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Susceptibility to Peer Influence: Its Causes and Consequences for Delinquency

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Susceptibility to Peer Influence: Its Causes and Consequences for Delinquency

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B.A. University of Texas at Austin, 2012

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An abstract of a thesis submitted to the Faculty of the James T. Laney School of Graduate Studies of Emory University in partial fulfillment of the requirements for the degree of Master of Arts in Sociology 2015.

Abstract

Susceptibility to Peer Influence: Its Causes and Consequences for Delinquency

By Stephanie Greeson

This paper examines whether susceptibility conditions the effect of delinquent peer association on delinquency, replicating and extending prior research. This study also examines factors that influence susceptibility to peer influence, including bonds to family and society and level of self-control. Measures of social bonds focus on attachment, commitment, and conventional beliefs. The self-control measures index impulsivity and risk-taking. Social learning is measured by association with delinquent peers. Data are from the Research on Pathways to Desistance study of juvenile offenders in Phoenix, AZ and Philadelphia, PA. Linear regression analysis indicates that social bonds, self-control, social learning, and susceptibility to peer influence have a significant impact on self-reported delinquency. Susceptibility to peer influence, however, does not condition the effect of delinquent peer association on delinquency. A second regression model indicates that impulse control has the biggest effect on susceptibility to peer influence.

Susceptibility to Peer Influence: Its Causes and Consequences for Delinquency

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Susceptibility to Peer Influence: Its Causes and Consequences for Delinquency

Adolescence is a crucial time in development when the influence of adults, particularly parents, is diminished and the importance of peers is amplified. Adolescents tend to conform to their peer group, whether they be rule-following or rule-breaking (Pratt 2010). It is documented in criminological research that juveniles commit crime in groups and only rarely act alone. These juveniles are conforming to antisocial behaviors and engaging in delinquent behavior. However, not all adolescents conform to their peers, some are more susceptible to peer influence than others. Criminological research has devoted much attention to the effect of delinquent peer association on delinquency, but has only rarely considered variation in susceptibility to peer influence. Miller (2010) examined whether susceptibility conditions or influences the effect of delinquent peer association on delinquency, but her sample was limited to Mexican-American juveniles. This study will extend her work by examining a racially and ethnically diverse sample of juvenile offenders. And a few studies have looked at the causes of susceptibility, but these studies have neglected certain potential causes, particularly those having to do with social bonds to others. This study will examine such causes, further building on the prior research.

Another pathway to understanding susceptibility to peer influence is to see whether it conditions the effects of other measures influencing delinquency. For example, Miller (2010) examined a sample of Mexican-American juveniles. The results suggest that juveniles who are highly susceptible are more likely to commit delinquent acts when they have delinquent peers than those who are less susceptible. Unfortunately, Miller's

study only sampled one particular demographic in the juvenile population. This study will further Miller's work by looking at a juvenile sample that is demographically diverse.

Previous research on susceptibility is difficult to synthesize due to multiple definitions of the term and different terms describing the same concept. Perhaps the first work to research the concept of susceptibility is Berndt's 1979 article on changes in conformity to parents and peers. Berndt's concept of conformity to peers closely resembles later definitions of susceptibility. Berndt and his predecessors frequently used the Asch conformity experiments from psychology in order to measure the degree an individual's own beliefs are influenced by those of the majority, or in most cases their peers. A decade later researchers turned to experiments and researching levels of adolescent autonomy to their peers. For example, Steinberg and Silverberg (1986) observed patterns of autonomy among boys and girls in their relationship with their parents, peers, and self-reliance. Later research moved the discussion to focus on the effects of peer pressure on an adolescent's behavior. For instance, Steinberg and Monahan (2007) examined how peer pressure influences a juvenile to engage in antisocial behavior. Following current research, susceptibility to peers is defined as "the differential tendency of individuals to be influenced by the attitudes, beliefs, and behaviors of their peers" (Allen, Porter, and McFarland 2006; Brown 2004; Meldrum, Miller, and Flexon 2013).

This study contributes to the literature on susceptibility is by analyzing a sample of delinquent juveniles, rather than a sample taken from the general population. Studying this population is important for a couple of reasons. First, we can see whether Miller's

(2010) results on susceptibility hold in a delinquent sample of juveniles. Second, researchers can prevent further delinquency, and possibly adult criminal acts, by understanding the mechanisms behind why these juveniles decided to commit delinquent acts.

A final way this study contributes to the current literature on susceptibility is by utilizing a neutral measure of susceptibility. This is an important contribution to the literature because other studies have used a susceptibility to *delinquent* peer influence. That is, they have asked juveniles whether they would engage in delinquent acts if their friends were doing so (although see Miller 2010 for an important exception). Such measures are problematic because they may confound the susceptibility to peer influence with a disposition for delinquency. This study further builds on the research by employing a neutral measure of susceptibility. Juveniles are asked whether they would conform to the behavior of their peers. One can assume that these delinquent juveniles associate with other delinquent juveniles. Therefore a measure of susceptibility to delinquent peer influence would not be able to tell us very much about the nature of susceptibility. It would only suggest that delinquent juveniles commit delinquency with other delinquent juveniles. Studying a delinquent population with a neutral measure of susceptibility allows the researcher to understand whether delinquent juveniles are susceptible to their peers' influence, whether they are delinquent or not.

