The Role of Peer Arrests on the Development of Youths' Attitudes Towards the Justice System

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During adolescence, youths develop attitudes about the justice system. Although there is consistent evidence that personal experiences with legal actors contribute to attitudes toward the justice system, adolescents' attitudes may also be influenced vicariously through their friends' experiences with the justice system. Using data from a sample of 1,216 first-time male adolescent offenders, the present study examines how attitudes toward the justice system develop over 24 months following the adolescent's first arrest. Even after accounting for personal justice system experiences, including self-reported offending, time on the streets, and contacts with the police, results indicate that adolescents with friends who were arrested report more negative attitudes toward the justice system than those without friends who were arrested. Further, experiencing a friend's arrest has a larger impact on the attitudes of youths who are experiencing it for the first time. We provide evidence that attitudes toward the justice system are a product of accumulated social experiences—both personal and vicarious—with the justice system.

Keywords: adolescent development, legal socialization, procedural justice

There is variation in the degree to which one views legal entities and processes as valid, effective, and just (Tyler, 1990, 2006). Theoretical and empirical evidence suggests that individuals with a negative view of the justice system do not consider the system to be a legitimate or fair institution, and as a result are more likely to break the law (Reisig, Wolfe, & Holtfreter, 2011; Sampson & Bartusch, 1998; Tyler, 1990). Although adults have been the focus of most research on views of the justice system, a normative part of adolescence includes developing attitudes about this institution (Fagan & Tyler, 2005). Adolescents develop these attitudes through the process of "legal socialization," where personal and vicarious experiences with the justice system shape a youth's

perceptions of its legitimacy (Fagan & Tyler, 2005; Piquero, Fagan, Mulvey, Steinberg, & Odgers, 2005). The peer context is particularly salient during adolescence (Brown & Larson, 2009), and may contribute to socializing youths' perceptions. Although it has been theorized that adolescents' attitudes may be influenced vicariously, through the experiences that their peers have with the justice system (Fagan & Tyler, 2005), there is scant empirical research to support this postulation. To fill this void, the present study examines the impact of a peer's arrest on youths' attitudes toward the justice system.

Justice System Legitimacy Attitudes

Justice system legitimacy describes how certain qualities of the justice system cause citizens to trust and obey the rules and rulings that proceed from the system (Beetham, 1991; Sunshine & Tyler, 2003; Tyler, 1990, 2006). One's sense of justice system legitimacy reflects an orientation toward the social responsibility to abide by the law (Beetham, 1991; Kelman & Hamilton, 1989). According to Tyler and Huo (2002), (a) there is individual variation in views of the legitimacy of legal authority, (b) an individual's justice system legitimacy attitude affects his or her behavior, and (c) an individual develops these legitimacy attitudes based on his or her social interactions and experiences. The third tenet, the role of social experiences on attitudes toward the justice system, is the focus of the present study.

Adults typically feel that the justice system is legitimate (Tyler, 1990; Tyler & Huo, 2002), an attitude that appears to be relatively stable through adulthood (Fine & Cauffman, 2015; Gau, 2010; Piquero et al., 2005). However, direct or vicarious experience with the law may alter attitudes about the justice system, such that noted

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instances of *in*justice may lead one to believe the justice system is less legitimate (Rosenbaum, Schuck, Costello, Hawkins, & Ring, 2005; Sunshine & Tyler, 2003), ultimately undermining the obligation to obey (Agnew, 1992; Sherman, 1993; Tyler, 2006).

Legal Socialization During Adolescence

Less is known about justice system legitimacy attitudes among youth. Although there is evidence that children generally feel that the justice system is legitimate, this attitude may become more negative over time and experience across adolescence, before increasing (and stabilizing) in adulthood (Fagan & Tyler, 2005). As with adults, youths base their legitimacy attitudes on personal or vicarious experiences (Piquero et al., 2005). For the purposes of the present study, we define a "personal experience" with the justice system as any contact a youth himself had with legal actors and institutions, such as police stops or arrests. A "vicarious experience" is defined as any such contact experienced by someone in the youth's social context—in the case of the current study, a friend

Fagan and Tyler (2005) describe the process of developing attitudes toward the justice system, termed "legal socialization," as an internalization and appraisal of society's rules and mechanisms of rule enforcement (Fagan & Tyler, 2005; Fagan & Piquero, 2007; Piquero et al., 2005). From this perspective, justice system legitimacy is an interactive construct; as youth observe the justice system in action—either through their own experiences or the experiences of those around them—youth develop a corresponding orientation toward the justice system (Sprott & Greene, 2010).

