

### UvA-DARE (Digital Academic Repository)

# Age-Graded Differences and Parental Influences on Adolescents' Obligation to Obey the Law

Fine, A.; Thomas, A.; van Rooij, B.; Cauffman, E.

DOI

10.1007/s40865-020-00134-8

Publication date 2020

**Document Version** 

Final published version

Published in

Journal of Developmental and Life-Course Criminology

License

Article 25fa Dutch Copyright Act

Link to publication

Citation for published version (APA):

Fine, A., Thomas, A., van Rooij, B., & Cauffman, E. (2020). Age-Graded Differences and Parental Influences on Adolescents' Obligation to Obey the Law. *Journal of Developmental and Life-Course Criminology*, *6*(1), 25–42. https://doi.org/10.1007/s40865-020-00134-8

General rights

It is not permitted to download or to forward/distribute the text or part of it without the consent of the author(s) and/or copyright holder(s), other than for strictly personal, individual use, unless the work is under an open content license (like Creative Commons).

Disclaimer/Complaints regulations

If you believe that digital publication of certain material infringes any of your rights or (privacy) interests, please let the Library know, stating your reasons. In case of a legitimate complaint, the Library will make the material inaccessible and/or remove it from the website. Please Ask the Library: https://uba.uva.nl/en/contact, or a letter to: Library of the University of Amsterdam, Secretariat, Singel 425, 1012 WP Amsterdam, The Netherlands. You will be contacted as soon as possible.

UvA-DARE is a service provided by the library of the University of Amsterdam (https://dare.uva.nl)

Download date: 10 Mar 2023

#### ORIGINAL ARTICLE



## Age-Graded Differences and Parental Influences on Adolescents' Obligation to Obey the Law

Adam Fine 1 • April Thomas 2 • Benjamin van Rooij 3 • Elizabeth Cauffman 4

Received: 15 April 2019 / Revised: 23 July 2019 / Accepted: 18 January 2020

Published online: 13 February 2020 © Springer Nature Switzerland AG 2020

#### **Abstract**

**Purpose** Legal socialization is the study of how individuals develop their attitudes towards the law and its authorities. While research on perceptions of legal authorities has increased, studies have not adequately examined developmental trends in youths' obligation to obey the law in particular.

**Methods** This study uses a cross-sectional sample of 218 adolescent-parent dyads in two states and utilizes two assessment strategies for the obligation to obey the law. **Results** The results indicate that paralleling the age-crime curve, the obligation to obey the law exhibits a curvilinear trend, declining during adolescence before increasing into adulthood. Second, parental perceptions of the obligation to obey the law were consis-

tently associated with their children's obligation to obey the law throughout adolescence. **Conclusions** Development and intergenerational socialization emerge as vital components in understanding youths' perceived obligation to obey the law.

Keywords Legal socialization · Obligation to obey the law · Parenting · Legitimacy

Adam Fine adfine@asu.edu

April Thomas athomas 5@utep.edu

Benjamin van Rooij b.vanrooij@uva.nl

Elizabeth Cauffman cauffman@uci.edu



School of Criminology and Criminal Justice, Arizona State University, 411 N. Central Ave, Suite 633, Phoenix, AZ 85004, USA

University of Texas, El Paso, TX, USA

University of Amsterdam, Amsterdam, Netherlands

<sup>&</sup>lt;sup>4</sup> University of California, Irvine, CA, USA

#### Introduction

Legal socialization is a normative, socio-cognitive process through which individuals develop their attitudes towards the authorities that create and enforce the law, as well as their attitudes towards the law itself [8, 21, 62, 70]. The modern consensus is that at its core, "The goal of legal socialization is to instill in people a felt obligation or responsibility to follow laws" ([70], pg., 3), particularly considering that this obligation is associated with crime and delinquency. In light of the evidence suggesting that both delinquency [38, 56] and risk-taking [16] peak during adolescence, understanding legal socialization during adolescence is a critical component of public safety and crime desistence.

From a developmental perspective, it is well established that parents influence their children's attitudes across a wide variety of domains [31, 32, 63], including delinquency [9, 42]. Certainly, quite a bit of scholarship has been devoted to understanding perceptions of parental authority [12–14, 36]. Yet, to date, only a handful of studies have directly examined parents as a mechanism of their child's legal socialization (e.g., [5, 63, 74]), and such studies typically focus on perceptions of law enforcement or the justice system with virtually none focusing on the obligation to obey the law. To address this deficit, the present study utilizes data from 218 parent-youth dyads to 1) identify developmental trends in two measures of the obligation to obey the law and 2) examine to what extent parents' obligation to obey the law may be related to their child's obligation to obey the law, and whether such associations may differ throughout adolescence.

#### **Legal Socialization**

Parents shape their children's attitudes and behaviors across a diverse array of domains, including political beliefs [26], race and culture [48, 73], moral values [34, 53], generosity and moral cognition [11], conflict resolution [37], and antisocial behavior [9, 42, 61]. To date, however, only a handful of studies have directly examined parents as a mechanism of their adolescent's *legal* socialization (see [70]). Legal socialization is the process through which individuals develop their understanding of law within society, the institutions that create and enforce the law, and their obligation to obey the law [8, 62]. The few studies on adolescent legal socialization demonstrate that adolescents in the justice system adopt their parents' attitudes towards the police and justice system more generally [5, 35, 74], such that parents who view the justice system as less legitimate generally have youth who also feel that the justice system is less legitimate.

Although studies indicate that parents may play an important role in broader legal socialization, studies continue to focus on perceptions of the justice system's legitimacy rather than other components such as the obligation to obey the law. In fact, theoretically, the obligation to obey the law is the mechanism through which legitimacy actually affects delinquency (see [65, 69, 72]). Indeed, studies suggest that the more people feel obligated to obey the law, the less likely they are to break rules, even when there is limited enforcement [22]. However, considering that studies have not examined how parents may affect adolescents' obligation to



obey the law, we lack a developmental understanding of the obligation to obey the law.

Beginning with Tapp's seminal work [57, 59], the legal socialization literature has long recognized that adolescence is a critical period for the development of perceptions of laws (see [6, 7]). During childhood, individuals exhibit an obedience-based perspective, wherein laws and rules are perceived more as immutable forces that must simply be obeyed. Grounded in classic developmental theories of cognitive development (Piaget 1932/[44]) and moral reasoning [30, 58], the legal socialization literature suggests that as a result of cognitive development that occurs from childhood into adolescence, adolescents become increasingly able to think abstractly [59], to consider and to use others' perspectives to guide decision-making [17], to empathize with others [1], and to engage in abstract and hypothetical thinking (Piaget 1972/[45]). This improving cognitive development permits youth to develop increasingly complex conceptions of rules and laws (see [7, 8]). Because of these developments, adolescents are expected to become more subjective in their view of society's laws and rules [21, 30]. Overall, the simplistic focus on rule obedience that exists during childhood is purported to shift towards complexity during adolescence. Indeed, evidence suggests that adolescence is a critical time for legal socialization (see [3]) and legal reasoning [20].

