

**Not Just Doing Time: Distinct Typologies of Attitudes and Emotions  
among Juvenile Justice-Involved Youth**

**Author**

Modecki, Kathryn Lynn

**Published**

2020

**Journal Title**

American Journal of Community Psychology

**Version**

Accepted Manuscript (AM)

**DOI**

[10.1002/ajcp.12465](https://doi.org/10.1002/ajcp.12465)

**Rights statement**

© 2020 Society for Community Research and Action. This is the peer reviewed version of the following article: Not Just Doing Time: Distinct Typologies of Attitudes and Emotions among Juvenile Justice-Involved Youth, American Journal of Community Psychology, 2020, which has been published in final form at <https://doi.org/10.1002/ajcp.12465>. This article may be used for non-commercial purposes in accordance with Wiley Terms and Conditions for Self-Archiving (<http://olabout.wiley.com/WileyCDA/Section/id-828039.html>)

**Downloaded from**

<http://hdl.handle.net/10072/398608>

**Griffith Research Online**

<https://research-repository.griffith.edu.au>

## RUNNING HEAD: DISTINCT TYPOLOGIES AMONG JUSTICE INVOLVED YOUTH

Not just doing time:

Distinct typologies of attitudes and emotions among juvenile justice involved youth

Kathryn Lynn Modecki

Menzies Health Institute Queensland & School of Applied Psychology, Griffith University  
Mt. Gravatt, QLD Australia

This is the pre-published version of the following article:

Modecki, K. L. Not Just Doing Time: Distinct Typologies of Attitudes and Emotions among Juvenile Justice-Involved Youth. *American Journal of Community Psychology*.], which has been published in final form at <https://doi.org/10.1002/ajcp.12465>. This article may be used for non-commercial purposes in accordance with Wiley Terms and Conditions for Use of Self-Archived Versions.

**Acknowledgements:** Many thanks to several anonymous reviewers whose feedback enhanced the clarity and quality of the manuscript. Thanks to Ellen Cohn, Cesar Rebellon, and Victoria Banyard who provided early support for my efforts as I continued to assess young people incarcerated in juvenile facilities across several states.

## Abstract

Adolescents' views of the legal system, just world beliefs, and moral emotions are inter-related and form an important frame of reference, particularly for young people involved in the juvenile justice system. Yet past scholarship has generally treated these as independent indices of youths' experience. This study took a person-centered, latent profile approach to attitudes and beliefs among 136 male youth incarcerated within secure US juvenile facilities. Three heterogenous profiles were found (*negative attitudes/low emotion, moderate attitudes/mixed emotions, and positive attitudes/positive emotion*) which had qualitatively different links with antisocial behavior. Youth who belonged to historically marginalized populations had significantly lower odds of belonging to a protective profile characterized by positive legal attitudes, just world beliefs, and emotions (*positive attitudes/positive emotion*). Findings highlight our gaps in understanding young people's experiences with legal and judicial entities and illustrate significant heterogeneity in youth's frame of reference.

Key words: legal attitudes; just world; delinquency; person-centered

### Highlights:

- Youth involved in the juvenile justice system have distinct attitudes, beliefs, and emotional experiences, which have been under-considered and under-explored.
- When taking a person-centered approach with boys involved in the justice system, three distinct, empirically and theoretically relevant profiles emerged.
- Latent profiles were associated with different levels of delinquency, aggression, and antisocial decision making.
- Minority ethnic youth had diminished odds of belonging to the most positive and protective typology.
- Findings have practical and theoretical significance for understanding the heterogenous experiences of youth involved in the juvenile justice system.

### Not just doing time:

Distinct typologies of attitudes and emotions among juvenile justice involved youth

How can we best understand the experience of boys involved in the juvenile justice system? Asking how youths' experiences with institutional settings intersect with their attitudes, beliefs, and emotional experiences aligns with a core tenet of community psychology—employing an ecological framework to inform prevention and services (Reppucci, 2018). Surprisingly, the literature on attitudes, emotions, and institutional experiences of youth engaged in the justice system is vastly overshadowed by that of crime propensity and personality traits (Fagan & Piquero, 2007). Yet attitudes, beliefs, and their emotional aftermath are more proximally linked to behavior (Ajzen & Cote, 2008) and are modifiable. As a result, the characterization of meaningful patterns of adolescents' inter-related experiences, attitudes, beliefs, and affect provides needed knowledge for community psychology theory. In turn, identifying how these patterns relate to antisocial and illegal behavior involvement provides a translational picture for intervention with justice system involved youth.

An original goal within community psychology was to provide a framework for describing, and subsequently altering, social settings to the benefit of youth (Tseng & Seidman, 2007). In fact, one of the field's central tenets is the notion that individuals, particularly young people, are agentic (Trickett, 2009). Adolescents actively engage with institutions and authority figures to acquire their own unique history of experiences, both positive and negative (Lee et al., 2010). Based on experienced constraints, options, and opportunities, youth take cues from their local environments and behave in ways that make sense to their own specific context (Guerra et al., 1995; Reppucci, 2018). Accordingly, a community psychology approach to understanding adolescent antisocial and illegal behavior places less emphasis on these indicators of “acting out,” and instead marks these activities as

normative outgrowths of adolescents' accumulated encounters, attitudes, beliefs and associated emotional experiences (Modecki & Uink, 2017). The current investigation builds on recent efforts to address juvenile justice via a community psychology lens by applying latent profile analysis (LPA) to identify meaningful patterns across psychological domains among boys involved in the juvenile justice system.

### **Community Psychology and Person-Centered Approaches.**

Community psychologists have long made the observation that youths' experiences of inequity filter their expectations of the very institutions meant to ensure their own safety and wellbeing—including police, the legal system, and the “justness” of the world at large (Reppucci, 2018; Watts & Flanagan, 2007). With a history of negative experiences, youths' unfavorable attitudes can give rise to behaviors and emotional experiences that, on the surface, signal a lack of concern for laws and consequences (Fagan & Piquero, 2007). Yet, in practical terms, adolescents are making sense of the world around them, via their encounters and experiences. In tandem with associated attitudes and emotions, adolescents are responding behaviorally in a manner that is coherent with their developmental outlook (Donat et al., 2014). As a result, a community psychology framework calls for characterizing the diverse ways in which adolescents' experiences with institutional structures (i.e., juvenile convictions), beliefs (i.e., belief in a just world, primary and secondary control), attitudes towards institutional settings (i.e., criminal legal system), and their emotional responses contribute to delinquency and antisocial behavior involvement. By characterizing these psychological dimensions among adolescents currently incarcerated, such descriptions could ideally be directed towards improving the daily social processes for youth exposed to criminal justice settings (Tseng & Seidman, 2007). In this case, a focus on youth is especially informative given that adolescents are developmentally sensitive to concerns

related to fairness and interpersonal respect, and that justice attitudes tend to coalesce during adolescence to impact behavioral choices over the longer term (Penner et al., 2014).

Grounded in community psychology with its ecological perspective of individuals within a given context (Trickett, 2009), this investigation examines profiles of legal attitudes, beliefs in a just world, primary and secondary control, social/moral emotions, and previous juvenile convictions among boys incarcerated within juvenile justice facilities. Using latent profile analysis, a person-centered approach to characterizing adolescents' distinct belief patterns, the summation of these interrelated characteristics is considered especially meaningful. That is, the contribution of one characteristic (e.g. legal attitudes) is meaningful mainly in relation to other aspects (e.g. belief in a just world, control beliefs) of an adolescent's psychological system. Adolescents engaged in the justice system inherently accumulate numerous developmental experiences in association with a range of entities, including police, courts, judges, facility personnel, and probation officers (Spratt & Greene, 2010). Accordingly, youth hold a diverse set of attitudes, beliefs, and emotional responses to legal rules and the world at large. It is the combination of these beliefs, attitudes, and emotions that is considered especially powerful in relation to youths' antisocial behavior, as opposed to a single psychological factor driving delinquency. The assumption is that there is heterogeneity in youths' experiences and associated belief patterns, so that different sub-groups of youth can be characterized based on distinct latent profiles. Exploring these characteristics among youth who have known experience with the justice system is especially pertinent as much prior legal attitude research with youth has been conducted with white, non-institutionalized samples (Piquero et al., 2005).

### **Belief in a Just World.**

An overarching view of adolescents' justice motive, or the sense of having an unwritten "personal contract" with the world (Sutton & Winnard, 2007), provides a broad lens that frames youths' more specific sense of institutional fairness and control beliefs. The belief in a just world corresponds to faith in a personal contract, such that by abiding by moral and legal norms, youth can expect to be treated fairly. Consequently, belief in a just world presumably acts as a deterrent to rule-breaking and crime (Hafer & Bègue, 2005). Illustratively, previous studies with imprisoned men describe high belief in a just world as associated with fewer disciplinary problems, perceptions that legal proceedings are just, and higher experience of guilt in association with punishment (Otto & Dalbert, 2005). Likewise, high belief in a just world has been tied to fewer self-report delinquent behaviors within a relatively large adolescent sample (Cohn & Modecki, 2007). That said, this tacit personal contract of belief in a just world only holds when youth experience punishments in accordance with behavior, and when punishments are in line with what an adolescent feels he deserves or warrants (Hafer & Bègue, 2005). As a result, among adolescents who have come to view the world as "unjust," low just world beliefs likely pattern together with the more distinct psychological dimension, negative attitudes towards the legal system (Cohn & Modecki, 2007; Piquero et al., 2005; Tyler et al., 2014).