In summary, this present study seeks to add to the literature on susceptibility to peer influence in four primary ways. First, by incorporating a social bond and control theory perspective to understanding the causes of susceptibility to peer influence. Secondly, by analyzing whether susceptibility to peer influences moderates the impact of

association with delinquent peers on self-reported delinquency. Third, by analyzing data from a delinquent juvenile population. Finally, by utilizing a neutral measure of susceptibility to peer influence.

This paper investigates the role of susceptibility to peer influence in delinquency by answering two key questions: What are the determinants of susceptibility to peer influence? Does susceptibility to peer influence[1] moderate the impact of association with delinquent peers on delinquency? This paper tests the following hypotheses:

H1. Juvenile offenders who have (a) weak conventional bonds to society and (b) low self-control are more likely to be susceptible to peer influence than those with strong conventional bonds to society and high self-control.

H2. Susceptibility moderates the association with delinquent peers and delinquency, such that the effect of delinquent peers on delinquency is greater among those high in susceptibility.

I hypothesize that juvenile offenders with weak conventional social bonds to society will be more susceptible to their peers because such bonds involve weak ties to parents and school and a limited desire for further education and advancement. Juveniles who are not tied to parents or school, nor strongly concerned about their future success, should be more readily influenced by peers. In particular, they are less likely to think about or be restrained by parents, school, and future goals when tempted to go along with peers.

Juveniles with low self-control should also be more susceptible to their peers (H1b). Juveniles who are lower in self-control have trouble restraining themselves from acting on their immediate desires and they do not stop to consider the consequences of

[1] For brevity and clarity "susceptibility to peer influence" will be referred to simply as "susceptibility" from now on.

their actions. Instead, they focus on the immediate, short-term benefits or pleasures of the delinquent act. According to Gottfredson and Hirschi (1990:87), juveniles who are low in self-control are more "vulnerable to the temptations of the moment." I believe that juveniles with low self-control (i.e., focused on immediate desires and benefits) will be more susceptible to peer influence because they won't feel the need to think about the consequences of their actions. They are more likely to say "yes" when their peers ask them to do something.

Finally, I hypothesize that susceptibility will condition the effect of delinquent peer association on delinquency. Highly susceptible juveniles should be more likely to respond to delinquent peer association with delinquency. By definition, susceptible juveniles are more likely than juveniles with little susceptibility to conform to peers.

Data from the first wave of the Research on Pathways to Desistance Project of juvenile offenders in Phoenix, AZ and Philadelphia, PA are utilized in this paper. . The study sample consists of 1,354- juvenile offenders aged 14 to 19.

I advance this inquiry by employing the susceptibility measure included in the Research on Pathways to Desistance Project. Results will shed light on the causes of susceptibility and whether susceptibility influences the relationship between associating with delinquent peers and delinquency. The results support the need for additional assessment into understanding the role of susceptibility in delinquency. Below I discuss previous research on susceptibility to peer influence and delinquency, followed by a discussion of the data and methods, and then present tests of the two core hypotheses.

LITERATURE REVIEW

What Are the Determinants of Susceptibility to Peer Influence?

Researchers have looked at biological, psychological, and sociological influences on susceptibility (Baumrind and Moselle 1985; Cillessen and Mayeux 2004; Kiesner et al. 2002; Trucco et al. 2010). However, the focus of this study is on social causes, particularly self-control and bonds to others.

The influence of social bonds on susceptibility. Juveniles with weak bonds to parents and school should be more susceptible to peer influences, whether conventional or delinquent. These individuals have less reason to resist peer influences, since they are less strongly tied to parents and school. Also, they may be more exposed to peers. Adolescents not involved in school activities, not sufficiently bonded to their teachers, and/or not making good grades will not be motivated to perform well or stay in school. I hypothesize that juveniles with no consistent parental monitoring, conventional or moral beliefs, or high perceptions of chances for success are more susceptible.

A few studies have found that as parental monitoring and parental warmth have increased, susceptibility has decreased (Fridrich and Flannery 1995; Whitbeck, Conger, and Kao 1993 [both use susceptibility to peers' negative behaviors]). Another study (Erickson, Crosnoe, and Dornbusch 2000) uses longitudinal data to analyze social bonds and susceptibility to the negative influences of friends. Their results show that juveniles with strong conventional bonds, such as parental attachment and supervision, teacher attachment, educational commitment, community involvement, and minimum exposure to delinquent peers are less likely to be susceptible. These are important studies in

understanding susceptibility, however they utilize a measure of susceptibility that is delinquent in nature. This may have biased the results; those with strong social bonds to conventional others and institutions may have a general aversion to delinquency. Thus, they are more likely to report that they will not conform to the delinquent behavior of their peers. It is unclear whether they are less susceptible to peers who engage in neutral behavior. It is therefore important to determine whether social bonds have a negative impact on the neutral measure of susceptibility used in this study.

The influence of self-control on susceptibility. Prior research has concluded that self-control not only influences delinquency, but also influences how juveniles interact with their peers (Baumeister and Heatherton 1996; Mischel, Shoda, and Mendoza-Denton 2002; Mischel, Shoda, and Peake 1988). The way in which juveniles interact with their peers reflect power dynamics and if the juvenile is a "follower" or a "leader." Juveniles who are more susceptible to their peers might be the followers of the peer group and self-control could be one component in determining this.

