional effect and race	Direct effect [95% CI]	Indirect effect [95% CI]	Index of moderated mediation	Indirect effect [95% CI]	Index of moderated mediation		
Everyday legal reason	ing						
White	05 [55, .46]	09 [46, .06]	.09 [10, .58]	04 [26, .06]	.07 [29, .32]		
Non-White	.17 [44, .79]	.01 [12, .30]		.03 [32, .18]			
Everyday moral reason	ning						
White	.05 [09, .28]	.05 [09, .29]	05 [-40, .11]	.02 [08, .16]	09 [37, .26]		
Non-White	39 [-1.02, .23]	<01 [23, .08]		08 [33, .28]			

Note. The index of moderated mediation is a statistical test that compared the indirect effects between White and non-White participants to determine whether the observed difference was significant using a 95% confidence interval (CI).

Normative Status. We calculated a composite score (Time 2: M = 0.38, SD = 0.49, Cronbach's $\alpha = .94$; Time 5: M = 0.37, SD = 0.32, Cronbach's $\alpha = .95$), with higher scores indicating greater approval of rule-violating behavior.

Enforcement Status. Because enforcement status was not available at Time 2, we took the score from Time 1 instead. We calculated a mean score (Time 1: M = 2.44, SD = 0.64, Cronbach's $\alpha = .98$; Time 5: M = 2.30, SD = 0.48, Cronbach's $\alpha = .96$), with higher scores indicating greater favorability toward enforcing punishment for rule-violating behavior.

Rule-Violating Behavior. We created a variety rule-violating behavior score (see Cohn et al., 2010) indicating the overall number of specific behavior types engaged in during the preceding 6-month period (Time 3: M = 2.59, SD = 3.68; Time 6: M = 2.26, SD = 3.25).

Procedure

We administered surveys in schools in mass testing sessions at Time 1 and Time 2, and online at Time 3 through Time 6. We administered online surveys through Qualtrics, a survey creation and administration platform. Participants' parents provided consent and participants provided assent prior to taking the survey until they reached the age of 18. For waves in which participants were 18 years old or older, they provided consent prior to taking the survey. We used ID numbers to connect participants' data across each survey wave. We compensated participants for completing each survey

Table 6Study 2: Parameter Estimates From Attrition Analysis for Midadolescence

Variable	Estimate	SE	Exp (B)	z	p
Intercept	-0.53	0.49	0.59	-1.07	.284
Family wealth	0.06	0.11	1.06	0.51	.612
Race	0.02	0.22	1.02	0.09	.930
Sex	-0.24	0.17	0.78	-1.44	.149
Rule-violating behavior	-0.07	0.03	0.93	-2.02	.044
Everyday moral reasoning	0.06	0.08	1.06	0.74	.458
Everyday legal reasoning	0.19	0.10	1.21	1.97	.049
Enforcement status	-0.07	0.18	0.94	-0.37	.710
Normative status	-0.06	0.22	0.94	-0.28	.783

Note. All coefficients are unstandardized from binary logistic regression analysis. SE = standard error. Boldface indicates significant results.

with a \$10 gift card at Time 1 and Time 2, and a \$20 gift card at Time 3 through Time 6.

Analytic Strategy

We used the same statistical approach from Study 1 in Study 2. Using PROCESS Version 4 (Hayes, 2018), we conducted two analyses with Time 1 through Time 3 data: first to replicate the integrated legal socialization model in the older adolescent sample and second to assess the impact of race as a moderator on the model. We dichotomized race (0 = White, 1 = non-White) to create a moderated mediation model in which race moderated all relationships between the independent variable and the mediator, all relationships between the dependent variable and the mediator, and the direct and indirect effects of legal reasoning and moral reasoning on rule-violating behavior. We calculated conditional effects for significantly moderated paths and indices of moderated mediation of conditional effects for significantly moderated effects to explore differences in the model by race. We repeated analyses for the Time 4 through Time 6 data to examine developmental changes in the model as participants transitioned from midadolescence to emerging adulthood. We checked for multicollinearity in the models and did not identify high multicollinearity between measures; all tolerance values were greater than .50 and variance inflation factors were less than 2.00.

Results

Midadolescence

Integrated Legal Socialization Model Replication. First, we replicated the integrated legal socialization model at midadolescence using PROCESS Model 4, with normative status and enforcement status as mediators of the relation between rule-violating behavior at Time 3 and legal reasoning and moral reasoning at Time 1, controlling for sex, family wealth, and rule-violating behavior. Legal reasoning significantly predicted the two mediators (normative status: b = -0.11, SE = 0.03, p < .001; enforcement status: b = 0.12, SE = 0.03, p = .001). Moral reasoning did not predict either of the two mediators significantly. Enforcement status (b = -0.93, SE = 0.35, p = .009), moral reasoning (b = 0.39, SE = 0.19, p = .04), rule-violating behavior at Time 1 (b = 0.43, SE = 0.08, p < .001), and family wealth (b = 0.80, SE = 0.26, p = .002) were the only significant predictors of rule-violating behavior at