#### Variation in the Obligation to Obey the Law

Central to the cognitive developmental approach to legal reasoning and legal socialization is identifying the mechanisms that affect why youth might feel obligated to obey the law ([70]). In his seminal work that sought to understand why people obey the law, Tyler made the most significant contributions to developing the concept of the obligation to obey the law (OOL). In his original work, Tyler noted that a successful legal system requires a degree of voluntary compliance, such that individuals obey the law even with little or no threat of punishment [65, 66]. Certainly, people are more inclined to obey laws with which they substantively agree [66], yet there is voluntary compliance even with laws with which people substantively disagree. Indeed, Tyler found that beyond substantive agreement with the law and the threat of punishment, a key determinant of law violation is the extent to which an individual generally feels obligated to obey the law [65, 66]. As such, Tyler found that the OOL is vital for voluntary compliance and crucial in legal socialization as it captures a core element of people's relationship to the legal systems and legal rules: the extent to which they feel a general obligation to obey.

Subsequent work has sought to understand how people develop OOL. The focus has largely been on how people's experiences with the legal system and their perceptions of the system's legitimacy might impact the OOL. The general argument has been that personal and vicarious experiences with justice system actors play an especially important role in shaping perceptions of law and legal actors [18, 19, 46], and such views in turn shape the OOL. As Tyler [67] suggested, those who feel as though they were treated unjustly or who believe the law is enforced unfairly are more likely to develop negative perceptions of the law, feel less obligated to obey the law, and become



more likely to break it [43, 55, 65, 69]. Under this perspective, OOL should largely arise out of procedural justice and the justice system's legitimacy [40, 41, 67, 68, 71].

Indeed, to date, studies of the OOL have predominantly focused on how people view the procedural justice of the legal system and legal authorities. Historically, the field has paid comparably less attention to other factors that might shape people's OOL. In response, a series of recent studies has emerged that examines other determinants of the OOL. For instance, Fine and colleagues [22, 24] found that part of the variation is explained by perceptions of the justice system, yet it is also explained by individual traits and attitudinal characteristics, including dogmatism [64], mechanisms of moral disengagement [39], and moral reasoning [7]. This line of research is beginning to suggest that variation in OOL is not merely related to personal or vicarious experiences with the legal system or views of legitimacy; there are additional moral and socialization elements that contribute to the OOL. However, this emerging body of research has focused exclusively on the OOL during adulthood. The present paper takes a developmental approach to the OOL, focusing on explaining variation in youth OOL as well as identifying potential age-graded developmental trends.

#### **Present Study**

Despite agreement that understanding adolescent legal socialization is a critical component of public safety and delinquency prevention [27], limited research has addressed how adolescents develop their obligation to obey the law ([70]). It is critical, as part of a larger push to better understand legal socialization, to examine how adolescents develop their obligation to obey the law and whether parents might be a key socializing factor. In all, the present study is designed to 1) examine whether two measures of the obligation to obey the law are distinct during adolescence and adulthood, 2) examine the extent to which youth OOL is associated with parental OOL, and 3) identify age-graded developmental trends in the OOL.

From a measurement perspective, we hypothesize that consistent with prior research with adults (e.g., [24]), the key measurements of OOL (rule orientation (RO) and perceived obligation to obey the law (POOL), for details see below) will emerge as distinct yet related constructs, tapping into a higher-order construct of "the obligation to obey the law." Further, from a developmental perspective, we hypothesize that youths' obligation to obey the law will be strongly associated with their parents' obligation to obey the law. Considering that the effect of intergenerational attitude transmission in other constructs appears to be strong and consistent across adolescence (see [15]), we expect the association between parent and youth obligation to obey the law to be consistent across adolescence. However, considering that the ability to think abstractly improves during adolescence [59] and such growth theoretically enables youth to develop increasingly complex conceptions of rules and laws that shift from more blind obedience to an increasingly nuanced perspective (see [7, 8]), we expect that the obligation to obey the law will decline as youth age into later adolescence. Compared with younger youth, older youth will be less rule oriented. However, consistent with the inverted-U pattern observed in risk taking (see [16]), we expect the obligation to obey the law to improve into adulthood. That is, whereas previous research suggests that risk



taking exhibits an inverted-U shape, we expect the obligation to obey the law to exhibit the opposite, U-shaped pattern.

#### Method

#### **Participants**

The sample included 218 adolescent-parent dyads (N=436) in southern CA and TX. Each dyad consisted of one parent and one youth. Approximately 53.88% of the sample was from CA, and 46.12% was from TX. Youth were on average 14.95 years old (SD = 1.40, range = 13, 17), and parents were on average 46.10 years old (SD = 7.77, range = 21–75). Parents were predominantly female (73.73%), and the majority of both female youth (80.67%) and male youth (63.51%) had a female parent participate in the study.

#### **Procedure**

Youth and parent dyads were recruited from the community in southern CA and western TX. Participants were recruited via flyer distribution at community locations such as businesses, parks, restaurants, and public events. To be eligible, both the youth and their parent had to reside in the state, to have lived there for three or more years, and to be fluent in English (or Spanish, as the TX sample allowed both languages). The parent's participation was contingent on youth's participation in the study, and vice versa. Youth and parents participated separately. Youth participants were additionally required to be between the ages of 13 and 17 years at the time of the study. Each participant received a \$10 gift card. Study procedures were independently approved by the Institutional Review Boards at the University of California, Irvine and the University of Texas, El Paso.

#### Measures

#### **Demographic Covariates**

Youth and their parents self-reported general demographic information, including age and race/ethnicity. Youth in the CA site were predominantly White, whereas youth in the TX site were predominantly Latinx (Table 1). Parents also reported the highest level of education that they had received, which was used as a proxy for socioeconomic status [25].