Meldrum, Miller, and Flexon (2013) analyze the relationship between self-control and susceptibility. Their study uses a measure of susceptibility that includes both neutral and antisocial behavioral scenarios. However, their analysis focuses on the antisocial peer behaviors in the survey. Meldrum et al. found that individuals with high self-control are less likely to be influenced by their peers. In other words, individuals with low self-control are more likely to be influenced by their peers (or are more susceptible). I hypothesize that this same result will occur in the delinquent sample utilized here.

Susceptibility as a Conditioning Variable

Studies suggest that adolescents differ in their susceptibility to peers (Dielman et al. 1989, 1990; Flannery et al. 1994; Johnson 1979; Steinberg and Monahan 2007). I further argue that susceptibility moderates the association between delinquent peers and delinquency, such that the impact of association with delinquent peers on the juvenile's delinquency is greater for those high in susceptibility.

To date, only one study has analyzed susceptibility as a moderating variable for delinquent peers and delinquency. Miller (2010) hypothesized that the delinquent peer effect is greater for individuals who are more susceptible. Miller supported this hypothesis by analyzing data from a longitudinal study of risky health behaviors among Mexican-American adolescents in South Texas. Miller used two scales to measure susceptibility. The first was created to specifically measure the individual's susceptibility to delinquent peer influence with questions such as, "If your friends stole a car, would you ride" (Miller 2009, pg. 479). The second measure was created to measure susceptibility to non-delinquent peer influence by referencing events a activities such as going to the movies with their friends. Results from both measures show that delinquent peer association is conditioned by the individual's susceptibility. Thus, those juveniles who are highly susceptible are more affected by having delinquent peers than those who are less susceptible. This paper seeks to further Miller's work to see if the above effect remains even in a delinquent juvenile offender sample.

The above review has summarized the previous literature on susceptibility to peer influence. This current study adds to the literature in the following ways. First, by incorporating a social bond and control theory perspective to understanding the causes of susceptibility to peer influence. Secondly, by analyzing whether susceptibility to peer

influences moderates the impact of association with delinquent peers on self-reported delinquency. Third, by analyzing data from a delinquent juvenile population. Finally, by utilizing only a neutral measure of susceptibility to peer influence. In order to achieve this, my paper analyzes the following hypotheses:

H1. Juvenile offenders who have (a) weak conventional bonds to society and (b) low self-control are more likely to be susceptible than those with strong conventional bonds to society and high self-control

H2. Susceptibility moderates the association to delinquent peers on delinquency. (i.e., the effect of delinquent peers on delinquency is greater among those high in susceptibility).

METHODS

Data

Data are from the first wave of The Research on Pathways to Desistance survey (RPD; Mulvey 2004), selected due to its desirable neutral measure of susceptibility to peer influence. RPD is a multi-site and longitudinal study of serious adolescent offenders. The study follows a group of serious adolescent offenders and identifies different pathways to involvement in the juvenile justice system and the characteristics of those juveniles in the system. The PDS followed 1,354 adjudicated youths from Philadelphia, Pennsylvania (N= 700) and Phoenix, Arizona (N=654) from 2000-2010. The juveniles were between the ages of 14 and 19 at baseline. The sample consists of offenders found guilty of an offense (mostly felonies, but some misdemeanor property offenses, sexual assault, and weapons offenses). This paper focuses on the role of susceptibility in a delinquent sample of juveniles. Further work needs to be done on a more representative sample of the population to fully understand the impact of susceptibility on adolescents in general.

Measures

Dependent variable. The Self-Report of Offending scale (Huizinga, Esbensen, & Weiher 1991) was adapted in this dataset to measure the respondents' reports of antisocial and illegal activities. Twenty-four items are used to assess aggressive crimes, income-generating crimes, and public order offenses. These offenses include vandalism, arson, set fire, burglary, shoplifting, received stolen property, used credit card illegally, stole car, sold marijuana, sold other drugs, carjacked, drove drunk, been paid by someone for sex, forced someone to have sex, killed someone, shot someone, shot at someone, robbery with weapon, robbery with no weapon, beaten someone, in fight, fight part of gang, and carried gun. An offending variety score was created, which represents the number of different delinquent acts committed in the previous 6 months[2] -- coded from 0 (no delinquent acts) to 1.0 (all 22 acts were committed). Variety scores have been previously used to assess criminal activity. For example, Hindelang, Hirschi, and Weis (1981) use variety scores to index criminal activity and other studies have been published on the validity of variety scores (Huizinga & Elliott 1985, 1986; Piquero, MacIntosh, & Hickman 2002). The variety score is used because it has the least skewed distribution of the self-report measures included in the dataset (see Appendix C).

