

DELINQUENCY BALANCE: REVISITING PEER INFLUENCE*

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KEYWORDS: deviant peers, peer influence, balance

An impressive number of inquiries across an array of methodological specifications has demonstrated that deviant peers are an important correlate of various criminological outcomes, which include within-individual change and stability in offending behavior. Still, the causal mechanisms of peer influence arguably remain underdeveloped (Giordano, 2003; Warr, 2002). In an attempt to expand the dialogue on the nature of peer influence, this inquiry proposes that scholars would benefit from considering relative peer deviance in addition to exposure to deviant peers. Specifically, it argues that an imbalance in delinquency between friends helps to explain delinquency change/stability; therefore, exposure to deviant peers is not always risky and exposure to less deviant peers is not always protective. The analysis uses the AddHealth data to construct within-individual and across-individual (delinquency) difference scores and relies on self-reports rather than on perceptions for the best friends' delinquency. The results provide support for the

* The author would like to thank Wayne Osgood, Christopher Sullivan, Laura Dugan, Travis Pratt, and Alex Piquero for their helpful comments on earlier versions of this article. The author is also grateful to P. O. Wikström, Denise Gottfredson, and the anonymous reviewers. Finally, special thanks are due to Ray Paternoster for his unceasing help and guidance. This research uses data from AddHealth, which is a program project designed by J. Richard Udry, Peter S. Bearman, and Kathleen Mullan Harris, and it is funded by Grant P01-HD31921 from the Eunice Kennedy Shriver National Institute of Child Health and Human Development, with cooperative funding from 17 other agencies. Special acknowledgment is due to Ronald R. Rindfuss and Barbara Entwisle for assistance in the original design. Persons interested in obtaining data files from AddHealth should contact Add Health, Carolina Population Center, 123 W. Franklin Street, Chapel Hill, NC 27516-2524 (addhealth@unc.edu). No direct support was received from Grant P01-HD31921 for this analysis. Direct correspondence to Jean Marie McGloin, Department of Criminology and Criminal Justice, University of Maryland, 2220 L LeFrak Hall, College Park, MD 20742 (e-mail: jmcgloin@crim.umd.edu).

premise that adolescents attempt to achieve delinquency “balance” with their best friend by changing behavior, net of raw peer deviance levels (i.e., objective exposure). The findings also suggest that balance is not achieved through selection, given that the deviance gap between the respondent and his or her best friend does not predict friendship stability. The discussion considers these results from a theoretical and empirical perspective and offers several avenues for future research.

Research continues to refine the theoretical and empirical significance of deviant peers, which consistently emerges as one of the most robust correlates of delinquency (Haynie, 2001; Rebellon, 2006; Warr, 2002; Warr and Stafford, 1991; Zhang and Messner, 2000). Many mechanisms could underlie this correlation; unfortunately, when thinking about such mechanisms, researchers tend not to elaborate on the reciprocal nature of peer influence (cf. Cairns and Cairns, 1994; Giordano, Cernkovich, and Holland, 2003; Jussim and Osgood, 1989). Traditionally, criminology instead has conceived of the deviant peer effect, with regard to both theory and measurement, in objective terms (i.e., independent of the subject). If individuals are influenced by their peers, then it must also be true that they influence these peers. The social psychology premise of balance theory (Heider, 1946, 1958) is more consistent with this notion and suggests that when social imbalance exists between or among individuals, they seek to establish congruence (Heider, 1958; see also Newcomb, 1953, 1968).

A balance framework suggests two (related) alternative ways to view the deviant peer risk. First, to understand peer effects on delinquency change and stability, it may not be enough to consider the absolute level of deviant peer exposure. Instead, one should also pay attention to the delinquency imbalance between individuals—that is, a deviance “gap” between a subject and a friend. Second, because this imbalance (or balance) is partly defined by the subject’s own level of delinquency, exposure to the same peer can shape different changes in behavior across individuals. For instance, although a delinquent may promote deviance in a prosocial friend, he or she may also ameliorate another person’s offending behavior if this friend is relatively more deviant. Similarly, an individual with low levels of deviance can significantly decrease a deviant friend’s delinquency yet have minimal impact on another friend who demonstrates a similar level of deviance. This concept is different from recent work, which has suggested that individual-level characteristics can condition the deviant peer risk (Tittle, Ward, and Grasmick, 2004; Vitaro, Brendgen, and Tremblay, 2000; Wright et al., 2001). The argument here is not that the characteristics of a subject make a deviant friend more or less detrimental, but that individual-level characteristics partly *define* whether a peer is a risk or protective factor.

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This article develops this balance concept for criminology and subsequently tests its tenability by investigating the extent to which individuals seek delinquency “congruence” with their best friend. Specifically, it determines whether the deviance gap that exists between a subject and his or her best friend predicts within-individual change in delinquency over time, even when accounting for objective levels of the best friend’s deviance. It will therefore comment on whether scholars interested in the role of peers in explaining delinquency change and stability would be well served by broadening their perspectives and by questioning whether deviant peers are universally “risky” for offending behavior or whether this risk instead is, at least partly, dependent on a reference point (i.e., the subject). In the end, this investigation has the potential to shed more insight on the mechanisms whereby deviant peers exert their impact (see Billy and Udry, 1985; Giordano, 2003) and subsequently urge us to reconsider important tenets of criminological theory and measurement.