#### Obligation to Obey the Law

This study used two self-reported measures that assess the extent to which individuals believe it is acceptable to violate the law. The first measure is Tyler's original measure for the OOL, the POOL [65]. POOL used three kinds of questions (Table 3): (1) the perceived duty to comply regardless of moral alignment with the law, (2) whether there are justifications for non-compliance on a more general basis, and (3) the general



Table 1 Descriptive statistics

	Youth		Parents		
	CA	TX	CA	TX	
Age (M (SD))	15.54 (1.32)	14.27 (1.15)	47.02 (6.54)	45.05 (8.88)	
Race/ethnicity (%)					
White	47.86	24.00	43.48	15.84	
Hispanic/Latinx	18.80	71.00	19.13	82.18	
Asian	24.79	1.00	26.96	0.99	
Other	8.55	4.00	10.43	0.99	
Education (%)					
Less than high school			3.54	10.89	
High school (or equiv.) diploma			9.73	15.84	
Some college			15.93	22.77	
College diploma			70.80	50.50	
Rule orientation (M (SD))	4.36 (1.00)	4.35 (.74)	4.72 (1.11)	4.68 (.99)	
	$\alpha$ = .830		$\alpha$ = .877		
Perceived obligation to obey the law (M (SD))	2.85 (.67)	2.78 (.53)	2.92 (.64)	2.85 (.75)	
	$\alpha$ = .697		$\alpha$ = .763		

importance of obedience to authority. This original measure has been used in a variety of studies [47, 65, 69, 71] with alphas of 0.47, 0.79, 0.57, and 0.66, respectively. Consistent with prior work, respondents rated their agreement with each item on a four-point scale from *strongly disagree* to *strongly agree* (Tables 1 and 3).

The second measure was the RO scale. RO sought to improve the original POOL scale by focusing on the first two aspects of Tyler's original scale that constitute the core of the OOL: one's sense of duty to obey the law regardless of circumstances. The RO scale systematically operationalizes 12 circumstances in which people may find it acceptable to break the law (see Table 3), including when laws are against one's morals, when laws are unknown, when most people break them, and when laws are not enforced (for details, see [24]). Answer choices were given on a seven-point scale, ranging from *strongly disagree* to *strongly agree* (see Table 1). Items were reverse-scored such that higher scores would indicate more rule orientation. The less people find it acceptable to break the law under these conditions, the higher their rule orientation, and thus the more they feel obligated to obey the law. Previous research has established that the two measures are related [22, 24].

#### **Plan of Analysis**

Considering that the measures are relatively new and we expected conceptual overlap, the first set of analyses focused on exploratory and confirmatory factor analyses to examine properties of the RO and POOL measures. Considering we expected that parental perceptions would be associated with their youths' perceptions, we conducted exploratory factor analyses using the parent sample and confirmatory factor analyses



using the youth sample. Once it was established that they were distinct yet related constructs within both samples, the next set of analyses compared youth and parents on both RO and POOL. The third set of analyses focused on examining what predicts variation in youth RO and POOL. There were no site differences in either youth (difference = 0.01, t(215) = 0.09, p = .926) or parent (difference = 0.05, t(215) = 0.32,p = .749) RO, or in youth (difference = -0.13, t(213) = -1.59, p = .114) or parent (difference = 0.08, t(211) = 0.83, p = .411) POOL. We then conducted a series of ordinary least squares (OLS) regressions, regressing youth RO on parent RO accounting for a series of covariates: youth age, youth sex (female = 0, male = 1), race (non-White = 0, White = 1), and parental education (as a proxy for SES; 1 = no high schooldiploma; 2 = high school diploma or equivalent; 3 = some college; 4 = college diploma or higher). We conducted Breusch-Pagan/Cook-Weisberg tests to examine the residuals for each base regression model. Considering that there was heteroscedasticity in residuals in the RO regression, we re-analyzed the RO models using the Huber/ White/sandwich estimator to adjust the standard errors. For both RO and POOL, we tested quadratic and cubic terms for age to examine nonlinear trends. Finally, we tested whether the association between parent RO and youth RO varied based on youth age, as well as whether the association between parent POOL and youth POOL varied based on youth age.

The final series of regression analyses examined whether RO and POOL change developmentally with age. Because the sample consisted of parents and youth, there were no observations in the 18-21 year-old range and sample sizes were small at any individual age above 21. To increase power and data coverage, we took a comprehensive approach of collapsing the data five different ways: 1 (age 13 = coded 0; 14 = 1; 15 = 2; 16/17 = 3; 21/39 = 4; 40/55 = 5; 56/17 = 3; 1699 = 6), 2 (13 = 0; 14 = 1; 15 = 2; 16/17 = 3; 21/39 = 4; 40/49 = 5; 50/59 = 6; 60/6099 = 7), 3(13/14 = 0; 15/16 = 1; 17 = 3; 21/39 = 4; 40/55 = 5; 56/99 = 6), <math>4(13 = 1)0; 14 = 1; 15 = 2; 16/17 = 3; 21/39 = 4; 40/99 = 5), 5 (13 = 0; 14 = 1; 15 = 2; 16/17 = 4; 16/1717 = 3; 21/39 = 4; 40/49 = 5; 50/99 = 6), and 6 (13 = 0; 14 = 1; 15 = 2; 16 = 3;17 = 4; 21/39 = 5; 40/49 = 6; 50/99 = 7). The results were the same regardless of the way the data were collapsed. The sixth coding option (Table 2) was selected to present in the manuscript because it provided the best coverage across age ranges (e.g., 30 + participants in each age bracket). We examined linear, quadratic, and cubic terms for age to identify the form of the functional association between age and both RO and POOL.

Table 2 Sample sizes by age

Age	N	Percent
13	46	10.60
14	41	9.45
15	47	10.83
16	46	10.60
17	38	8.76
21–39	38	8.76
40-49	114	26.27
50+	64	14.75



#### Results

#### **Factor Analyses**

We factor analyzed the RO and POOL items simultaneously in the parent sample. The sample size approximated the rule-of-thumb ratio of 10 observations to 1 variable [10, 75]. The Kaiser-Meyer-Olkin measure of sampling adequacy (KMO; [29]) value (.83) confirmed that the sample size of parents was appropriate for the factor analysis. The results of the exploratory factor analysis using the parent data indicated that there were two eigenvalues larger than the 1.0 threshold. The first eigenvalue was very large (5.019), indicating that the first factor accounted for 50.19% of the variance. It was comprised of the 12 rule orientation items. All 12 items loaded strongly onto the first factor (Table 3). The second eigenvalue was 1.75, indicating that the second factor accounted for 17.52% of the variance. This second factor was comprised of 5 of the 6 POOL items, and all 5 loaded well onto the factor (Table 3). One item (POOL item 3) did not load onto either factor, thus it was dropped from further analyses. As such, the parent data indicated that rule orientation and the perceived obligation to obey the law load onto two factors.