Indeed, there is evidence that a youth's social context (the attitudes and factual experiences of family, peers, and the neighborhood) also informs the youth's attitudes toward the justice system. For example, sons are more likely to hold negative attitudes toward the justice system if their mothers hold similarly negative attitudes (Cavanagh & Cauffman, in press). A youth's neighborhood is also a context through which his or her attitudes may be socialized; there is evidence that greater neighborhood-level disadvantage is associated with more negative views of the justice system (Kirk & Papachristos, 2011; Sampson & Bartusch, 1998). Importantly, youths who have witnessed their friends being stopped by police (Brunson, 2007; Flexon, Lurigio, & Greenleaf, 2009) or whose friends are engaged in antisocial behavior (Fagan & Tyler, 2005; Nivette, Eisner, Malti, & Ribeaud, 2015) are more likely to view the justice system negatively.

Socialization by Peers

One likely influence on legal socialization is the peer group. As youths transition from childhood to adolescence, the focal target of their social interactions shifts from inside the home to peers (Brown & Larson, 2009). Just as associating with delinquent peers increases the likelihood that a youth will engage in antisocial behavior (Dodge, Coie, & Lynam, 2006), a delinquent peer group may also serve as a model for youths' attitudes about the justice system (Fagan & Tyler, 2005).

To date, few studies have directly examined the experiences of peers as a vicarious means through which adolescents' attitudes toward the justice system develop. As is the case with adults (Rosenbaum et al., 2005), Romain and Hassell (2014) found that

community adolescents perceive the police more negatively when they "heard about a bad experience" with the police from a friend. Similarly, Flexon and colleagues (2009) found that, among a large sample of high school students, witnessing another youth being treated disrespectfully during a police stop was the strongest predictor of negative attitudes toward police, above and beyond the effect of gang membership, school attachment, and prosocial beliefs. However, these studies are limited by the scope of their outcome. Attitudes toward police constitute a portion of the justice system, but youth may feel differently about the system generally than about police specifically.

Giordano (1976) compared the attitudes about the justice system generally among a sample of juvenile offenders to those in a sample from the community. Although there were no differences between the attitudes of offenders and nonoffenders, youths with a greater number of system-involved friends viewed the justice system more negatively than youth with fewer system-involved friends. This was true among both juvenile offenders and community youth. However, this study was not longitudinal in design, and could not track trajectories of adolescents' justice system attitudes.

Two studies have tracked youths' attitudes toward the justice system over time. Nivette and colleagues (2015) found that, independent of youths' prior attitudes and personal contact with police, those who self-identified belonging to a delinquent peer group (as opposed to those who did not) reported more negative attitudes toward the justice system. However, this study used a community sample, and did not measure peers' actual contact with the justice system (e.g., an arrest). Youth who are themselves delinquent may be more likely to have peers who come into contact with the justice system directly, providing a better measure of a vicarious experience with the justice system. Among serious youth offenders, Fagan and Tyler (2005) reported that a delinquent peer group (operationalized by the extent to which a youth's friends were involved in various antisocial activities, including gangs, violence, illegal means of generating income, substance use, and past justice system involvement) was associated with a more negative view of the justice system. It is likely that serious youth offenders feel more negatively about the justice system than youth who have experienced contact with the justice system for the first time, and that their own past system involvement may muddy the role of a vicarious experience with the justice system.

Present Study

To address the limitations of past work, we tested the role of vicarious justice system experiences (i.e., the arrests of friends) on a youth's attitudes toward the justice system. Using a sample of first-time juvenile offenders, we addressed two principal aims. First, we examined the developmental trajectory of a youth's attitude toward the justice system following his first arrest. Second, we examined the extent to which experiencing the arrest of a friend alters a youth's attitude toward the justice system over time, above and beyond the youth's personal experience. Specifically, we examined knowledge of a friend's arrest, as opposed to solely examining the effects of directly experiencing a friend's arrest. Because attitudes toward the justice system are theorized to crystallize with age, we also examined whether age affects the developmental trajectory of perceptions of legitimacy.