Independent variables. Susceptibility to peer influence is a mean over ten items and was developed by Steinberg (2000) to assess how much adolescents act autonomously from their peers ($\alpha = .73$). Individuals are given two conflicting scenarios

[2] A more comprehensive measure for self-reported delinquency would be better. Ideally, a measure of the frequencies of each act would be computed for the previous 6 months. However, the dataset does not include a frequencies for acts committed in the previous 6 months. One could not be computed due to certain sensitive variables (rape and murder) being masked.

and are then asked to choose the one that most likely reflects their own behavior. The scenarios presented are not criminal or delinquent in nature (see Appendix D for full scale). For example, “Some people go along with their friends just to keep their friends happy” and “Other people refuse to along with what their friends want to do, even though they know it will make their friends unhappy.” This measure of susceptibility gives a non-criminal and unbiased view of the influence of peers on juveniles. By using neutral items that do not specify delinquent or conventional behaviors juveniles are measured on their susceptibility to all peers, not just deviant peers. Furthermore, the participant is asked to rate the degree to which the statement is accurate (i.e. “sort of true” or “really true”). The response categories range from 1) It’s really true, I prefer to be an individual, 2) It’s sort of true, I prefer to be an individual, 3) It’s sort of true, I’m influenced by my peers, and 4) It’s really true, I’m influenced by my peers. A low score on this scale signifies that the juvenile prefers to be an individual and is less susceptible to his or her peers. The data is an approximate even split between low (N= 582) and high (N= 560) susceptibility which indicates that there is much variation in the scale.

The variables measuring social bonds are parental monitoring, bonding to teachers, perceptions of chances for success, maternal warmth, and grades in school. Parental monitoring is the overall mean of four items that are each based on a 4-point Likert scale ranging from 1) never to 4) always (α= .92). High scores on parental monitoring indicate that the respondent’s parents were aware of the juvenile’s whereabouts most of the time. The variable bonding to teachers is based on a 5-point Likert scale ranging from 1) strongly disagree to 5) strongly agree (α= .65) and is the mean of three items (e.g., “Most of my teachers treat me fairly”). Juveniles were only

asked this question if they had been in school for over a month prior to the baseline interview. Only 104 juveniles did not answer this question at the baseline and are not included in the analysis. High scores on this variable indicate that the juvenile was highly bonded to his or her teachers. A scale was created for perceptions of chances for success and is based on three questions pertaining to how likely it is for the respondent to have a good job or career, graduate from college, and to earn a good living. Responses are on a 5-point Likert scale ranging from 1) poor to 5) excellent. The three variables were combined to form a single scale that measured perceptions of chances for success (α = .63). Maternal warmth is based on a scale that contains 21 items to assess the maternal relationship with the respondent (α= .92). Responses are on a 4-point Likert scale ranging from 1) never to 4) always, with higher scores meaning a more supportive and nurturing relationship. The final variable measuring social bonds is grades in school. Juveniles were asked what their average grades in school were and the response categories ranged from 1) mostly below Ds to 8) mostly As.

The self-control measure combines the variables impulse control and suppression of aggression from the original dataset (α= .68). These two variables are used to measure self-control because of Gottfredson and Hirschi's self-control theory (1990), which hypothesizes that juveniles with low self-control have difficulty restraining themselves from acting on their immediate desires, including delinquency. However, this is not a perfect measure of self-control and could be improved with measures of high activity levels and preferences for risky activities. Unfortunately, these are not available in the Pathways to Desistance study. Both variables used in this study are scales that rank how much (1 = false to 5= true) the respondents' behavior matches a certain statement. For

example, for impulse control, "I say the first thing that comes into my mind without thinking enough about it," and for suppression of aggression, "People who get me angry better watch out." The variable for impulse control is based on the mean of the eight items and suppression of aggression is based on the mean of the seven items. The items have been reverse coded so that juveniles with very low impulse control and very low suppression of aggression have lower self-control scores. Those with higher scores have more self-control over their impulses and aggression.

The variable measuring peer antisocial behavior (delinquent peers) is the mean of the proportion of peers that engaged in 12 delinquent behaviors in the previous six months (α= .92). The items are a subset of those used in the Rochester Youth Study (Thornberry et al., 1994). Respondents indicate the number of their friends who engage in antisocial behaviors on a 5-point Likert scale ranging from 1) none of them to 5) all of them. The highest score on this measure indicates that the juvenile recorded that all of their peers were involved in antisocial behaviors.

Demographics. The following demographic variables were controlled for in the analyses: age, sex, race/ethnicity, and parent's educational attainment. The age[3] groups are as follows, 14 (12%), 15 (18.8%), 16 (30.4%), 17 (30.5%), and 18-19 (8.3%). In the sample has 1170 males and 184 females (males coded as 1, females coded as 0). The most common race/ethnicity group in the sample is African Americans (42.1%), followed by Hispanics (34%), and Whites (19.2%). Parent's educational attainment was

[3] A recent study (Steinberg and Monahan, 2007) has already suggested that susceptibility decreases with age from 14-18 years old using the same measures and dataset as this study. For this reason, age is not included as a significant independent variable in this paper.

determined by the respondent's biological parents, which has been used previously for studies on this dataset (Steinberg & Monahan 2007). If there was only one parent in the household, then their highest educational attainment was used. The sample is on a scale (1-5) of household educational attainment: below high school education (8.8%), high school education (25.4%), some college (43.3%), college degree (18%), and advanced degree (4.5%).

Missing information is a problem when using survey data. The total sample size of the Pathways to Desistance study is 1,354. All variables used in this study's analysis have a sample size of at least 1,100. The lowest variable sample size is parental monitoring with only 1,197 respondents. Data is missing because juveniles only answered this question if they live with a supervising adult at the time of the baseline interview. The final regression sample size (N= 1006) is sufficiently large enough to make inferences concerning this population.