DELINQUENT PEERS AND BALANCE

Research studying the impact of deviant peers traditionally measures it in one of three ways: 1) the number of friends who engage in various types of deviance (e.g., Matsueda and Anderson, 1998); 2) the amount of deviant behavior in which friends engage (e.g., Bauman and Fisher, 1986; Reitz et al., 2006); and, 3) the proportion of friends who are deviant (e.g., Haynie, 2002). At their core, these operationalizations all capture variation in the *exposure* to deviant peers. Consistent with the socialization perspective (Akers, 1998; Sutherland, 1947), greater exposure to peer deviance is hypothesized to prompt higher levels of delinquency in a universal fashion (i.e., across all individuals), largely because it consequently exposes individuals to higher levels of deviant norms, behaviors, reinforcement contingencies, and opportunities. An impressive stack of empirical literature supports this premise under both cross-sectional and longitudinal specifications (see Warr, 2002).

From this perspective, exposure to deviant peers shapes the extent and nature of an individual’s delinquency as well as the within-individual stability and change in offending behavior. Of course, random fluctuations in behavior will occur over time, but socialization theorists assert that one way to understand and predict patterned variation in an individual’s offending behavior is to focus attention on exposure to delinquent peers. For instance, research has demonstrated that beginning to associate with a deviant peer(s) promotes the onset of delinquency (Elliott and Menard, 1996). Furthermore, peer effects are also implicated in explanations of desistance from crime. Specifically, in attempting to specify the microlevel processes that underlie the relationship between turning points and desistance (Sampson and Laub, 1993), Warr (1998) asserted that marriage is

related to a decline in the exposure to deviant peers, as individuals spend more time with a spouse and less time with friends. Likewise, Wright and Cullen (2004) assert that employment is associated with desistance because it introduces prosocial peers into an individual's life and decreases exposure to deviant peers. The argument would follow that if an individual does not experience such turning points or other social events that reduce his or her exposure to deviant peers, then one would not demonstrate desistance from criminal behavior but rather persistence.

This work certainly facilitates an understanding of how deviant peers can influence within-individual changes in deviance. It does make some broad claims, however. In particular, it views deviant peers universally as a risk factor for maladaptive outcomes. This view does not acknowledge the fact that friendships tend to be mutual and evocative, which thereby potentially limits our understanding of peer influence (see Giordano, 2003). For instance, do circumstances exist in which deviant peers may not be risky or in which they would not affect individuals in the same way? Several possible mechanisms may underlie the deviant peer risk (Warr, 2002), and such questions prompt the consideration of a peer influence process that accounts for the mutual nature of friendship.

According to the social psychological concept of balance, one goal of socially interactive relationships is congruence or homeostasis (see also Mukerjee, 1966). This simple statement may shed additional insight on the role of peer influence with regard to within-individual changes in attitudes and behaviors. Unlike previous work on the impact of deviant peers over the criminal career, a balance perspective necessitates an integration of the subject as a sort of delinquency "reference point" to understand how a deviant peer influences behavior. In doing so, it avoids general statements about the impact peers will have on behavior; instead, it qualifies predictions based on the context of the individuals involved in the relationship. Before delving into the specific hypothesis offered by this viewpoint, it is important first to understand its basic concepts.

Most scholars credit Heider (1946, 1958) with balance theory, which greatly influenced social psychology during the 1960s (Greenwald et al., 2002). Heider concentrated on an individual's connections with others and the environment, particularly with regard to sentiment relationships (i.e., affective linkages that can be positive or negative). He largely focused on triads—the person of focus, an "other," and a third item or object, which could be a person, a topic, or something else. The triad is "balanced" if the product of the signs of sentiment relationships is positive; the triad is "imbalanced" if the product of the affective linkages is negative. For example, if person A and person B like each other (a "+" sign), and both dislike person C (two "-" signs), then the triad is balanced (i.e., the product is positive). If, however, person A likes person C (+) whereas person B

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does not (-), then the triad is imbalanced (i.e., the product is negative). Heider (1958) argued that a state of imbalance causes tension because people naturally prefer social equilibrium (see also Newcomb, 1968). This tension is analogous to a drive state that motivates a “general social process by which social actors change their social arrangements to reduce imbalance” (Hummon and Doreian, 2003: 18). To reduce this discomfort, an actor must change something in this relationship pattern (see Singer, 1968; Taylor, 1967). Thus, a person changes his or her attitudes/behavior as a consequence of imbalance and maintains stable attitudes/behavior once congruence is met.