### **Attitudes towards the Criminal Legal System.**

Also tied to perceptions of institutional fairness and legitimacy, attitudes towards the legal system tap a more specific dimension of youths' opinions of the criminal legal system as a valid arbitrator of right and wrong. Illustratively, within short-term longitudinal data, legal attitudes were predicted by moral reasoning, and negative legal attitudes were associated with high problem behavior among community-based adolescents (Cohn et al., 2010). Indeed, a growing body of research recognizes the salience of legal attitudes among youth engaged in the legal system, pointing to direct links between negative views of justice

system legitimacy and subsequent offending, and highlighting the importance of understanding these patterns among young people who are justice system involved (Cavanagh et al., 2019). Perhaps surprisingly, contact with legal institutions does not necessarily translate to negative legal attitudes. Although some adult research reports link involuntary police contact and diminished views of police legitimacy, this association appears to occur vis à vis perceptions of fairness and acting lawfully (Tyler et al., 2014). As a result, negative legal attitudes and just world beliefs likely travel hand-in-hand, but it remains unclear whether these are tied to more numerous justice system contacts (e.g. convictions; Sprott & Greene, 2010). As described in detail below, exploring whether a distinct group of youth can be described by especially low legal attitudes in addition to high justice system contact can provide needed insight into the experiences of young people who have been heavily justice system involved.

### **Primary Versus Secondary Control Beliefs.**

Youths' control beliefs are another dimension of adolescents' attitudinal/belief system, and which are arguably productive for understanding their frame of reference. More specifically, primary control beliefs include seeking to change the world to fit with one's own needs, and so comprise goal persistence towards attaining objectives and surmounting problems (Hafer & Bègue, 2005). Across development, primary control beliefs tend to increase, especially during adolescence in accordance with increased agency and sense of self; yet the adaptive nature of primary control is also environmentally dependent. When environments lack opportunity structures for meeting youths' goals and needs, primary control strategies may be less helpful and healthy. In this case, secondary control beliefs tend to be protective, and assist with re-direction towards more attainable goals and disengaging from unchangeable obstacles (Halliday & Graham, 2000).



Secondary control beliefs involve more passive strategies in which individuals seek to bring themselves in line with their environment. In this way, secondary control beliefs are akin to self-shifting coping strategies, in which reframing and positive restructuring help youth to accommodate themselves to intractable stressors (Wadsworth et al., 2013). Particularly relevant for youth involved in the justice system, in the context of low SES and associated uncontrollable stressors, such secondary strategies can be tied to better adolescent health outcomes (Chen et al., 2015). Yet secondary control beliefs are not always adaptive. In circumstances where actionable behaviors can improve youths' circumstances and ameliorate further stressful events, secondary strategies such as distraction or reframing can preclude young people from investing in change and taking steps necessary to improve their situation (McCarty et al., 1999). Consequently, primary control beliefs and their accompanying sense of agency likely pattern with positive just world perceptions and legal attitudes. Alternatively, youth characterized by high secondary control beliefs may describe low just world perceptions and negative legal attitudes, and these may color their emotional responses to rule-breaking, as well (Tomaka, & Blascovich, 1994).

### **Emotional Responses to Rule-Breaking.**

Adolescents' beliefs and attitudes about fairness are also likely reflected in their moral and social emotional responses to rule-breaking. Moral judgements are inherently tied to emotional responses, including guilt, compassion/concern, pride and the associated feeling of trustworthiness (Horberg et al., 2011). In fact, emotions serve as a catalyst of behavior. As a result, characterizing youths' emotional experiences of rule-breaking in conjunction with their justice beliefs and legal attitudes can better characterize modifiable pathways to illegal activity (e.g. Agnew, 2001). For example, adolescents who experience the legal system as unfair and the world as unjust presumably respond to rule-breaking in ways consistent with a sense of a broken legal contract—experiencing low levels of guilt and concern (Rebellion et

al., 2012). Indeed, negative emotional experiences with legal entities have been linked to perceived injustice (Tyler et al., 2014), and perceived injustice has been tied to delinquency vis à vis emotion pathways (Murphy & Tyler, 2008; Rebellon et al., 2012). Thus, emotions associated with moral and social responsibility may play a regulatory role in inhibiting (or disinhibiting) illegal and antisocial behavior (Horberg et al., 2011).

In particular, two dimensions of emotion may be especially germane to adolescents' belief system and are explored in the current study: guilt and concern (from rule-breaking) and pride and trustworthiness (from rule-following). First, guilt and concern are considered markers of ethical decision making; they appear to promote decisions in keeping with moral principles and have been linked to decreased recidivism (Rebellon et al., 2016; Tagney et al., 2012; Van Vugt et al., 2011). Guilt and concern are also inversely associated with negative attitudes towards authority and so may be especially salient links to youths' attitudes and beliefs (Tagney et al., 2012). Second, pride and trustworthiness, the tendency to fulfill others' positive expectations, are conceptualized as "activating" pro-social emotions (Wubben et al., 2012), which serve to enhance cooperation and promote positive decision making, including pro-social behavior. Thus, pride and trustworthiness may be particularly relevant to positive attitudes and associated low delinquency. Moreover, exploring the roles of pride and trustworthiness in relation to problem behavior speaks to calls within criminology for considering positive and adaptive moral emotions (Tibbetts, 2003).

### **Justice System Experience.**

Finally, youths' varied personal experiences inform their attitudes and belief systems. Adolescence is a developmental period in which individuals are especially attuned to issues of unfairness and injustice (Woolard et al., 2008), and young people, themselves, experience different gradations of inclusivity, fairness, and equality in their wider worlds (Guerra et al.,

1995). Within the legal system, and the justice system more specifically, scholarship generally indicates that more justice system experience leads to diminished evaluations of legal entities (Sun & Wu, 2006). Among boys involved in the justice system, number of prior arrests is empirically associated with classification as a high legal cynicism/low justice perception typology (Piquero et al., 2005). Likewise, among first time offenders, more police pickups and less time “on the streets” (i.e. not incarcerated) is associated with more negative views of legal system legitimacy (Fine, Cavanagh, et al., 2016). In turn, youth’s legal attitudes are associated with both rearrest and offending, although these relations appear to fade over time (Fine et al., 2017). Yet other research with girls involved in the justice system reports no significant relations between prior residence at a facility, length of incarceration, or number of prior arrests with perceived fairness of court experiences (Tatar et al., 2012). That said, experience with the justice system encompasses many events, ranging from police contact and interrogation to conviction and institutionalization (Arndorfer et al., 2015). In this case, prior convictions may be a useful marker of experience (Sprott & Greene, 2010; Piquero et al., 2005) because it encapsulates a series of negative legal outcomes across the justice system pipeline including arrest, prosecution, and adjudication (Modecki & Uink, 2017). Moreover, given that many illegal acts go undetected (Modecki, 2008), previous convictions likewise serve as a useful marker of previous justice system experience, and may be helpful for understanding subsequent illegal behavior as an outcome.

### **The Current Study.**

Adolescents’ justice system experience and perceptions of fairness, control, legal entities, and moral and social emotions are characterized by complexity and are important features related to illegal behavior. Yet prior research focused on individual’s legal, justice, and rule-breaking experiences has almost exclusively adopted variable-centered approaches, such as regression, which assume that variables like legal attitudes operate the same way for

all individuals (Laursen, & Hoff, 2006). This approach overlooks the likelihood of co-occurring legal attitudes, beliefs, emotions and experiences (Tatar et al., 2012) and the reality that individuals, rather than variables, are the key driver of outcomes (Laursen, & Hoff, 2006). Instead, person-centered approaches, such as latent profile analyses, treat the adolescent as the unit of analysis. In this case, distinct typologies of youth are identified based on similar patterns of attitudes, emotions, and experience, and the presumed heterogeneity of youths' experiences is at the forefront of theory and empirical understanding (Modecki, 2016).

As a result, this study simultaneously contributes conceptual and methodological rigor in an arena that has generally focused on one or two factors associated with young people's justice system experience and bridges criminal justice research with community psychology values. Here, a person-centered, latent profile approach asks whether distinct typologies of adolescents can be differentiated solely based on their prior conviction experiences, attitudes towards the legal system, justice and coping beliefs, and associated emotions. Based on a sample of 136 male juvenile offenders housed in secure facilities in the US, multiple profiles are expected. In turn, validation analyses should support the soundness of the derived profiles. In particular, at least one distinct class of youth is posited to emerge, who report more conviction experiences, negative attitudes, and justice beliefs, clustered together with passive (secondary) coping and lower pro-social emotions. Youth characterized by this particularly disaffected combination of negative attitudes, beliefs, experiences, and emotions are posited to report high levels of antisocial behavior, including delinquency, aggression, and antisocial decision making. Finally, self-identification as a race or ethnicity other than white has been associated with more negative perceptions of justice and legal fairness (Tatar et al., 2012). As a result, minority ethnic status is investigated as a predictor of profile

membership with minority ethnic youth posited to have an increased likelihood of belonging to a more pessimistic belief profile.