The next set of analyses consisted of a confirmatory factory analysis using the youth data. The model fit the data well (RMSEA = 0.059, 95% CI = 0.045, 0.072; CFI = 0.91, TLI = 0.89, CD = 0.94). The covariance between the latent factor variables for RO and POOL was 0.41(SE = 0.08), p < .001. Consistent with prior research that finds that the correlation between RO and POOL is r = .33 (p < .001) with an adult sample [24]; in this study, RO and POOL were correlated at r = .31 (p < .001) among adults and r = .30 (p < .001) among youth. Cumulatively, these results indicate that RO and POOL load onto separate but related factors. As such, as a comprehensive approach, we conducted parallel analyses using each measure separately.

#### **Comparing Parents and Youth**

The next series of analyses compared youth and their parents on RO and POOL. Parents reported significantly higher RO than youth (t(214) = 4.22, p < .001;  $\Delta = 0.35$ ; bootstrapped 1000 replications  $\Delta = 0.35$ , SE = 0.09, 95% CI = 0.18, 0.53; Cohen's d = 0.35, 95% CI = 0.16, 0.54). As expected, parent and youth RO were positively correlated (r = .23, p < .001). Parents also reported significantly higher POOL than youth (t(211) = 2.96, p = .004;  $\Delta = 0.16$ ; bootstrapped 1000 replications  $\Delta = 0.35$ , SE = 0.09, 95% CI = 0.17, 0.53; Cohen's d = 0.27, 95% CI = 0.08, 0.46). As expected, parent and youth POOL were positively correlated (r = .24, p < .001).

#### **Predictors of Adolescent Rule Orientation**

A series of OLS regressions were conducted to examine which predictors explained variation in RO and POOL (Table 4). The results of a Breusch-Pagan/Cook-Weisberg test for heteroscedasticity indicated that there was heteroscedasticity in residuals in the RO regression ( $\chi^2(1) = 8.40$ , p = .004). Because that violates the assumptions of OLS regression, we reanalyzed the data using the Huber/White/sandwich estimator to adjust the standard errors. The results of the model indicated that youth race and sex were not



Table 3 Exploratory factory analysis

	Exploratory factor	Exploratory factor analysis using parent data	Confirmatory facto	Confirmatory factor analysis using youth data
	Factor 1 (RO)	Factor 2 (POOL)	Factor 1 (RO)	Factor 2 (POOL)
RO <sup>A</sup> items				
The legal rule is clearly against your moral principles.	0.536		0.532 (.06)***	
This legal rule makes unreasonable demands of you.	0.512		0.620 (.05)***	
You feel that this legal rule was made without representing your interests.	099.0		0.511 (.06)***	
You think this legal rule is enforced unfairly.	0.523		0.453 (.06)***	
You are in one way or another unable to do what this legal rule asks of you.	0.528		0.333 (.07)***	
You do not know this legal rule.	0.618		0.688 (.05)***	
You do not understand this legal rule.	0.568		0.353 (.07)***	
This legal rule has not been published.	0.591		0.529 (.06)***	
Obeying this legal rule is very expensive for you.	0.643		0.417 (.07)***	
Most of your direct colleagues and/or friends also break this legal rule.	0.545		0.587 (.05)***	
Most of your direct colleagues and/or friends think breaking the legal rule is justified.	0.659		0.572 (.06)***	
This legal rule is not enforced	0.722		0.612 (.05)***	
POOL <sup>B</sup> items				
People should obey the law even if it goes against what they think is right.		0.487		0.515 (.07)***
I always try to follow the law even if I think that it is wrong.		0.531		00.535 (.07)***
Disobeying the law is seldom justified. <sup>C</sup>				
It is difficult to break the law and keep one's self-respect.		0.501		0.578 (.06)***
A person who refuses to obey the law is a menace to society.		0.416		0.492 (.07)***
Obedience and respect for authority are the most important virtues children should learn.		0.489		0.686 (.06)***

<sup>\*\*\*</sup>p < .001

A Rule orientation

<sup>&</sup>lt;sup>B</sup> Perceived obligation to obey the law

<sup>&</sup>lt;sup>C</sup> This item did not load onto either factor

Table 4 Youth rule orientation ordinary least squares regression results

	Rule orientation				Perceived obligation to obey the law					
	b	SE	p	95% C	[	b	SE	p	95% C	[
White <sup>A</sup>	-0.14	0.13	.284	-0.40	0.12	-0.01	0.09	.910	-0.18	0.16
Youth age	-0.09*	0.04	.040	-0.17	-0.01	-0.06	0.03	.052	-0.12	0.00
Parent education <sup>B</sup>										
Less than HS	-0.66**	0.23	.005	-1.12	-0.021	-0.02	0.18	.894	-0.38	0.33
High School	-0.14	0.21	.511	-0.54	0.27	-0.05	0.15	.738	-0.35	0.25
College	-0.36*	0.17	.043	-0.70	-0.01	-0.11	0.11	.314	-0.32	0.10
Male <sup>C</sup>	-0.17	0.12	.176	-0.40	0.07	0.06	0.08	.483	-0.11	0.22
Parent rule orientation	0.21**	0.07	.002	0.08	0.34	0.22***	0.06	< .001	0.10	0.34

A Youth race comparison group is non-White

associated with youth RO. While parental education was associated with RO (F (3, 204) = 3.43, p = .018), the post hoc comparisons did not yield systematic differences. Additionally, there was no linear trend in the association between parental education and youth RO, thus we caution against over-interpreting the omnibus statistical significance. However, as expected, parental RO was positively associated with youth RO. Further, youth age was negatively associated with RO; older youth reported less rule orientation. The association between youth age and rule orientation was linear but not quadratic (b < -0.01, SE = 0.04, p = .782) or cubic (b = 0.04, SE = 0.04, p = .299). Finally, we tested whether the association between parental RO and youth RO varied based on youth age. The interaction was not significant (b = 0.04, SE = 0.04, p = .316), indicating that parental RO consistently statistically predicted youth RO throughout this developmental period. As a post hoc analysis, we examined whether parent sex or same-sex parent/youth pairs might impact the association between parent RO and youth RO. However, neither parent sex (p = .602) nor same-sex pairing (p = .327) emerged as moderators.