Analyses

In order to test the hypotheses in this paper, ordinary least squares (OLS) regression models were estimated. The first table tests the first hypotheses by measuring the effects of the social bond and self-control variables on susceptibility to peer influence. The second table includes two models. The first model explores the independent effects of the variables on the measure of delinquency. Next, a multiplicative term is entered into the equation in order to test for interaction effects.

H1. Juvenile offenders who have (a) weak conventional bonds to society and (b) low self-control are more likely to be susceptible than those with strong conventional bonds to society and high self-control.

H2. Susceptibility functions as a moderating variable with association to delinquent peers on delinquency. (i.e., the effect of delinquent peers on delinquency is greater among those high in susceptibility).

RESULTS

Susceptibility as a Dependent Variable

Table 1 shows the results testing H1: Juvenile offenders who have (a) weak conventional bonds to society and (b) low self-control are more likely to be susceptible than those with strong conventional bonds to society and high self-control. Table 1 has an adjusted R^2 of .09 and is statistically significant at the .000 level. Overall, the results suggest that there are several significant factors that influence susceptibility, which include parental monitoring, perceptions of chances for success, grades, self-control, gender, and ethnicity.

The social bonds variable, parental monitoring, is significant holding all other variables constant. However, the relationship is in the opposite direction that is hypothesized, which suggests that juveniles with strong parental monitoring are more likely to be susceptible. I will discuss this more below. Perceptions of chances for success is also highly statistically significant. This suggests that adolescents who have a better outlook on the future are less susceptible to peer influence. In the model, grades is modestly statistically significant, holding all other variables constant. This suggests that adolescents who report better grades are less susceptible to peer influence. The other social bond variables, bonding to teachers and maternal warmth, are not significant predictors of susceptibility. The second part of the first hypothesis is also tested in this model. Self-control has a relatively strong effect when regressed onto susceptibility, holding all other constant, and the relationship is in the hypothesized direction. This

suggests that juveniles with greater self-control are less susceptible to their peers. Finally, the results indicate that ethnicity, namely African American, is significant at the .01 level. The direction of the relationship suggests that African Americans are less likely to be susceptible than their white counterparts. Also, sex is statistically significant, but only at the .05 level. This suggests that males are more susceptible than their female counterparts in the sample.

Table 1. Susceptibility Regressed on the Social Bonds, Self-Control, and Sociodemographic Variables

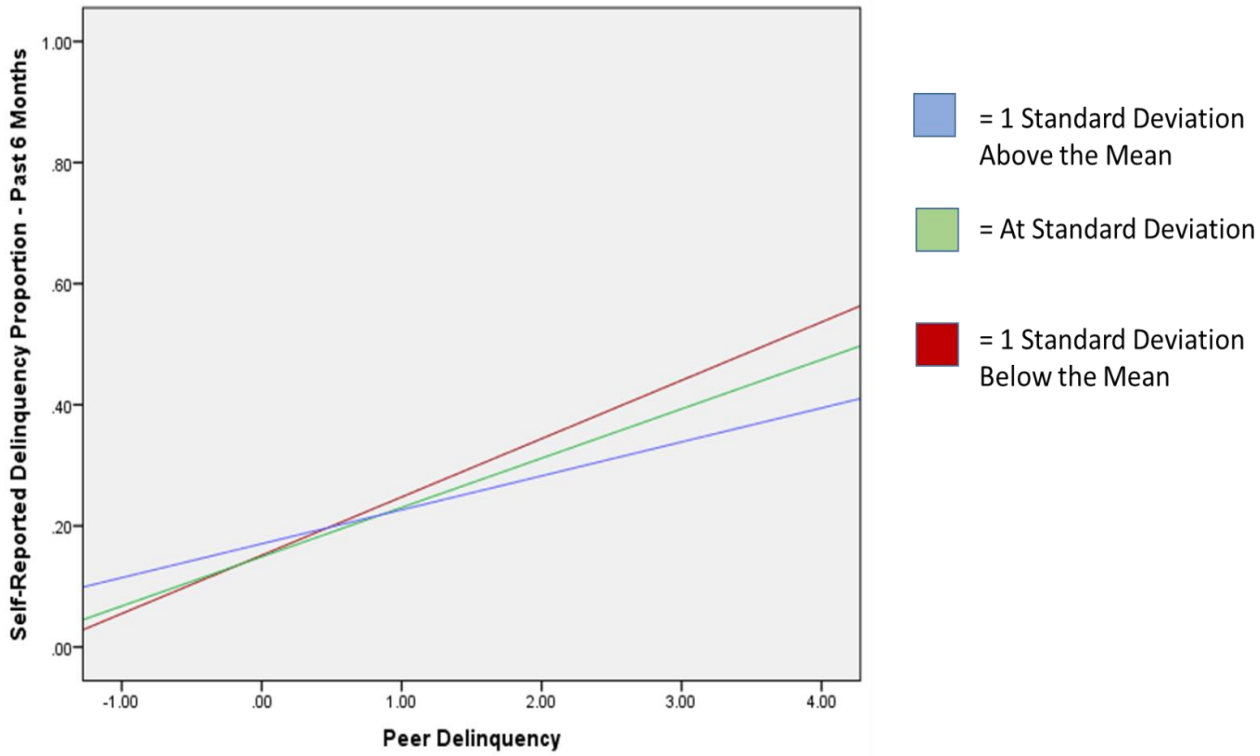
Variables	Unstandardized Coefficient	Standardized Coefficient	Standard Error
Parental Monitoring	.06	.09**	.02
Bonding to Teachers	.03	.04	.02
Perceptions of Chances for Success	-.09	-.13***	.02
Maternal Warmth	-.02	-.02	.03
Grades in School	-.02	-.07*	.01
Self-Control	-.02	-.12***	.01
Age	-.03	-.06	.02
Sex	.15	.08*	.06
African American	-.15	-.12**	.05
Hispanic	.07	.05	.05
Parent's Education	-.02	-.03	.02
	Adjusted R^2 = .09***		
N= 889; *p < .05; **p < .01; ***p < .001			

