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THE CONDITIONAL EFFECT OF PEER GROUPS ON THE RELATIONSHIP BETWEEN PARENTAL LABELING AND YOUTH DELINQUENCY

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ABSTRACT: *Peer attitudes toward delinquency and peer involvement in delinquency are hypothesized to modify the relationship between parental labeling, both actual and perceived, and youth delinquency involvement. The models were tested using data from the initial three waves of the National Youth Survey. As hypothesized, both actual and perceived parental labeling increase subsequent youth delinquency. Parental labeling has a stronger effect on youth delinquency when peer attitudes toward delinquency are more positive and when youths reported more friends engaging in delinquency. The conditional effects were observed for both actual parents' labeling and youth perception of parental labeling. Peer attitudes toward delinquency and peer participation in delinquency had independent interactive influences on the relationship between parental labeling and subsequent youth delinquency.*

For decades, criminologists have shown persistent concerns over the impact of labels on youth delinquency. Early labeling theorists insisted that labels amplify delinquency by pushing the labeled youths further along an unconventional path and by transforming self-image (Becker 1963; Kitsuse 1962; Lemert 1951; Schur 1971). Others, however, have expressed serious doubts about this claim. They argued that labeling predictions might be exaggerated, and that labeling does not invariably lead to more delinquency (Burkett and Hickman 1982; Foster, Dinitz, and Reckless 1972; Green 1989; Grasmick and Bursik 1990; Thomas and Bishop 1984; Tittle 1975).

In response to critics, proponents of labeling launched a series of efforts in recent years to elaborate, expand, and reformulate the labeling framework. In general, two trends characterized recent developments. One focused on types of labels and the labeling processes. While early work concentrated primarily on the formal or official labeling process, more recently there has been a renewed interest in focusing on informal labels. Informal labels involve reactions of such social

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agents as parents, neighbors, and friends that tend to stigmatize the person as a "specific type" of individual (e.g., the delinquent) (Triplett and Jarjoura 1994), while formal labeling includes sanctions of the criminal justice system on individual offenders. Advocates of informal labeling insisted that informal labels might be more detrimental than formal reactions because they occur in the individual's immediate environment (Wellford 1987) and thus are more central to one's self-identity and behavior. Besides, informal reactions tend to occur prior to the sanctions of official agents, and thus any labeling effects may already have occurred by the time formal sanctions are administered (Triplett and Jarjoura 1994).

Concurrent with this new interest in informal reactions, another group of researchers has explored the conditions and circumstances under which labeling outcomes occur. Of particular concern is whether variations in sociocultural contexts might modify labeling outcomes. Tittle (1975) suggested that cultural expectations and deviant opportunities, among other factors, might determine the outcomes of labeling. He reasoned that a woman labeled a prostitute would have a greater chance of continuing her deviant career than when she is labeled a shoplifter. Although deviant labels are applied in both cases, it is easier for a woman to find a support network and opportunities to continue her prostitution than an amateur shoplifter to find similar support and network opportunities.

More recently, Braithwaite (1989) addressed the importance of contextual variations. He identified two types of shaming: reintegrative shaming, which welcomes offenders back to the conventional community; and disintegrative shaming, which creates a class of social outcasts and is stigmatizing. For Braithwaite, cultural contexts may determine the outcomes of stigmatizing shaming in two ways. Those who are pushed away from the conventional community may feel attracted to criminal subcultures and, as a consequence, participate in crime and delinquency. Thus cultural contexts mediate the effect of stigmatization. In addition, cultural contexts may modify the outcome of stigmatizing shaming. Individuals who are stigmatized and who simultaneously encounter criminal support and opportunities may become more persistent offenders than those who are stigmatized but do not encounter such support and opportunities. In the latter case, stigmatized individuals may return to the conventional communities for lack of persistent support and criminal opportunities to continue offending.

These two lines of research described here, one focused on informal labeling and the other on cultural or contextual variations, have both advanced the labeling framework. Advocates of informal labeling expanded the labeling perspective by emphasizing informal reactions and their consequences on criminal offending. Proponents of the contextual argument extended the literature by acknowledging criminogenic outcomes of labeling (formal or informal) and simultaneously recognizing that labeling effects might depend on the cultural contexts (e.g., support system and opportunities) in which labeling occurs.

Unfortunately, much of the discussion of informal labeling and cultural context as a conditional mechanism remained quite separate and very much at the theoretical level. So far, no one has integrated these two lines of research and tested their arguments empirically. Although a growing number of researchers have recently examined the effects of informal labels on youth delinquency, none of the

studies to date have addressed whether the effects of informal labeling on youth delinquency might be dependent on social contextual variations, including the availability of subculture support and delinquent opportunities.