### Method

Participants were male adolescents who had been adjudicated delinquent and were serving sentences at two secure juvenile facilities in the Northeast United States. University IRB approval to conduct research was attained, as was permission from the appropriate administrator from each state facility (Director of Research and Head of Facility, respectively). Although youth were under state custody, passive parental consent was also attained and administrators informed parents/caretakers of the planned study, communicated that their adolescent could opt-out, and made the survey instrument available for review. Informed consent was also obtained from youth; individual consent forms were provided, read aloud, and explained. The survey was administered by the research team in written form via small groups in facility common areas (e.g. classrooms) with several research assistants available to answer questions and read surveys aloud as needed, and with an emphasis that neither participation nor responses would impact youths' legal status. As part of the survey, a careless responding item was included "I am answering these questions truthfully," with response options from 1 (false) to 5 (true). Within the sample, 85% of youth ( $n = 135$ ) responded either somewhat true (13.8%) or true (71%) and these youth were retained for the current study. Thus, the final sample was comprised of 135 male adolescents, Mean age = 15.88 (SD = 1.07). Youth self-identified as African American (12.5%), Latino/Hispanic (19.1%), White/Caucasian (49.5%), Native American (3.7%), and other ethnicity (15.4%). In order to assess group differences based on majority/white experience, ethnicity was dichotomized as white (49.3%) versus minority racial/ethnic (50.7%). Youth reported mother's education level as 27.1% less than high school, 42.1% high school diploma, 13.5% some college education, and 17.3% associate degree or higher, and father's education level as

51.9% less than high school, 25.6% high school diploma, 11.6% some college education, 9.9% associate degree or higher.

### **Indicator variables.**

*Primary and Secondary Control.* Primary and secondary control beliefs were tapped via Wrosch, Heckhausen, & Lachman's (2000) 14-item measure. The five-item primary control subscale taps, for example "When faced with a bad situation, I do what I can do to change it for the better," measures from 1 (not at all) to 4 (a lot),  $\alpha = .71$  ( $r(131) = .30, p < .001$ ) with psychosocial responsibility. The nine-item secondary control subscale assesses passive coping strategy, including reframing of uncontrollable stressors, for instance "When my expectations are not being met, I lower my expectations;"  $\alpha = .57$ . Although secondary control showed low reliability within the sample, it is not uncommon for this measure and similar scales tapping passive coping to show relatively low consistency (e.g.  $\alpha = .63$  in Wrosch et al., 2000;  $\alpha = .61$  in Moos et al., 2006). Moreover, secondary control showed good external validity in relation to other measured constructs, such as perspective taking ( $r(133) = .17, p = .049$ ) and psychosocial responsibility ( $r(131) = -.19, p = .031$ ).

*Legal Attitudes.* The 24-item Attitudes toward the Criminal Legal System (ATCLS) scale (Martin & Cohn, 2004) was used to assess legal attitudes. This scale has shown good validity in previous research with adolescents (Cohn & Modecki, 2007) and in short form, with adolescents over time (Cohn et al., 2010). Sample items include "Most of our laws are fair and just" and "The punishment given usually fits the crime;"  $\alpha = .91$ . Items were measured on a 5-point Likert scale from 1 (disagree) to 5 (agree strongly) with higher scores indicating more positive legal attitudes. In this sample legal attitudes demonstrated expected validity in relation to perspective taking ( $r(127) = .22, p = .014$ ).

*Belief in a Just World.* The 20-item Belief in a Just World Scale (BJW; Rubin & Peplau, 1975) was employed to measure the extent to which respondents believe in a just world, for example, “Most of the time, people deserve what they get” assessed on a six-point scale from 1 (very much agree) to 6 (very much disagree). The BJW scale is widely employed in the social psychological literature and was tested here in relation to the original 20-item version ( $\alpha = .53$ ), and a shortened version with 9-items ( $\alpha = .65$ ). Given that the overall patterns of findings were the same, results from the full version are reported here. Again, BJW showed strong external validity in relation to other measured constructs, including perspective taking ( $r(130) = .31, p < .001$ ) and psychosocial responsibility ( $r(129) = .22, p = .011$ ).

*Moral and Social Emotions.* Antisocial decision vignettes based on the Youth Decision Making Questionnaire (YDMQ; Ford et al., 1990) were used to assess adolescents’ anticipated emotions in response to behavioral choices. Adolescents responded to five vignettes (Caffman & Steinberg, 2000; Modecki, 2008), for instance, “You’re out shopping with some of your close friends and they decide to take some clothing without paying for it. You don’t think it’s a good idea, but they say you should take something too.” After responding to their behavioral choices (antisocial decision making, described later), youth indicated how much guilt and empathetic concern they would feel (very, a little, not at all) if they made the antisocial choice, for example: “How would you feel if you feel if you shoplifted with your friends?” Youth further indicated the degree to which they would feel proud and trustworthy (very, a little, not at all) if they made the prosocial choice (e.g. refused to shoplift). Each emotion response was averaged across the vignettes and reverse coded. Higher scores indicate higher anticipated emotion for each construct, guilt  $\alpha = .72$ ; concern  $\alpha = .716$ ; trustworthy  $\alpha = .784$ ; and proud  $\alpha = .79$  and each showed good validity in relation to

emotional temperance ( $r_{guilt}(127) = -.22, p = .014$ ;  $r_{concern}(127) = -.24, p = .007$ ;  
 $r_{trustworthy}(126) = .29, p = .001$ ;  $r_{proud}(127) = .27, p = .002$ ).

*Conviction Experiences.* Number of delinquency convictions was deemed a useful indicator of experience with the criminal legal system (Piquero et al., 2005). Adolescents responded to the item “Besides your current conviction, have you been convicted of a delinquency in the past (1) yes and (2) no. If yes, how many times?” All responding youth indicated they had received prior convictions and the median response was five priors ( $M = 7.07$ ;  $SD = 6.98$ ). As the original distribution was positively skewed ( $Z = 13.13$ ), a square root transformation normalized the distribution while preserving its original interpretation ( $M = 2.43$ ,  $SD = 1.09$ ). Conviction experience was positively correlated with self-reported number of prior stays at the detention center ( $r = .45, p < .001$ ) and negatively associated with self-reported age of first legal involvement ( $r = -.30, p = .001$ ).

### **Dependent variables.**

*Delinquency.* Delinquency was assessed via delinquency subscales from the National Youth Longitudinal Survey (USBLS, n.d.). Youth responded to 9 items regarding how many times in the past year they had engaged in various illegal behaviors including running away, stealing from a store, or breaking into a car. These were rescored to indicate (0) no and (1) yes and summed to create a total delinquency score;  $\alpha = .81$ .

*Aggression.* Aggression was assessed via a separate sub-scale of the National Youth Longitudinal Survey. The subscale was comprised of 10 items assessing serious aggressive behaviors, including “carr[ying] a handgun” and “hurt[ing] someone enough that they needed bandages or a doctor;”  $\alpha = .84$ .

*Antisocial decision making.* Antisocial decision making was assessed via responses to the YDMQ vignettes. Each of the five vignettes was followed by three scenarios: “nothing



bad would happen to you (such as getting arrested)” (no consequences),  $\alpha = .69$ ; “you didn’t know whether something bad would happen to you” (uncertain consequences),  $\alpha = .70$ ; and “something bad would happen to you” (definite consequences),  $\alpha = .68$ , and youth indicated their likelihood of engaging in each antisocial activity from 1 (definitely refuse to shoplift) to 4 (definitely shoplift). Responses were averaged across vignettes and consequences to comprise an antisocial decision-making scale, with higher scores indicating higher antisocial decision-making, as per previous adolescent research (Cauuffman & Steinberg, 2000; Modecki, 2009).

### **Analytic Strategy.**

Analyses were run using *Mplus* v. 8 with robust full information maximum likelihood estimation, using all available data points (Muthén & Muthén, 1998-2017). Latent profile analysis is a person-centered technique that assigns individuals to a mutually exclusive latent profile based on observed continuous variables (nine indicators, Supplementary Figure 1). Profiles are thus characterized based on their common response patterns within and between the profiles. That is, rather than creating a median split, for instance, to identify a group of youth, LPA assumes an underlying latent construct determines profile membership. Thus, LPA identifies profiles of people, rather than groups of variables.

To determine whether characteristics of the profiles significantly differed, equality of means for each indicator was compared across profiles via the Wald’s test. Final models were run with direct covariates of facility and minority racial/ethnic status and used the DU3STEP method to test profile differences based on indicators (Attitudes toward the Criminal Legal System; Belief in a Just World; Primary and Secondary Control; Moral and Social Emotions; and Prior Convictions) in predicted distal outcomes (Delinquency; Aggression; and Antisocial Decision Making). A challenge in running mixture models arises

when scholars seek to explore how the resulting latent categorical variable (i.e. profile membership) relates to observed variables of interest (i.e. delinquency). In this case, using a direct approach with a manifest variable of interest included in the model can lead to latent profile membership “shifting,” and hence the mixture no longer representing original profiles of interest (Asparouhov & Muthén, 2014). The DU3STEP method addresses this issue by monitoring any shift in classes and only providing results when shifts are minimal. Moreover, DU3STEP is particularly superior to other approaches when the distal variable variances are unequal across classes. As a result, DU3STEP results provide an overall equality test of means across profiles as well as individual Chi-Square Difference Tests of Equality for each mean comparison.

