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Guilt by Association: The Relationship between Deviant Peers and Deviant Labels

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ABSTRACT

This study broadens labeling theory by examining the role deviant peers play in earlier stages of the labeling process. We propose that deviant peers serve as a source of information used in the decision to apply a deviant label by parents and school authorities. Using data from the National Longitudinal Study of Adolescent Health with cross-sectional (n = 12,011) and longitudinal (9,267) samples, results show that higher levels of peer deviance are related to receiving both informal and formal labels. We also find that associating with deviant peers amplifies the effect of individual deviance on receiving an informal label.

KEYWORDS: Labeling theory; peer network; deviance

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The roots of the labeling perspective may be traced back among the earliest sociological thought for understanding deviant behavior. In the 1930s emerging labeling theorists pushed criminologists to move beyond individualistic explanations of deviance and consider the social aspects inherent in deviant behavior (Matsueda 1992; Meade 1934; Tannenbaum 1938;). Drawing on a symbolic interactionist perspective, labeling theorists emphasize that behavior only has meaning within the context of social interactions and that greater attention should be placed on understanding how meaning is created within interactions (Becker 1963; Lemert 1972; Tannenbaum 1938). Deviance, crime, and violence are not absolute, rather they are only defined within specific contexts, and social responses vary accordingly (Becker 1963; Erickson 1962; Tannenbaum 1938). Thus, criminological theory should address this process in trying to understand offending behavior.

To a large degree research undertaken within the labeling perspective has addressed one of two core issues. The first has focused on understanding the application of labels, such as how and why certain behaviors and individuals are labeled deviant. This body of research has primarily emphasized the relativity of deviance and power differentials in the ability to defend against the application of deviant labels (Becker 1963; Chambliss 1973). The second has focused on understanding the consequences of the label once it has been applied. Research within this vein has examined how labels may impact the formation of identity and the potential for offending behavior, as well as the mechanisms by which these relationships unfold (Bernburg and Krohn 2003; Bernburg et al. 2006; Matsueda 1992; Sampson and Laub 1997).

It is within the second domain that researchers have examined the role of deviant peers. Prior research has identified involvement with deviant peer groups as one mechanism by which being labeled may result in future offending (Adams and Evans 1996; Bernburg et al. 2006; Matsueda 1992). However, researchers have yet to empirically examine the role deviant peers may have in the initial application of the label itself. Yet associating with other deviant individuals, regardless of one's own deviance, may create a social context conducive for the application of a deviant label. Associating with deviant peers may facilitate the application of the deviant label, above and beyond an individual's own behavior, by providing additional perceptions of deviance in line with the deviant stereotypes of others (parents, teachers, authorities, etc.). While research has identified a number of attributes or characteristics which may increase the likelihood of being labeled (Becker 1963; Kitsuse 1962), we refocus attention on the social processes by which the label is applied and maintained. The label of deviant is a social construction and little is known about how social relationships may directly influence its application.

The present study uses data from the National Longitudinal Study of Adolescent Health (Add Health) (Harris et al. 2009; Harris 2013). A particular strength of this study is the use of peer network data which directly taps peer deviance, rather than relying on respondent perceptions of their peers' behavior (Aseltine 1995; Jussim and Osgood 1989). We examine the effect of peer deviance on the application of two distinct types of labels: informal labels by parents; and formal labels by school officials.

THEORETICAL BACKGROUND

Labeling Theory and the Process of Becoming Deviant

Labeling theory draws on a symbolic interactionist perspective to frame the role of social reactions to deviance in the continuation of deviant behavior. Labeling theorists have proposed that deviant behavior initially arises for a wide array of reasons. Lemert (1972) suggested that deviance arises in a number of psychological, cultural, and social contexts; however not all deviance is elevated to that of social problem, and this process depends on social dynamics. Similarly, Tannenbaum (1938) argued that youth deviant behaviors often arise out of conflict with adults, and that it is the community's response to these behaviors which is consequential for the youth. Thus, of paramount importance to labeling theorists are how a deviant label is applied and the aftermath rather than the initial behavior itself.

Within the labeling perspective, being publicly labeled deviant is the crucial step in the process of becoming deviant as this spurs changes in self-identity and involvement in deviant networks, and ultimately increases an individual's participation in deviance (Becker 1963; Lemert 1972). The social response to a behavior in the form of a deviant label begins a cyclical process which to varying degree includes the following: committing a deviant act; applying a deviant label; being cut off from conventional society; developing a more salient deviant identity; becoming further entrenched in an organized deviant group; and committing another deviant act, creating another opportunity for repetition of the cycle (Becker 1963; Lemert 1972; Matsueda 1992).

Research has shown that being labeled deviant produces detrimental consequences on an individual's self-identity (Matsueda 1992), educational attainment, and employment outcomes (Bernburg and Krohn 2003; Davies and Tanner 2003; De Li 1999; Pager 2003; Sweeton 2006; Tanner et al. 1999; Western 2002), and weakens ties to pro-social peer groups (Adams and Evans 1996; Bernburg et al. 2006). These studies have highlighted the negative impact deviant labels have on individuals and their subsequent engagement in deviance.