Table 7Study 2: Parameter Estimates From Attrition Analysis for Late Adolescence/Emerging Adults

Variable	Estimate	SE	Exp (B)	z	p
Intercept	4.14	1.68	63.02	2.46	.014
Family wealth	0.37	0.21	1.45	1.77	.077
Race	-0.29	0.52	0.75	-0.56	.578
Sex	0.14	0.39	1.15	0.36	.720
Rule-violating behavior	-0.17	0.07	0.85	-2.33	.020
Everyday moral reasoning	0.10	0.20	1.10	0.50	.620
Everyday legal reasoning	0.27	0.20	1.31	1.36	.175
Enforcement status	-1.24	0.63	0.29	-1.97	.049
Normative status	0.47	0.79	1.61	0.60	.546

Note. All coefficients are unstandardized from binary logistic regression analysis. Boldface indicates significant results. SE = standard error.

Time 3 (see Table 8, for complete results). We assessed potential mediation of the predictors through the legal attitude mediators using a 5,000 bootstrapped sample with α set to .05. Results indicated there were no significant indirect effects of mediated paths identified (see Table 9).

Integrated Legal Socialization Model Moderated by Race. Using PROCESS, we examined moderation of the dichotomized race variable on the direct and indirect pathways in the integrated legal socialization model in midadolescence. Results showed that the effect of normative status on rule-violating behavior path was significantly moderated by race (b = -2.32, SE = 0.92, p = .01), with conditional effects revealing that normative status significantly predicted rule-violating behavior for White participants (b = 1.63, SE = 0.61, p = .008), but not for non-White participants (b = -0.69, SE = 0.70, p = .33). Additionally, the effect of enforcement status on rule-violating behavior was also significantly moderated by race (b = -2.13, SE = 0.80, p = .008), with conditional effects revealing that enforcement status significantly predicted rule-violating behavior for non-White participants (b = -2.53, SE = 0.70, p < .001), but not for White participants (b = -0.40, SE = 0.40, p = .32; see Figure 3). No other individual paths were moderated significantly by race (see Table 10, for complete results). Examination of indirect effects using a model with 5,000 bootstrapped samples and α set to .05 revealed that there was no moderation of any indirect effects (see Table 11).

Late Adolescence/Emerging Adulthood

Integrated Legal Socialization Model Replication. We once again replicated the integrated legal socialization model at emerging adulthood using PROCESS Model 4, with normative status and enforcement status as mediators of the relation between rule-violating behavior at Time 6 and legal reasoning and moral reasoning, controlling for sex, family wealth, and rule-violating behavior at Time 4. Legal reasoning significantly predicted both normative status (b = -0.09, SE = 0.02, p < .001) and enforcement status (b = 0.10, SE = 0.03, p = .001). Moral reasoning predicted enforcement status (b = 0.09, SE = 0.03, p = .003), but not normative status. Only normative status (b = 3.20, SE = 0.93, p = .001) and rule-violating behavior at Time 1 (b = 0.35, SE = 0.09, p < .001) were significant predictors of rule-violating behavior (see Table 12, for complete results).

We assessed potential mediation of the predictors through the legal attitude mediators using a model with 5,000 bootstrapped samples and α set to .05. There was a significant indirect effect for legal reasoning through normative status in predicting rule-violating behavior at Time 6 (indirect effect = -0.30, 95% CI [-0.57, -0.10]). There were no other significant indirect effects in the model (see Table 13).

Integrated Legal Socialization Model Moderated by Race. Finally, we examined moderation of the dichotomized race variable in the direct and indirect pathways of the integrated legal socialization model in emerging adulthood. Race moderated the relation between legal reasoning and enforcement status (b = 0.26, SE = 0.09, p = .005) but not normative status (b = -0.02, SE = .005) 0.06, p = .78). Examination of the conditional effects revealed that legal reasoning predicted enforcement status for both White (b =0.08, SE = 0.03, p = .01) and non-White participants (b = 0.33, SE = 0.09, p < .001); however, the relation was stronger for non-White participants. The relation between moral reasoning and ruleviolating behavior was significantly moderated by race (b = 1.78, SE = 0.80, p = .03), with conditional effects revealing that moral reasoning did not significantly predict rule-violating behavior for either White (b = -0.49, SE = 0.29, p = .10) or non-White participants (b = 1.29, SE = 0.75, p = .09). It is worth noting that the direction of the relationship flipped, with White participants showing a negative relation between moral reasoning and rule-violating behavior and non-White participants showing a positive relation, which is likely the source of the significant

Table 8Study 2: Replication of the Integrated Legal Socialization Model for Midadolescence