The present research thus extends the previous literature by integrating these two lines of study. Specifically, this study examines (1) whether informal labeling predicts subsequent delinquency and (2) whether variations in the social culture context (especially the support and delinquent opportunities) modify the outcomes of informal labeling. For present purposes, the investigation focuses on peer measures to reflect social contextual variations. Although social context is a broad concept and may include, in addition to peers, such variables as the family, schools, neighborhoods, and communities, this study focuses only on peer groups, since peers represent a direct and arguably the most important social context for adolescents. Previous researchers have shown that peer influences are important antecedents and mediators of adolescent delinquency (Aseltine 1995; Heimer and Matsueda 1994; Matsueda and Anderson 1998; Steinberg 1986; Warr 1998; Warr and Stafford 1991). However, none of the studies on peer influences have examined whether peer groups may modify (exacerbate or reduce) the effects of informal labeling on youth delinquency.

THEORETICAL MODEL AND RESEARCH HYPOTHESES

Informal Labeling and Youth Delinquency

The baseline model builds on previous literature (Matsueda 1992; Triplett and Jarjoura 1994; Zhang 1997) by specifying two stages of informal labeling: (1) the actual (or objective) labeling of significant others and (2) youth perception (or subjective interpretation) of such labels. Both aspects of labeling are hypothesized to predict subsequent delinquency independently. The hypothesized model showing the interrelationships among actual labeling, youth perceived labeling, and youth delinquency is shown in Figure 1.

Theoretically, actual labeling may influence youth delinquency in two ways. First, labeling is likely to predict youth delinquency indirectly through youth perception of such labels (see the indirect path in Fig. 1). According to the symbolic interactionist perspective (Matsueda 1992; Mead 1934), social interaction is an ongoing process in which audiences communicate their responses to the actors and the actors in turn interpret social reactions prior to taking responsive actions. In accordance with this principle, youths are likely to become aware of how others evaluate them through social interaction, and they may respond to these evaluations by taking actions, including turning to or continuing to engage in delinquency activities. Youth perception of informal labeling is likely to predict delinquency directly. The underlying mechanisms for such influence may include (1) youth self-evaluation or self-labeling, (2) increased frustration with conventional communities, and/or (3) decreased ties with traditional values and institutions. Tests of these mechanisms, however, are not the focus of this research.

In addition to the indirect influence, actual labeling may predict youth delinquency directly net of youth perception of such labels (see the direct path in Fig.

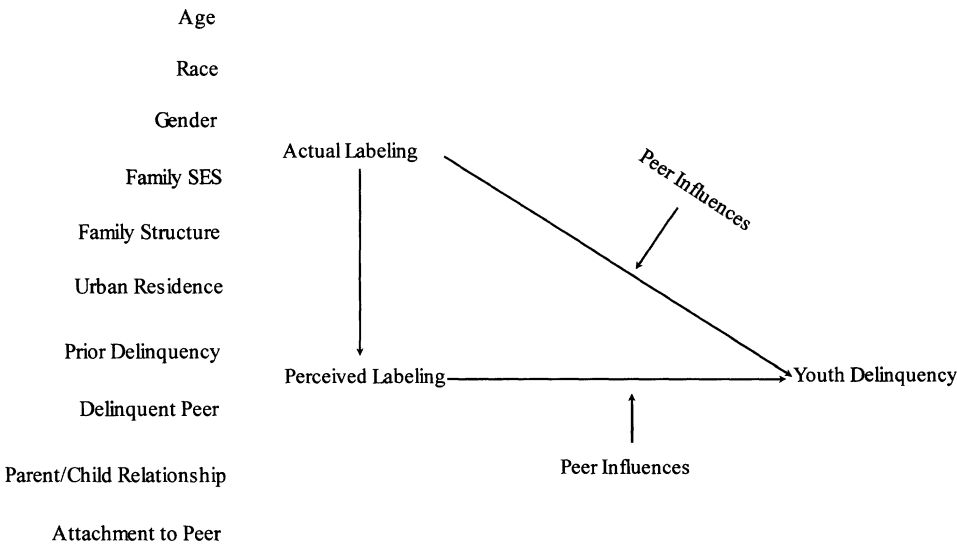


Figure 1
Hypothesized Baseline Model, Conditional Effects of Peer Groups and Common Antecedent Variables

1). This occurs especially when those who do the labeling (e.g., parents) never communicate their reactions (or labels) to the youth. Instead, they simply change their behavior toward the persons (e.g., the youth) who are being labeled (Matsueda 1992; Triplett and Jarjoura 1994). Their behavior changes, such as withdrawing their love or acceptance, may in turn alienate the youth, leading to subsequent delinquency involvement.