Empirical research has also identified a differential impact of formal and informal labels on identity and behavior, suggesting that informal labels have greater deleterious effects on self-identity and greater impact on secondary deviance (Adams et al. 2003; Tittle 1980). Incorporating elements of labeling theory, Braithwaite's (1989) conceptualization of reintegrative shaming also pointed to the relative importance of informal labeling compared to formal sanctions. Braithwaite argued that criminals are more likely to be deterred from engaging in secondary deviance if they are informally shamed and reintegrated into society, as opposed to receiving harsh formal sanctions and the associated formal label. Although the application of formal and informal labels may be related, it makes sense that the salience of a label may vary, depending on whether it is formal or informal. For example, a label may vary depending on who is applying the label, may draw on distinct aspects of the individual, and may impact distinct social domains (Becker 1963; Harris 1976; Hirschfield 2008; Palamara et al. 1986). Since informal and formal labels are likely to vary in their effects on offending, researchers should distinguish between the two when using a labeling framework.

The Application of Deviant Labels

Within a labeling perspective, deviance is a characteristic applied to a behavior rather than one inherent to a behavior. In other words, social groups create deviance by defining what is deviant, who may be deviant, and the appropriate response to deviance (Becker 1963; Erikson 1962; Tannenbaum 1938). Tannenbaum (1938) suggested that this process is as much due to chance as to other factors, "by reason of accident, chance, opportunity, time, place, speed of legs, some are arrested, others are not" (p. 70). However, Kitsuse (1962) noted that in "modern society the socially significant differentiation of deviants from non-deviants is increasingly contingent upon circumstances of situation, place, social and personal biography, and bureaucratically organized agencies of social control" (p. 246). As such, research has suggested that the application, and reception, of a deviant label is not purely a random event.

Prior research has identified power differentials between the individual and other members of society as particularly important in the negotiation of a deviant label within criminal justice (Alpert et al. 2007; Demuth 2003; Miller 2009; Roh and Robinson 2009) and educational settings (Bowditch 1993). Labeling theory generally argues that those with fewer resources are more likely to have their own behaviors labeled deviant as they have less social and real influence by which to define norms and to defend themselves against the application of a deviant label (Becker 1963). In their review of labeling theory, Paternoster and Iovanni (1989) argued that this is an aspect of the theory that has sustained fairly consistent support throughout the literature. One of the more prominent

examples of this phenomenon was described in Chambliss' (1973) classic study of the "Saints," a middle-class group of deviant boys, and the "Roughnecks," a lower-class group of deviant boys. Despite engaging in similar levels of deviance, members of the community, schools, and police were more likely to label the Roughnecks as deviant than the Saints. Chambliss linked the differences in labels and perceptions of the groups to differences in social class.

Individuals who fit deviant stereotypes may therefore face greater risk of being labeled regardless of their own behavior. Kelley (1967; 1973) outlined an attribution process in which others assign attributes to an individual based on the consensus, consistency, and distinctiveness of the individual's behavior, which has an impact on decision-making processes. Howard and Levinson (1985) extended this model of causal attribution to the labeling process, arguing that the attributions are present and made prior to the decision to label an individual deviant. Within the criminological literature, scholars have used similar frameworks to describe the use of offender stereotypes in the decision-making processes in the criminal justice system (Albonetti and Hepburn 1996; Demuth 2003; Leiber and Mack 2003; Steffensmeier et al. 1998; Tittle and Curran 1988). For instance, Steffensmeier et al. (1998) outlined a "focal concerns" perspective to illustrate how judges incorporate attributions of blameworthiness, dangerousness, recidivism risk, and practicalities to defendants into decision-making processes for sentencing outcomes. Likewise, Tittle and Curran (1988) described a "symbolic threat" perspective in which juvenile justice officials cast deviants in a stereotypical light, especially minorities, and perceive them as threats to middle-class norms.

To date, research on the application of deviant labels has largely examined structural or demographic characteristics as key traits or attributes which facilitate or impede the labeling process (Paternoster and Iovanni 1989). This approach has focused on well recognized differences among general demographic characteristics of distinct groups in society. Yet the formation of stereotypes and mechanisms by which labeling occurs do not rely solely on characteristics of the individual being labeled. The context which defines the suitability of a behavior or individual for labeling is also likely to be defined by the social space within which the labeling occurs. For example, status differences between the individual being labeled and the individual applying the label (Becker 1963; Lemert 1972), the degree to which the behaviors are in line with or deviate from the expectations or stereotypes of the individual engaging in the behaviors (Daly and Chesney-Lind 1988; Simpson 1989), and the social context in which the behaviors occur, including the presence of others (Luckenbill 1977), may impact the likelihood of a deviant label being applied.

The behaviors and demographic characteristics of an individual's peer associations may provide additional information for the application of a deviant label, in the same manner by which an individual's own behaviors and demographic characteristics create expectations and provide information for the application of a label. For instance, the presence of deviant others at the time when a label is applied, knowledge of prior associations with deviant others, and prior knowledge of other deviant behaviors or deviance in other contexts may influence the likelihood of having a label applied. Having such knowledge of deviant peer groups can influence the decision

to apply the deviant label among rule enforcers as they transfer group attributions to the individual (Chambliss 1973). Individuals in deviant peer networks may be perceived as greater threats to a given environment in accordance with focal concerns (Steffensmeier et al. 1998) and symbolic threat (Tittle and Curran 1988) perspectives. Having deviant peers may also increase visibility and increase the probability of apprehension as parents and school authorities may more closely monitor the behavior of individuals who are associating with deviant peer groups (Chambliss 1973).

Social relationships are one aspect of social context which has yet to receive direct empirical attention within this area of study, with few exceptions (see Chambliss 1973). Hagan and Palloni (1990) examined the intergenerational transmission of offending behavior with an emphasis on labeling processes, net of cultural and characterological processes. Controlling for a number of risk factors and self-reported delinquency measures, Hagan and Palloni identified a significant intergenerational interaction of father and son labeling such that deviant labels have the greatest impact on offending in the context of a parent who has previously been labeled. Although Hagan and Palloni focused on a different aspect of labeling, they identified one mechanism by which social relationships may impact the labeling process. Similarly, policing research suggests that associating with deviant peers attracts increased and adversarial police attention for juveniles, above and beyond other factors (McAra and McVie 2005).