The model was repeated using POOL as the dependent variable. The results of a Breusch-Pagan/Cook-Weisberg test for heteroscedasticity indicated that heteroscedasticity in residuals was not an issue with POOL ( $\chi^2(1) = 0.62$ , p = .430), thus we did not adjust the standard errors. The results indicated that parental education was not associated with POOL (F(3, 203) = 0.39, p = .761). Similar to RO, neither youth race nor sex were associated with POOL. Further, both parental POOL and youth age (though p = .052) were associated with youth POOL (Table 4). The association between youth age and POOL appeared to be linear but not quadratic (b = -0.03, SE = 0.03, p = .325) or cubic (b < 0.01, SE = 0.03, p = .795). Finally, we tested whether the association between parental POOL and youth POOL varied based on youth age.



<sup>&</sup>lt;sup>B</sup> Comparison group is some college (but no diploma)

<sup>&</sup>lt;sup>C</sup> Comparison group is female

<sup>\*</sup>p < .05

<sup>\*\*</sup>p < .01

<sup>\*\*\*</sup>p < .001

Consistent with RO, the interaction was not significant (b = 0.07, SE = 0.05, p = .146), indicating that parental POOL consistently predicted youth POOL throughout this developmental period. As a post hoc analysis, we examined whether parent sex or same-sex parent/youth pairs might impact the association between parent POOL and youth POOL. However, neither parent sex (p = .700) nor same-sex pairing (p = .836) emerged as moderators.

#### Developmental Trends in the Obligation to Obey the Law

The next series of analyses pooled youth and parent data to examine whether RO or POOL may vary by age. The results of regression models indicated that age was associated with rule orientation in a quadratic fashion (Table 5). Specifically, RO appeared to decline during adolescence before increasing into adulthood (Fig. 1). Similarly, age was associated with POOL in a quadratic fashion and followed the same trend (Table 5): POOL appeared to decline during adolescence before increasing into adulthood (Fig. 2).

#### Discussion

The original developmental roots of the legal socialization field highlighted the importance of understanding how youth develop their perceptions of the law ([57, 58]). Because of developmental changes, adolescents are expected to become more subjective in their view of society's laws than are children [21, 30]. Despite its recent resurgence, the legal socialization literature primarily focuses on perceptions of law enforcement and the justice system (see [70]). For instance, a recent cross-sectional study of youth and adults in Canada found a U-shaped curve in perceptions of law enforcement [33]. Fagan and Tyler [19] also found that perceptions of police legitimacy decline during childhood to adolescence before stabilizing (see also [49, 52]). However, as compared with the amount of empirical attention paid to perceptions of law enforcement and the justice system, comparatively fewer studies focus on the development of the obligation to obey the law. Accordingly, the primary focus of this study was to begin filling this empirical void through identifying developmental trends in the obligation to obey the law, including examining parents as a potential socializing agent.

**Table 5** Linear and quadratic associations between age and both rule orientation and the perceived obligation to obey the law

	Rule orientation	on		Perceived obligation to obey the law					
	b (SE)	b (SE)	b (SE)	b (SE)	b (SE)	b (SE)			
Age Age <sup>2</sup> Age <sup>3</sup>	.06 (0.02)**	-0.15 (.08) 0.03 (.01)**	<-0.01 (.17) -0.03 (.06) <0.01 (<0.01)	0.03 (0.01)*	- 0.09 (0.06) 0.02 (< 0.01)*	-0.11 (0.12) 0.02 (0.04) <-0.01 (0.01)			

<sup>\*</sup>p < .05



<sup>\*\*</sup>p < .01

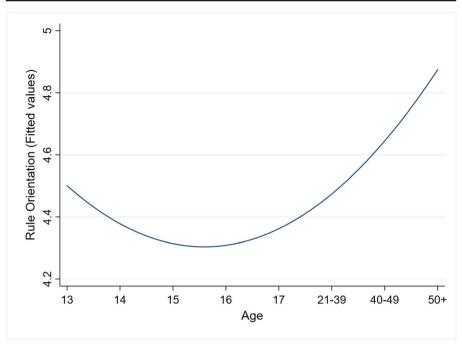


Fig. 1 Association between age and rule orientation

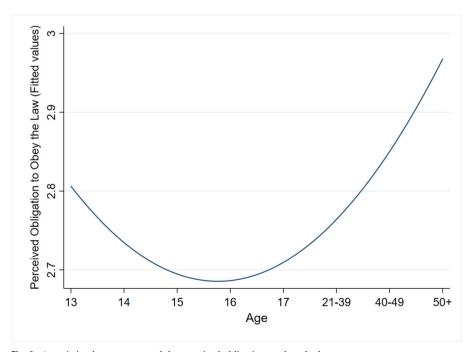


Fig. 2 Association between age and the perceived obligation to obey the law



On a measurement level, the results of this study indicated that rule orientation and the perceived obligation to obey the law scales are distinct yet related constructs and the factor structures are largely consistent among both youth and their parents. As such, we perceive them to be related measures of the obligation to obey the law. More interestingly, this study also demonstrated that there may be developmental trends in youths' obligation to obey the law. Although the study used a crosssectional sample, the results indicated that through adolescence, older youth report less obligation to obey the law than do younger youth. This finding appears to resonate well with the classic literature that posited that from childhood through adolescence, youth grow out of perceiving laws and rules as immutable and omnipresent forces that simply must be obeyed (see [57, 58]). However, in line with modern developmental science on the inverted-U pattern of risk taking (see [16]), the obligation to obey the law increases into adulthood. This U-shaped curve suggests that there may a developmental component to the obligation to obey the law which may coincide with the inverted-U patterns observed in risk taking (see [16]) and delinquency (see [4, 50]).

This study also examined various factors that may explain the obligation to obey the law. The results indicated that neither race nor parental education was consistently associated with youths' obligation to obey the law. Instead, parental perceptions emerged as the most consistent predictor of youths' obligation to obey the law. These findings resonate with the rich developmental literature demonstrating that parents shape youths' attitudes and behaviors across domains [31, 32], including moral values [34, 53], antisocial behavior [9, 42, 61], and legal socialization [63, 70]. Further, consistent with meta-analytic evidence that intergenerational attitude transmission is consistent across this period of adolescence [15], the results also indicated that the association between parental perceptions and youth perceptions were consistent across this developmental period. Altogether, these findings suggest that intergenerational socialization emerges as a vital component in understanding why youth do—or do not—feel obligated to obey the law even when they are reaching the peak of the risk taking (see [16]) and age-crime curves (see [4, 50]).