Susceptibility as an Interaction Variable

The next step in the analysis investigates whether susceptibility moderates the relationship between peer delinquency and self-reported offending. Prior to the creation

of the interaction term, scatterplots were computed to visualize the interaction between variables. The association with delinquent peers and susceptibility interaction from the scatter plot models was significant. The slope (.06) for highly susceptible juveniles is steeper than the slope (.03) for juveniles who are less influenced by their peers.

An interaction terms was created to determine whether there is a significant interaction between susceptibility and association with delinquent peers. . Prior to the creation of the interaction term, each variable was mean-centered to help reduce multicollinearity (Aiken and West 1991:40-47). The Interaction term was created by multiplying the mean-centered value of the delinquent peer association variable by the mean-centered value of the Susceptibility to Peer Influence variable. The variance inflation factor for the interaction and its component variables suggest that multicollinearity is not a problem (all approximately 1). After creating the interaction term, a regression was run to analyze the main effects and the interaction effect on the dependent variable, self-reported offending.



The first part of Table 2 (Model 1) shows the main effects of each independent variable on delinquency. Model 1 has an adjusted R^2 of .29 and is statistically significant at the .000 level. In this model bonding to teachers and perceptions of chances for success are the only significant social bond predictors of self-reported delinquency, but only have a modest effect. Self-control has a negative effect on delinquency and is statistically significant at the .000 level. Delinquent peer behavior has a positive effect on delinquency, holding all else constant, and is statistically significant at the .000 level. The results suggest that age has only a modest effect on self-reported delinquency in this. Model 1 also suggests that African Americans, when compared to whites, are less delinquent. Susceptibility to peer influence does not have a significant effect on delinquency.

In Table 2, model 2 adds the interaction term between susceptibility and association with delinquent peers into the regression equation. The interaction term is not significant, indicating that the effect of association with delinquent peers on delinquency is not conditioned by susceptibility to peer influence.

Table 2. Delinquency Regressed on the Social Bonds, Self-Control, Peer Delinquency, Sociodemographic, and Interaction Term

	Model 1			Model 2		
Variables	Unstandardized Coefficients (Without Interaction)	Standardized Coefficients (Without Interaction)	Standard Errors	Unstandardized Coefficients (With Interaction)	Standardized Coefficients (With Interaction)	Standard Errors
Susceptibility	-.01	-.03	.01	-.01	-.03	.01
Parental Monitoring	-.01	-.06	.01	-.01	-.05	.01
Bonding to Teachers	-.01	-.07*	.01	-.01	-.07*	.01
Perceptions of Chances for Success	-.01	-.07*	.01	-.01	-.07*	.01
Maternal Warmth	0	0.001	.01	0	-.001	.01
Grades	-.003	-.03	.002	-.003	-.04	.002
Self-Control	-.01	-.16***	.001	-.01	-.16***	.001
Delinquent Peer Behavior	.06	.37***	.01	.06	.38***	.01
Delinquent Peer Behavior* Susceptibility				-.01	-.04	.01
Age	-.01	-.06*	.004	-.01	-.06*	.004
Sex	.03	.07*	.01	.03	.06*	.01
African American	-.04	-.12***	.01	-.04	-.12***	.01
Hispanic	-.02	-.06	.01	-.02	-.06	.01
Parent's Education	-.01	-.03	.01	-.01	-.03	.01

	Adjusted R^2 = .283***			Adjusted R^2 = .282***		
N= 866; *p < .05; **p < .01; ***p < .001						

DISCUSSION

This paper has sought to investigate the role of susceptibility by answering two key questions: What are the determinants of susceptibility to peer influence? Does susceptibility to peer influence moderate the impact of association to delinquent peers on delinquency? The literature review discussed why social bonds and self-control may affect susceptibility. The review also explored the role of susceptibility to peer influence as a conditioning variable to association to delinquent peers on delinquency. The following hypotheses were empirically tested using OLS linear regression:

H1. Juvenile offenders who have (a) weak conventional bonds to society and (b) low self-control are more likely to be susceptible than those with strong conventional bonds to society and high self-control

H2. Susceptibility moderates the association to delinquent peers on delinquency. (i.e., juveniles with many delinquent peers and who are susceptible have higher rates of delinquency).