Peers and Labeling

Over the past decade, there has been a plethora of studies concentrating on peer networks (Haynie 2002; Haynie and Payne 2006; McGloin 2009; Payne and Cornwell 2007; Weerman and Smeenk 2005), with studies typically having framed the relationship within social learning or differential association perspectives (Burgess and Akers 1966; Sutherland 1947; Warr and Stafford 1991). This line of research has primarily emphasized the mechanisms by which deviant behaviors, attitudes, opportunities, and rewards are transmitted within peer networks and how this transmission may vary based on characteristics of the networks themselves.

Similarly, labeling theorists have primarily framed deviant peer associations as one mechanism through which the application of a deviant label contributes toward the occurrence of secondary deviance (Becker 1963; Lemert 1972). Becker (1963) described involvement in organized deviant peer networks as the final stage in the process of becoming deviant whereby peer groups serve as a source of social support for the accused individual who is shunned from conventional society. Recent research has found that being labeled may further embed individuals in deviant peer groups, and that deviant peer groups largely mediate the relationship being labeled and future delinquency (Adams and Evans 1996; Bernburg et al. 2006; Johnson et al. 2004; Matsueda 1992). This end-stage leads to the internalization and solidification of a deviant identity, and ultimately results in secondary deviance (Becker 1963; Lemert 1972; Matsueda 1992).

There is a dearth of empirical research, however, which examines the role that peer associations and peer behaviors may play in the initial application of the deviant label. Becker (1963) described how labeling via repeated interactions over time serves to

alienate the individual from pro-social peers and pro-social role models, and how those associations increase the probability of future deviant acts and increase the likelihood of being further labeled. This cycle requires the reciprocal impact of label, peers, and behavior. Limiting the study of peers to mediatory processes related to acts of secondary deviance ignores a significant portion of labeling theory. The potentially significant role that social relationships may play in the ability to defend against the application of deviant labels is an element of labeling theory that to date is underdeveloped and underexamined. Moreover, by focusing exclusively on how peers are related to secondary deviance studies short-change the impact peers may have on the labeling process as a whole. By examining the impact of peer associations and behaviors on the application of a deviant label among a sample of adolescents we are able to provide an alternative specification of how peers impact deviance within a labeling framework.

Present Study

This study uses Add Health (Harris et al. 2009; Harris 2013) data to examine how deviant peer groups may influence formal and informal labeling above and beyond an individual's own deviant behavior. While researchers have examined how being labeled deviant may further embed individuals into deviant networks and how deviant networks contribute to engaging in secondary deviance, we propose that the behavior of peers may also directly impact the application of the deviant label. For example, associating with deviant peers may represent another source of stereotype, or symbolic threat, resulting in a greater likelihood of being labeled deviant. Our first hypothesis is therefore that

independent of an individual's own deviant behavior, higher levels of peer deviance will increase the likelihood of being labeled deviant by both parents and school authorities.

It is also possible that associating with deviant peers may moderate the impact of an individual's own behavior on the risk of being labeled in various ways. For example, individuals who associate with deviant peers and engage in numerous, continuous, and deviant acts should be at the highest risk for being labeled as this increases the visibility of deviance and likelihood of being labeled. However, associations with deviant peers may elevate the risk of being labeled such that individual levels of deviance become less important in the application of the label. Alternatively, engaging in deviant behavior and associating with deviant peers could serve to accumulate evidence such that the impact of individual deviance is amplified on the risk of being labeled. Thus we make competing hypotheses about the interaction of individual deviance and peer deviance: our second hypothesis is that the effect of individual deviance on being labeled will be weaker as peer levels of deviance increase; and our third hypothesis is that the effect of individual deviance on being labeled will be stronger as peer levels of deviance increase.

There are key strengths in the present analyses. First, we examine mechanisms by which deviant peer groups may separately impact the application of informal and formal labels, as prior research suggests receiving an informal vs. formal label may have a differential influence on identity and behavior (Adams et al. 2003; Tittle 1980). Second, prior research has found that violent crime is perceived to be more serious than non-violent crime (Cullen et al. 1982; Rossi et al. 1974; Sellin and Wolfgang 1964; Warr 1989), and that this not only reflects public opinion but impacts the likelihood that an

individual will receive a formal label within the criminal justice system (Walker and

Woody 2011). For these reasons, we distinguish between violent, non-violent, and

school-related deviance. Third, we directly assess the self-reported deviance of each

respondent's peers rather than relying on second-hand accounts of peer deviance. Relying

on second hand accounts of peer behavior may inaccurately capture the influence of peers

as respondents may project their own attitudes and behaviors on peers or assume that

their peers behave in a similar fashion (Aseltine 1995; Jussin and Osgood 1989).

METHOD

Data and Design

This study uses data from the National Longitudinal Study of Adolescent Health (Add

Health), a nationally representative sample of students in grades 7 – 12 in the United

States (Harris 2013). The original sampling frame was comprised of youth attending 145

junior and high schools. There were 90,118 students who participated in the original in-

school questionnaire. Students were also stratified by grade and sex and randomly

selected to participate in the longitudinal sample. 20,745 students were interviewed in the

home at Wave I, with a response rate of 78.9 percent. In addition to the adolescents,

17,670 parents were interviewed in the home at Wave I. Regarding the Wave II sample,

in-home interviews were conducted approximately one year later with nearly 15,000 of

the same students, although Wave I seniors were not retained. Of those eligible, the

response rate at Wave II was 88.2 percent. The in-home interviews were conducted via

Computer-Assisted Personal Interviewing (CAPI) and Audio Computer-Assisted Self

Interviewing (ACASI), the latter of which was used for the more personal questions.