	Normative status			Enforcement status			Rule-violating behavior at Time 3		
Variable	b (SE)	p	95% CI	b (SE)	p	95% CI	b (SE)	p	95% CI
Everyday legal reasoning	11 (.03)	<.001	[16,06]	.12 (.03)	.001	[.05, .18]	30 (.21)	.15	[71, .11]
Everyday moral reasoning	.01 (.02)	.82	[04, .05]	06(.03)	.06	[12, < .01]	.39 (.19)	.04	[.02, .75]
Normative status							.64 (.47)	.17	[28, 1.56]
Enforcement status							93 (.35)	.009	[-1.63,24]
Sex	.09 (.05)	.07	[01, .19]	07(.07)	.29	[21, .06]	.26 (.40)	.52	[53, 1.04]
Family wealth	09 (.03)	.006	[16,03]	.13 (.04)	.005	[.04, .21]	.80 (.26)	.002	[.29, 1.32]
Rule-violating behavior at Time 1	.04 (.01)	<.001	[.03, .06]	08 (.01)	<.001	[10,05]	.43 (.08)	<.001	[.27, .58]
Model	F(5, 290)	(2) = 23.62	2, p < .001	F(5, 29	(2) = 22.5	2, p < .001	F(7, 28)	(8) = 14.5	2, p < .001
R^2		.29	-		.28	-		.26	-

Note. All coefficients are unstandardized. Boldface indicates significant results. SE = standard error; CI = confidence interval.

 Table 9

 Direct, Indirect, and Total Effects Predicting Rule-Violating Behavior at Time 3 for Midadolescence

		Indirect eff		
Variable	Direct effect [95% CI]	Normative status	Enforcement status	Total effect [95% CI]
Everyday legal reasoning Everyday moral reasoning	30 [71, .11] .09 [46, .64]	07 [32, .09] 29 [70, .11]	11 [34, .05] .01 [12, .16]	48 [88,08] 19 [67, .28]

Note. CI = confidence interval.

interaction. No other individual paths were significantly moderated by race (see Table 14 for complete results). We examined moderation of the indirect effect of legal reasoning on rule-violating behavior through normative status using a model with 5,000 bootstrapped samples and α set to .05. Conditional-effects analyses showed a significant indirect effect for White participants (indirect effect = $-0.26,\,95\%$ CI $[-0.56,\,-0.06]$) but not for non-White participants (indirect effect = $-0.66,\,95\%$ CI $[-2.00,\,0.28]$; see Figure 4). The index of moderated mediation effects revealed that the observed difference between the conditional indirect effects was not significant, however (index = $0.39,\,95\%$ CI $[-1.78,\,0.57]$). No other significant moderation effects of race on the integrated legal socialization model were observed (see Table 15 for complete results).

Discussion

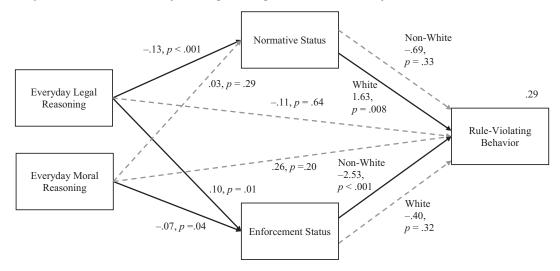
Findings From Study 1 and Study 2

The present research examined racial differences in the integrated model of legal socialization (Cohn et al., 2010) in early adolescence, midadolescence, and late adolescence/emerging adulthood. We found differences between White and non-White participants at

each age and stage of development; however, where and how the models differed changed at each stage of adolescence. In early adolescence, the integrated legal socialization model did not completely replicate, with both reasoning measures (Everyday Legal Reasoning and Everyday Moral Reasoning) being unrelated to the mediators and rule-violating behavior. This could have occurred because young adolescents may not have developed reasoning ability at this stage and relied on other mechanisms to guide their behavior. It could also be the case that young adolescents have yet to connect their reasoning ability to specific attitudes about their own behavior or their engagement in the behavior itself. Normative status, or how much one approves of engaging in rule-violating behaviors, was the only significant predictor of rule-violating behavior in early adolescence and only for White participants. The integrated model of legal socialization did not appear to explain rule-violating behavior for non-White participants at this age.

In midadolescence, both legal reasoning and moral reasoning started to predict legal attitudes (normative status and enforcement status), suggesting that these abilities are developing from early adolescence and that midadolescent youth are beginning to associate their reasoning with their perceptions of engaging in rule-violating behavior. This more consistently replicates previous work on the integrated legal socialization model (Cohn et al., 2010). There were

Figure 3
Study 2: Moderated Mediation of the Integrated Legal Socialization Model for Midadolescence



Note. Control variables and covariances have been omitted from the figure for clarity. All coefficients are unstandardized. Paths represented with more than one line indicate conditional effects for significant path interactions with race. Solid lines indicate significant paths; dashed lines indicate nonsignificant paths.