The present study extended previous work on vicarious legal socialization in several ways. First, we used a sample of first-time adolescent offenders. Youth in the present sample (ages 13 to 17 at study enrollment) are more likely to be more malleable in their justice system attitudes, relative to adults, as they have had minimal personal experience with the system (Fagan & Tyler, 2005). In addition, because the youth were first-time offenders, we were able to track how their attitudes evolved after their first contact with the legal system. Additionally, youth involved in the justice system are more likely than community youth to have friends who are also involved in the justice system. For these reasons, a sample of first-time offenders is the most appropriate in which to test the relative effect of personal experience compared with vicarious experience.

Second, our outcome of interest is justice system legitimacy, broadly defined. Unlike much of the previous research on adolescents, we did not limit our analyses to attitudes toward police alone, but instead considered the way that youth felt about the justice system and its actors as a whole. Although police are an important legal authority, they do not represent the entirety of the legal system. Thus, we investigated how youth developed attitudes about the legitimacy of the broader justice system. Likewise, the present study operationalized a "vicarious experience" as the arrest of a close friend, to capture youth whose friends had experience with the justice system broadly, rather than a single incident such as a police stop.

Finally, because the present study was longitudinal in design, we were able to examine the effects of peer arrests on *changes* in a youth's attitudes over time. Few studies have examined how youth attitudes toward the justice system change over time (Fine & Cauffman, 2015; Piquero et al., 2005; Stewart, Morris, & Weir, 2014), and none has tested how an intervening social experience may alter a youth's attitudinal trajectory.

Method

Participants

The sample included 1,216 male juvenile offenders, ages 13 to 17 (M = 15.3, SD = 1.3), from the Crossroads Study, which followed male adolescent offenders after their first official contact with the juvenile justice system. The youths had each been arrested for a range of nonfelony offenses, with the most frequent charges including vandalism (17.5%), theft (16.7%), possession of marijuana for personal use (14.8%), and assault and battery (12.5%). Youths were sampled from three sites: Philadelphia, Pennsylvania (N = 533); Jefferson Parish, Louisiana (N = 151); and Orange County, California (N = 532). Of the initial 1,216 youth enrolled in the study, approximately 96% completed the 6-month interview, 94% the 12-month interview, 94% the 18-month interview, and 93% the 24-month interview. Consistent with the overrepresentation of racial/ethnic minority youth in the juvenile justice system, the sample was racially diverse: Latino (46%), Black (37%), White (15%), and other (2%).

Procedures

Signed parental consent and youth assent were obtained for all participants before interviews were conducted. Participants were

informed of the nature of the study and were told that there was no penalty for not participating. The Institutional Review Board (IRB) at all three institutions approved the study procedures. Upon obtaining consent, youth completed an interview a maximum of 6 weeks after the disposition hearing for their first arrest, as well as follow-up interviews approximately 6, 12, 18, and 24 months after their initial interview. Face-to-face interviews with the youth ranged from 2-3 hours and were documented using a secure computer-administered program. All interview responses are protected by a Certificate of Confidentiality issued by the Department of Justice. This protects participants' privacy by exempting their responses and identity from subpoenas, court orders, or other types of involuntary disclosures. Participants were given a detailed explanation of the Certificate of Confidentiality before beginning the interview and were reminded again before sensitive questions, such as those about reoffending, were asked.

Measures

Demographic information. Youth self-reported general demographic information, including age and race.

Peer arrests. At each interview, youth were asked to report whether any of their friends had been arrested during the prior 6 months. Of the 1,216 youth in the study, 50.5% (N = 614) had experienced a friend's arrest before being enrolled in the study. Of the 602 youth who had not experienced a friend's arrest before enrollment, 50.4% experienced one during the study period. The time of the friend's arrest was fairly evenly distributed across the follow-up periods: 35.6% experienced a friend's arrest within the first 6 months of the study, 30.4% within 6 to 12 months, 29.6% within 12 to 18 months, and 26.4% within 18 to 24 months.