Following previous research (Matsueda 1992; Triplett and Jarjoura 1994), the present analysis focuses on parent evaluations of the youth as sources of actual labeling. For consistency, youth perception of informal labeling reflects those of parents only (see Triplett and Jarjoura for a similar focus). Few will deny that parental opinions remain one of the more important sources of negative informal reactions for adolescents.

Empirical studies on the effects of informal labeling on youth delinquency have yielded supportive evidence indicating that informal reactions of parents and/or others are related to youth delinquency (Matsueda 1992; Ward and Tittle 1993; Zhang 1997). In addition, actual appraisals of parents have been shown to exert independent effects on youth delinquency net of their indirect effects via youth perceived or reflected appraisals (Matsueda 1992).

Informal Labeling and Youth Delinquency by Peer Group Influences

Consistent with the contextual argument, this study extends previous research by specifying a conditional or an interactive model of informal labeling on youth

delinquency. While parents' labeling, actual or perceived, is expected to predict youth delinquency directly, the question of concern here is whether the effects of parental labeling on youth delinquency vary by peer group influences, specifically, by peer attitudes toward delinquency and peer participation in delinquency.

It is expected that peer attitudes and delinquency are likely to modify the effects of parental labeling (both actual and perceived) on youth delinquency (see Fig. 1). Specifically, two hypotheses are tested: youths who experience actual or perceived negative labeling by parents and who simultaneously encounter support for delinquency from friends and peers are more likely to engage in delinquency activities than those who do not encounter peer support. Similarly, youths who experience actual or perceived negative labeling by parents and who are simultaneously associated with friends who engage in delinquency are more likely to be involved in delinquency activities than those who do not have such friends. These hypotheses are consistent with the following theoretical assertions. First, deviant peers and their support for delinquency may exacerbate the adverse experience of informal labeling by significant others and thus may enhance youths' motives to depart from the conventional ties and social institutions (Kaplan 1984; Paternoster and Iovanni 1989). In a context in which friends and peers are more permissive of unconventional activities, youths may be more exposed to negative sentiments against the conventional groups and their concurrent value systems (Akers 1985). Such negative sentiments may magnify the stress induced by informal labeling of significant conventional others and may thus increase motivation to attenuate the ties with conventional society (Kaplan, Johnson, and Bailey 1987). In addition, peer groups permissive of delinquency may endorse the use of unconventional activities as a legitimate response to frustration. For instance, they may help to rationalize delinquent activities as ways of responding to frustration with significant others (Sutherland, Cressey, and Luckenbill 1992; Sykes and Matza 1957). Finally, peer groups permissive of delinquency may exacerbate the negative impact of informal labeling through increasing the access to delinquent opportunities (Braithwaite 1989; Cloward and Ohlin 1960; Cohen and Felson 1979; Tittle 1975). Within permissive peer environments where friends and peers engage in delinquency activities, the opportunities to get involved in unconventional behavior are greater than in less permissive peer environments. Adolescents who experience negative labeling by significant others and thus are motivated to weaken conventional ties may, therefore, find ample opportunities to participate in delinquency as a reaction to frustration with the conventional society. In short, permissive peer contexts enhance the likelihood of adolescents turning to and/or participating in delinquency as a result of experiencing negative labeling and, hence, feeling frustrated with the conventional social groups.

In contrast, in a less permissive peer environment, youths who experience labeling by significant others may not resort to delinquency, since there is little support for the unconventional activities and few delinquent opportunities are available (Braithwaite 1989; Cloward and Ohlin 1960; Tittle 1975). Thus labeling by significant others may not amplify subsequent delinquency.

METHOD

Sample

The hypothesized relationships were tested using data from the initial three waves of the National Youth Survey (NYS) (Elliott, Huizinga, and Ageton 1985; Elliott, Huizinga, and Menard 1989). The NYS is a national probability sample of adolescents who were between the ages of eleven and seventeen and who resided in households in the United States in 1976. The original sample of 1,725 youths was obtained through multistage cluster sampling design. The first three waves of the interviews were conducted in 1977 (Wave 1), 1978 (Wave 2), and 1979 (Wave 3), respectively. Attrition over these waves was minimal and did not substantially affect the representativeness of the sample (Elliott, Knowles, and Canter 1981). In addition to youth response, the first wave (1977) of the NYS contained information provided by one parent of each youth who agreed to participate in the study. The three waves of youth interviews together with parent reports are used to estimate the hypothesized models.