Table 10
Study 2: Moderated Mediation Analysis Results for Midadolescence

	Normative status			Enforcement status			Rule-violating behavior		
Variable	b (SE)	p	95% CI	b (SE)	p	95% CI	b (SE)	p	95% CI
Everyday legal reasoning	13 (.03)	<.001	[17,07]	.10 (.04)	.01	[.02, .18]	11 (.24)	.64	[59, .36]
Everyday moral reasoning	.03 (.03)	.29	[02, .08]	07 (.04)	.04	[14, <01]	.26 (.21)	.20	[14, .67]
Race	.17 (.29)	.56	[40, .74]	81 (.37)	.04	[-1.53,05]	4.40 (2.85)	.12	[-1.21, 10.01]
Everyday Legal Reasoning × Race	.07 (.05)	.16	[03, .18]	.06 (.07)	.36	[07, .20]	23 (.46)	.62	[-1.14, .68]
Everyday Moral Reasoning × Race	10(.06)	.11	[22, .02]	.10 (.08)	.24	[06, .26]	.70 (.48)	.14	[24, 1.64]
Normative status							1.63 (.61)	.008	[.43, 2.83]
Enforcement status							40(.40)	.32	[-1.18, .39]
Normative Status × Race							-2.32 (.92)	.01	[-4.12,51]
Enforcement Status × Race							-2.13 (.80)	.008	[-3.70,56]
Sex	.11 (05)	.03	[.01, .21]	08(07)	.25	[21, .06]	.29 (.40)	.49	[51, 1.07]
Family wealth	09 (.03)	.006	[16,03]	.13 (.04)	.003	[.05, .22]	.76 (.26)	.004	[.25, 1.27]
Rule-violating behavior at Time 1	.04 (.01)	<.001	[.02, .06]	07 (.01)	<.001	[10,05]	.42 (.08)	<.001	[.26, .57]
Model	F(8, 286)) = 15.83	3, p < .001	F(8, 28)	6) = 14.	63, $p < .001$	F(12, 28)	(2) = 9.72	2, p < .001
R^2		.31	-		.29	-		.29	-

Note. All coefficients are unstandardized. Boldface indicates significant results. SE = standard error; CI = confidence interval.

no differences between White and non-White participants in these associations; however, there were differences between legal attitudes and rule-violating behavior downstream in the model. Similar to early adolescence, normative status significantly predicted ruleviolating behavior only for White participants. Additionally, enforcement status, or how much one agrees with enforcing punishment for engaging in rule-violating behavior, was also a significant predictor of rule-violating behavior, but only for non-White participants. This suggests that for midadolescent youth, White youth might rely more on normative behavioral assessments in engaging in rule-violating behavior, whereas non-White youth might focus more on punishment orientation when engaging in rule-violating behavior. Within a moral development framework, this suggests that non-White youth remain in the stages of development regulated by fear of punishment (Tapp & Kohlberg, 1971). Given other research on the difference in experience with the law for White and non-White youth, there is likely a more contextual reason for this association.

Other areas of legal socialization that focus more on experience and interactions with the law, such as procedural justice, find that people of color often have disproportionate contact with the law and are treated in a discriminatory fashion by the law, both of which affect their perceptions of and attitudes about the law (Nellis & Richardson, 2010; Peck, 2015; Piquero et al., 2005; Puzzanchera,

2009; Tyler & Huo, 2002). Tapp and Kohlberg (1971) assumed that fear of punishment was purely a result of less developed reasoning about the law, but this reasoning also assumes that the experience of the law and fear of disproportionate and unjust punishment by the law would not factor into those cognitions. It could be that the disparate treatment and experiences of non-White youth and their beliefs about the likelihood of experiencing unfair treatment by the law are what is keeping attitudes around punishment salient and relevant for those youth who engage in rule-violating behavior.

In the final examination of the model at late adolescence into early adulthood, there are further developmental changes and a shift in the differences between White and non-White youth. At this stage, reasoning is still associated with legal attitudes, but specifically for legal reasoning, there is a significantly stronger association with enforcement status for non-White youth compared with White youth. This might further support the idea that non-White youth are referencing experiences of the law when considering concepts and attitudes about punishment structures. For example, the Everyday Legal Reasoning measure is comprised of two components, upholding or compliance with the law and reporting of violations or cooperating with legal authorities (Cole et al., 2013). Some readers might reason that people of color are more likely to experience unjust treatment when they come into contact with the law.

Table 11
Study 2: Direct, Indirect, and Index of Moderated Mediation Effects for Midadolescence

		Norma	tive status	Enforcement status			
Conditional effect Direct effect and race [95% CI]		Indirect effect [95% CI]	Index of moderated mediation	Indirect effect [95% CI]	Index of moderated mediation		
Everyday legal reason	ing				_		
White	11 [59, .36]	21 [50, .02]	.25 [12, .72]	04 [20, .10]	37[-1.55, .18]		
Non-White	34 [-1.12, .44]	.04 [27, .45]		41 [-1.58, .12]			
Everyday moral reaso	ning						
White	.26 [14, .67]	.05 [02, .16]	<.01 [24, .39]	.03 [06, .17]	09[43, .53]		
Non-White	.96 [.11, 1.81]	.05 [18, .42]		06 [39, .54]			

Note. The index of moderated mediation is a statistical test that compared the indirect effects between White and non-White participants to determine whether the observed difference was significant using a 95% confidence interval (CI).