Samples

We employ data from the Wave I adolescent in-school questionnaire, the Wave I

adolescent in-home interview, the Wave I parent in-home interview (conducted in 1994–

95) and the Wave II adolescent in-home interview (conducted in 1996). As parents were

only interviewed at Wave I, we rely on a cross-sectional sample to assess the relationship

between deviant peers and informal labeling by parents. However, we are able to measure

formal labeling during the adolescent in-home interview at Wave II and therefore use a

longitudinal sample in analyses in which formal labeling is the dependent variable. The

majority of 12th grade respondents were not interviewed at Wave II, as they had exceeded

the grade eligibility requirement for the study. As a result the longitudinal sample in the

present study is considerably smaller than the cross sectional sample. In addition, both

samples are restricted to those who provide valid responses on the respective dependent

variable, to those who have at least one friend in their send and receive network (i.e.,

nominated at least one friend or has been nominated by at least one person as a friend),

and to those who participated in the in-home and in-school surveys and who had a parent

participate in the in-home survey.

The final analytic sample for our cross-sectional models predicting informal

labeling is 12,011, and the analytic sample for our longitudinal models predicting formal

labeling is 9,267. The two samples are comparable across key demographic and

independent variables (see Table 1). Supplemental analyses (not shown) indicate that

respondents missing data on formal labeling are similar to those who have valid

responses across race, sex, and family social class lines; however, respondents missing

data on informal labeling are more likely to be non-white. Respondents with missing data

on either dependent variable also reported higher levels of peer deviance but lower levels

of peer violence compared to those with valid data. Supplemental analyses also show that

the 3.5 percent of respondents who did not report at least one friend are more likely to be

male and non-white compared to those who reported at least one friend.

Dependent Variables

We distinguish between formal and informal labels as prior research suggests there may

be key differences between the two (Adams et al. 2003; Tittle 1980). Our measure for

informal labeling is based on parental perceptions of their child's behavior or character.

The items we use to create informal labeling are consistent with the constructs of "rule

violator" (i.e., gets into trouble or breaks rules) and "distressed" (i.e., child is often upset

or has a lot of personal problems) used by Matseuda (1992) to capture informal labeling

or appraisals by parents. Specifically, our measure consists of the following five

questions from the Wave I in-home parent questionnaire that asks parents whether their

child: has a bad temper; is doing well in life; is trustworthy; smokes regularly (once a

week or more); and drinks regularly (once a month or more). The question asking parents

if their child does well in life is measured on a scale ranging from 1 (very well) to 4 (not

well at all). Since we are primarily concerned with whether parents informally label their

child deviant or not, we recode this measure such that "not so well" or "not well at all" are coded as 1, and other responses are coded as 0. Likewise, the question asking parents how often their child is trustworthy is measured on a scale ranging from 1 (always) to 5 (never). Again, we recode such that never and seldom are coded as 1, and all others are coded as 0. All other questions are originally coded as binary responses of yes or no. Parent perceptions regarding their child's smoking and drinking behavior reflect parental views of their child as a rule violator; the other items (bad temper, bad life, and distrustful) reflect parental perceptions or attributions of poor character and distress in the child's life. Parental reporting of any of these characteristics reflects parental application of a type of deviant label to their child based on perceived behaviors or character. For this reason, informal labeling is coded as 1 if the parent responded affirmatively to any of the above questions and 0 if they did not.

In addition to the measure of informal labeling, we also construct a measure of *formal labeling* based on items on school sanctions in the Wave II adolescent in-home interview. The use of school sanctions as a measure of a formal label is consistent with prior research which has measured formal labeling via an official response, interaction, or sanction (Adams et al. 2003; Bernburg et al. 2006). Specifically, respondents were asked if they had been suspended or expelled since the last interview. As with the informal measure, we are concerned with whether or not a deviant label has been applied rather than the number of sanctions. Formal labeling is therefore coded as 1 if respondents indicated they received a suspension or expulsion and 0 if they did not receive suspension or expulsion since the last interview.

Independent Variables

A major limitation of previous research on the influence of peers is the reliance on second-hand accounts of peer attitudes and behaviors, which may reflect a respondent's projection of their own attitudes and behaviors onto peers or the assumption that their peers are behaving in a similar fashion (Aseltine 1995; Jussin and Osgood 1989). By using peer self-reported behavior we directly measure the impact of peer deviant behavior.

Our measures for network deviance are obtained from the Wave I adolescent in-school questionnaire and include both violent and non-violent network deviance. During the in-school questionnaire, each individual was asked to nominate up to five male and five female friends. Our friendship network for each respondent, the ego network, is comprised of peer nominations that are both sent and received. In other words, an individual's peer network includes those friends identified by the individual as well as those respondents who nominated the individual as a friend. Our network measures are created only for individuals from schools with over 50 percent response rates who have at least one additional member in their send and receive network. Mean values are based on peer responses to the in-school questionnaire and are compiled based on the following formula: $\text{Mean}_{ix} = \sum x_j/n_j$ where x = the in-school behavior variable, xj = the value of x for the jth member of the ego network, and nj = the number of nodes in the ego network with valid data on x (excluding ego) (Carolina Population Center 2001).