Among the youths who participated in all three waves of the study and who provided complete information on the study variables ($N = 1,261$), approximately 49 percent are females and 51 percent are males. Regarding race/ethnic status, 12 percent of the sample are African Americans, 4 percent are Mexican Americans, and the rest are non-Hispanic whites by majority (81 percent of the sample). The average age of the youths was approximately fourteen at the time of the initial interview. At that time, approximately 26 percent of the youths lived in urban areas and 18 percent lived with parents who were divorced, separated, or had never been married.

Measures

A total of fourteen measures (not counting interaction terms) were included in the study to test the hypothesized relationships. For ease of interpretation, the variables (scales) were standardized before they were entered into the regression analysis (for details, see Jaccard, Turrissi, and Wan 1990).

Delinquency

The dependent variable, delinquency, is derived from Wave 3, while an identical measure from Wave 1 serves as a control variable. Following Heimer and Matsueda (1994), the study focuses on a twenty-eight-item scale ($\alpha = .88$) of general delinquency acts,¹ including participation in vandalism (e.g., destroying property), theft (e.g., auto theft), use of violence (e.g., attacking others), and drug offenses (e.g., selling drugs). To minimize potential bias introduced by differential distribution (i.e., prevalence and frequency rates) of individual items, factor weights of component items were used to construct scales prior to modeling them as dependent (or control) variables. Similar to additive indices, the weighted composite scales have higher scores reflecting greater rates of offending (individual item response ranges from 1 for "never" to 9 for "2-3 times a day"). As originally

designed in the NYS, all of the offenses occurred within twelve months before the interviews.

Parental Labeling

The independent variables, actual and perceived parental labeling, are derived from the first two waves of the NYS. Actual labeling (from Wave 1) is represented by a four-item scale ($\alpha = .79$) drawn from questions asking parents how delinquent they think their child is. The scale items include whether they think their child is "a bad kid," a kid "who gets into trouble," "breaks rules," and "does things against the law." Perceived parental labeling is taken from Wave 2 and consists of identical items ($\alpha = .81$) that ask youth respondents whether they think their parents see them as "a bad kid," a kid "who gets into trouble," "breaks rules," and "does things against the law." The item responses range from 1 to 5, with 1 indicating "strongly disagree" and 5 indicating "strongly agree." Higher scores of the additive indices indicate more negative labeling by parents or greater youth perception of parental labeling.

Peer Attitudes and Delinquency

The conditional variables, peer groups, are measured by (1) peer attitudes toward delinquency and (2) peer involvement in delinquency activities. Both are measured at Wave 2. The attitudinal measure is reflected in four items ($\alpha = .87$) that measure peer attitudes toward "destroying property," "stealing things worth more than \$50," "breaking into a building/vehicle," and "selling hard drugs." The responses to these questions are coded with scores ranging from 1 indicating "strongly disapprove" to 5 indicating "strongly approve." Higher scores of the additive index reflect greater peer support for (or approval of) delinquency.

Peer participation in delinquency is also reflected in four items ($\alpha = .79$) that report whether friends engage in "destroying property," "stealing things worth more than \$50," "breaking into a building/vehicle," and "selling hard drugs." The responses to these items range from 1 indicating "none of their friends" to 5 for "all of their friends." Higher scores reflect more peer participation in delinquency activities.

Interaction Terms

Four interaction terms were constructed by multiplying the standardized measures of parental labeling, actual or perceived, by the standardized measures of peer attitudes or delinquency, respectively. Thus the interaction terms include (1) Actual Labeling \times Peer Attitudes, (2) Actual Labeling \times Peer Delinquency, (3) Perceived Labeling \times Peer Attitudes, and (4) Perceived Labeling \times Peer Delinquency. The interaction terms themselves are not standardized. This procedure follows the method recommended by Aiken and West (1991) for analyzing interaction effects. If hypotheses are valid, these interaction terms should have significant and positive effects on youth delinquency.