Self-reported offending. Involvement in criminal behavior during each recall period was assessed using the Self-Report of Offending (SRO; Huizinga, Esbensen, & Weiher, 1991). Participants reported whether they had been involved in any of 24 criminal acts ranging in severity from selling drugs to homicide. Responses were summed to create variety scores, which indicate the number of different types of criminal acts that the youth engaged in during each 6-month period divided by the total number of different criminal acts on the list (see Table 1). Variety scores are widely used in criminological research because they are highly correlated with measures of seriousness of antisocial behavior, yet are less subject to recall bias than are self-reports of frequency of antisocial behavior (see Hindelang, Hirschi, & Weis, 1981; Osgood, McMorris, & Potenza, 2002).

Personal justice system contacts. Using a life calendar, participants were asked at each assessment whether they had been picked up by the police and accused of committing a crime during the recall period. Previous research suggests that retrospective data gathered using this life calendar approach are accurate (Freedman, Thornton, Camburn, Alwin, & Young-Demarco, 1988) and that the data structure of the life calendar fits the structure of respondents' autobiographical memories well (Belli, 1998). For example, Caspi and Amell (1994) found that life events reported three years earlier matched retrospective life history calendar data with more than 90% accuracy. As such, the life calendar data collection method can provide a more continuous and complete representation of life events than is possible with other questionnaire mea-

Table 1
Sample Descriptive Statistics

Time	Experienced a peer arrest %	Self-reported offending variety proportion score $M(SD)$	Picked up by the police %	Percentage of time spent in facilities <i>M</i> (<i>SD</i>)	Legitimacy M (SD)
Baseline	50.5%	.06 (.09)	_	_	2.58 (.54)
0-6 months	35.6%	.06 (.09)	10%	2.73%	2.54 (.57)
7–12 months	30.4%	.05 (.09)	10.1%	5.82%	2.53 (.58)
13-18 months	29.6%	.04 (.08)	8.5%	7.99%	2.49 (.58)
19-24 months	26.4%	.04 (.08)	7.5%	6.99%	2.48 (.60)

sures. The percent of participants who had been picked up by the police at recall period is presented in Table 1.

Street time. Because incarceration can limit opportunity to engage in antisocial acts (Piquero et al., 2001) and likely affects perceptions of the justice system, it is necessary to account for time spent without access to the community. Again using the lifecalendar approach, youths reported the number of days during the recall period that they had been in a detox/drug-treatment program, psychiatric hospital, residential treatment program, or secure institution. Youth spent a small proportion of each study recall period in facilities (see Table 1).

Legitimacy. Tyler's measure of justice system legitimacy was used to assess how the youth perceived the legitimacy of the justice system (Tyler, 1990, 1997; Tyler & Huo, 2002). Using a 5-point scale ranging from *strongly disagree* to *strongly agree*, youth indicated their agreement with 11 statements about the legitimacy of the justice system and its actors (e.g., "I have a great deal of respect for the police," or "The basic rights of citizens are protected in the courts"). Higher values indicate higher levels of perceived legitimacy of the law (Tyler, 2009). Psychometric analyses of the scale indicated that it was reliable at baseline ($\alpha = .82$), six months ($\alpha = .839$), 12 months ($\alpha = .851$), 18 months ($\alpha = .847$), and 24 months ($\alpha = .861$). Means and standard deviations at each age are presented in Table 1.

Plan of Analysis

Two-level growth-curve modeling (Fitzmaurice, Laird, & Ware, 2011; Liu, Rovine, & Molenaar, 2012; Singer & Willett, 2003) was used to estimate the associations between peer arrests on youths' attitude formation, with longitudinal data involving four assessment points. Analyses were estimated with Level 1 as time and Level 2 as individuals. These growth curve models examined how attitudes developed over time after the youth's first arrest. First, we estimated unconditional means models to examine whether there was sufficient between-person variability to conduct multilevel modeling. The intraclass correlation coefficient provides the percentage of total variance of legitimacy that is attributable to between-participants differences. Results indicated that 62.3% of the variability in legitimacy occurred between participants, suggesting that multilevel modeling was appropriate.