A network measure for *peer deviance* is created by taking the mean of network responses from questions regarding the extent to which they engaged in the following

behaviors within the past year: smoked cigarettes; drank alcohol; got drunk; skipped school without an excuse; did dangerous things on a dare; and raced vehicles such as cars or motorcycles. Each item is measured on a 6 point scale ranging from never to nearly every day. We also incorporate a network measure for *peer violence* based on the extent to which respondents had gotten into a physical fight within the past year. Responses range from 0 (never) to 4 (more than 7 times). We again take the mean of network responses. It should be noted that our measures for peer deviance and peer violence are the same items we use to capture individual levels of non-violent and violent deviance.

We measure individual non-violent and violent deviance using the Wave I in-home adolescent interview. Prior research has found that violent crime is perceived to be more serious than non-violent crime (Cullen et al. 1982; Rossi et al. 1974; Sellin and Wolfgang 1964; Warr 1989), and results in a more serious response from the criminal justice system (Walker and Woody 2011). For these reasons, we distinguish between non-violent, violent, and school-related deviance.

Non-violent deviance is derived from a summed index created from the following questions from the adolescent in-school questionnaire asking about the extent to which adolescents engaged in the following deviant acts during the past year: smoked cigarettes; drank alcohol; got drunk; skipped school without an excuse; did dangerous things on a dare; and raced vehicles such as cars or motorcycles. Each item is measured on a 6 point scale ranging from never to nearly every day (alpha = 0.79). Our measure for *violent deviance* is a single item taken from the adolescent in-school questionnaire. Specifically,

adolescents are asked "In the past year, how often have you gotten in a physical fight?" Responses range from 0 (never) to 4 (more than 7 times).

Since prior literature has found that student performance may influence school sanctions (Bowditch 1993), we also control for several school-related measures taken from the Wave I adolescent in-home interview, including high school grade point average and an index of school behavioral problems. The measure for *grade point average* is based on the mean for grades received in math, history, English, and science. To capture behavioral problems in school we create an index based on four questions asking whether respondents had trouble with the following during the current school-year: getting along with teachers; paying attention in school; getting homework done; and getting along with other students. In each case, responses are measured on a 5 point scale ranging from never to everyday. These items are summed into an index for *school problems* which ranges from 0 to 16 (alpha = 0.69).

Control Variables

In addition to individual behavioral characteristics, we also control for several demographic and social structural variables, including age, sex, and race and ethnicity. In each sample ages at Wave I range from 11 to 21. We create a dummy variable for female and dummy variables for exclusive race and ethnicity categories: white; African American; Hispanic; Asian; and other racial-ethnic groups. We also control for socioeconomic status based on a scale that combines parents' education and employment status from the Wave I parent in-home questionnaire (Ford et al. 1999) and family

structure, with a dummy variable to compare respondents living with two biological

parents versus alternative family forms. Measures for residing in an urban area are also

included in all multivariate models to capture possible macro-level differences in labeling

processes. Specifically, we create dummy measures for urban, suburban, and rural areas.

Analytic Strategy

In order to control for the complex sampling design of the Add Health data, we use

survey corrected logistic regressions in Stata to predict informal labeling and formal

labeling, respectively. All models include Add Health project weights to achieve national

representativeness. Moreover, all analyses use post-stratification and primary sampling

unit variables (census region and school identification) to account for stratification and

clustering in the original sampling design. Missing data are multiply imputed using ICE

software in Stata which uses chained equations for imputation. Since fewer than 10

percent of the data are missing across either sample, 20 imputations are used (Graham,

Olchowski, and Gilreath 2007).

To test our main hypotheses, that higher levels of peer deviance and peer violence

will be associated with a greater likelihood of being informally and formally labeled

deviant, we use peer deviance and peer violence variables to predict receipt of each

deviant label while controlling for key demographic measures and prior self-reported

levels of deviance, violence, and school-related problem behaviors. Two interactions are

created to assess the competing moderation hypotheses that the above relationships will

vary by peer deviance and peer violence. We multiply peer deviance by individual levels

of non-violent deviance, and multiply peer violence by individual levels of violent deviance. Each interaction term is examined in a separate model.

Descriptive Statistics

Table 1 provides descriptive statistics for all study variables for both the cross-sectional and longitudinal samples. The means and frequencies are quite similar for the cross-sectional and longitudinal samples, although with the inclusion of seniors the cross-sectional sample is slightly older and more deviant at Wave I. In the present analyses 37.11 percent of adolescents have received an informal label by parents in Wave I, while 10.16 percent have received a formal label by school officials in the year prior to Wave II. Since Add Health data are nationally representative, overall means for the incidence of violent deviance in the prior 12 months are low compared to at-risk samples; however, we do find considerable variation as nearly half of respondents report having engaged in violent deviance at least once in the year prior to the interview in both the cross-sectional and longitudinal samples.

< Table 1 about here >

RESULTS

Results from survey corrected logistic regressions predicting receipt of informal and formal labels are presented in Table 2. Table 3 provides results from models which include the interaction terms for the non-violent deviance or violent deviance of the individual and peer network deviance or violence. All multivariate models include controls for demographic and individual-level characteristics.

Focusing first on the likelihood of receiving an informal label, results indicate that associating with deviant peers is significantly associated with an increased risk of being informally labeled, in line with our first hypothesis. A one unit increase in peer network deviance is associated with a 5 percent increase in the odds of receiving an informal label by a parent. Contrary to expectations, associating with violent peers is not associated with being informally labeled, net of controls (including self-reported deviance). As expected, reporting higher levels of non-violent deviance and higher levels of violent deviance are associated with being labeled by parents, independent of each other. Similarly, adolescents who have lower grade point averages are more likely to be labeled by parents, as are those who report more school-related problems. Generally, these results are consistent with prior research showing that prior deviant–related behaviors are associated with parental labels (Matsueda 1992).