Overall, the results show that only parental monitoring, perceptions of chances for success, and grades were significant social bond variables in determining the respondent's susceptibility (Hypothesis 1a). The results in this model suggest that as parental monitoring increases, susceptibility increases. Why might this be? One possible explanation is that parents may see that their children are more susceptible to their peers' influence, so they may more closely monitor their children. Thus, increased parental monitoring may be a consequence of higher levels of susceptibility in these juvenile offenders. Perceptions of chances for success was also statistically significant. This social

bond variable is in the direction hypothesized, suggesting that juveniles with high perceived chances for success are less susceptible. In the model, grades were modestly significant, which suggests that juveniles with better grades are less susceptible. Bonding to teachers and maternal warmth were not significant social bond predictors of susceptibility.

Furthermore, results significantly suggest that higher self-control leads to juveniles being less susceptible (Hypothesis 1b). This is consistent with the work done by Meldrum et al. (2013), who also found that self-control was a significant predictor of susceptibility in that adolescents with higher levels of self-control were less susceptible. The results also suggest that African American juveniles are less susceptible than their white counterparts in the sample, males are more susceptible to peer influence than females, and susceptibility decreases as age increases. The following variables were not statistically significant when all else is held constant: Hispanic and parent's education.

Results from the interaction between susceptibility and peer delinquency suggests that the case for susceptibility having an interactive effect with the common causes of delinquency is not supported in the analysis. The interaction between peer delinquency and susceptibility is not significant (Hypothesis 2). Keep in mind that the sample utilized in this paper is of delinquent juveniles so all respondents were delinquent in some way. One possible explanation for this is that juveniles who are not susceptible are the leaders of their peer groups and so commit much delinquency for that reason.

It should be noted that some scholars in criminology research are beginning to question the validity of delinquent peer association measures such as the one used in this

paper. Research has not yet analyzed the differences between using variables of peer reported behavior and perceived peer behavior in the same model. Using the Netherlands Institute for the Study of Crime and Law Enforcement (NSCR) School Project, Young, Rebellon, Barnes, and Weerman (2014) found little evidence that accurate perceptions of peer behavior influence the respondent's own behavior, which is in direct contrast to the interpretation of previous research on the delinquent peer and delinquency relationship. More research needs to be conducted to trace the etiology of social learning theory and analyze the role of homophile.

Overall, the hypothesis that susceptibility moderates the relationship between delinquent peer association and self-reported offending was not supported by the data. This suggests that susceptibility is not a major factor for the juvenile offenders in the sample, even though over 500 of them reported being high in susceptibility. Further analysis can be done by incorporating the neutral susceptibility measure in a more general sample of youths to see if susceptibility is a factor for committing more minor delinquency than the offenders in this paper.

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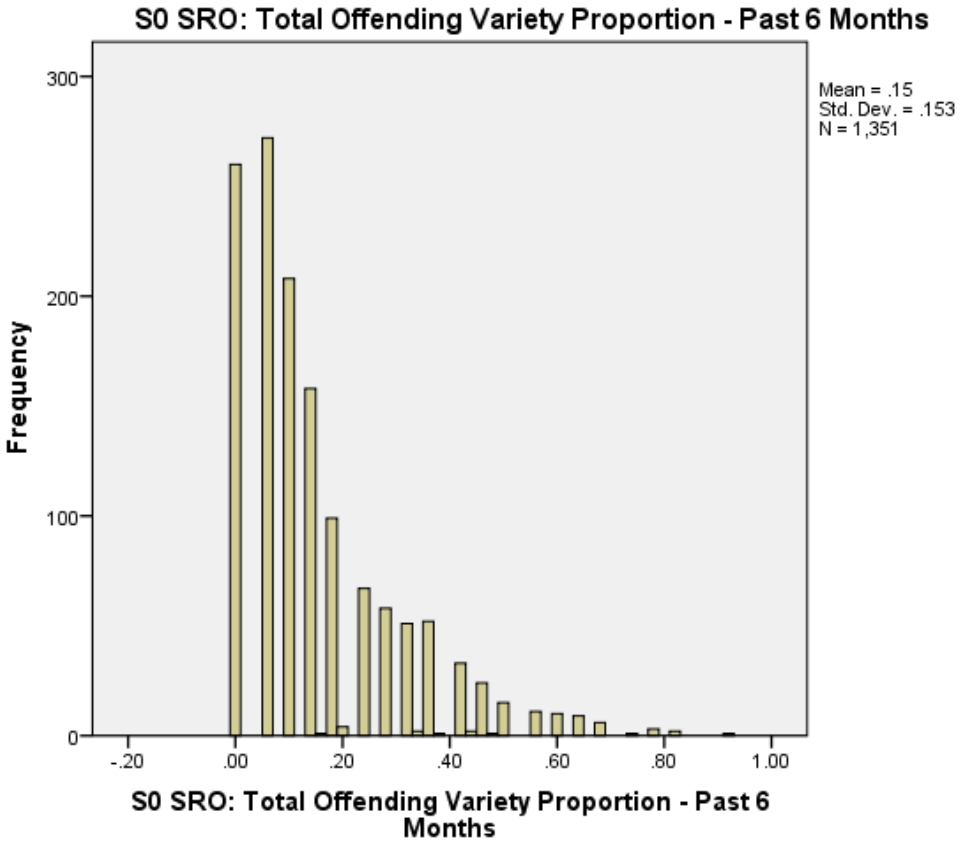
Appendix A