Table 12Study 2: Replication of the Integrated Legal Socialization Model for Late Adolescence/Emerging Adulthood

Norr			status	Enforcement status			Rule-violating behavior at Time 3		
Variable	b (SE)	p	95% CI	b (SE)	p	95% CI	b (SE)	p	95% CI
Everyday legal reasoning	09 (.02)	<.001	[13,06]	.10 (.03)	.001	[.05, .16]	.21 (.27)	.43	[32, .74]
Everyday moral reasoning	03 (.02)	.18	[07, .01]	.09 (.03)	.003	[.03, .16]	27 (.27)	.32	[80, .26]
Normative status							3.20 (.93)	.001	[1.37, 5.04]
Enforcement status							18 (.61)	.77	[-1.38, 1.03]
Sex	04 (.04)	.33	[12, .04]	.01 (.06)	.92	[12, .13]	27(.52)	.61	[-1.29, .76]
Family wealth	03(.03)	.19	[08, .02]	.06 (.04)	.10	[01, .14]	.57 (.32)	.08	[07, 1.21]
Rule-violating behavior at Time 1	.02 (.01)	.004	[.01, .03]	02 (.01)	.05	[04, <01]	.35 (.09)	<.001	[.18, .52]
Model	F(5, 208)	s = 17.15	5, p < .001	F(5, 208)	(3) = 15.	13, p < .001	F(7, 20)	(6) = 8.11	p < .001
R^2		.29			.27			.22	

Note. All coefficients are unstandardized. Boldface indicates significant results. SE = standard error; CI = confidence interval.

Therefore, youth of color might be less likely to indicate they would intentionally report potential violations or comply with the law, as it might result in otherwise avoidable contact. This disillusionment might also explain why enforcement status is no longer relevant in predicting rule-violating behavior for older youth and emerging adult non-White participants as they start to understand these larger connections in the underlying context of their experiences with the law.

There was also a significant difference in the direct relation between moral reasoning and rule-violating behavior between White and non-White participants. Although neither individual path was significant, the direction of the relation reversed, with non-White participants showing a positive trend and White participants showing a negative trend with rule-violating behavior. This might also suggest divergent concepts between moral values (i.e., perceptions of what is right and wrong) with rule-violating behaviors outside of the perceptions of the legality of the behavior. Last, we found a significant indirect effect of legal reasoning on ruleviolating behavior through normative status, but only for White participants. This is consistent with more recent work on the integrated legal socialization model, which found this pathway to be the most consistently relevant in predicting behavior in late adolescence and early adulthood (Cohn et al., 2012, 2021). Although the indirect pathway for non-White individuals was not significant, the effect was in the same direction and had a greater magnitude than the indirect effect for White participants. It could be the case that with a larger sample of non-White participants, this mediated path would be consistent with the findings for White participants. This finding could also change throughout developmental stages as the early adolescence and midadolescence results were often in opposing directions. Therefore, the relation between legal reasoning, normative status, and rule-violating behavior might become more closely aligned for White and non-White participants over time, shifting the differences to the moral reasoning component and attitudes around punishment.

This suggests that one of a few possibilities is occurring. One is that the perceptions and attitudes of older youth start to align with their actual behavior to a larger degree (i.e., if one cannot trust the law, then why follow the law?). Another is that the underlying rationale driving the legal reasoning and legal attitudes may look different for different racial groups, which current measures may be unable to detect, even though the relation between reasoning, attitudes, and behavior may look more consistent. The field of legal socialization is in need of more research focused on racial differences in the cognitive model to determine what change has occurred over this time and why.

Implications of the Findings

Overall, the findings from the present studies are consistent in some ways and divergent in others from other areas of legal socialization, such as the procedural justice model, which posits that race differences are perpetuated into adulthood (Fine et al., 2022; Walters & Bolger, 2019). Our findings suggest that differences are perpetuated into adulthood in terms of the cognition around engagement in rule-violating behavior but that these differences shift over time as adolescents move through different stages of development. Procedural justice might offer a potential explanation for how and why these shifts occur. The differences found in the present studies could also be the product of the historical research on cognitive legal socialization models themselves. The original legal socialization research conducted in the 1970s and 1980s primarily focused on

Table 13Study 2: Direct, Indirect, and Total Effects Predicting Rule-Violating Behavior at Time 3 for Late Adolescence/Emerging Adulthood

		Indirect eff		
Predictor	Direct effect [95% CI]	Normative status	Enforcement status	Total effect [95% CI]
Everyday legal reasoning Everyday moral reasoning	.21 [32, .74] 27 [80, .26]	30 [57 , 10] 09 [29, .04]	02 [21, .13] 02 [-16, .11]	11 [62, .40] 37 [91, .16]

Note. Boldface indicates significant results. CI = confidence interval.