Several researchers have used the balance premise to understand and explain a range of attitudes and behaviors from political views, affiliations, and actions, to consumer behavior (Basil and Herr, 2006; Moore, 1978; Shaffer, 1981; Visser, 1994; Woodside and Chebat, 2001). Yet, no known study has derived hypotheses from this framework regarding peer influence on delinquency. This observation is curious because the nature of friendship supports the potential utility of balance theory when studying the deviant peer effect. Youniss and Smollar (1985: 3) state that “the constituting process for friendship begins in the practice of symmetrical reciprocity between peers. . . . Since friends are equals, with neither having unilateral control of the other, they must construct procedures that allow them to manifest equality.” If one goal in social relationships is attitudinal and behavioral congruence, then it would underscore the potential deleterious effects of deviant peers. The precise impact of such friends on the stability and change of delinquency takes on a more nuanced stance, however, when compared with traditional socialization views.

Drawing direction from a balance framework and the initial assertions offered by Heider (1946, 1958), one would infer that a delinquent peer does not inherently and consistently pose a risk for increasing a subject’s offending behavior. For instance, if a peer has the same level of delinquency as the subject, although he will not reduce the subject’s level of delinquency, he should not amplify it either, because no imbalance exists and therefore no tension should drive behavioral change. This same peer may be a risk for another subject, however. If the subject has a comparatively lower level of deviance, he might increase his delinquent behavior to achieve “balance” with his peer. Finally, this same peer may serve to ameliorate yet another subject’s deviance. If the subject is a more serious deviant, he should decrease his offending behavior as he seeks congruence with his peer.

Under this framework, therefore, the same peer, with a consistent level of deviance, can differentially predict an increase, decrease, or no change in the delinquency of his friend(s). Thus, the level of “risk” posed by a

deviant peer is not constant or objective, but it is best understood in reference to the subject of interest. The same would hold true for a prosocial friend. This person would have a greater “protective” effect on a more, as opposed to a less, serious delinquent. Although both individuals should demonstrate a reduction in their deviance, the former’s decrease should be more marked to achieve balance. Moreover, the former subject would have a more detrimental impact on the prosocial friend than the latter would. In the end, this premise structures the hypothesis that the difference between a subject and a peer’s levels of deviance (i.e., the peer’s relative deviance) will predict within-individual changes in delinquency over time. In this way, only discussing and measuring exposure to deviant peers independent of the subject could promote incomplete predictions regarding the individual pathways of offending behavior. Instead, considering both exposure and imbalance may provide better insight into the mechanisms of peer influence.

Another manner in which a balance framework is somewhat different than a traditional socialization view is the way in which it addresses possible selection effects. Any criminological inquiry that places causal importance in peer effects must contend with the fact that control theories argue that self-selection, not any influential social processes, underlies peer similarity, that is, homophily (Gottfredson and Hirschi, 1990; Hirschi, 1969). Nothing inherent to the balance perspective (nor to the socialization perspective, for that matter) stands in opposition to the premise that individuals seek friendships with similar individuals. Individuals are rarely identical, however, and longitudinal research suggests that even if people self-select into friendships with similar peers, they nonetheless become increasingly alike over time. Cairns and Cairns’ work (1994: 117), which drew from research on nearly 700 youth over multiple years of development, argued that “once the joint selection occurs, a new process is set into motion to ensure conjoint growth and further similarities” in friendships and social networks. Still, the balance view integrates selection as a possible means whereby an individual can resolve the tension that results from imbalance.

As Heider (1958) argued, a lack of congruence causes tension and creates a drive to achieve balance. Earlier, it was discussed how deviance balance can be achieved through changes in delinquent behavior. Balance might also be achieved by cutting or demoting the friendship connection. This strategy also resolves imbalance, yet it suggests that peers do not affect behavior. As one of the first researchers to use longitudinal data as a means of differentiating between selection and socialization, Kandel (1978) found that individuals in friendship pairs would typically either change their respective behaviors (which included drug use) and attitudes to become more alike over time, or they would end their friendship. Thus,

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a balance framework can essentially allow for both socialization and selection effects, and as such, both deserve empirical inquiry.

Still, the applicability of balance, whether achieved by changing behavior or through selection, might be limited by the nature of the social connections among deviant peers. Whereas Heider (1958) argued that imbalance of any sort would create tension and a drive to achieve congruence, other scholars have suggested that important differences exist according to whether the subjects of interest have a negative or positive relationship. The extent to which balance leads to discomfort and a drive to “correct” it is related to the intimacy or importance of the social relationship (Davis and Rusbult, 2001; Newcomb, 1953, 1968; Singer, 1968). To be sure, some research has suggested that the structural balance premise finds little to no support when studying negative relationships (Truzzi, 1973; see also Doreian and Krackhardt, 2001; Newcomb, 1968; Taylor, 1967). Such assertions, therefore, raise questions about the utility of a balance perspective in light of arguments made by control theories.