Control Variables

A number of variables relevant to labeling hypotheses are included in the current model since observed relations may be the spurious outcome of common antecedents. These include sociodemographic variables such as age, race, gender, family structure, socioeconomic status, and urban residence (see Fig. 1). Other variables that may be common antecedents of parental labeling process and youth delinquency include prior level of delinquency, prior association with delinquent peers, parent-child relationship, and youth attachment to peers (see Fig. 1). Prior level of delinquency is considered since youths who offend earlier are likely to continue offending and to evoke negative labeling by parents (Matsueda 1992). Similarly, prior association with delinquent peers should influence later delinquency and evoke negative parental labeling (Kaplan 1984). Youths who do not maintain good relationships with parents and who are more susceptible to peer influences may also participate in delinquency and evoke negative labeling by parents (Triplett and Jarjoura 1994).

Measures of common antecedent variables are all derived from Wave 1. Prior delinquency ($\alpha = .85$) and prior association with delinquent peers ($\alpha = .83$) consist of identical items as described above for youth delinquency and peer delinquency, respectively. Parent-child relationship measured by a four-item scale ($\alpha = .67$) draws from questions asking youth respondents how well they are doing with regard to "having parents they can talk to," "having parents comfort them when they are unhappy," "getting along with their parents," and "doing things together with the family." The responses range from 1 indicating "not well" to 5 indicating "very well." Attachment to peers is reflected in an index of four items ($\alpha = .63$) that measure the importance of "having a special boyfriend/girlfriend," "being included in friend's activities," and having friends "ask them to spend time and do things with them" and having "lots of dates." The responses to these items range from 1 indicating "not at all important" to 5 indicating "very important." Higher scores of the additive indices indicate closer relationships with parents or greater attachment to friends, respectively.

Sociodemographic variables are measured as follows: Age is a continuous variable ranging from 11 to 17. Race is dichotomously coded with black = 1 and 0 otherwise. Gender is coded with male respondents assigned the value of 1 and females the value of 0. Family SES is measured by the Hollingshead composite scale for the head of the family (Miller 1991). It ranges from 11 to 77, with higher scores indicating lower SES. Family structure is measured by parents' marital status at the initial interview. Adolescents whose parents are not married and thus live with one adult parent are assigned with the value of 1 and 0 otherwise. Finally, urban residence is coded with 1 for respondents living in an urban area and 0 for suburban or rural settings.

RESULTS

The results of the OLS regression models² are presented in accordance with the hypothesized conditional variables, that is, (1) peer attitudes toward delinquency,

(2) peer delinquency participation, and (3) both peer attitudes and peer delinquency simultaneously.

Peer Attitudes toward Delinquency

Table 1 shows the main and interactive effects of parental labeling, actual and perceived, and peer attitudes toward delinquency on subsequent delinquency involvement, controlling for prior level of delinquency, prior association with delinquent peers, parent-child relationship, and other common antecedent variables.

As shown, in the baseline model (Table 1), both actual and perceived parental labeling are significantly related to subsequent youth delinquency ($p < .001$). The regression coefficients are positive, indicating that parental labeling, actual or perceived, increases the likelihood of subsequent youth participation in delinquency activities. The strengths of the coefficients for actual and perceived parental labeling are comparable to each other. In addition, peer attitudes toward delinquency are also significantly related to delinquency net of all the other control variables ($p < .001$). The positive relationship indicates that perceived peer support for delinquency is associated with a subsequent increase in youth delinquency.

As expected, prior delinquency strongly predicts subsequent youth delinquency. Adolescent boys are more likely to engage in delinquency activities than adolescent girls net of prior level of delinquency. In general, African Americans

TABLE 1
Main and Interaction Effects of Parental Labeling and Peer Attitudes toward Delinquency on Youth Delinquency Controlling for Common Antecedent Variables

<i>Variables</i>	<i>Baseline</i>	<i>Interaction I</i>	<i>Interaction II</i>	<i>Interaction III</i>
Actual parental labeling	0.10***	0.07**	0.10***	0.08**
Perceived parental labeling	0.10***	0.11***	0.08**	0.10***
Peer attitudes toward delinquency	0.12***	0.09***	0.08***	0.08***
Actual Labeling \times Peer Attitudes		0.19***		0.14***
Perceived Labeling \times Peer Attitudes			0.15***	0.10***
Age	-0.01	-0.02	-0.01	-0.02
Race (black)	-0.06*	-0.06*	-0.05 ⁺	-0.05*
Gender (boys)	0.06**	0.08***	0.08***	0.09***
Family SES	0.01	0.02	0.01	0.01
Family structure	0.04	0.05*	0.04 ⁺	0.05*
Urban residence	0.04 ⁺	0.04 ⁺	0.04 ⁺	0.03
Prior delinquency	0.41***	0.36***	0.37***	0.34***
Delinquent peer association	-0.02	-0.00	-0.00	-0.00
Parent/child relationship	0.03	0.03	0.03	0.02
Peer attachment	0.03	0.03	0.03	0.03
R ² (adj.)	0.34	0.40	0.39	0.42

Note: Standardized effects are shown.