### Results

As no previous research has taken a person-centered approach to beliefs, attitudes, and emotions among adolescents involved in the juvenile justice system, there were no a priori hypotheses regarding the number of profiles beyond the notion that there would likely be at least two groups associated with low vs high attitudes/beliefs. The Lo-Mendell-Rubin likelihood ratio test (Lo, Mendell, & Rubin, 2001), the bootstrapped likelihood ratio test (McLachlan, 1987), and model BIC were explored for 1- 4 groups; model interpretability and parsimony were also considered. As described in Supplementary Table 1, these pointed to a three-profile solution as a significant improvement in model fit relative to a two-profile, and profile separation was good (entropy =.81). Further, a four-profile solution did not constitute a significant improvement over the three-profile solution. Thus, Figure 1 presents the standardized means for the continuous indicators of the three-profile solution; indicator descriptives for each profile are included in Table 1. Multinomial logic regression using pseudo-class draws (using both e and r settings) indicated that there were no significant

differences across profiles based on parental education, age of first experience with law, number of previous detention stays, or days of current incarceration.

The three typologies of juvenile offenders identified were: *Negative Attitudes/Low Emotion* (34.4% of sample); *Moderate Attitudes/Mixed Emotions* (37% of sample); and *Positive Attitudes/Positive Emotion* (28.7 % of sample). As described in Table 1, *Negative Attitudes/Low Emotion* youth were differentiated by significantly lower legal attitudes and belief in a just world, and lower moral and social emotions relative to either *Moderate Attitudes/Mixed Emotions* youth or *Positive Attitudes/Positive Emotion* youth. *Positive Attitudes/Positive Emotion* youth, on the other hand, were differentiated based on relatively high legal attitudes, just world, and primary control beliefs in relation to *Negative Attitudes/Low Emotion* youth, and higher moral and social emotions relative to either *Moderate Attitudes/Mixed Emotions* youth or *Negative Attitudes/Low Emotion* youth. Finally, *Moderate Attitudes/Mixed Emotions* youth were defined by relatively high legal attitudes and just world beliefs, but a mixture of moral and social emotions. That is, *Moderate Attitudes/Mixed Emotions* youth reported significantly lower guilt and concern relative to *Positive Attitudes/Positive Emotion* youth but similar levels of pride and trustworthiness. Notably, primary control beliefs among *Moderate Attitudes/Mixed Emotions* youth did not differ significantly from either *Positive Attitudes/Positive Emotion* nor *Negative Attitudes/Low Emotion* youth and hence could be characterized as middle of the road.

Next, profiles were examined in relation to differences in delinquency, aggression, and antisocial decision making. Overall, there were profile differences in delinquency, Wald's  $\chi^2(2, N=135) = 8.55, p = .014$ . *Negative Attitudes/Low Emotion* youth engaged in significantly more delinquent behavior ( $M_{del} = 14.96, SE = 1.48$ ) relative to *Positive Attitudes/Positive Emotion* youth ( $M_{del} = 10.10, SE = 1.39$ ), but not *Moderate Attitudes/Mixed Emotions* youth ( $M_{del} = 12.10, SE = 1.13$ ). The same pattern held for

aggression, Wald's  $\chi^2(2, N = 135) = 6.97, p = .03$ . *Negative Attitudes/Low Emotion* ( $M_{agg} = 7.24, SE = .45$ ) youth engaged in more aggression  $\chi^2(1, N = 135) = 6.38, p = .012$  relative to *Positive Attitudes/Positive Emotion* youth ( $M_{agg} = 5.14, SE = .76$ ) but not *Moderate Attitudes/Mixed Emotions* youth ( $M_{agg} = 6.39, SE = .48$ ). However, all three groups were differentiated by their antisocial decision making, Wald's  $\chi^2(2, N = 135) = 64.28, p < .001$ . *Negative Attitudes/Low Emotion* youth ( $M_{dec} = 3.41, SE = .12$ ) reported more antisocial decision making  $\chi^2(1, N = 135) = 25.34, p < .001$  than *Moderate Attitudes/Mixed Emotions* youth ( $M_{dec} = 2.61, SE = .07$ ), who in turn made more antisocial decisions than *Positive Attitudes/Positive Emotion* youth ( $M_{dec} = 2.20, SE = .10$ )  $\chi^2(1, N = 135) = 10.10, p = .001$ .

Finally, testing for racial/ethnic differences across profiles indicated that *Positive Attitudes/Positive Emotion* youth were less likely to identify as minority racial/ethnic than were *Moderate Attitudes/Mixed Emotions* youth (OR = 3.26,  $p = .043$ ); thus, the odds of belonging to the *Moderate Attitudes/Mixed Emotions* profile relative to the *Positive Attitudes/Positive Emotion* profile were 3.26 as large for a youth who belonged to a historically marginalized population, as the odds for a white youth. Further, *Negative Attitudes/Low Emotion* (OR = 2.74,  $p = .08$ ) youth showed a similar trend. The odds of belonging to the *Negative Attitudes/Low Emotion* profile relative to the *Positive Attitudes/Positive Emotion* profile were 2.74 as large for a youth who identified as minority racial/ethnic, as the odds for a white youth (Figure 2). Put another way, the experiences of young people who belonged to historically marginalized racial/ethnic populations were more likely to cluster with a lack of belief in a just world, more negative legal attitudes, lower primary control, and lower rule-breaking associated emotional experiences—particularly guilt and concern.

## Discussion

This study is among the few to take a person-centered approach to identify profiles of legal attitudes among youth connected to the justice system, and the first to assess patterns associated with interrelated beliefs, emotions, and prior justice system experience. Three unique profiles of youth were identified (*Negative Attitudes/Low Emotion*, *Moderate Attitudes/Mixed Emotions*, and *Positive Attitudes/Positive Emotion*). All three profiles were differentiated by moral emotions tied to rule-breaking and, for the two most extreme profiles, by high versus low legal attitudes and just world beliefs. Notably, these distinct adolescent profiles were each also differentiated by antisocial decision making and, again among the most extreme profiles, in their high versus low self-reported delinquency and aggression. Strikingly, race/ethnicity was the sole background characteristic that distinguished these youth. Caucasian youth were significantly more likely to belong to a profile associated with positive legal attitudes and beliefs; alternatively, school achievement, age of first legal system contact, previous facility stays, and number of days served in current incarceration were unrelated to these typologies. Consequently, these findings hold several implications for scholarship and programs focused on youths' juvenile justice system experiences.

As surmised, latent profile analysis revealed robust, informative patterns of attitudes, beliefs, and emotions. Beginning with the observed finding that was the most encouraging, a *Positive Attitudes/Positive Emotion* profile pointed to a relatively optimistic belief system among this sample of justice system involved adolescents. These youth comprised just under thirty percent of the sample (28.7%) and were characterized by a protective pattern of high legal attitudes, just world and primary control beliefs, and associated high moral and social emotion. That is, *Positive Attitudes/Positive Emotion* youth reported high guilt and concern tied to rule-breaking and high levels of pride and trustworthiness in relation to rule-following. This protective patterning was substantiated in validation analyses. Youth belonging to this *Positive Attitudes/Positive Emotion* profile reported less delinquency and aggression relative

to *Negative Attitudes/Low Emotion* youth and the lowest levels of antisocial decision-making of the three profiles.

As expected, positive attitudes, beliefs and prosocial emotions clustered together for this subset of *Positive Attitudes/Positive Emotion* youth. More surprising, however, was the fact that these youth were not differentiated by their previous criminal convictions. In this case, sheer number of criminal convictions (e.g. judicial rulings against youth) was not meaningfully interrelated with positive legal attitudes and just world beliefs. Rather, the positive belief systems of these youth are likely driven by a sense of inclusivity, fairness, and equality in the wider world, and positive experiences of procedural justice across their legal interactions (Lee et al., 2010). The fact that Caucasian youth had higher odds of belonging to this *Positive Attitudes/Positive Emotion* profile is in line with both inclusivity and procedural fairness explanations. More specifically, previous research finds that boys involved in the justice system who report high-pressure interrogation experiences also hold more negative perceptions of police; whereas interrogation and confession experience, in and of itself, is not associated with perceived fairness (Arndorfer et al., 2015). Likewise, research with the same sample finds that African American boys are more likely to be characterized by observed profiles associated with poor legal legitimacy relative to Caucasian youth (Piquero et al., 2005). Certainly, youth belonging to historically marginalized populations experience discrimination and unfairness across their daily landscapes; this includes their differential overinvolvement in the US juvenile justice system (Seaton et al., 2009). Young people's interactions with the police, and the biases they face across the correctional system, are a recognized factor in this over-representation. Policy change is sorely needed to address historic, systemic racism within juvenile justice systems (Crosby, 2016; Lee et al., 2010).

Findings also revealed a particularly worrisome profile, *Negative Attitudes/Low Emotion*, who comprised 34% of the sample. These youth were defined by the lowest legal

attitudes, just world, and primary control beliefs, and low levels of social and moral emotions. *Negative Attitudes/Low Emotion* youth were also particularly at risk for antisocial behavior involvement. These youth reported higher delinquency and aggression than *Positive Attitudes/Positive Emotion* youth and the highest antisocial decision-making relative to either *Positive Attitudes/Positive Emotion* or *Moderate Attitudes/Mixed Emotions* youth. The characteristics of this profile are in line with previous variable-centered research, indicating that rule-oriented views (e.g. negative legal attitudes) and just world beliefs are related (Fine, Van Rooij, et al., 2016). This profile also parallels variable-based findings pointing to the potency of negative views of legal fairness and low just world beliefs for youthful offending (Reisig et al., 2011). Indeed, previous criminology research has highlighted the role of moral emotions, particularly guilt, as a deterrent to offending (Svensson et al., 2013). Here, findings illustrate that low guilt and concern (in relation to rule-breaking) and low pride and trustworthiness (in relation to rule-following) are tied to low just world beliefs, negative legal attitudes, and point to the cogency of youths' negative belief system. Again, these *Negative Attitudes/Low Emotion* youth were not differentiated by a greater number of criminal convictions and it appears to be their belief system and underpinning negative experiences, rather than sheer amount of delinquency adjudications, that differentiates these at-risk youth.