Descriptive Statistics			
Variable	Category	N	Percent
Susceptibility to Peer Influence Missing- 8	It's really true I'm influenced by my peers	54	4.0
	It's sort of true I'm influenced by my peers	570	42.3
	It's sort of true I prefer to be an individual	677	50.3
	It's really true I prefer to be an individual	45	3.3
Parental Monitoring Missing- 139	Never	207	17.3
	Sometimes	402	33.6
	Usually	413	34.5
	Always	175	14.6
Bonding to Teachers Missing- 112	Strongly Disagree	54	4.4
	Disagree	292	23.9
	Neither agree or disagree	446	36.5
	Agree	402	32.9
	Strongly Agree	27	2.2
Perceptions of Chances for Success Missing- 7	Poor	88	6.5
	Fair	368	27.4
	Good	492	36.6
	Very good	312	23.2
	Excellent	84	6.3
Maternal Warmth Missing- 46	Never	71	5.4
	Sometimes	349	26.7
	Often	676	51.8
	Always	210	16.1
Grades in School Missing- 8	Mostly below Ds	139	10.3
	Mostly Ds	99	7.4
	About half Cs and half Ds	301	22.4
	Mostly Cs	185	13.8
	About half Bs and half Cs	325	24.2

	Mostly Bs	77	5.7
	About half As and half Bs	169	12.6
	Mostly As	50	3.7
Impulse Control Missing- 3	False	219	16.2
	Somewhat False	445	32.9
	Not sure	459	34.0
	Somewhat True	202	15.0
	True	26	1.9
Suppression of Aggression Missing- 3	False	291	21.5
	Somewhat False	505	37.4
	Not sure	359	26.6
	Somewhat True	170	12.6
	True	26	1.9
Antisocial Behavior Missing- 36	None of them	524	39.8
	Very few of them	440	33.4
	Some of them	294	22.3
	Most of them	54	4.1
	All of them	4	0.3
Age Missing- 0	14	162	12.0
	15	255	18.8
	16	412	30.4
	17	413	30.5
	18 and 19	112	8.3
Ethnicity Missing- 0	White	1170	86.4
	African American	184	13.6
	Hispanic	274	20.2
	Other	561	41.4
Parent Education (SES) Missing- 21	Below high school education	454	33.5
	High school education	65	4.8
	Some college	109	8.2
	College degree	353	26.6
	Advanced degree	560	42.1

Appendix B


S0 SRO: Total Offending Variety Proportion - Past 6 Months
Mean = .15
Std. Dev. = .153
N = 1,351
Frequency
300
200
100
0
-.20
.00
.20
.40
.60
.80
1.00
S0 SRO: Total Offending Variety Proportion - Past 6 Months

Appendix C Full Resistance to Peer Influence Scale taken from Steinberg, Laurence and Kathryn C. Monahan. 2007. "Age Differences in Resistance to Peer Influence."

Resistance to Peer Influence Scale

For each question, decide which sort of person you are most like — the one described on the right or the one described on the left. Then decide if that is "sort of true" or "really true" for you, and mark that choice. For each line mark only ONE of the four choices.

Really True for Me	Sort of True for Me				Sort of True for Me	Really True for Me
❑	❑	Some people go along with their friends just to keep their friends happy.	BUT	Other people refuse to go along with their friends want to do, even though they know it will make their friends unhappy.	❑	❑
❑	❑	Some people think it's more important to be an individual than to fit in with the crowd.	BUT	Other people think it is more important to fit in with the crowd than to stand out as an individual.	❑	❑
❑	❑	For some people, it's pretty easy for their friends to get them to change their mind.	BUT	For other people, it's pretty hard for their friends to get them to change their mind.	❑	❑
❑	❑	Some people would do something that they knew was wrong just to stay on their friends' good side.	BUT	Other people would not do something they knew was wrong just to stay on their friends' good side.	❑	❑
❑	❑	Some people hide their true opinion from their friends if they think their friends will make fun of them because of it.	BUT	Other people will say their true opinion in front of their friends, even if they know their friends will make fun of them because of it.	❑	❑
❑	❑	Some people will not break the law just because their friends say that they would.	BUT	Other people would break the law if their friends said that they would break it.	❑	❑
❑	❑	Some people change the way they act so much when they are with their friends that they wonder who they "really are".	BUT	Other people act the same way when they are alone as they do when they are with their friends.	❑	❑
❑	❑	Some people take more risks when they are with their friends than they do when they are alone.	BUT	Other people act just as risky when they are alone as when they are with their friends.	❑	❑
❑	❑	Some people say things they don't really believe because they think it will make their friends respect them more.	BUT	Other people would not say things they didn't really believe just to get their friends to respect them more.	❑	❑
❑	❑	Some people think it's better to be an individual even if people will be angry at you for going against the crowd.	BUT	Other people think it's better to go along with the crowd than to make people angry at you.	❑	❑

Scoring instructions: Score each item from 1 to 4 (reading left to right on the instrument). Reverse-score items 2, 6, and 10. Sum the scores for valid responses and divide by the number of valid items. It is recommended that at least 7 items have valid responses.