Turning to control variables, older adolescents are more likely to be labeled deviant by parents compared to others. Compared to males, females are also more likely to be labeled deviant. Relative to white adolescents, only African American respondents are significantly less likely to be labeled by parents. These findings are contrary to expectations, as labeling theory would suggest that those with fewer resources or of disadvantaged status are less able to defend or prevent the application of a deviant label (Becker 1963). Conversely, adolescents from higher socioeconomic status backgrounds are significantly less likely to be labeled deviant by parents, while adolescents from two-biological-parent families are less likely to be labeled deviant by parents, in line with labeling theory.

Finally, compared to adolescents residing in suburban neighborhoods, those residing in rural neighborhoods are more likely to be labeled deviant by parents compared to others. The finding that rural adolescents are more likely to be labeled by parents is counter to prior research (Matsueda 1992; Zhang 1997). Our study differs from prior research, however, in that we have a slightly older sample and include suburban as the contrast group.

< Table 2 about here >

We now turn to results from the survey corrected logit models predicting formal labeling. As the with our models predicting informal labeling by a parent, in support of our main hypothesis peer deviance is significantly associated with receiving a formal label, net of controls. Specifically, a one unit increase in peer network deviance was associated with a significant increase of 5 percent in the odds of being formally labeled by school officials. Peer network violence, however, is again not significantly associated with the odds of being formally labeled.

As is the case for models predicting informal labeling by a parent and consistent with expectations, reporting greater participation in non-violent and violent deviance are each significantly associated with receiving a formal label, net of controls and each other. A one unit increase in reported non-violent deviance is associated with an increase of 5 percent in the odds of receiving a formal label; while a one unit increase in reported violent deviance is associated with a 14 percent increase in the odds of being formally labeled by school officials. Also consistent with expectations, those reporting lower grade point averages are more likely to be formally labeled by school officials. Likewise,

adolescents who report more school-related problems are more likely to be formally labeled deviant by school authorities, despite controls. These findings support other research examining relationships between school behaviors and formal labeling (Bowditch 1993).

Contrary to results predicting the application of an informal label, results from the model predicting the application of a formal label are more in line with expectations of labeling theory where those with fewer resources or of disadvantaged status are less able to defend or block the application of a deviant label (Becker 1963). Older youth are significantly less likely to receive a formal label from school authorities, but were more likely to be informally labeled by parents. Similarly, females were more likely to be informally labeled by parents, but are significantly less likely to be formally labeled deviant by school authorities. In addition, African American adolescents are significantly more likely to be formally labeled by school authorities compared to white adolescents, even when controlling for demographic characteristics and both deviant and violent behaviors. This effect is particularly strong, with African American adolescents having a 177 percent increased odds of being formally labeled deviant by school authorities compared to white adolescents. Moreover, adolescents from higher socioeconomic status backgrounds are less likely to be formally labeled by school authorities, as are those from two-biological-parent families compared to other family types.

< Table 3 about here >

In order to test our competing moderation hypotheses (Hypotheses 2 and 3), models reported in Table 3 include interactions between a series of individual behaviors

and peer network behaviors with regard to being informally and formally labeled. In the case of informal labeling, we observe a significant interaction (Model 1) between individual non-violent deviance and peer deviance. To better understand this finding we graph the interaction of individual non-violent deviance and peer deviance on informal labeling (see Figure 1). Specifically, we show the predicted probabilities of being informally labeled for values of individual non-violent deviance across non-deviant (0), low deviant (2), mean deviant (5.93), and high deviant (10) values of peer networks. As seen in Figure 1, there is evidence of an amplification process that supports our third hypothesis, as the relationship between individual non-violent deviance and the risk of being informally labeled by parents is stronger as peer deviance increases. In contrast, peer deviance does not moderate the effect of non-violent deviance on the likelihood of receiving a formal label. In addition, peer violence does not moderate the effect of individual violence on risk for receiving an informal or formal label.

< Figure 1 about here >

DISCUSSION

Recent interest on labeling has focused on status differentials in receiving labels, where those with less power are more likely to be labeled (Alpert et al. 2007; Demuth 2003; Miller 2009; Roh and Robinson 2009); and on the occurrence of secondary deviance, the process by which labeled individuals face an increased risk of engaging in future deviance(Bernburg and Krohn 2003; Bernburg et al. 2006; Sampson and Laub 1997). Thus far, most research on the role deviant peers play in the labeling process has been

limited to the latter stream of research, examining deviant peers as facilitators of secondary deviance (Adams and Evans 1996; Bernburg et al. 2006; Johnson et al. 2004; Matsueda 1992). This research extends the scope of labeling theory by examining the role deviant peers play in earlier stages of the labeling process.

We address three hypotheses in the present paper. We find clear support for our first hypothesis, that peer network deviance is associated with risk for being informally labeled deviant by parents and formally labeled deviant by school authorities, net of an individual's own deviant behavior. We find that adolescents with higher levels of peer network deviance are more likely to receive informal labels by parents and formal labels by school authorities, regardless of the adolescents own deviant behavior.