⁺ $p < .10$; * $p < .05$; ** $p < .01$; *** $p < .001$ (two-tailed).

reported less involvement in delinquency over time compared to other racial/ethnic subgroups. Similar observations showing lower rates of African Americans in delinquency activities have been reported in other national and regional studies (Barnes and Farrell 1992; Kaplan and Damphousse 1997). Finally, adolescents living in urban areas reported slightly more involvement in delinquency over time as compared to those who reside in suburban or rural settings. This effect, however, only reaches borderline significance ($p < .10$).

To examine whether peer attitudes toward delinquency modify the effects of parental labeling on youth delinquency, the interaction terms between parental labeling and peer attitudes, that is, (1) Actual Labeling \times Peer Attitudes and (2) Perceived Labeling \times Peer Attitudes, were entered into the regression model individually and simultaneously. If both interaction terms are significant, it would suggest that peer attitudes modify both aspects of parental labeling on youth delinquency. The results are presented in the next three columns of Table 1 (see Interaction Models I–III).

As shown, the interaction terms are all significantly related to delinquency involvement both individually and simultaneously ($p < .001$). The significant interaction terms thus indicate that the effects of parental labeling on youth delinquency vary by the levels of peer attitudes toward delinquency. The positive main effects of parental labeling on youth delinquency in the interaction models (see Table 1) indicate that on the average parental labeling, actual or perceived, increases subsequent youth delinquency. The positive interaction effects thus indicate that the effects of parental labeling on youth delinquency increase as peer attitudes toward delinquency become more positive (or also increase).³

The effects of control variables in the interaction models remain generally similar to those in the baseline model with only minor exceptions. When the interaction term between actual parental labeling and peer attitudes is taken into consideration, the effect of family structure on youth delinquency increases slightly ($p < .05$). In addition, when both interaction effects are taken into consideration, gender differences are slightly stronger while the stability effect of delinquency becomes weaker. These results may suggest the presence of some higher-order interaction effects.

Peer Participation in Delinquency

The results showing peer delinquency as moderating the relationships between parental labeling (actual and perceived) and youth delinquency are shown in Table 2.

Again, in the baseline model, actual and perceived parental labeling and peer delinquency are all positively related to subsequent delinquency involvement net of the control variables. The positive effects indicate that parental labeling observed at the earlier points in time increases subsequent delinquency involvement and that having friends engaging in delinquency also predicts youth self-reported involvement in delinquency over time. The effects of common antecedent variables are generally similar to the baseline model reported earlier (in Table 1).

To examine whether peer delinquency modifies the relationship between actual

TABLE 2
Main and Interaction Effects of Parental Labeling and Peer Delinquency on Youth
Delinquency Controlling for Common Antecedent Variables

<i>Variables</i>	<i>Baseline</i>	<i>Interaction I</i>	<i>Interaction II</i>	<i>Interaction III</i>
Actual parental labeling	0.10***	0.07*	0.09**	0.08**
Perceived parental labeling	0.10***	0.10***	0.08**	0.10***
Peer delinquency	0.19***	0.12***	0.10***	0.08***
Actual Labeling × Peer Delinquency		0.14***		0.11***
Perceived Labeling × Peer Delinquency			0.15***	0.09***
Age	−0.02	−0.03	−0.01	−0.02
Race (black)	−0.06**	−0.06*	−0.05*	−0.05*
Gender (boys)	0.06**	0.07***	0.08***	0.08***
Family SES	0.01	0.02	0.01	0.02
Family structure	0.04	0.05*	0.05*	0.06*
Urban residence	0.04 ⁺	0.03	0.04 ⁺	0.03
Prior delinquency	0.39***	0.34***	0.35***	0.31***
Delinquent peer association	−0.04 ⁺	−0.03	−0.03	−0.02
Parent/child relationship	0.03	0.03	0.03	0.03
Peer attachment	0.03	0.03	0.03	0.03
R ² (adj.)	0.37	0.42	0.41	0.44

Note: Standardized effects are shown.

⁺p < .10; *p < .05; **p < .01; ***p < .001 (two-tailed).

and perceived parental labeling and delinquency outcome, two interaction terms (Actual Labeling × Peer Delinquency and Perceived Labeling × Peer Delinquency) were added to the model containing the main effect and control variables both individually and simultaneously. The results are shown in Table 2 in the interaction models.