It is also worth considering the developmental implications of this observed profile of *Negative Attitudes/Low Emotion* youth. Legal attitudes are thought to drive compliance with the law (Fagan & Tyler, 2005) and just world beliefs are determinants of more specific personal beliefs about justice, including in school and family arenas (Dalbert & Stoeber, 2006). Consequently, youth characterized by this profile likely hold negative judgements, and co-occurring negative experiences, across a variety of life domains. Negative expectations will render it difficult for these youth to take advantage of positive developmental experiences that might nudge them onto more productive paths, such as connections with

positive non-parental adult role models and extracurricular activities (Modecki et al., 2014; Modecki et al., 2018). In parallel, low levels of self-conscious emotion, such as guilt and pride, point to an absence of internalized standards and limited social and affective well-being (Orth et al., 2010).

Developmentally, we would expect to see increases in positive attitudes/beliefs and prosocial emotions across adolescence. Illustratively, research suggests that adolescents' legal attitudes becomes increasingly negative but then uptick and level-out during adulthood (Fagan & Tyler, 2005). Likewise, self-conscious emotions are thought to follow a maturity principle of development: people are more prone to feeling adaptive self-conscious emotions such as guilt and pride as they age (Orth et al., 2010). Yet youth in the study were 16 years-old on average, and it is unclear whether significant enhancement in their worldviews and emotional experience would be expected to occur with time. Thus, important questions remain regarding the personal experiences that have informed these adolescents' belief systems and how we might bolster them. Recall that previous juvenile convictions did not differentiate the three derived profiles, nor were there differences across profiles based on age of first encounter with the legal system, days incarcerated, nor number of prior facility stays. Other research suggests that youths' opinions about their lawyer and judge affects their views of the legal system (Spratt & Greene, 2010), and specific encounters with the justice system and views of key legal personnel may be more proximal determinants of negative legal and justice outlooks. Illustratively, longitudinal research indicates that negative attitudes towards the police is a key proximal driver of juvenile offending (Walters & McAuliff, 2019). Thus, more specific attitudes towards lawyers and police may be especially important for predicting antisocial decisions and crime; it is encounters with these legal actors which should be reviewed to ensure impartiality.



The final and perhaps most intriguing profile was characterized by *Moderate Attitudes/Mixed Emotions* (37% of the sample). Youth within this typology confirm that adolescents can be high in some social/moral emotion arenas but not in others. Youth included within this profile coupled relatively high legal attitudes and just world beliefs with relatively high pride and trustworthiness in relation to rule-following. Yet, while *Moderate Attitudes/Mixed Emotions* adolescents report high levels of social and moral emotions when they obey rules, they fail to report associated guilt and concern when they break them. It may be that *Moderate Attitudes/Mixed Emotions* youth are seeking to find a behavioral way forward that combines their mixed viewpoints and experiences—engaging in some problematic behaviors but not at high levels. While these youth expressed a “mixed bag” of emotions, they were similarly middle-of-the-road in terms of delinquency, aggression, and antisocial decision making. Also noteworthy, minority racial/ethnic youth were significantly more likely to be characterized by this *Moderate Attitudes/Mixed Emotions* profile relative to *Positive Attitudes/Positive Emotion* youth. *Moderate Attitudes/Mixed Emotions* adolescents have likely confronted a variety of legal experiences, including heterogeneous encounters of procedural injustice and discriminatory treatment, which may have contributed to a more complicated emotional belief system. For these youth, low levels of social and moral emotions (guilt and concern) appear to serve as a problematic driver of antisocial behavior. Initiatives to increase adolescents’ moral engagement have been shown to be effective (Power et al., 1989), and programs that include moral education would likely be effective for youth characterized by this *Moderate Attitudes/Mixed Emotions* profile.

Surprisingly, several indicators failed to differentiate these observed typologies. Within the LPA, number of previous convictions did not significantly differ between groups, nor did secondary coping beliefs. Thus, these profiles appear to have less to do with volume of legal experience per se, and more to do with legal attitudes, justice beliefs systems, and

emotions. As described earlier, specific justice system experiences such as youths' first arrest (Fine et al., 2017) and views of legal personnel such as police, lawyers, and judges (Spratt & Greene, 2010) may be more closely linked with justice beliefs and self-conscious emotions than number of convictions. Likewise, youth may not be differentiable based on their secondary control beliefs because, as young people incarcerated within the juvenile system, they similarly rely on a sense of passive power to manage their contexts (Shulman & Cauffman, 2011). Finally, it is also worth noting that these justice-system involved adolescents endorsed fairly negative legal attitudes in general. The mean and median of legal attitudes were below the scale's mid-point across the sample. As a result, the lack of statistically significant differences between youth belonging to *Positive Attitudes/Positive Emotion* and *Moderate Attitudes/Mixed Emotions* profiles may be due to floor effects in legal attitudes. In general, adolescents' negative attitudes call attention to a need to enhance youths' experiences of procedural justice and fairness across their justice system encounters, which include police, detention, lawyers, judges, parole officers, and juvenile facility personnel (Modecki & Uink, 2017; Trinkner & Cohn, 2014).

All told, these person-centered findings underscore the utility of an ecological framework for describing variability in adolescents' legal attitudes, justice beliefs, and emotional experiences. There are several translationally important implications of this heterogeneity among boys incarcerated within juvenile facilities. First, in line with a community psychology perspective, findings highlight that adolescents involved in the juvenile justice system experience a diversity of attitudes, beliefs, and emotions across judicially and legally relevant domains. Intervention efforts would benefit from considering such heterogeneity and whether certain youth might benefit from articulating their experiences and associated feelings of injustice within a protected context. It is also worth considering whether improved socialization experiences might enhance these young people's

perceptions, beliefs, and emotional attributions, which in turn might reduce their illegal behavior (Trinker & Cohn, 2014).

Second, despite a backdrop of institutionalization and legal involvement, almost thirty percent (28.7%) of the sample were characterized by a relatively encouraging intrapsychic pattern that was distinguished by fairly optimistic beliefs. Further research is warranted regarding the experiences and interpersonal assets that contribute to such a hopeful typology. In particular, to the extent that justice personnel and facilities seek to treat youth with fairness and respect across their interactions, this would simultaneously be productive for youth wellbeing and reducing problem behavior (Reppucci, 2018). Third, almost forty percent (37%) of youth were characterized by a unique patterning distinct in manifesting pride and responsibility when obeying rules, and yet a lack of guilt or concern when failing to do so. This profile reveals that even when adolescents' attitudes and justice beliefs are relatively positive, emotional experiences tied to rule-breaking can still be mixed. Given that low levels of guilt and concern appear to be especially salient to these youths' antisocial involvement, moral attributions may be possible candidate indicators of this typology (Van Vugt et al., 2011). Reengaging youth to more fully consider the impact of their illegal decisions on others, and to progressively self-censure their behaviors, may be a useful objective for intervention (Gini et al., 2013).

Fourth and finally, race/ethnicity clearly plays a role in this phenomenology. A particularly important contribution of this holistic patterning was the capacity to identify race/ethnicity as the sole demographic feature (not days incarcerated nor previous facility stays) which diminished the odds of belonging to a protective profile of judicial/legal attitudes. Previous research routinely points to more negative legal attitudes among ethnic minority youth (Peck, 2015) and recent scholarship suggests that links between negative legal attitudes and reoffending coalesce over time mainly among minority ethnic youth (Fine,

Cavanagh, et al., 2017). Casting a wider lens, scholarship shows that for African American individuals who experience everyday discrimination, high belief in a just world can manifest in poorer health outcomes (Hagiwara et al., 2015), affirming that ignoring the reality of unfairness and institutionalized injustice is no answer. Thus, above and beyond the pernicious impact of institutionalized and everyday racism, identifying critical aspects of youths' experience with justice and legal entities—which are fundamentally disruptive to their belief systems—may be a first step towards countering youths' adverse experiences. At the same time, much more research is needed to help identify beneficial coping (Modecki et al., 2017) and adaptive systems of belief (Lee et al., 2010) for historically marginalized populations who are facing everyday injustice in legal systems and more broadly.

This study includes a number of strengths, including the use of a person-oriented approach, a novel examination of adolescents' intersecting attitudes and emotions, a check of truthful reporting, and a focus on youth detained within the US juvenile justice system. However, there are parallel limitations. LPA is a data-driven method and findings need to be replicated within other samples of youth, including youth who are likewise incarcerated and those not currently residing within institutions (e.g. on probation). Second, data are self-reported and cross-sectional, which may have inflated relations. Prospective data are needed to explore patterns of attitudes and experiences. Third, several measures demonstrated low reliability within this sample, namely secondary control strategies and belief in a just world. Other studies have likewise reported low internal consistency of secondary control constructs and the field is not in full agreement in regard to what constitutes secondary control nor how it should be measured (Morling & Evered, 2006). Low reliability in belief in a just world was more surprising and it may be that this construct is multifaceted for incarcerated youth. That said, in sensitivity checks, a reduced item just world construct with higher reliability provided the same substantive findings and both secondary control and belief in a just world showed

good external validity. Given that both constructs are highly relevant to understanding the lived experiences of adolescents with deep involvement in the juvenile justice system, further psychometric study is needed to better refine their measurement. Fourth and finally, future research should provide more detailed understanding of youths' legal and institution experiences, including interactions with police and judges, perceived institutional fairness, and support. Although youths' number of previous convictions did not differ across profiles, nor were there significant differences across profiles in relation to length of current incarceration, number of previous facility stays, nor age of first legal encounter, future data on perceived treatment by police and justice system officials and perceptions of procedural justice would be useful for understanding youths' holistic experiences.