The present findings suggest that parents and school officials are likely to use social context and relationships as an additional source of information in assessing adolescents. In line with focal concerns (Steffensmeier et al. 1998) or symbolic threat (Tittle and Curran 1988) perspectives our findings suggest that teachers and other school authorities, who are likely to have limited knowledge of the student, draw on the behaviors of peers when deciding to discipline youth and use formal sanctions. Given these findings, future research should focus on teachers and other school authorities to better gauge what information goes into the decision-making process with regard to school discipline. However, we also find that the behavior of peers also plays a role in informal labeling by parents, above and beyond an individual's own behavior. As research suggests that informal labels have greater deleterious effects on self-identity and

greater impact on secondary deviance (Adams et al. 2003; Tittle 1980), future research should consider the role of deviant peers in this process.

Peer network violence, however, was not significantly related to being informally or formally labeled, contrary to expectations. Perhaps being a more serious offense, there are fewer dissimilarities in participation of violence between individuals and their peer groups. If this is the case, then accounting for an individual's involvement in violence may explain why peer violence was not related to being labeled deviant. Future research should further tease out the differences between the non-violent and violent deviant behavior of peers.

We also anticipated that the relative importance of an individual's own behavior on risk of being labeled would depend in part on an individual's social group and proposed competing hypotheses. We hypothesized (Hypothesis 2) that the level of peer deviance may dampen the impact of an individual's own behavior on the application of a deviant label, as peer deviance serves as an additional source of information by which to label an individual. Conversely, we also hypothesized (Hypothesis 3) that peer deviance may amplify the effect of an individual's own behavior on the application of deviant label, whereby individual and peer deviance is multiplicative based on accumulated evidence of deviance. We found that the relationship between individual deviance and risk of being informally labeled by parents is stronger as levels of peer deviance increase. In other words, our findings support our third hypothesis, at least in the case of informal labeling. However, we find no evidence that peer deviance moderates the relationship between individual deviance and receiving a formal label. Similarly, peer violence did

not significantly moderate the relationship between individual violence and receiving an informal or formal label.

It is possible that the effect of deviant peers on being informally labeled deviant is greater for more deviant individuals because parents are more likely to believe that the deviant behaviors of peers are a reflection of their child. In the case of deviant behaviors, if peer behaviors are consistent with parents' perceptions of their own child's behaviors, in this case both are deviant, then parents may be more apt to readily accept this additional information and use knowledge of deviant peers in labeling their child deviant. It is possible that associating with deviant peers provides additional confirmation of parental perceptions of their child's deviance. Parents may be able to ignore or downplay problematic behavior in their child, but when paired with associating with other deviant children this may present overwhelming evidence that problem behaviors are not isolated and that this is a broader pattern of problems with their child.

Our findings suggest, however, that in the case of formal labeling by school officials, the effect of peer deviance is direct and independent of individual deviance. Thus, it would appear that peer deviance is one of a number of factors considered by school officials in disciplining students rather than an aggravating factor. Interestingly, peer violence was not significantly related to the application of a label in any models, nor did peer violence moderate the relationship between individual violence and the application of a label. It may be that violence is seen more as a reflection of individual character, rather than a social behavior, thus making peer violence less important in the application of a deviant label. Nevertheless, this finding warrants further exploration.

In addition to our primary findings, this study also makes an important contribution by running separate analyses for informal and formal labels as few studies have been able to model both (Adams et al. 2003; Tittle 1980). We identified notable differences between formal and informal labeling processes with respect to key demographic control variables. For informal labeling, younger and male adolescents were less likely to be labeled deviant by parents compared to older and female adolescents. Additionally, African American adolescents were less likely to be informally labeled deviant by parents compared to White adolescents. Conversely, older, female, and white adolescents were all less likely to be labeled deviant by school authorities compared to younger, male, and African American adolescents. Differences between informal and formal labeling processes were also apparent in the moderating analyses, as we found the relationship between peer deviance and informal labeling to depend on levels of non-violent peer deviance, but found no evidence of moderation effects in models predicting formal labeling. The observed differences between informal and formal labeling models highlight the interaction process specified notably by Becker (1963), whereby the characteristics of the labeler and the social context of the labeling process may also be important. Future research should further disentangle these and other sources of variation between informal and formal labeling processes.

There are limitations to this study. First, it should be noted that Add health is a school-based survey. As such, adolescents who have dropped out of school, which in itself is an action that can be considered deviant, are excluded from analyses. Also, we are only able to model informal labeling in cross-sectional analyses and are not able to

directly assess causal order. It may be that adolescents who are labeled deviant by their parents are also more likely to have developed a deviant identity and seek out deviant friends, which would be consistent with recent research on labeling theory. More research is needed using longitudinal samples that can account for parents' prior views about their children to better tease out the causal ordering.

It is important to note that we do not dispute that involvement with deviant peers is often a consequence of labeling as theorized and evidenced in a number of studies (Adams and Evans 1996; Becker 1963; Bernburg et al. 2006; Johnson et al. 2004; Matsueda 1992). Rather, we argue that deviant peer networks may impact the receipt of a deviant label and that the relationship is more interactive than previously conceived. We find that peer networks are an additional point of reference in the decision to apply a deviant label, that peer networks influence both parents and school authorities, and that the impact of peers operates independent of individual deviance and problem behaviors. Becker (1963) specifies that power differentials impact the ability to defend against the application of deviant labels. To the degree that peers reflect a form of social capital, serving as a resource for individuals to draw from (Coleman 1988), having access to and associating with peers who are viewed as "Saints" may therefore protect against the deviant label (Chambliss 1973). While this research focuses on receiving informal and formal labels, future research examining the influence of deviant peer networks on being falsely accused would provide further evidence that deviant peer networks impact the application of deviant labels. Future research should also consider additional peer

network characteristics (i.e., centrality, density, racial heterogeneity) that may further

serve as a point of reference and influence the risk of being labeled deviant.