As shown, the interaction terms are again positively related to subsequent delinquency both individually and concurrently. These effects are all statistically significant ($p < .001$), indicating that peer delinquency modifies the relationships between parental labeling (actual and perceived) and subsequent delinquency involvement. The positive main effects of parental labeling in the interaction models again indicate that on the average parental labeling is associated with a subsequent increase in delinquency involvement. The positive interaction effects thus indicate that the effects of parental labeling on youth delinquency increase when youths are associated with more delinquent peers (or at higher levels of peer delinquency). Any changes in the effects of control variables when interaction terms are estimated are generally similar to those presented earlier in Table 1.

Peer Attitudes and Peer Delinquency

In the above models, peer attitudes and peer delinquency individually modify the relationship between parental labeling, actual or perceived, and youth delin-

TABLE 3
Main and Interaction Effects of Parental Labeling and Peer Attitudes/Peer Delinquency on Youth Delinquency Controlling for Common Antecedent Variables

Variables	Baseline	Interaction I	Interaction II	Interaction III
Actual parental labeling	0.10***	0.06*	0.09**	0.07**
Perceived parental labeling	0.09**	0.10**	0.07*	0.08**
Peer attitudes toward delinquency	0.07**	0.07**	0.06*	0.06*
Peer delinquency	0.18***	0.13***	0.09**	0.08**
Actual Labeling × Peer Attitudes		0.11***		0.07*
Perceived Labeling × Peer Attitudes			0.08***	0.07**
Actual Labeling × Peer Delinquency		0.10***		0.08***
Perceived Labeling × Peer Delinquency			0.10***	0.06*
Age	-0.02	-0.03	-0.01	-0.03
Race (black)	-0.06*	-0.06*	-0.05*	-0.05*
Gender (boys)	0.05*	0.07**	0.08***	0.08***
Family SES	0.01	0.02	0.01	0.01
Family structure	0.04	0.05*	0.04 ⁺	0.05*
Urban residence	0.04 ⁺	0.04 ⁺	0.04 ⁺	0.03
Prior delinquency	0.41***	0.34***	0.33***	0.30***
Delinquent peer association	-0.04 ⁺	-0.02	-0.03	-0.02
Parent/child relationship	0.03	0.03	0.03	0.03
Peer attachment	0.03	0.03	0.03	0.03
R ² (adj.)	0.37	0.43	0.42	0.45

Note: Standardized effects are shown.
*p < .10; * p < .05; ** p < .01; *** p < .001 (two-tailed).

quency involvement. However, it is problematic as to whether peer attitudes and peer delinquency represent independent measures of peer influence in modifying the relationship between parental labeling (actual and perceived) and subsequent delinquency. This question is addressed by specifying a full model in which both peer attitudes and delinquency measures are estimated simultaneously. The results are presented in Table 3.

As shown in Table 3, the main effects of peer attitudes and peer delinquency remain quite similar to those in the earlier models. Adolescents who reported peers as more approving of delinquency are more likely to engage in delinquency activities net of association with delinquent peers. Those who indicated that they have more friends who engage in delinquency are also more likely to participate in delinquency activities. The effects of parental labeling, actual or perceived, on youth delinquency remain significant when peer attitudes and peer delinquency are estimated simultaneously (p < .01). The effects of control variables remain similar to those reported earlier (Tables 1 and 2).

In the next set of interaction models (see Table 3), peer attitudes and peer delinquency were entered into the regression models individually and simultaneously. The results indicate that peer attitudes and peer delinquency modify the effects of

parental labeling (actual and perceived) on subsequent youth delinquency respectively. The coefficients are generally weaker when both variables are estimated simultaneously (see the last column), but all of the effects remain statistically significant ($p < .05$). Moreover, the patterns of the interaction effects are very similar to those when estimated in the separate models. These results thus indicate that peer attitudes and peer delinquency are independent measures of peer group influences and that they each modify the relationships between parental labeling, actual or perceived, and subsequent youth delinquency.