Hirschi (1969: 141) has argued that relationships among delinquents are “cold and brittle.” Furthermore, Gottfredson and Hirschi (1990) suggested that individuals low in self-control do not have the capacity to forge lasting and intimate friendship ties. From this perspective, therefore, delinquents are unlikely to have meaningful, close relationships. It follows then that they would not experience tension from imbalance with their peers nor a drive to seek congruence. In general, however, research does not confirm this perspective of deviant peer relationships (see Hawkins and Fraser, 1985). Giordano, Cernkovich, and Pugh (1986) discovered that delinquents do not have decidedly different friendship patterns than do nondelinquents. Furthermore, Kandel and Davies (1991) found that illicit drug users tended to have more intimate social ties with peers when compared with nonusers. Finally, Pleydon and Schnier (2001: 199) found “no differences between delinquent and nondelinquent friendships in terms of intimacy, attachment, help, closeness, loyalty, security and trust” as well as no discernable differences with regard to conflict (see also Dishion, Andrews, and Crosby, 1995). Thus, the notion of relative peer deviance remains a viable empirical query. Arguably, it is a particularly attractive one because some extant empirical work abuts the arguments presented here, although they do not address them directly.

The concept of balance is not new to criminology—indeed, Sutherland (1947) invoked it in his differential association theory. When arguing that delinquents learn to be deviant via social interactions, he asserted that individuals need not be exposed only to deviant definitions/behavior to engage in offending. Rather, it is the *balance* of deviant values and definitions that is important. At a conceptual tipping point, deviant norms become the dominant majority, prompting the individual to engage in

delinquent/criminal behavior. Research across a variety of contexts supports this idea, which shows that individuals conform to dominant group norms and often change their behavior and attitudes to achieve congruence (Asch, 1951; Davis and Rusbult, 2001; Newcomb, 1952). Specific to criminology, empirical work has confirmed that delinquents tend to have peer groups composed of both deviant and nondeviant friends (Elliott and Menard, 1996) and that the proportion of deviant friends predicts delinquency (Haynie, 2002; Smith and Brame, 1994). This balance is a group-level characteristic, however, and it is still measured and discussed in an objective fashion, independent of the subject.

Three other research streams on deviant peers are also relevant, moving closer toward the ideas offered by Heider (1958). First, Heimer and Matsueda (1994; see also Matsueda, 1992) argued in their symbolic interactionist framework that people take on the role of the “other” when viewing themselves and act in accordance with this view. In particular, they suggested that deviant peers can impact delinquency indirectly by serving as a generalized other; in this way, deviant peers influence one’s perception of the criminal self, which thereby prompts deviant behavior (see also Gongaware and Dotter, 2005). By measuring peer deviance as the number of friends who engaged in delinquent acts, however, they did not allow for the idea that the same “generalized other” might shape behavior differently according to the individual’s current self-image/level of deviance. Second, Menard and Huizinga (1994) suggested the idea of balance when using a cognitive dissonance framework to determine whether an individual’s conventional beliefs changed prior or subsequent to the onset of delinquent behavior. In short, they attempted to disentangle the causal chain between a delinquent’s shifting attitudes and behavior, thereby focusing on within-individual balance, not on interpersonal balance with peers. Finally, some scholars have investigated whether friendship pairs become more “alike” over time (Jussim and Osgood, 1989; Kandel, 1978). This area of literature is the most relevant because it suggests that interpersonal, mutual influence may be useful in understanding the underlying deviant peer process. Still, a direct empirical investigation of delinquency balance has yet to be performed—no known study has investigated whether relative peer deviance predicts within-individual changes in delinquency.

CURRENT FOCUS

This inquiry seeks to delineate the social processes/mechanisms that underlie deviant peer effects by testing the research hypothesis that adolescents will seek “delinquency homeostasis” with their nominated best friends. Using the National Longitudinal Survey of Adolescent Health

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(AddHealth) data, the analysis determines whether researchers who are interested in understanding patterns in individual-level delinquency over time would benefit from focusing on the deviance gap between the subject and his or her peers. Specifically, it investigates whether adolescents change their delinquency over time, in terms of both direction and magnitude, in a manner consistent with the relative deviance of their best friends. In addition, the analysis accounts for objective exposure to best friend deviance to determine whether both exposure and imbalance are important for peer influence or whether only one is significant. Furthermore, this inquiry investigates whether subjects resolve a deviance imbalance with their best friend through selection (i.e., changing the friendship) rather than, or in addition to, behavioral change. In the end, the analyses will provide insight on a potential mechanism of peer influence not yet discussed in the literature on deviant peers.

METHOD

DATA AND SAMPLE

This study uses information from the AddHealth data, which is especially well suited for the current research question. First, the data are longitudinal and have consistent deviance measures (i.e., identically worded and measured) across both waves, which affords the opportunity to assess within-individual change in delinquency over time. Second, the measures of peer deviance also come from the same questions, which allow for the proper construction of a relative peer deviance (i.e., deviance imbalance) measure. Finally, the peer deviance measures are based on self-reports rather than on subject perceptions. Therefore, the peer measures are not vulnerable to the “measurement contamination” criticism levied by propensity theorists, which suggests that a subject’s perception of his peers’ deviance is a form of self-projection (Gottfredson and Hirschi, 1990; see also Elliott and Voss, 1974; Jussim and Osgood, 1989). Granted, the AddHealth data are confined to school-based friendships, but this limitation is arguably small compared with the aforementioned benefits—particularly because Ennett and Bauman (1993) note that school is the primary environment in which adolescents find and form friendships.