Next, we estimated unconditional growth models to examine the average pattern of change in perceived legitimacy since initial arrest across all participants. These growth models determine whether there is significant variability in initial levels (intercept) and change (slope) over time. Because sufficient variability existed in both intercept and slope, we proceeded to estimating conditional growth models of legitimacy. First, we examined how legitimacy developed once accounting for a variety of key Level 1 predictors (age centered on 13, self-reported offending, street time, being picked up by the police, and self-reported offending). We expanded on this model by adding prior friend's arrest as a Level 2 predictor. This model examined whether prior experience with friend's arrest affected the development of perceptions of legitimacy. Finally, we expanded on this model by adding the subsequent arrest of a friend as a Level 1 predictor. This model answered two questions. First, it answered whether experiencing friend arrests affected the development of legitimacy above and beyond the effects of personal contacts. Second, it examined whether the effects of experiencing a friend arrest were particularly pronounced if the youth experienced it for the first time.

Results

Descriptive statistics regarding the percentage of youth who experienced a friend's arrest, the self-reported offending variety proportion scores, the percentage of youth who had been picked up by the police, the percentage of time youth spent in facilities, and youths' attitudes toward the justice system are presented in Table 1.

Unconditional growth models were conducted to examine how attitudes toward the justice system generally develop in the two years after a first arrest. Results from the unconditional growth models indicate that the average youth's legitimacy score at baseline was 2.57 (p < .001), and declined over time (dydx = -.03, p < .001). Results of likelihood-ratio χ^2 tests suggest that both the random intercept ($\chi^2 = 1329.38$, p < .001) and random slope ($\chi^2 = 2268.15$, p < .001) were significant. This indicates that multilevel modeling is appropriate. We then examined how legitimacy developed after accounting for age, self-reported offending, street time, being picked up by the police, and self-reported offending. Results indicate that both the random intercept ($\chi^2 = 30.109$, p < .001) and random slope $(\chi^2 = 30.39, p < .001)$ were significant (see Figure 1). All covariates were significant, such that older age (p = .037), less time on the streets (p = .001), more police pickups (p = .028), and more self-reported offending (p < .001) were related to more negative attitudes toward the system.

To expand on this model, we added the prior arrest of a friend as a Level 2 predictor. This model tested whether prior experience with a friend's arrest affected the changes in perceptions of legitimacy (see Model 1 in Table 2). Results indicated that prior experience with a friend's arrest had a small effect on perceptions of legitimacy (Cohen's $f^2 = .01$). Youth who did not experience the prior arrest of a friend reported higher perceptions of legiti-

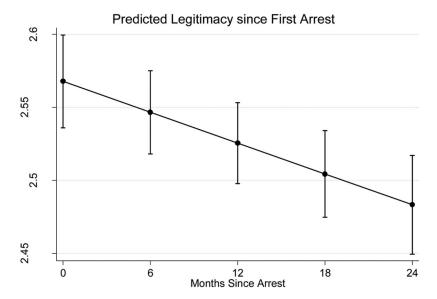


Figure 1. Growth model of legitimacy for the 24 months after a first arrest.

macy than youth who had experienced a friend's arrest (p=.003). Although the slopes were not different from each other (p=.894), legitimacy scores decreased over time both for youth who had (dydx=-.02, p=.016) and for those who had not experienced a friend's arrest (dydx=-.02, p=.008). Importantly, once friends' prior arrests were taken into account, age was no longer related to attitudes toward the justice system (p=.144).