### Conclusion

This investigation identified meaningful, heterogenous constellations of justice beliefs, legal attitudes, and emotions among boys incarcerated within the juvenile justice system. Distinct groups of youth were differentiated solely based on their attitudes and beliefs regarding legal institutions, just world, and social/moral emotions. These youth, in turn, reported different levels of antisocial behavior involvement, highlighting the importance of adolescents' belief systems and intertwined emotional experiences in problem behavior. Looking forward, scholars should better underscore direct links that occur between youths' interpersonal experiences of injustice and delinquency, particularly in relation to unfair experiences related to legal and judicial institutions. Policy-wise, young people's legal and institutional experiences are malleable, and placing these squarely within a community psychological agenda can help instigate change within trajectory-altering arenas. Practically, institutions could be assessing and seeking to enhance young people's legal experiences and attitudes, which would be useful both for rehabilitative purposes and for institutional assessment (Reppucci, 2018).

## References

- Agnew, R. (2001). Building on the foundation of general strain theory: Specifying the types of strain most likely to lead to crime and delinquency. *Journal of Research in Crime and Delinquency*, 38, 319-361. [doi.org/10.1177/0022427801038004001](https://doi.org/10.1177/0022427801038004001)
- Ajzen, I., & Cote, N. G. (2008). Attitudes and the prediction of behavior. *Attitudes and attitude change*, 289-311.
- Arndorfer, A., Malloy, L. C., & Cauffman, E. (2015). Interrogations, confessions, and adolescent offenders' perceptions of the legal system. *Law and Human Behavior*, 39, 503. [doi.org/10.1037/lhb0000138](https://doi.org/10.1037/lhb0000138)
- Asparouhov, T., & Muthén, B. (2014). Auxiliary variables in mixture modeling: Using the BCH method in Mplus to estimate a distal outcome model and an arbitrary secondary model. *Mplus Web Notes*, 21(2), 1-22.
- Cauffman, E., & Steinberg, L. (2000). (Im)maturity of judgment in adolescence: Why adolescents may be less culpable than adults. *Behavioral Sciences & The Law*, 18, 741–760. [doi.org/10.1002/bsl.416](https://doi.org/10.1002/bsl.416)
- Cavanagh, C., Cauffman, E. & McAuliff, B. D. (2019). The role of rearrests in juvenile offenders' and their mothers' attitudes toward police. *Law and Human Behavior*, 43, 220–231. [doi.org/10.1037/lhb0000313](https://doi.org/10.1037/lhb0000313)
- Chen, E. , McLean, K. C. & Miller, G. E. (2015). Shift-and-Persist Strategies. *Psychosomatic Medicine*, 77, 371–382. [doi.org/10.1097/PSY.0000000000000157](https://doi.org/10.1097/PSY.0000000000000157)
- 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, 295-309. [doi.org/10.1007/s10979-009-9185-9](https://doi.org/10.1007/s10979-009-9185-9)

- Cohn, E. S., & Modecki, K. L. (2007). Gender differences in predicting delinquent behavior: Do individual differences matter? *Social Behavior and Personality: an International Journal*, *35*, 359-374. doi.org/10.2224/sbp.2007.35.3.359
- Crosby, S. D. (2016). Trauma-informed approaches to juvenile justice: A critical race perspective. *Juvenile and Family Court Journal*, *67*(1), 5-18.
- Dalbert, C., Lipkus, I. M., Sallay, H., & Goch, I. (2001). A just and an unjust world: Structure and validity of different world beliefs. *Personality and Individual Differences*, *30*, 561-577. [doi.org/10.1016/S0191-8869\(00\)00055-6](https://doi.org/10.1016/S0191-8869(00)00055-6)
- Dalbert, C., & Stoeber, J. (2006). The personal belief in a just world and domain-specific beliefs about justice at school and in the family: A longitudinal study with adolescents. *International Journal of Behavioral Development*, *30*(3), 200-207. doi.org/10.1177/0165025406063638
- Donat, M., Dalbert, C., & Kamble, S. V. (2014). Adolescents' cheating and delinquent behavior from a justice-psychological perspective: The role of teacher justice. *European Journal of Psychology of Education*, *29*, 635-651. doi.org/10.1007/s10212-014-0218-5
- Fagan, J., & Piquero, A. R. (2007). Rational choice and developmental influences on recidivism among adolescent felony offenders. *Journal of Empirical Legal Studies*, *4*, 715-748. doi/pdf/10.1111/j.1740-1461.2007.00105
- Fagan, J., & Tyler, T. R. (2005). Legal socialization of children and adolescents. *Social Justice Research*, *18*(3), 217-241. doi.org/10.1007/s11211-005-6823-3
- Fine, A., Cavanagh, C., Donley, S., Frick, P. J., Steinberg, L., & Cauffman, E. (2017). Is the effect of justice system attitudes on recidivism stable after youths' first arrest? Race and

- legal socialization among first-time youth offenders. *Law and Human Behavior*, 41(2), 146. <https://doi.org/10.1037/lhb0000229>
- Fine, A., Cavanagh, C., Donley, S., Steinberg, L., Frick, P. J., & Cauffman, E. (2016). The role of peer arrests on the development of youths' attitudes towards the justice system. *Law and Human Behavior*, 40(2), 211. [doi.org/10.1037/lhb0000167](https://doi.org/10.1037/lhb0000167)
- Fine, A., Van Rooij, B., Feldman, Y., Shalvi, S., Scheper, E., Leib, M., & Cauffman, E. (2016). Rule orientation and behavior: Development and validation of a scale measuring individual acceptance of rule violation. *Psychology, Public Policy, and Law*, 22(3), 314. [doi.org/10.1037/law0000096](https://doi.org/10.1037/law0000096)
- Ford M, Wentzel K, Wood D, Stevens E, & Siesfeld GA. (1990). Processes associated with integrative social competence: Emotional and contextual influences on adolescent social responsibility. *Journal of Adolescent Research*, 4, 405–425.  
[doi/pdf/10.1177/074355488944002](https://doi.org/10.1177/074355488944002)
- Gini, G., Pozzoli, T., & Hymel, S. (2014). Moral disengagement among children and youth: A meta-analytic review of links to aggressive behavior. *Aggressive Behavior*, 40(1), 56-68. [doi.org/10.1002/ab.21502](https://doi.org/10.1002/ab.21502)
- Guerra, N. G., Huesmann, L. R., Tolan, P. H., Van Acker, R., & Eron, L. D. (1995). Stressful events and individual beliefs as correlates of economic disadvantage and aggression among urban children. *Journal of Consulting and Clinical Psychology*, 63(4), 518. [doi.org/10.1037/0022-006X.63.4.518](https://doi.org/10.1037/0022-006X.63.4.518)
- Hafer, C. L., & Bègue, L. (2005). Experimental research on just-world theory: problems, developments, and future challenges. *Psychological Bulletin*, 131, 128. [doi.org/10.1037/0033-2909.131.1.128](https://doi.org/10.1037/0033-2909.131.1.128)



- Hagiwara, N., Alderson, C. J., & McCauley, J. M. (2015). "We get what we deserve": the belief in a just world and its health consequences for Blacks. *Journal of Behavioral Medicine*, 38(6), 912-921.
- Halliday, C. A., & Graham, S. (2000). "If I get locked up, I get locked up": Secondary control and adjustment among juvenile offenders. *Personality and Social Psychology Bulletin*, 26, 548-559. [doi.org/10.1177/0146167200267003](https://doi.org/10.1177/0146167200267003)
- Horberg, E. J., Oveis, C., & Keltner, D. (2011). Emotions as moral amplifiers: An appraisal tendency approach to the influences of distinct emotions upon moral judgment. *Emotion Review*, 3, 237-244. [doi.org/10.1177/1754073911402384](https://doi.org/10.1177/1754073911402384)
- Laursen, B., & Hoff, E. (2006). Person-centered and variable-centered approaches to longitudinal data. *Merrill-Palmer Quarterly: Journal of Developmental Psychology*, 52, 377-389. <https://www.jstor.org/stable/23096200>
- Lee, J. M., Steinberg, L., & Piquero, A. R. (2010). Ethnic identity and attitudes toward the police among African American juvenile offenders. *Journal of Criminal Justice*, 38, 781-789. [doi.org/10.1016/j.jcrimjus.2010.05.005](https://doi.org/10.1016/j.jcrimjus.2010.05.005)
- Lo, Y., Mendell, N. R., & Rubin, D. B. (2001). Testing the number of components in a normal mixture. *Biometrika*, 88, 767 – 778. <https://www-jstor-org./stable/2673445>
- Martin, T. A., & Cohn, E. S. (2004). Attitudes toward the criminal legal system: Scale development and predictors. *Psychology, Crime & Law*, 10, 367-391. [doi.org/10.1080/10683160310001629265](https://doi.org/10.1080/10683160310001629265)
- McCarty, C. A., Weisz, J. R., Wanitromanee, K., Eastman, K. L., Suwanlert, S., Chaiyasit, W., & Band, E. B. (1999). Culture, coping, and context: Primary and secondary control