Data collection for AddHealth began with approximately 90,000 students in grades 7–12 who were interviewed in school during the 1994–1995 school year; these students were nested within 129 randomly selected schools stratified by region, urbanicity, school type, ethnic mix, and size.¹ From these 90,000 students, 27,000 were randomly selected for in-home

1. For a detailed description of the AddHealth research design, view the project’s website at <http://www.cpc.unc.edu/projects/addhealth/design.html>.

interviews or were purposefully selected for oversamples, and were followed up in subsequent waves of data collection. This inquiry relies on a particular subsample of this longitudinal portion of AddHealth called the “saturation sample” ($n = 2,728$), which is not intended to be nationally representative. Researchers chose 16 schools in which all enrolled students were selected for in-home interviews.² The sample used for this analysis includes the 1,170 subjects who identified a same-sex best friend who also self-reported his or her delinquency.³

Relying on the saturation sample provides two distinct advantages for the current investigation. First, because the saturation sample design attempted to interview all enrolled students within a school, this strategy greatly increased the odds of the “best friend” being interviewed and therefore self-reporting his or her level of deviance (as compared with friends for most subjects in the in-home survey). Second, unlike the school-based survey, the saturation sample provides information about more serious and varied deviance. Given the current inquiry’s focus on the difference in deviance (in a longitudinal sense for the subject and cross-sectional sense for the subject-friend comparison), relying on the measure with better content validity is the prudent choice.

MEASURES

DEPENDENT VARIABLE(S)

Within-individual change in delinquency. To capture peer influence accurately, one must have some baseline measure of the subject’s attitude/behavior of interest (Cohen, 1983; Jussim and Osgood, 1989).⁴ The subject’s simple level of delinquency would be inappropriate for the theoretical context of this inquiry—rather, the measure should capture the extent

2. Fourteen of these schools had enrollments of fewer than 300 students, whereas the remaining two had a combined enrollment of over 3,300 students. These schools were both public and private and were from heterogeneous geographic regions.
3. This sample excludes subjects who 1) did not identify a best friend or identified one from outside the school and 2) who identified a friend who did not respond to the interview or to the delinquency items. According to bivariate analyses, individuals with missing data on this measure seem slightly different on some variables than people with valid data. In particular, excluded subjects tend to be older ($p < .001$), male ($p < .05$), white ($p < .001$), less attached to their parents ($p < .05$), and less attached to school ($p < .001$). Although these differences are statistically significant, they tend to be substantively small. For example, on average, individuals with missing data are approximately 3–4 months older than their counterparts with valid data, within an age range of nearly 10 years. Even so, readers should be aware that such differences do exist and qualify the generalizability of the findings.
4. As mentioned, selection is a primary source of homogeneity among peers

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and direction of change (or stability) of delinquency. Accordingly, the dependent variable is a difference score derived from measures at waves I and II. Both the wave I and II in-home AddHealth surveys assessed how often the respondent engaged in the following 13 deviant activities over the previous 12 months: paint graffiti or signs on someone else's property or in a public place; deliberately damage property that did not belong to you; lie to your parents or guardians about where you had been or whom you were with; take something from a store without paying for it; run away from home; drive a car without its owner's permission; steal something worth more than \$50; go into a house or building to steal something; use or threaten to use a weapon; sell marijuana or other drugs; steal something worth less than \$50; act loud, rowdy, or unruly in a public place; and take part in a fight where a group of your friends was against another group. Responses to each item were on a scale of 0 (never), 1 (1 of 2 times), 2 (3 or 4 times), or 3 (5 or more times). Importantly, the wording of these questions was consistent across waves I and II.

The delinquency index for each wave was created by summing the answers across these 13 questions (wave I $\alpha = .756$; wave II $\alpha = .813$). The dependent variable is the difference between the respondent's score on the wave II and wave I delinquency scales. Positive values indicate an increase in delinquency from wave I to wave II, and negative values indicate a decrease in delinquency. This final variable ranges from -36 to 19 , with a mean of -1.00 [standard deviation (SD) = 4.21], which suggests that, on average, subjects showed a slight decline in deviance over time.

Change in friendship status. Subjects may also resolve the tension that supposedly results from delinquency imbalance by altering the friendship connection. In this way, selection, rather than social influence, might drive a congruence of deviance levels among friends. Measuring two types of change in the status of the best friend accounts for this possibility. The first measure is dichotomous and reflects whether the subject's self-nominated best friend at wave I still holds that same position at wave II (1 = yes). Because the subjects identify up to five same-sex friends, as the next section will detail, a value of 0 on this measure can reflect that the subject no

(Cohen, 1977; Jussim and Osgood, 1989). Empirical inquiries that fail to account for potential selection are apt to overestimate the peer effect inappropriately. Relying on within-individual change in delinquency as the outcome diminishes the likelihood that any significant peer effect is a product of selection, as does relying on longitudinal data. Furthermore, supplementary analyses that include a measure of low self-control were conducted. The results, which are available from the author upon request, are substantively similar to those presented in the text.

longer considers this person a friend or that this person is still a friend but has been “demoted” from best friend status. With this in mind, the second binary measure reflects whether the subject has broken off the friendship, rather than demoted it (i.e., the person is not listed as a friend at all at wave II) (1 = yes). Table 1, which contains descriptive information for the variables included in the analyses, demonstrates that ample change in friendship status has occurred for this sample.