This study is not without its limitations. First, a substantial proportion of the parents in the sample were highly educated. Future work should use more diverse samples. Relatedly, we only assessed parental education for the responding parent, which we used as a proxy for SES. A more robust approach would be to assess for both parents (if both are present), as well as different dimensions of SES, such as household income and parental occupation(s) ([2], p. 11). Unfortunately, the present data preclude us from doing so. Further, it is plausible that the association between parent and youth perceptions may be more pronounced based on parenting style or aspects of the relationship, particularly considering relationship characteristics such as hostility appear to be associated with youth delinquency (see [51, 60]). Future studies should examine relationship characteristics. A promising direction for future research would also be to examine other vicarious sources. For instance, the literature suggests that youths' perceptions of law enforcement and the justice system are socialized indirectly through the experiences of peers, friends, and neighbors (see [18, 23, 70]). It may also be the case that these other developmental contexts might also affect their perceived obligation to obey the law. Similarly, in light of evidence that personal and vicarious experiences with the police or justice system impact individuals' perceptions of police



and the justice system, it is plausible that they also impact youths' perceived obligation to obey the law. Future research should comprehensively assess these personal and vicarious interactions. Finally, the study was cross-sectional in design. As a result, we could not fully establish developmental changes in the obligation to obey the law within person, and a clear limitation is that differences across ages could be subject to cohort effects. A true test of developmental changes would necessitate longitudinal data. Future research should be conducted longitudinally to account for within-person serial correlation.

Despite these limitations, the present study makes a significant contribution to the developmental literature on adolescent legal socialization. Earlier studies found that the more people feel rule oriented and more obligated to obey the law, the less likely they are to break rules, even when there is limited enforcement [22]. Although the development of youths' attitudes towards law is a critical component of public safety and delinquency prevention (see also [24, 57, 58]), limited research has addressed developmental trends in adolescent legal socialization, particularly pertaining to their obligation to obey the law. Resonating with hypotheses from the classic legal socialization literature and morality literature [28], the results indicate that older adolescents do report less obligation to obey the law than do younger adolescents. In light of the evidence suggesting that both delinquency [38, 56] and risk-taking (Duell et al. 2018) exhibit the inverse trend during adolescence, it is possible that developmental changes in the perceived obligation to obey the law may underlie crime involvement or desistance. However, more longitudinal, within-person data are needed to test this potential mechanism. The present study also fills an empirical void by testing the association between parent and youth obligation to obey the law. If the association was low, the findings would indicate that adolescents' obligation to obey the law derives primarily from experiences external to parents. In this case, the finding would eliminate a promising source (parents) and point future research towards identifying the internal mechanisms or other external, socializing influences that contribute to youths' obligation to obey the law. However, parents emerged as a consistent predictor of youths' obligation to obey the law. Although additional influences, such as peers, may increase in salience during adolescence, parents remain an important influence in the lives of their adolescent children—particularly on matters more long-term in nature [54], such as the obligation to obey the law. This study suggests that at least in part, adolescents likely derive their relationship with the law from their parents, and as such, interventions that seek to improve adolescents' perceived obligation to obey the law should likely begin with their parents.

**Funding Information** This research was generously supported by the UC Irvine Dean's Dissertation Data Collection Grant, the American Psychological Foundation (APF) Annette Urso Rickel Foundation Dissertation Award for Public Policy, and the American Psychology-Law Society (APLS) Grants-in-Aid Award.

#### References

- Allemand, M., Steiger, A. E., & Fend, H. A. (2014). Empathy development in adolescence predicts social competencies in adulthood. *Journal of Personality*, 83(2), 229–241. https://doi.org/10.1111/jopy.12098.
- American Psychological Association. (2007). Report of the APA task force on socioeconomic status. Washington, DC: Author.



- Augustyn, M. B. (2016). Updating perceptions of (in) justice. Journal of Research in Crime and Delinquency, 53(2), 255–286. https://doi.org/10.1177/0022427815616991.
- Brame, R., & Piquero, A. R. (2003). Selective attrition and the age-crime relationship. *Journal of Quantitative Criminology*, 19(2), 107–127. https://doi.org/10.1023/A:1023009919637.
- Cavanagh, C., & Cauffman, E. (2015). Viewing law and order: mothers' and sons' justice system attitudes and illegal behavior. *Psychology, Public Policy, and Law, 21*, 432–441. https://doi. org/10.1037/law0000054.
- Cohn, E. S., & White, S. O. (1990). Legal socialization: A study of norms and rules. New York: Springer-Verlag. https://doi.org/10.1007/978-1-4612-3378-7.
- Cohn, E. S., Bucolo, D., Rebellon, C. J., & Van Gundy, K. (2010). An integrated model of legal and moral reasoning and rule-violating behavior: the role of legal attitudes. *Law and Human Behavior*; 34(4), 295–309.
- 8. Cohn, E. S., Trinkner, R. J., Rebellon, C. J., Van Gundy, K. T., & Cole, L. M. (2012). Legal attitudes and legitimacy: extending the integrated legal socialization model. *Victims & Offenders*, 7(4), 385–406.
- Copeland-Linder, N., Jones, V. C., Haynie, D. L., Simons-Morton, B. G., Wright, J. L., & Cheng, T. L. (2007). Factors associated with retaliatory attitudes among African American adolescents who have been assaulted. *Journal of Pediatric Psychology*, 32, 760–770. https://doi.org/10.1093/jpepsy/jsm007.
- Costello, A. B., & Osborne, J. W. (2005). Best practices in exploratory factor analysis: Four recommendations for getting the most from your analysis. *Practical Assessment, Research & Evaluation*, 10(7), 1–9.
- Cowell, J. M., Lee, K., Malcolm-Smith, S., Selcuk, B., Zhou, X., & Decety, J. (2017). The development of generosity and moral cognition across five cultures. *Developmental Science*, 20(4), 1–12. https://doi. org/10.1111/desc.12403.
- Darling, N., & Steinberg, L. (1993). Parenting style as context: an integrative model. *Psychological Bulletin*, 113(3), 487–496. https://doi.org/10.1037/0033-2909.113.3.487.
- Darling, C., Cumsille, P., & Peña-Alampay, L. (2005). Rules, obligation to obey, and obedience in three cultures: age-related differences and the development of autonomy. New Directions for Child Development, 108, 47–60. https://doi.org/10.1002/cd.127.
- Darling, N., Cumsille, P., & Martínez, M. (2007). Adolescents' as active agents in the socialization process: legitimacy of parental authority and obligation to obey as predictors of obedience. *Journal of Adolescence*, 30(2), 297–311. https://doi.org/10.1016/j.adolescence.2006.03.003.
- Degner, J., & Dalege, J. (2013). The apple does not fall far from the tree, or does it? A meta-analysis of parent-child similarity in intergroup attitudes. *Psychological Bulletin*, 139, 1270–1304. https://doi. org/10.1037/a0031436.
- Duell, N., Steinberg, L., Icenogle, G., Chein, J., Chaudhary, N., Di Giunta, L., et al. (2017, 2018). Age
  patterns in risk taking across the world. *Journal of Youth and Adolescence*, 1–21. https://doi.org/10.1007/s10964-017-0752-y.
- Dumontheil, I., Apperly, I. A., & Blakemore, S.-J. (2010). Online usage of theory of mind continues to develop in late adolescence. *Developmental Science*, 13(2), 331–338. https://doi.org/10.1111/j.1467-7687.2009.00888.x.
- Fagan, J., & Piquero, A. R. (2007). Rational choice and developmental influence on recidivism among adolescent felony offenders. *Journal of Empirical Legal Studies*, 4, 715–747. https://doi.org/10.1111 /j.1740-1461.2007.00105.x.
- 19. Fagan, J., & Tyler, T. R. (2005). Legal socialization of children and adolescents. *Social Justice Research*, 18, 217–241. https://doi.org/10.1007/s11211-005-6823-3.
- Finckenauer, J. O. (1995). Russian youth: Law, deviance, and the pursuit of freedom. New Brunswick: Transaction Publishers.
- Finckenauer, J. O. (1998). Legal socialization: concepts and practices. *Trends in Organized Crime*, 4(2), 30–40. https://doi.org/10.1007/BF02900336.
- 22. Fine, A., & van Rooij. (2017). For whom does deterrence affect behavior? Identifying key individual differences. Law and Human Behavior, 41(4), 354–360. https://doi.org/10.1037/lbb0000246.
- 23. Fine, A., Cavanagh, C., Donley, S., Steinberg, L., Frick, P., & Cauffman, E. (2016a). The role of peer arrests on the development of youths' attitudes towards the justice system. *Law and Human Behavior*, 40(2), 211–218. https://doi.org/10.1037/lhb0000167.
- Fine, A., van Rooij, B., Feldman, Y., Shalvi, S., Sheper, E., Leib, M., & Cauffman, E. (2016b). Rule orientation and behavior: development and validation of a scale measuring individual acceptance of rule violation. *Psychology, Public Policy, and Law, 22*(3), 314–329. https://doi.org/10.1037/law0000096.
- Galobardes, B., Lynch, J., & Smith, G. D. (2007). Measuring socioeconomic position in health research. British medical bulletin, 81(1), 21.