In the final model, we examined the effect of subsequent arrests of friends on the development of legitimacy (see Model 2 in Table 2). To evaluate the fit of models in Table 2, three goodness-of-fit indices were used (Singer & Willett, 2003): the deviance statistic, Akaike's information criterion (AIC), and the

Bayesian information criterion (BIC). The decrease in the deviance statistic across models was significant (p < .01), indicating that Model 2 provided the better fit. Comparisons between models using the AIC and BIC were similar. Overall, the model indicates that experiencing a friend's arrest affects the development of legitimacy (Cohen's $f^2 = .019$). Experiencing a peer's arrest had a small effect on the attitudes of youth who already experienced a friend's arrest in the past (b = -.11, p < .001). Experiencing a peer's arrest, however, had relatively larger effects on perceptions of legitimacy among those who had not experienced this previously (see Figure 2). Indeed, experiencing a friend's arrest had a larger effect on youths'

Table 2
Conditional Growth-Curve Models of Legitimacy for the 24 Months After a First Arrest

	Model 1		Model 2	
Variable	b (SE)	95% CI	b (SE)	95% CI
Fixed effects				
Intercept	2.71 (.04)***	[2.63, 2.78]	2.73 (.04)***	[2.67, 2.81]
Prior friend arrests	13 (.04)**	[20,04]	$14(.04)^{***}$	[22,07]
Rate of change				
Prior friend arrests	$02(.01)^*$	[04,01]	$02(.01)^*$	[04,01]
No prior friend arrests	$03(.01)^{**}$	[-04,01]	$03(.01)^{**}$	[03,02]
Variance components				
Within-person	.11 (<.01)*	[.10, .12]	.10 (<.01)*	[.10, .13]
Level 2-between person				
In initial status	.25 (.02)*	[.21, .29]	.17 (.01)*	[.15, .19]
In rate of change	.01 (.01)*	[.01, .02]	.01 (<.01)*	[<.01,.01]
Covariance	.03 (<.01)*	[03,02]	.01 (<.01)*	[<.01, .05]
Model fit				
Deviance	5060.61		5058.66	
AIC	5084.61		5056.66	
BIC	5159.92		5134.51	

Note. Standard errors are in parentheses. Controls in each model include age centered on 13, self-reported offending, street time, being picked up by the police, and self-reported offending. AIC = Akaike's information criterion; BIC = Bayesian information criterion.

^{*} p < .05. ** p < .01. *** p < .001.

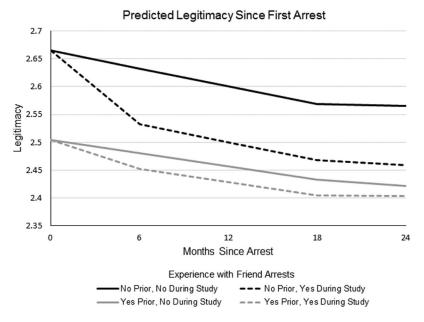


Figure 2. Growth model of legitimacy for the 24 months after a first arrest.

attitudes when they experienced a friend's arrest for the first time (b = -.201, p = .005), than if they had experienced it in the past. As with the previous model, age was no longer related to attitudes toward the justice system (p = .101) once prior arrests of friends were taken into account.

Discussion

Social scientists have theorized that vicarious contact with the justice system, such as the arrest of a friend, shapes adolescents' attitudes toward the justice system (Fagan & Tyler, 2005). The results of the present study indicate that that this assertion is true. Specifically, even after taking into account adolescents' self-reported offending, time spent in facilities, and personal contact with the system, friends' arrests negatively affect adolescents' perceptions of the justice system. In fact, adolescents with friends who had been arrested viewed the system more negatively compared to adolescents who did not have a friend who had been arrested. Additionally, adolescents' friends' arrests lead to the development of more negative attitudes regarding the justice system over the course of a 2-year period. Further, the effect of a friend's arrest on attitudes toward the justice system was stronger when experienced for the first time.

Prior studies have illustrated that adolescents with more deviant peers tend to have more negative justice system attitudes (Fagan & Tyler, 2005). To date, however, past studies have lacked direct measures of vicarious system contact, such as the arrests of friends. Although there is consistent evidence (and this study confirms) that personal, direct experiences with legal actors contribute to the development of perceptions of the justice system (Hinds, 2007, 2009; Piquero et al., 2005; Sprott, & Greene, 2010), there is much less empirical evidence that vicarious contact with the system affects the development of these attitudes. The current study provides the first evidence that adolescents' views of the system are indeed influenced by vicarious contact (as measured by friends' arrests) with the system.

In fact, the results of this study show that it is the product of accumulated social experiences—both personal and vicarious—with legal actors that influence adolescents' attitudes toward the justice system (Fagan & Tyler, 2005).