Table 14Study 2: Moderated Mediation Analysis Results for Late Adolescence/Emerging Adulthood

	Normative status		Enforcement status		Rule-violating behavior				
Variable	b (SE)	p	95% CI	b (SE)	p	95% CI	b (SE)	p	95% CI
Everyday legal reasoning	09 (.02)	<.001	[13,05]	.08 (.03)	.01	[.02, .14]	.26 (.27)	.34	[28, .80]
Everyday moral reasoning	03 (.02)	.13	[08, .01]	.10 (.03)	.003	[.03, .16]	49 (.29)	.10	[-1.07, .09]
Race	16 (.29)	.59	[73, .41]	-1.45 (.43)	.001	[-2.31,60]	-5.95(5.14)	.25	[-10.84, 9.91]
Everyday Legal Reasoning × Race	02(.06)	.78	[14, .10]	.26 (.09)	.005	[.08, .44]	.63 (1.06)	.55	[-2.82, 1.46]
Everyday Moral Reasoning × Race	.03 (.06)	.59	[09, .16]	.01 (.09)	.95	[18, .19]	1.78 (.81)	.03	[.19, 3.38]
Normative status							2.96 (1.03)	.004	[.94, 4.99]
Enforcement status							31 (.72)	.67	[-1.73, 1.12]
Normative Status × Race							3.27 (3.29)	.32	[-3.22, 9.76]
Enforcement Status × Race							.14 (1.55)	.93	[-2.92, 3.20]
Sex	03(04)	.40	[11, .05]	<01 (06)	.99	[12, .12]	41(.52)	.44	[-1.44, .62]
Family wealth	03(.03)	.20	[08, .02]	.06 (.04)	.10	[01.14]	.60 (.32)	.06	[04, 1.25]
Rule-violating behavior at Time 1	.02 (.01)	.003	[.01, .03]	02(.01)	.05	[04, <.01]	.33 (.09)	<.001	[.15, .50]
Model	F(8, 203) = 11.26	6, p < .001	F(8, 203)	= 11.7	73, p < .001	F(12, 19	9) = 5.33	B, p < .001
R^2		.31	-	•	.32	-		.24	-

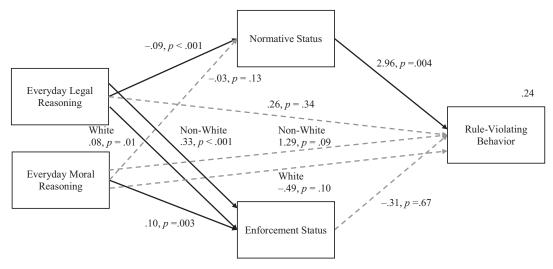
Note. All coefficients are unstandardized. Boldface indicates significant results. SE = standard error; CI = confidence interval.

White middle and upper middle-class samples of youth (Levine & Tapp, 1977; Tapp & Kohlberg, 1971). The theories of legal socialization and associated instruments for measuring components of the legal socialization model that developed from this time might reflect a general lack of diversity. In other words, these models have historically been able to explain legal socialization for White youth but perhaps do a poor job at illuminating legal socialization processes for non-White youth.

For example, youth could have a general understanding of the purpose of the law that conceptually corresponds with higher levels of legal reasoning, but they might also feel that the current system is flawed or fails to encompass that purpose. Furthermore, these youth

may be more reluctant to want to enforce punishment for illicit behavior if they do not trust the legal system or feel the repercussions have the potential to be unjust or unfair. This would result in a disconnect between concepts of legal and moral reasoning and legal attitudes, which in turn might be less able to predict rule-violating behavior. Ultimately, this would result in a breakdown of the cognitive integrative legal socialization framework for these individuals and would fail to explain patterns in rule-violating behavior for them. Because this area of legal socialization rarely focused on racial differences (exceptions include Fine et al., 2017; Woolard et al., 2008) and many researchers did not examine younger adolescents (Cohn et al., 2010, 2012; Cole et al., 2021), these disparities have

Figure 4
Study 2: Moderated Mediation of the Integrated Legal Socialization Model for Late Adolescence/Emerging Adulthood



Note. Control variables and covariances have been omitted from the figure for clarity. All coefficients are unstandardized. Paths represented with more than one line indicate conditional effects for significant path interactions with race. Solid lines indicate significant paths; dashed lines indicate nonsignificant paths.

Table 15

Study 2: Direct, Indirect, and Index of Moderated Mediation Effects in Predicting Rule-Violating Behavior at Time 6 for Late Adolescence/
Emerging Adulthood

		Normati	ve status	Enforcement status				
Conditional effect	Direct effect [95% CI]	Indirect effect [95% CI]	Index of moderated mediation	Indirect effect [95% CI]	Index of moderated mediation			
Everyday legal reason	ning							
White	.26 [28, .80]	26 [56,06]	39 [-1.78, .57]	02 [27, .11]	03 [.95, 1.62]			
Non-White	37 [-2.41, 1.68]	66 [-2.00, .28]		06 [97, 1.58]				
Everyday moral reasoning								
White	49 [-1.07, .09]	10 [32, .04]	.10 [65, .85]	03 [21, .16]	.01 [-84, .30]			
Non-White	1.29 [19, 2.77]	<01 [73, .73]		02 [85, .25]				

Note. The index of moderated mediation is a statistical test that compared the indirect effects between White and non-White participants to determine whether the observed difference was significant using a 95% confidence interval (CI). Boldface indicates significant results.

likely gone unacknowledged, whereas other areas of legal socialization that focus more on direct experiences with the law have consistently found different patterns across racial groups.