- among Thai and American youth. *Journal of Child Psychology and Psychiatry*, 40(5), 809-818. doi.org/10.1111/1469-7610.00496
- McLachlan , G. J. (1987). On bootstrapping the likelihood ratio test statistic for the number of components in a normal mixture. *Applied Statistics*, 36, 318 – 324 . doi.org/10.2307/2347790
- Modecki, K. L. (2016). Do risks matter? Variable and person-centered approaches to adolescents' problem behavior. *Journal of Applied Developmental Psychology*, 42, 8-20. [doi.org/10.1016/j.appdev.2015.11.001](https://doi.org/10.1016/j.appdev.2015.11.001)
- Modecki, K. L. (2009). “It’s a rush”: Psychosocial content of antisocial decision making. *Law and Human Behavior*, 33(3), 183-193. doi.org/10.1007/s10979-008-9150-z
- Modecki, K. L. (2008). Addressing gaps in the maturity of judgment literature: Age differences and delinquency. *Law and Human Behavior*, 32, 78. doi.org/10.1007/s10979-007-9087-7
- Modecki, K. L., Barber, B. L., & Eccles, J. S. (2014). Binge drinking trajectories across adolescence: For early maturing youth, extra-curricular activities are protective. *Journal of Adolescent Health*, 54(1), 61-66. doi.org/10.1016/j.jadohealth.2013.07.032
- Modecki, K. L., Blomfield Neira, C., & Barber, B. L. (2018). Finding what fits: Breadth of participation at the transition to high school mitigates declines in self-concept. *Developmental Psychology*, 54(10), 1954. doi.org/10.1037/dev0000570.
- Modecki, K.L. & Uink, B. (2017). How can developmental psychopathology influence social and legal policy? Adolescence, mental health, and decision making. In D. Williams & L. Certifanti (Eds.), *The Wiley-Blackwell Handbook of Developmental Psychopathology*, pp.497-517. doi.org/10.1002/9781118554470.ch24

- Modecki, K. L., Zimmer-Gembeck, M. J., & Guerra, N. (2017). Emotion regulation, coping, and decision making: Three linked skills for preventing externalizing problems in adolescence. *Child Development, 88*(2), 417-426. doi.org/[10.1111/cdev.12734](https://doi.org/10.1111/cdev.12734)
- Moos, R. H., Brennan, P. L., Schutte, K. K., & Moos, B. S. (2006). Older adults' coping with negative life events: Common processes of managing health, interpersonal, and financial/work stressors. *The International Journal of Aging and Human Development, 62*(1), 39-59. doi.org/10.2190/ENLH-WAA2-AX8J-WRT1
- Morling, B., & Evered, S. (2006). Secondary control reviewed and defined. *Psychological Bulletin, 132*(2), 269. doi.org/10.1037/0033-2909.132.2.269
- Murphy, K., & Tyler, T. (2008). Procedural justice and compliance behaviour: The mediating role of emotions. *European Journal of Social Psychology, 38*, 652-668. doi.org/10.1002/ejsp.502
- Muthén, L. K., & Muthén, B. O. (1998–2017). *Mplus user's guide*, 8th ed. Los Angeles, CA: Muthén & Muthén.
- Orth, U., Robins, R. W., & Soto, C. J. (2010). Tracking the trajectory of shame, guilt, and pride across the life span. *Journal of Personality and Social Psychology, 99*(6), 1061. doi.org/10.1037/a0021342
- Otto, K., & Dalbert, C. (2005). Belief in a just world and its functions for young prisoners. *Journal of Research in Personality, 39*, 559-573. doi.org/10.1016/j.jrp.2005.01.004
- Peck, J. H. (2015). Minority perceptions of the police: A state-of-the-art review. *Policing: An International Journal of Police Strategies & Management*. doi.org/10.1108/PIJPSM-01-2015-0001

- Penner, E. K., Viljoen, J. L. , Douglas, K. S. & Roesch, R. (2014). Procedural justice versus risk factors for offending: Predicting recidivism in youth. *Law & Human Behavior*, 38(3), 225–237. doi.org/10.1037/lhb0000055
- 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.
- Power, F. C., Higgins, A. and Kohlberg, L. (1989). Lawrence Kohlberg's approach to moral education. New York: Columbia University Press.
- Rebellon, C. J., Manasse, M. E., Agnew, R., Van Gundy, K. T., & Cohn, E. S. (2016). The relationship between gender and delinquency: Assessing the mediating role of anticipated guilt. *Journal of Criminal Justice*, 44, 77-88.  
doi.org/10.1016/j.jcrimjus.2015.11.006
- Rebellon, C. J., Manasse, M. E., Van Gundy, K. T., & Cohn, E. S. (2012). Perceived injustice and delinquency: A test of general strain theory. *Journal of Criminal Justice*, 40, 230-237. [doi.org/10.1016/j.jcrimjus.2012.02.001](https://doi.org/10.1016/j.jcrimjus.2012.02.001)
- Reisig, M. D., Wolfe, S. E., & Holtfreter, K. (2011). Legal cynicism, legitimacy, and criminal offending: The nonconfounding effect of low self-control. *Criminal Justice and Behavior*, 38, 1265-1279. doi.org/10.1177/0093854811424707
- Reppucci, N. D. (2018). Psychology and public policy: A 50-year adventure. *American Psychologist*, 73(9), 1224. doi.org/10.1037/amp00003791224
- Seaton, E. K., Yip, T., & Sellers, R. M. (2009). A longitudinal examination of racial identity and racial discrimination among African American adolescents. *Child Development*, 80(2), 406-417. <https://www.jstor.org/stable/29738623>

- Shulman, E. P., & Cauffman, E. (2011). Coping while incarcerated: A study of male juvenile offenders. *Journal of Research on Adolescence, 21*, 818-826. doi.org/10.1111/j.1532-7795.2011.00740.x
- Sprott, J. B., & Greene, C. (2010). Trust and confidence in the courts: Does the quality of treatment young offenders receive affect their views of the courts? *Crime & Delinquency, 56*, 269-289. [doi-org /10.1177/0011128707308176](https://doi.org/10.1177/0011128707308176)
- Sun, I. Y., & Wu, Y. (2006). Citizens' perceptions of the courts: The impact of race, gender, and recent experience. *Journal of Criminal Justice, 34*, 457-467. [doi.org/10.1016/j.jcrimjus.2006.09.001](https://doi.org/10.1016/j.jcrimjus.2006.09.001)
- Sutton, R. M., & Winnard, E. J. (2007). Looking ahead through lenses of justice: The relevance of just-world beliefs to intentions and confidence in the future. *British Journal of Social Psychology, 46*, 649-666. doi.org/10.1348/014466606X166220
- Svensson, R., Weerman, F. M., Pauwels, L. J., Bruinsma, G. J., & Bernasco, W. (2013). Moral emotions and offending: Do feelings of anticipated shame and guilt mediate the effect of socialization on offending? *European Journal of Criminology, 10*, 22-39. doi.org/10.1177/1477370812454393
- Tatar, I. I., Joseph, R., Kaasa, S. O., & Cauffman, E. (2012). Perceptions of procedural justice among female offenders: Time does not heal all wounds. *Psychology, Public Policy, and Law, 18*, 268. doi.org/10.1037/a0025118
- Tibbetts, S. G. (2003). Self-conscious emotions and criminal offending. *Psychological Reports, 93*, 101-126. doi-org./10.2466/pr0.2003.93.1.101

- Tomaka, J., & Blascovich, J. (1994). Effects of justice beliefs on cognitive appraisal of and subjective physiological, and behavioral responses to potential stress. *Journal of Personality and Social Psychology*, *67*, 732.
- 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. doi.org/10.1037/lhb0000107
- Tseng, V., & Seidman, E. (2007). A systems framework for understanding social settings. *American Journal of Community Psychology*, *39*, 217-228. doi-org. /10.1007/s10464-007-9101-8
- Tyler, T. R., Fagan, J., & Geller, A. (2014). Street stops and police legitimacy: Teachable moments in young urban men's legal socialization. *Journal of Empirical Legal Studies*, *11*, 751-785.
- Van Vugt, E., Gibbs, J., Stams, G. J., Bijleveld, C., Hendriks, J., & van der Laan, P. (2011). Moral development and recidivism: A meta-analysis. *International Journal of Offender Therapy and Comparative Criminology*, *55*, 1234-1250. doi-org. /10.1177/0306624X11396441
- Wadsworth, M. E., Rindlaub, L., Hurwich-Reiss, E., Rienks, S., Bianco, H., & Markman, H. J. (2013). A longitudinal examination of the adaptation to poverty-related stress model: Predicting child and adolescent adjustment over time. *Journal of Clinical Child & Adolescent Psychology*, *42*, 713-725. doi-org. /10.1080/15374416.2012.755926
- Walters, G. D. & McAuliff, B. D. (2019). Predicting early adolescent offending with criminal victimization and delinquent peer associations by way of negative attitudes toward the police. *Law and Human Behavior*, *43*(6), 517–526. doi.org10.1037/lhb0000341.