- Gidengil, E., Wass, H., & Valaste, M. (2016). Political socialization and voting: the parent–child link in turnout. *Political Research Quarterly*, 69(2), 373–383.
- Grant, H. (2004). Fostering a culture of lawfulness: examining the relationship between perceptions of law enforcement legitimacy, legal reasoning, and behavior. *Dissertation Abstracts International* Section A: Humanities and Social Sciences, 64(12-A), 4636 Retrieved from: https://psycnet.apa. org/record/2004-99011-038.
- Jambon, M., & Smetana, J. G. (2014). Moral complexity in middle childhood: children's evaluations of necessary harm. *Developmental Psychology*, 50(1), 22–33. https://doi.org/10.1037/a0032992.
- 29. Kaiser, H. F. (1974). An index of factor simplicity. Psychometrika, 39, 31-36.
- 30. Kohlberg, L. (1963). The development of children's orientations toward a moral order. *Human Development*, 6(1–2), 11–33.
- 31. Maccoby, E. (1992). The role of parents in the socialization of children: an historical overview. Developmental Psychology, 28, 1006–1017. https://doi.org/10.1037/0012-1649.28.6.1006.
- 32. Maccoby, E. E., & Martin, J. A. (1983). Socialization in the context of the family: parent-child interaction. In P. H. Mussen (Ed.), *Handbook of child psychology, 4* (pp. 1–101). New York: Wiley.
- 33. Madon, N. S. (2018). Re-examining the relationship between age and confidence in the police in Canada. *Canadian Journal of Criminology and Criminal Justice*, 60(1), 122–135. https://doi.org/10.3138/cjccj.2017.0004.
- Malti, T., & Buchmann, M. (2010). Socialization and individual antecedents of adolescents' and young adults' moral motivation. *Journal of Youth and Adolescence*, 39(2), 138–149. https://doi.org/10.1007/s10964-009-9400-5.
- 35. McLean, K., Wolfe, S. E., & Pratt, T. C. (2019). Legitimacy and the life course: an age-graded examination of changes in legitimacy attitudes over time. *Journal of Research in Crime and Delinquency*, 56(1), 42–83. https://doi.org/10.1177/0022427818793934.
- Milnitsky-Sapiro, C., Turiel, E., & Nucci, L. (2006). Brazilian adolescents' conceptions of autonomy and parental authority. Cognitive Development, 21(3), 317–331. https://doi.org/10.1016/j. cogdev.2006.01.001.
- 37. Missotten, L. C., Luyckx, K., Branje, S., & Van Petegem, S. (2018). Adolescents' conflict management styles with mothers: longitudinal associations with parenting and reactance. *Journal of Youth and Adolescence*, 47(2), 260–274. https://doi.org/10.1007/s10964-017-0634-3.
- Moffitt, T. E. (1993). Adolescence-limited and life-course persistent antisocial behavior. *Psychological Review*, 100, 674

  –701. https://doi.org/10.1037/0033-295X.100.4.674.
- Moore, C., Detert, J., Klebe Treviño, L., Baker, V., & Mayer, D. (2012). Why employees do bad things: moral disengagement and unethical organizational behavior. *Personnel Psychology*, 65, 1–48. https://doi. org/10.1111/j.1744-6570.2011.01237.x.
- Moule Jr, R. K., Burruss, G. W., Parry, M. M., & Fox, B. (2019). Assessing the direct and indirect effects of legitimacy on public empowerment of police: A study of public support for police militarization in America. *Law & Society Review*, 53(1), 77–107
- 41. Nagin, D. S., & Telep, C. W. (2017). Procedural justice and legal compliance. *Annual Review of Law and Social Science*, 13, 5–28.
- 42. Orpinas, P., Murray, N., & Kelder, S. (1999). Parental influences on students' aggressive behaviors and weapon carrying. *Health Education and Behavior*, 26, 774–787. https://doi.org/10.1177/109019819902600603.
- 43. Peffley, M., & Hurwitz, J. (2010). Justice in America: the separate realities of blacks and whites. Cambridge University Press.
- Piaget, J. (1965). The moral judgment of the child. Harmondsworth: Penguin Books (Original work published 1932).
- Piaget, J. (2008). Intellectual evolution from adolescence to adulthood. *Human Development*, 51(1), 40–47. Original work published in 1972. https://doi.org/10.1159/000112531.
- Piquero, A. R., Fagan, J., Mulvey, E. P., Steinberg, L., & Odgers, C. (2005). Developmental trajectories of legal socialization among serious adolescent offenders. *The Journal of Criminal Law & Criminology*, 96, 267–298 Retrieved from http://www.jstor.org/stable/30038030.
- 47. Reisig, M. D., Bratton, J., & Gertz, M. G. (2007). The construct validity and refinement of process-based policing measures. *Criminal Justice and Behavior*, 34(8), 1005–1028.
- Saleem, F. T., English, D., Busby, D. R., Lambert, S. F., Harrison, A., Stock, M. L., & Gibbons, F. X. (2016). The impact of African American parents' racial discrimination experiences and perceived neighborhood cohesion on their racial socialization practices. *Journal of Youth and Adolescence*, 45(7), 1338–1349. https://doi.org/10.1007/s10964-016-0499-x.