Interactions with the legal system may account for some of the differences noted between the White and non-White samples. Indeed, adolescents may have direct or indirect interactions with legal authorities and the legal system (e.g., courts, police), including being questioned by school resource officers or witnessing peers' interactions with legal authorities (Fagan & Tyler, 2005). Both indirect and direct encounters with the legal system shape individuals' beliefs and attitudes toward the legal system (Fagan & Tyler, 2005). Older adolescents and emerging adults have more opportunities to interact with the legal system, and these interactions can lead to more negative attitudes (Brown & Benedict, 2002; Woolard et al., 2008). Given that younger adolescents may have fewer opportunities to interact directly with legal authorities (except for school resource officers), most of their interactions are indirect. Therefore, youth may rely on witnessing interactions between their friends or family members and legal figures (Fagan & Tyler, 2005; Fine et al., 2016) or on witnessing interactions through the media (e.g., movies) and national and local news stories (Wright & Unah, 2017).

Non-White youth may experience or witness more negative interactions than White youth. For instance, non-White individuals, including juveniles, have disproportionally more contact with the legal system and juvenile justice system than Whites and experience greater community monitoring (Nellis & Richardson, 2010; Peck et al., 2014; Puzzanchera, 2009). In addition, racial minorities are more likely to live in disadvantaged and low-income communities where exposure to violence is more common (Peterson & Krivo, 2005; Sampson & Bean, 2006). It is possible that young non-White adolescents rely less on normative status because of exposure to violence and more frequent contact with the legal system. Indeed, Woolard et al. (2008) found that racial differences were more pronounced among youth who have not had any interactions with the police. If young racial minorities rely on these experiences as a basis for why they would or would not engage in rule-violating behavior, it suggests that their own thoughts and feelings influence their motivation, not the rules of society.

Last, some youth, particularly youth of color, may be intentionally socialized about the law and legal authorities by their parents or other adults—a process often known as "the talk" (April et al., 2022; DiAquoi, 2017; Miller & Vittrup, 2020). These conversations can

lead to intergenerational transmission of attitudes (Brunson & Weitzer, 2011; Wolfe et al., 2017), creating a foundation for youth attitudes toward the police and legal system from which to build as they gain their own experiences. This lens might also shape the way personal or vicarious experiences are interpreted and incorporated in legal socialization concepts, which in turn might impact behavior in a legal context.

Practical and Policy Implications

The findings from the present research suggest that techniques to reduce rule-violating behavior may be different for White and non-White adolescents. For instance, school-based programs typically target all adolescents, regardless of age and race, and are often ineffective at reducing delinquent behavior (Taheri & Welsh, 2016). It is no secret that non-White groups have more negative experiences with the law than White groups do (Nellis & Richardson, 2010; Peck et al., 2014; Puzzanchera, 2009). Although many factors contribute to this complex issue, it is important to examine our models and ensure that, when implemented, they do not contribute to this risk. Programs administrators who rely on legal socialization models to inform their interventions may be making a grievous error by overgeneralizing the findings from previous work to all youth uniformly. For example, a program designed to build legal reasoning skills using our current definitions and understanding of legal reasoning development may inadvertently mislabel youth of color as having lower reasoning ability. In reality, the disparity could stem from differences in understanding the role and consequences of the law from lived and/or shared experience, making the intervention lack sensitivity to the underlying reasons for differences in so-called reasoning levels. This labeling and directed intervention might exacerbate existing feelings of inequality, ultimately having an unintended and likely opposite effect.

From a theoretical perspective, we may need to reconceptualize what it means to reason about the law before any meaningful interventions can be implemented to leverage cognitive aspects of legal socialization. Although the underlying concepts about developmental trajectories in reasoning may provide some practical framework, the ways in which we have decided to apply and measure these principles lean heavily on the experience of White youth. For example, youth of color who state that they are unlikely to cooperate in a police investigation or report a crime may be doing

so for other reasons, such as safety concerns, outside of their ability to reason about the law in guiding their behavior. In fact, one could argue that assessing the consequences of the law in such a way suggests higher order cognitive processes indicative of well-developed reasoning. Our current methods for empirically measuring reasoning are unable to detect such nuances, however, and as a result are likely missing important and diverse dimensions in our understanding of legal reasoning.