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Table 1. Descriptive Statistics

Variables	Cross-sectional Sample (n = 12,011)			Longitudinal Sample (n = 9,267)		
	Mean/ Percent	SE	Range	Mean/ Percent	SE	Range
Informal label	37.11	-----	0.00 – 1.00	-----	-----	-----
Formal label	-----	-----	-----	10.16	-----	0.00 – 1.00
Peer deviance	5.93	0.13	0.00 – 36.00	5.66	0.12	0.00 – 36.00
Peer violence	0.78	0.02	0.00 – 4.00	0.79	0.02	0.00 – 4.00
Non-violent deviance	5.99	0.14	0.00 – 36.00	5.53	0.13	0.00 – 36.00
Violent deviance	0.81	0.02	0.00 – 4.00	0.81	0.02	0.00 – 4.00
Grade point average	2.77	0.02	0.50 – 4.00	2.81	0.02	0.50 – 4.00
School problems	4.16	0.06	0.00 – 16.00	4.10	0.06	0.00 – 16.00
Age	15.25	0.13	11.00 – 21.00	14.87	0.12	11.00 – 21.00
Female	50.49	-----	0.00 – 1.00	51.62	-----	0.00 – 1.00
White	69.99	-----	0.00 – 1.00	68.98	-----	0.00 – 1.00
African American	15.51	-----	0.00 – 1.00	15.27	-----	0.00 – 1.00
Hispanic	9.73	-----	0.00 – 1.00	10.11	-----	0.00 – 1.00
Asian	3.04	-----	0.00 – 1.00	3.93	-----	0.00 – 1.00
Other race	1.73	-----	0.00 – 1.00	1.71	-----	0.00 – 1.00
Family SES	6.30	0.09	1.00 – 10.00	6.35	0.09	1.00 – 10.00
Two biological parents	56.54	-----	0.00 – 1.00	58.31	-----	0.00 – 1.00
Suburban	58.22	-----	0.00 – 1.00	57.91	-----	0.00 – 1.00
Urban	22.77	-----	0.00 – 1.00	23.14	-----	0.00 – 1.00
Rural	19.01	-----	0.00 – 1.00	18.95	-----	0.00 – 1.00

Note: Descriptive statistics are weighted using the Add Health project weights. Due to the use of Add Health project weights, standard errors are produced rather than standard deviations.

Table 2. Survey Corrected Logit Regression Predicting Labeling

Variables	Informal Label			Formal Label		
	Model 1			Model 2		
	b	SE	Exp (*b*)	*b*	SE	Exp (*b*)
Peer deviance	0.05***	0.01	1.05	0.05*	0.02	1.05
Peer violence	0.07	0.05	1.07	0.17	0.09	1.18
Non-violent deviance	0.04***	0.01	1.04	0.05***	0.01	1.05
Violent deviance	0.13***	0.03	1.14	0.14**	0.05	1.15
Grade point average	- 0.31***	0.04	0.73	- 0.48***	0.07	0.62
School problems	0.04***	0.01	1.04	0.09***	0.02	1.10
Age	0.06**	0.02	1.06	- 0.11**	0.04	0.89
Female	0.13*	0.06	1.14	- 0.38***	0.11	0.68
African American	- 0.21*	0.10	0.81	1.02***	0.13	2.77
Hispanic	0.09	0.11	1.09	- 0.06	0.20	0.94
Asian	0.00	0.18	1.00	0.01	0.40	1.01
Other race	0.41	0.21	1.51	0.48	0.40	1.62
Family SES	- 0.06***	0.01	0.95	- 0.08***	0.02	0.92
Two biological parents	- 0.31***	0.07	0.73	- 0.30**	0.10	0.74
Urban	- 0.10	0.08	0.91	0.08	0.15	1.09
Rural	0.22**	0.08	1.25	0.09	0.17	1.09
Intercept	- 1.08***	0.40		- 0.11	0.67	
n	12,011			9,267		

*p < .05. **p < .01. ***p < .001.

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Table 3. Survey Corrected Logit Regression Predicting Labeling, Interactions

| Variables | Informal Label | | | | Formal Label | | | |
| | Model 1 | | Model 2 | | Model 3 | | Model 4 | |
	b	Exp (b)	b	Exp (b)	b	Exp (b)	b	Exp (b)
Peer deviance	0.02	1.03	0.05***	1.05	0.05*	1.05	0.05*	1.05
	(0.01)		(0.01)		(0.03)		(0.02)	
Peer violence	0.08	1.08	0.10	1.11	0.17	1.18	0.22	1.25
	(0.05)		(0.07)		(0.09)		(0.15)	
Non-violent deviance	0.02	1.02	0.04***	1.04	0.06**	1.06	0.05***	1.05
	(0.01)		(0.01)		(0.02)		(0.01)	
Violent deviance	0.13***	1.14	0.16**	1.17	0.14**	1.15	0.19*	1.20
	(0.03)		(0.05)		(0.05)		(0.09)	
Non-violent deviance x Peer deviance	0.00*	1.00			- 0.00	0.99		
	(0.00)				(0.00)			
Violent deviance x Peer violence			- 0.04	0.96			- 0.05	0.95
			(0.05)				(0.09)	
n	12,011		12,011		9,267		9,267	

Note: Models control for age, sex, race, socioeconomic status, family structure, urbanicity, grade point average, and school problem behaviors. Standard errors in parentheses.
*p < .05. **p < .01. ***p < .001.

Figure 1. The Relationship between Non-Violent Deviance and Informal Labeling by Level of Peer Deviance