Table 1. Descriptive Statistics for Variables Used in the Analyses

Variable	Number of Observations	Mean	Standard Deviation	Minimum	Maximum
Within-individual change in delinquency	1,164	-1.00	4.21	-36	19
Best friend relative delinquency	1,170	.21	6.10	-35	36
Best friend (objective) delinquency	1,170	3.93	4.91	0	39
Change in best friend (objective) delinquency	773	-.98	5.18	-34	32
Best friend at WI still best friend at WII (1 = yes)	1,170	.40	—	0	1
Best friend at WI no longer a friend at WII (1 = yes)	1,170	.36	—	0	1
Change in parental attachment	1,164	-.04	.66	-4	4
Change in friend attachment	1,159	.07	.84	-4	4
Change in friend involvement	1,170	.02	1.11	-3	3
Change in school attachment	1,092	-.139	.791	-3.33	4
Sex (1 = female)	1,170	.52	—	0	1
Race (1 = white)	1,170	.68	—	0	1
Age	1,170	15.46	1.51	12	19

ABBREVIATIONS: WI = wave I; WII = wave II.

INDEPENDENT VARIABLE

Best friend’s relative delinquency. Hirschi and Gottfredson (2000; Gottfredson and Hirschi, 1990) have strongly argued that an individual’s report of his or her friends’ behavior captures the respondent’s projection rather than peer deviance. For this reason, it contains systematic error and overestimates the relationship between deviant peers and delinquency. Many scholars recognize that using friend self-reports of deviance is a more conservative measure than is the subject’s perception of his peers’

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deviance (Aseltine, 1995; Haynie, 2001, 2002; Haynie and Osgood, 2005; Jussim and Osgood, 1989; Kandel, 1996; Weerman and Smeenk, 2005). Fortunately, the current data provide self-reported delinquency for the individuals nominated as best friends.⁵ Several studies that investigated peer influence have also focused on best friends (e.g., Cohen, 1983; de Kemp et al., 2006; Gaughan, 2006; Kandel, 1978); doing so here is a particularly reasonable decision because Heider's conception of balance discussed an individual actor and his/her relationship with two objects (i.e., another person and an idea/belief/etc.). The balance process in a larger network may be more complicated (Hummon and Doreian, 2003), and it is wise to first establish whether a relationship exists at this dyadic level before moving to larger contexts.

During wave I, subjects were asked to list up to five male and five female friends (for a total of 10 possible friends). This part of the survey began with the following request: "First, please tell me the name of your 5 best male friends, starting with your best male friend"; and then it posed the same question regarding female friends. This analysis operationalizes the same-sex first friend as the "best" friend.⁶ All the subjects under consideration ($N = 1,170$) identified a same-sex best friend who self-reported on the delinquency items.⁷

Because the same items comprise the best friends' and subjects' delinquency scale (again, a sum of the 13 items), it is possible to determine the

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5. As the conclusion discusses, perceptions of peer deviance still may be important, especially in light of the salient role cognition plays in discussions of balance. Still, because of potential systematic error in using perceived peer deviance, it is wise to begin an inquiry by examining the gap in actual self-reported behavior. Moreover, the projection that is thought to contaminate perceived peer deviance may capture the dissonance-reducing process that results from imbalance. For instance, subjects may reduce the imbalance cognitively as well as behaviorally. It would be interesting for future work to study the extent to which the perceived and actual deviance gap overlap.
 6. In addition to the wording of the questions, supplemental descriptive statistics underscore the decision to operationalize the first listed friend as the best friend. Respondents were also asked the following questions about each one of the friends they nominated: have you talked on the phone during the past week; have you met to hang out after school during the past week; have you discussed a problem during the past week; and, have you spent time together this past weekend? The answers were dichotomous (yes/no), and for all four questions, the frequency of "yes" answers was highest for the first nominated friend and then declined in descending order.
 7. Approximately 600 respondents in the saturation sample identified an opposite-sex best friend (not a romantic partner). This inquiry uses the same-sex best friend because they were generally ranked higher on the items noted in footnote 6 than were opposite-sex best friends. Even so, supplemental analyses estimated all models with the opposite-sex best friend. The results are consistent with those reported in the text.

difference between the subject's delinquency and the best friend's delinquency at wave I (i.e., best friend's deviance score – subject's deviance score). Positive values indicate that the friend was more delinquent, whereas negative values indicate the friend was less delinquent than the subject. The relative deviance measure ranges from –35 to 36, with a mean of .21 (SD = 6.10). This result suggests that the average subject's best friend is slightly more delinquent than he or she is, although a large amount of variation exists.⁸