Once those nuances are better identified, programs need to be tailored with greater sensitivity to better address the needs of non-White youth. These programs need to acknowledge those different understandings of and experiences with the legal system and to account for the additional factors that disproportionately impact non-White communities (e.g., disproportionate legal contact, police brutality) to ensure more equitable outcomes (Nellis & Richardson, 2010; Peck et al., 2014; Puzzanchera, 2009). Most current interventions focus on procedural justice elements, such as improving trust in authority, which may be a better predictor of rule-violating behavior in non-White adolescents. For instance, programs that address attitudes toward the police are more effective among people of color (Schuck, 2013). However, interventions should also attempt to address the cognitive aspects of legal socialization as well, namely the ways in which those experiences may translate to reasoning, attitudes, and behavior as a consequence of differential understanding of the law.

Focusing on why perceptions differ as well as how those perceptions are used could present a more effective and truly integrative approach to reducing delinquency as well as improving police-youth interactions. For example, intervention programs designed to explore current youth perceptions of the law through open and in-depth conversations with law enforcement officers could help improve police-youth interactions. The dialogue could then explore how those perceptions translate into decision-making schemes for engaging in delinquent and ruleviolating behaviors, allowing both youth and law enforcement to establish connections between youth concepts and expectations about the law, their reasoning skills and approach, and the behaviors in which they engage. This could function as a form of officer sensitivity training around differential expectations of treatment for White and Non-White youth at an early age to enhance greater understanding about those expectations, which could lead to more equitable treatment.

Limitations and Future Directions

Although the current article expands the existing literature, there are several limitations of note. First, although the purpose of the present study was to establish differences in the model for non-White compared with White youth, the non-White sample was relatively small compared with the White sample and was also predominantly Hispanic or multiracial. It could be the case that the specific pattern of findings relates to certain youths of color more than others. The NHYS presented a unique opportunity to examine the legal socialization development longitudinally and throughout adolescence. Although the sample was fairly comparable—one sample was slightly more diverse than the other—with the population in the surrounding area from which it was drawn, New Hampshire is not a very diverse state overall compared with some other states. Future research should consider using larger, more

diverse samples to analyze data separately by type of racial/ethnic group to develop specific models of cognitive legal socialization for different racial groups. Further, both samples were recruited from predominantly White metropolitan areas in New England. It is possible that youth of color who are living in more diverse areas or more urban environments may experience the law and socialization toward it differently, affecting their attitudes and perceptions toward the law.

Second, the data presented in this article were collected before the national conversation in 2020 (e.g., around defunding the police), and we do not know whether we would get different results if we collected the data today. In future waves of this longitudinal study, we plan to compare the data before and after 2020 with the same-age adolescents and emerging adults.

Third, although we were able to examine the integrated legal socialization model differently across the span of adolescence, we were not able to use the same cohort in all analyses to observe changes over the course of adolescence within individuals. Future research could examine legal socialization development within subjects over a larger span of time to examine how the model changes in parallel with behavioral changes. Additionally, although we controlled for participant sex, family wealth (as a measure of SES), and previous behavior in our analyses, there might be other important factors or characteristics that we did not control for, including experiences with the law (direct and indirect) as well as parental socialization practices around legal issues (e.g., "the talk"). Particularly, the present study did not examine contact with the legal system—an important element for understanding the impact of legal socialization—and thus, researchers should consider this in future studies. A bridging of these two areas of legal socialization would help to identify a clearer picture of the overall legal socialization process and specifically the interplay between experiences with the law and cognitions about the law in predicting patterns of behavior. Furthermore, there might be important sex/gender-by-race interactions in the integrated legal socialization model. Sex/gender might differentially impact cognitions such as race and could be moderated by race as well.

We did not have a sufficiently large sample to examine this further interaction in our study, but future researchers in this area should consider adding a sex/gender dimension when examining differences in legal socialization. Another future direction would be to incorporate other areas of legal socialization that could account for other factors that might be more impactful for youth of color than traditional cognitive reasoning approaches. For example, emotion plays a role in legal socialization processes (Cole et al., 2021), yet research investigating how this emotional pathway may differ between racial/ethnic groups has yet to be conducted. It might be helpful to determine how much direct and indirect contact White and non-White youth have with the legal system or to investigate the sources contributing to legal reasoning and legal attitudes. Further, researchers should continue to explore racial differences in the ability of models and assessment tools to predict rule-violating and delinquent behavior (Holsinger et al., 2003; Whiteacre, 2006).

Last, although we chose a subjective measure of SES for this study (Eder, 1985), there are more well-established youth-oriented measures, such as the MacArthur Scale of Subjective Social Status. This measure asks about the relative status of a participant's family in the United States as well as the participant's relative status in relation to the other students in their school, using two measures

in which participants rate their subjective SES on a ladder hierarchy. In the future, we plan to use the MacArthur measure (Goodman et al., 2003).

Conclusions

Our studies identified developmental changes in legal socialization as well as different patterns between White and non-White adolescents in the integrated legal socialization model. Given the tension between non-White individuals and legal authorities in the United States, it is important to continue to explore how the process of legal socialization emerges for White and non-White youth (Gandbhir & Foster, 2015).

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