- Watts, R. J., & Flanagan, C. (2007). Pushing the envelope on youth civic engagement: A developmental and liberation psychology perspective. *Journal of Community Psychology, 35*, 779-792. doi-org. /10.1002/jcop.20178
- Woolard, J. L., Harvell, MPP, S., & Graham, Ph. D, S. (2008). Anticipatory injustice among adolescents: Age and racial/ethnic differences in perceived unfairness of the justice system. *Behavioral Sciences & the Law, 26*(2), 207-226.
- Wubben, M. J., De Cremer, D., & van Dijk, E. (2012). Is pride a prosocial emotion? Interpersonal effects of authentic and hubristic pride. *Cognition & Emotion, 26*, 1084-1097. doi.org/10.1080/02699931.2011.646956

Table 1. Characteristics of three profiles.

	Negative Attitudes/Low Emotion (34.4)	Moderate Attitudes/Mixed Emotions (37.0%)	Positive Attitudes/Positive Emotion (28.7%)
Legal attitudes	2.39(.09)a	2.71(.07)b	2.84(.06)b
Belief in a just world	3.14(.08)a	3.45(.08)b	3.53(.09)b
Primary control	2.23(.11)a	2.49(.11)ab	2.67(.12)b
Secondary control	2.28(.07)a	2.34(.07)a	2.31(.08)a
Guilt	1.15(.04)a	1.46(.08)b	2.28(.09)c
Concern	1.21(.05)a	1.42(.07)b	2.10(.10)c
Pride	1.37(.06)a	2.22(.11)b	2.17(.08)b
Trust	1.42(.08)a	2.31(.10)b	2.34(.10)b
Juvenile convictions	2.34(.14)a	2.78(.26)a	2.26(.19)a

Note: Means (standard errors). Juvenile conviction = number of previous convictions, square root transformed. Manifest indicators that do not share a subscript (i.e., within row) are significantly different at  $p < .05$ .



Figure 1. Three latent profiles of legal attitudes, beliefs, and emotions.

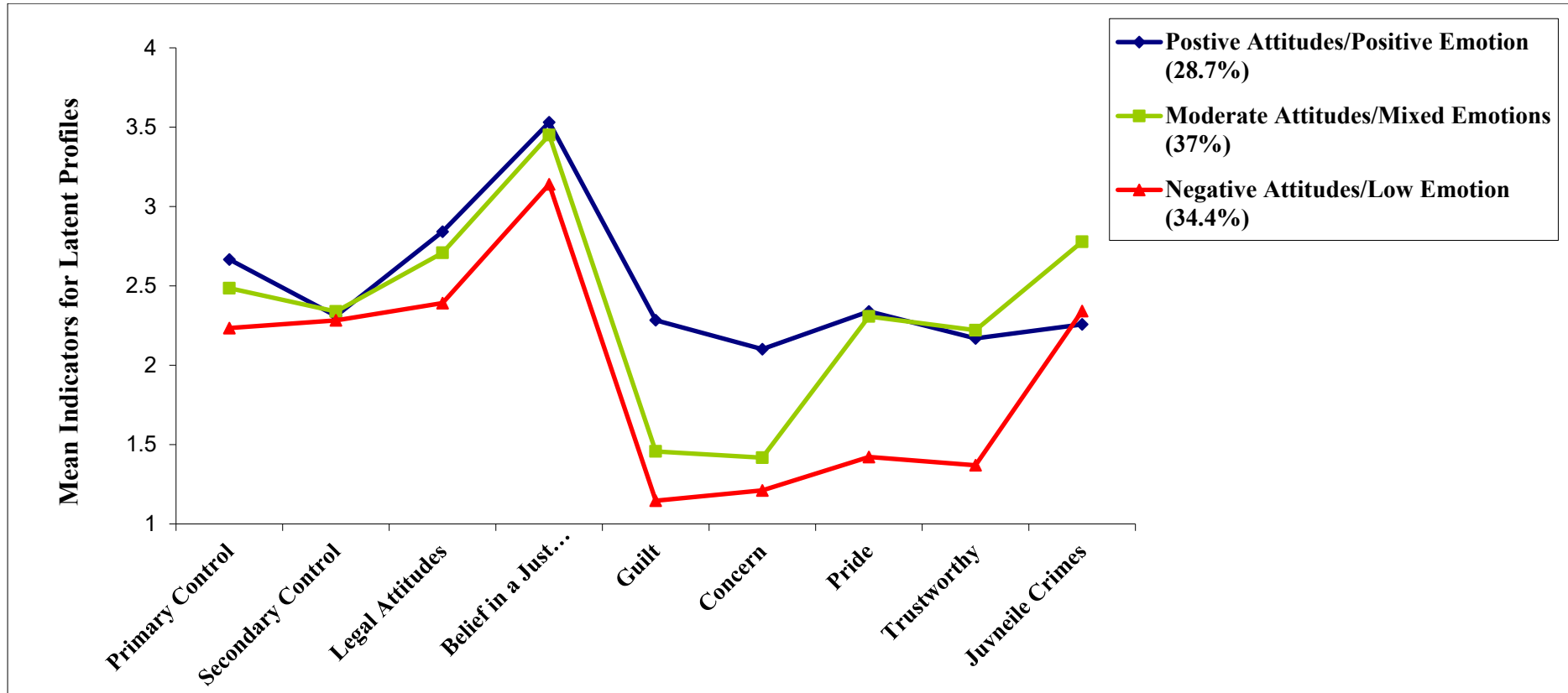
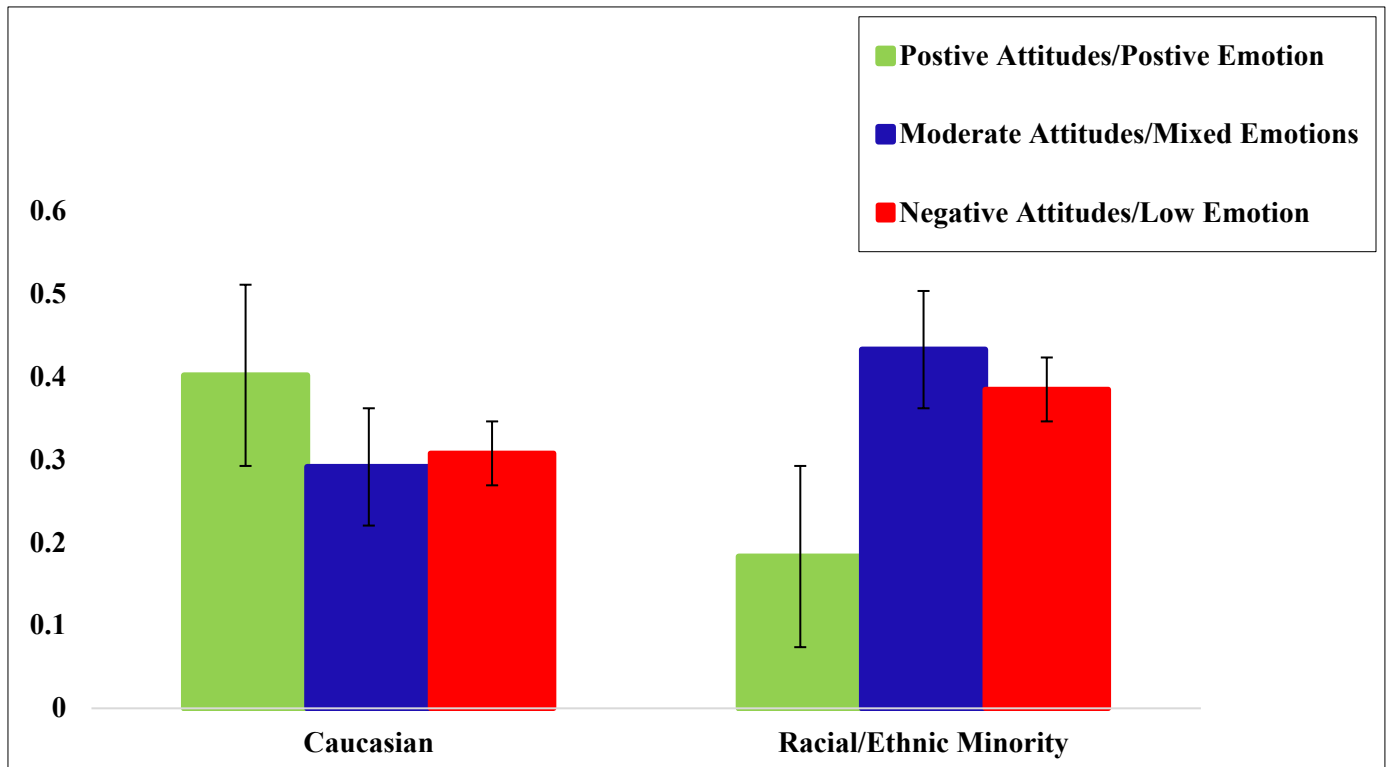


Figure 2. Decreased likelihood of positive attitude/emotion profile membership as a function of minority racial/ethnic status.



*Note.* Significant differences between *Positive Attitudes/Positive Emotion* and *Moderate Attitudes/Mixed Emotions* profile in odds of minority racial/ethnic status; trend differences between *Positive Attitudes/Positive Emotion* profile and *Negative Attitudes/Negative Emotion* in odds of minority racial/ethnic status.