CONCLUSION

In summary, this study sets out to address two important research questions: (1) whether informal labeling by significant others may predict youth delinquency involvement and (2) whether social contexts, specifically, peer group context, may modify the outcomes of informal labeling on youth delinquency. The analyses yielded a number of noteworthy findings that are generally consistent with the earlier hypotheses. First, parental evaluations of the youth and youth perception of parental evaluations represent two distinct dimensions of parental labeling. Each predicts youth delinquency independently of the other. The observed positive associations between parental labeling (actual and perceived) and youth delinquency are consistent with the labeling argument that stigmatizing reactions of significant others may have a detrimental impact on subsequent youth involvement in delinquency (Braithwaite 1989; Matsueda 1992; Zhang 1997). The direct effect of actual parental labeling on youth delinquency net of youth perception of parental reactions is consistent with the earlier speculation that parents may not always communicate their evaluations to the youths and thus their evaluation and concurrent behavior change are likely to influence youth behavior directly. Meanwhile, the inability of youth perception of parental labeling to completely mediate the effect of actual parent labeling on youth delinquency may also indicate that youths choose to selectively perceive the cues of social responses, including those reflecting parental evaluations of themselves (Matsueda 1992). The selective observation thus partially contributes to the observed independent effects of parents' actual and perceived labeling on youth delinquency respectively.

Second, peer group influences, reflected in peer attitudes toward delinquency and peer participation in delinquency, are shown to have modified the effects of parental labeling on youth delinquency. **As observed, when peers are more supportive of delinquency and when youths are associated with more friends who participate in delinquency, parental labeling, whether it is the objective reactions or the subjective interpretation, is associated with greater increases in subsequent youth delinquency.** These observations are consistent with the earlier contention (Braithwaite 1989; Tittle 1975) that a social context, specifically, a peer context permissive of delinquency, might exacerbate the negative consequences of informal labeling and increase the likelihood of criminal offending by the individuals who are the object of such a labeling process.

It is interesting to note, in addition, that peer attitudes and peer delinquency

represent two independent measures of peer group influences. The simultaneous observation of peer attitudes and peer delinquency as conditional mechanisms indicates cumulative influences of supportive attitudes and delinquent opportunities. When both conditions are present, informal labeling predicts increased youth involvement in delinquency better than when only one or neither of the conditions is specified.

These findings, however, should be viewed with caution because of a number of methodological limitations. First, the study is limited to examining peer groups as an indicator of social contextual variations in modifying the informal labeling process. As noted earlier, contextual variables are broad and may include, in addition to peers, other micro-social units (e.g., family) as well as numerous macro-social environmental contexts (e.g., community). Future studies thus should broaden the conceptualization of contextual variables by examining the relationships among the reactions of significant others, peer groups, and delinquency in larger social contexts including schools, neighborhoods, and communities.

Second, the study examines how social context modifies the informal labeling process. The effect of official or formal labels is not addressed in the analyses. It would be interesting for future studies to extend the present focus to examine whether the effects of official labels on youth criminal offending might be dependent on social contexts, especially subculture support for crime and criminal opportunities.

Third, the study examines an important but limited aspect of informal social reactions, that is, actual and perceived labels of parents in relationship to youth delinquency. Informal social reactions are certainly not limited to those of parents. As suggested earlier, evaluations of other significant others, including neighbors, friends, and teachers, might be an important part of the informal labeling process for adolescents. Future studies should broaden the conceptualization of social reactions by examining how contextual variables may modify other aspects of informal social responses on youth delinquency outcomes. In addition, studies may also examine how social reactions, formal or informal, influence aspects of an individual's life other than criminal offending.

Despite the limited focus, the present study contributes to the literature by integrating two emerging trends of theoretical developments, that is, studies of informal labeling processes and conditional mechanisms in specifying labeling outcomes. By empirically examining peer context in modifying informal labeling outcomes, the study draws attention to the importance of peer groups in contributing to the consequences of the informal labeling process.

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NOTES

1. The robustness of the findings was checked using three different measures of delinquency—violence (against persons/property), theft, and drug offenses. Correspondingly, peer attitudes and peer delinquency were measured with items reflecting attitudes toward or involvement in violence, stealing, and drug offenses. Overall, the results are very similar to those reported here, and no substantive differences are observed when alternative measures of delinquency and peer influences are used.
2. The results were also confirmed using censored (Tobit) regression models with maximum likelihood estimation. Censored regression models take account of potential floor and ceiling effects on the dependent variables (delinquency involvement), which may cause artifactual interaction effects (see Mare and Chen 1986).
3. Main effects in the interaction models are interpreted in accordance with Jaccard, Turrisi, and Wan (1990), who have stated that the main effects can be understood as average effects of the independent variable on the dependent variable across values of the moderating variable. Interaction effects indicate that the amount of change in the effects of parental labeling on youth delinquency (measured in standardized scores) is associated with every standardized unit increase in peer attitudes toward delinquency (or peer involvement in delinquency).

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