- Schuck, A. M. (2013). A life-course perspective on adolescents' attitudes to police: DARE, delinquency, and residential segregation. *Journal of Research in Crime and Delinquency*, 50, 579–607.
- Shulman, E. P., Steinberg, L. D., & Piquero, A. R. (2013). The age-crime curve in adolescence and early adulthood is not due to age differences in economic status. *Journal of Youth and Adolescence*, 42(6), 848–860. https://doi.org/10.1007/s10964-013-9950-4.
- Simmons, C., Steinberg, L., Frick, P. J., & Cauffman, E. (2018). The differential influence of absent and harsh fathers on juvenile delinquency. *Journal of Adolescence*, 62, 9–17. https://doi.org/10.1016/j. adolescence.2017.10.010.
- 52. Sindall, K., McCarthy, D. J., & Brunton-Smith, I. (2017). Young people and the formation of attitudes towards the police. *European Journal of Criminology*, 14(3), 344–364.
- Smetana, J. G. (1999). The role of parents in moral development: a social domain analysis. *Journal of Moral Education*, 28, 311–321. https://doi.org/10.1080/030572499103106.
- Smetana, J. G., Campione-Barr, N., & Metzger, A. (2006). Adolescent development in interpersonal and societal contexts. *Annual Review of Psychology*, 57, 255–284. https://doi.org/10.1146/annurev. psych.57.102904.190124.
- 55. Sunshine, J., & Tyler, T. R. (2003). The role of procedural justice and legitimacy in shaping public support for policing. *Law & Society Review*, 37, 513–548. https://doi.org/10.1111/1540-5893.3703002.
- Sweeten, G., Piquero, A. R., & Steinberg, L. (2013). Age and the explanation of crime, revisited. *Journal of Youth and Adolescence*, 42, 921–938.
- Tapp, J. L. (1976). Psychology and the law: an overture. *Annual Review of Psychology*, 27, 359–404. https://doi.org/10.1146/annurev.ps.27.020176.002043.
- Tapp, J. L., & Kohlberg, L. (1971). Developing senses of law and legal justice. In J. L. Tapp & F. J. Levine (Eds.), Law, justice and the individual in society. New York: Holt, Rinehart and Winston.
- Tapp, J. L., & Levine, F. J. (1974). Legal socialization: strategies for an ethical legality. Stanford Law Review, 27, 1.
- Thomas, A. G., Ozbardakci, N., Fine, A., Steinberg, L., Frick, P. J., & Cauffman, E. (2017). Effects of physical and emotional maternal hostility on adolescents' depression and reoffending. *Journal of Research on Adolescence*, 28(2), 427–437. https://doi.org/10.1111/jora.12345.
- Thornberry, T. P., Freeman-Gallant, A., & Lovegrove, P. J. (2009). The impact of parental stressors on the intergenerational transmission of antisocial behavior. *Journal of Youth and Adolescence*, 38(3), 312–322. https://doi.org/10.1007/s10964-008-9337-0.
- 62. Trinkner, R., & Cohn, E. S. (2014). Putting the "social" back in legal socialization: procedural justice, legitimacy, and cynicism in legal and nonlegal authorities. *Law and Human Behavior*, 38(6), 602–617.
- Trinkner, R., Cohn, E. S., Rebellon, C. J., & Van Gundy, K. (2012). Don't trust anyone over 30: parental legitimacy as a mediator between parenting style and changes in delinquent behavior over time. *Journal of Adolescence*, 35(1), 119–132. https://doi.org/10.1016/j.adolescence.2011.05.003.
- 64. Trohdal, V., & Powell, F. (1965). Short dogmatism scale. Social Forces, 5, 85-92.
- 65. Tyler, T. R. (1990). Why people obey the law: procedural justice, legitimacy, and compliance. New Haven: Yale University Press.
- Tyler, T. (1997). Procedural fairness and compliance with the law. Swiss Journal of Economics and Statistics, 133(2), 219–240.
- 67. Tyler, T. (2006). Why people obey the law. Princeton: Princeton University Press.
- Tyler, T. (2017). Procedural justice and policing: A rush to judgment?. Annual Review of Law and Social Science, 13, 29–53.
- 69. Tyler, T. R., & Huo, Y. J. (2002). *Trust in the law: encouraging public cooperation with the police and courts* (Vol. 5). Russell Sage Foundation publications.
- 70. Tyler, T. R., & Trinker, R. (2018). Why children follow rules: legal socialization and the development of legitimacy. Oxford University Press.
- Vidal, S., Cleary, H., Woolard, J., & Michel, J. (2017). Adolescents' legal socialization: effects of interrogation and Miranda knowledge on legitimacy, cynicism, and procedural justice. *Youth Violence* and Juvenile Justice, 15(4), 419–440. https://doi.org/10.1177/1541204016651479.
- 72. Walters, G. D., & Bolger, P. C. (2018). Procedural justice perceptions, legitimacy beliefs, and compliance with the law: a meta-analysis. *Journal of Experimental Criminology*, 1–32.
- Wang, Y., & Benner, A. D. (2016). Cultural socialization across contexts: family–peer congruence and adolescent well-being. *Journal of Youth and Adolescence*, 45(3), 594–611. https://doi.org/10.1007/s10964-016-0426-1.



- 74. Wolfe, S. E., McLean, K., & Pratt, T. C. (2016). I learned it by watching you: legal socialization and the intergenerational transmission of legitimacy attitudes. *British Journal of Criminology*.
- Yong, A. G., & Pearce, S. (2013). A beginner's guide to factor analysis: focusing on exploratory factor analysis. *Tutorials in Quantitative Methods for Psychology*, 9(2), 79–94.

**Publisher's Note** Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.