CONTROL VARIABLES

Best friend's objective delinquency. The relative peer deviance measure may share variation with the raw value of peer deviance and serve as an unintended proxy of this latter measure. In this way, controlling for the exposure to best friend deviance allows a more precise measure of deviance imbalance. In addition, accounting for the objective peer deviance provides conceptual clarity regarding whether both exposure and imbalance are important mechanisms of peer influence. For these reasons, this investigation contains two measures of the objective level of the best friend's delinquency. This first is best friend's deviance at wave I (i.e., the sum of the responses to the aforementioned 13 items). This measure is consistent with more traditional measures of peer deviance, although it focuses on the best friend and relies on the friend's self-report. It ranges from 0 to 39, with a mean of 3.93 (SD = 4.91).

Second, a previous discussion noted that a traditional view of the deviant peer effect might instead view the key predictor for the outcome of interest as the stability/change in exposure from wave I to wave II. If the level of deviance to which one is exposed declines over time, then the subject should demonstrate a decrease in delinquency; if the level of exposure remains the same, then the person should arguably show stability in his or her delinquency level; and, if the level of exposure increases over time, then the subject's delinquency level should likewise increase. Because the respondents identified best friends at wave I and wave II, and because these friends also self-reported deviance on the same 13 items at wave II, it is possible to calculate difference scores. Specifically, the second deviant peer-exposure measure is calculated as follows: best friend objective delinquency score at wave II – best friend objective delinquency score at wave I. Thus, positive values indicate an increase and negative values indicate a decrease in objective exposure to best friend deviance.

As discussed, ample change was observed in whom the respondents list as best friends from wave I to wave II. Thus, this second objective peer-deviance measure can indicate a change in delinquency exposure because

8. The mean is not zero because the majority of best friends are not reciprocal.

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the same friend changed his or her behavior or because the respondent changed best friends. As table 1 illustrates, the level of exposure to deviant best friends typically decreased over time, which mirrors the same direction of change observed in the subjects' delinquency.⁹ To have valid data on this measure, 1) subjects must have identified a best friend at both wave I and wave II who was from the same school, and 2) at both waves, the identified friend must have answered all 13 delinquency questions. Because these demands are higher than that for the other objective peer deviance measure, some data are missing ($n = 773$). Even so, its inclusion is both theoretically and statistically important.

Social controls. The previous control variables are included so as to allow a more precise measure of the independent variable(s) and to account for alternative ways in which peers may cause within-individual change (or stability) in delinquency. Another theoretical view would likewise place causal focus on social relationships, which strongly asserts that they should underlie patterned changes in offending but would nonetheless discount the social influence of deviant peers. In particular, Hirschi (1969) rooted the cause of delinquency in social controls, an argument recently echoed in discussions of turning points and desistence (Laub and Sampson, 2003; Sampson and Laub, 1993). Because the subjects are adolescents, focusing on those social bonds originally highlighted by Hirschi (1969), and often accounted for in studies of peer influence, is prudent.

At both waves of data collection, subjects answered a variety of questions about attachment to and involvement with parents, friends, and school. Parental and friend attachment were measured by how much the respondents believe parents and friends care about them: (1) not at all, (2) very little, (3) somewhat, (4) quite a bit, or (5) very much. Friend involvement was measured on a scale of 0 to 3 (not at all, one or two times, three or four times, or five or more times) to represent how often an individual "hung out" with friends in the past week. Last, school attachment was operationalized by the mean value of the respondents' strength of agreement with the following three questions that ranged from 0 (strongly agree) to 5 (strongly disagree): last year you "felt close to people at school," "you felt like you were part of the school," and "you were happy

9. Some overlap could occur between the change in exposure to deviant peers variable and the concept of balance, because the attempt to achieve social congruence is likely a continual and dynamic process. Consequently, if the deviance level of one's peer changes, then the process of seeking congruence would logically be affected. To maintain the longitudinal nature of the investigation of the relationship between peer imbalance and later behavior, however, this inquiry only assesses relative peer deviance at wave I. For future research, panel data with multiple observations would be ideal to shed insight on the (probable) dynamic nature of this process.

to be at school.” This average was then reverse coded so that higher values indicated greater attachment to school.

Because the outcome of interest is within-individual change (or stability) in delinquency, the social bond measures included in the models as alternative predictors were also change scores. From this view, reductions in these bonds would promote individuals to increase their delinquent behavior, whereas an increase in social bonds would facilitate a reduction in delinquency. The aforementioned measures were calculated for both waves, and then difference scores were calculated by subtracting the wave I score from that at wave II. As table 1 illustrates, most social bonds demonstrated minimal change over the year. The largest difference is for school attachment (mean = $-.139$), which suggests that on average, the subjects reported being less attached to school when they were 1 year older.¹⁰

Demographic controls. Although demographic characteristics are not causes, they could be markers or strongly correlated with causes (Farrington, 2000; Wikström, 2006). Specifically, gender, race, and age may impact who adolescents choose as friends, as well as the qualities and characteristics of these friendships and the extent to which peers influence their own attitudes and behavior (Cairns et al., 1995; Giordano, 2003; Pettersson, 2003; Yanovitzky, 2005). Gender is a dichotomous variable (female = 1). Age is a continuous variable, which ranged from 12 to 19.¹¹ The race of the individual was coded as white (1) and nonwhite (0).