It is also important to note that the development of justice system attitudes through vicarious contact takes place across adolescence and is not limited to experiences before or during early adolescence. In fact, younger adolescents were not more vulnerable to their first experiences of a friend's arrest; the effect of a friend's arrest on adolescents' perceptions of the justice system appear to be independent of the age of the adolescent. Even among older adolescents in the study, first experiences of friends' arrests negatively influenced justice system attitudes. These findings suggest that perceptions of the justice system may not be fully formed during childhood (Fagan & Tyler, 2005). Rather, adolescence is a developmental period during which legal socialization continues to take place, and the first experience of a friend's arrest appears to have a particularly powerful effect on beliefs about the legitimacy of the justice system.

One of the strengths of this study is the use of a sample of first-time juvenile offenders. Even though all the youth in this study had been arrested, approximately half of the youth had not yet experienced a friend's arrest by the time the study began. This provided us with a unique opportunity to assess attitudes toward the system both before and after experiencing a friend's arrest for the first time. Also, analyzing these data longitudinally allowed us to assess within-person changes in attitudes while controlling for prior perceptions. Thus, at each time point, we were able to determine the effect of friend's arrest on attitudes while accounting for adolescents' prior attitudes toward the system. Moreover, variability in the offenders' age, as well as the timing of the first friend's and subsequent friends' arrests, allowed us to compare the effect of first friend's arrests to the effect of subsequent friends' arrests on

justice system attitudes at different ages. Other strengths of the study include our ability to take into account potential confounds that have been shown to have the strongest effects on justice system attitudes (i.e., self-reported offending and personal contact with the system). Also, the use of data obtained from adolescents living in different regions of the United States mitigates the effects of regional policies and practices that may affect attitudes toward the justice system.

Despite these strengths, several study limitations need be considered. First, the extent of adolescents' knowledge of their friends' arrests is unclear. Although adolescents reported the occurrence of a friend being arrested, no data were obtained on what happened during friends' arrests, whether these details were communicated to the adolescent, or whether the adolescent was present at the time of the arrest. As such, it is unclear whether the adolescents' friends viewed their own arrest as unjust, whether friends communicated this to the adolescent, and whether the adolescent also viewed the arrest as unjust. Accordingly, caution should be taken before assuming that a friend's arrest is necessarily viewed as unjust by either the friend who was arrested or the target adolescent. Nonetheless, our findings indicate that merely knowing of the occurrence of a friend's arrest negatively impacts adolescents' views of the system. Future studies should examine the nature and extent of the knowledge adolescents have about their friends' arrests and whether friends' arrests were actually viewed as unjust. This would allow us to better determine whether knowledge about friends' unjust arrests affect the development of negative justice system attitudes differently or more strongly than merely knowing of a friend who was arrested. A second limitation of the current study is that the study did not include a sample of nonoffenders. If a friend's arrest also negatively affects nonoffenders' perceptions of the justice system, this would support the finding that vicarious experiences are related to attitudes toward the justice system. Another limitation of the current study was our inability to test for the effects of family members' arrests on justice system attitudes. Although existing evidence suggests that parents socialize their children's attitudes about the justice system (Cavanagh & Cauffman, in press), it is not known whether the vicarious experience of a parent's arrest likewise impacts a youth's attitudes. However, too few adolescents in the present sample experienced a family members' arrest over the course of the first 24 months of the study (14.6%) to test this potential influence.

It is important to consider current findings that nondirect, vicarious system contact affects the development of adolescents' justice system attitudes in the climate of today's culture. Recent media coverage has brought to light the often unjust and sometimes fatal interactions that adolescents have with legal authorities, including such prominent cases as those involving Michael Brown (18 years old at death; Dewan & Oppel, 2015) and Tamir Rice (12 years old at death; Buchanan et al., 2014). Our results could not directly address the influence of these incidents on the perceptions of adolescents' attitudes toward the juvenile justice system. However, within the current cultural context of these incidents, it is important to understand how adolescents' beliefs about the justice system are affected not only by their own contact with the institution, but by their knowledge about how their friends and other young people are treated by legal authorities.

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