ANALYTIC PLAN

All regression analyses rely on fixed-effects models, which were estimated in STATA (StataCorp LP, College Station, TX). Fixed-effects models are used because, in the AddHealth data, the individuals are nested within schools. Accordingly, it is possible that individual outcomes systematically vary by school characteristics and that the units of analysis are not independent events. To account for clustering, researchers often rely on

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10. Models were also run with the wave I measures for the social bonds rather than with the difference scores. The only difference was found for the model including the imbalance measure, the first peer deviance exposure measure, and all statistical controls. In this model, involvement with friends emerged as statistically significant. The slope suggested that respondents more involved with friends tended to demonstrate an increase in delinquency. Although this latter finding is inconsistent with Hirschi's (1969) assertions, it aligns with the work of Osgood et al. (1996; Haynie and Osgood, 2005).
 11. In the longitudinal saturation sample data, the age variable at wave I was missing many cases for an unknown reason, whereas no missing cases are observed at wave II. For this reason, the age measure used in the analysis and reported in the descriptives is age at wave II - 1.

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random-effects or fixed-effects models (Greene, 2003). Because the schools selected for the saturation sample do not reflect a random sample from the broader population of schools in the United States, using a random-effects model may violate the normality assumption and produce biased estimates. The fixed-effects model makes no assumptions about the distribution of unobserved heterogeneity, however. Therefore, the current analyses use fixed-effects models, which essentially “absorb” any time-constant school effects by including a constant for each school (Allison, 2005; Bushway, Brame, and Paternoster, 1999).¹² Another possible dependency issue is worth noting. In the AddHealth data, a respondent can emerge as both a subject and a best friend (on some occasions for more than one respondent), which means residual dependency problems other than clustering can occur (Jaccard, Blanton, and Dodge, 2005). As with clustering, this potential interdependence among units can result in standard errors that are too small, which thereby promote a Type 1 error. Thus, in an attempt to be conservative, the regression models also report robust standard errors (Cameron and Trivedi, 2005).¹³

The first and primary outcome of interest is within-individual change in delinquency. Although the measures of delinquency at wave I and wave II are count measures and demonstrate overdispersion, which thereby indicates that negative binomial regression would be the appropriate analytic method if either one was the outcome of interest, the outcome is a difference score. This score is not a count measure (i.e., it can take on meaningful negative values), and it mimics the normal distribution. It is worth

12. Although fixed-effects models are efficient and consistent (Greene, 2003), they are blunt in how they deal with potential school effects (it essentially treats the schools as dummy variables in the regression). Therefore, as an additional form of sensitivity analysis, these models were also replicated using hierarchical linear modeling (HLM). In these models, the level 2 predictors were school-level delinquency (i.e., the average delinquency scale measure at wave I across all students enrolled in that particular school), school size, school type (i.e., public or private), school region, and school urbanicity. Unlike the fixed-effects models, the HLM provides insight into what the specific school effects may be. Moreover, specifying for the level of deviance in the school provides another control for social influence, which may diminish the effect of relative peer deviance. For all models, whether controlling for raw peer deviance at wave I or the peer exposure change score, the results remains consistent with those reported here. Moreover, none of the level 2 variables emerged as statistically significant.
13. This fact that some respondents emerge as subjects and best friends means that, in reciprocal dyads (in which person A nominates B as the best friend, and person B nominates A as the best friend), one must consider the matter of implicit reciprocal causation. Most dyads in the analysis are not reciprocal, but this is, of course, still worthy of consideration. Therefore, a sensitivity analysis was conducted in which all models were reestimated when excluding those subjects with reciprocal best friends. These analyses demonstrated results consistent with those presented in the text.

noting that some debate exists regarding the use of change scores as dependent variables. Two primary criticisms of these measures as outcomes for regression models are as follows: 1) they are less reliable than the measures from which they are derived and 2) they simply reflect regression to the mean rather than substantive change (see, for example, Cronbach and Furby, 1970; Kessler, 1977). Allison (1990) investigated the plausibility of these criticisms by reviewing an empirical example that compared a model that regressed $(Y_{\text{time}2} - Y_{\text{time}1})$ on X (i.e., the change model) with a model that regressed $Y_{\text{time}2}$ on X and $Y_{\text{time}1}$ (i.e., the regressor model, which is often favored over the change model). He argued that the criticisms supposedly inherent to using change scores are unfounded and concluded that the change model is favorable to the regressor model. In particular, the latter model can lead to conclusions inconsistent with a straightforward evaluation of patterns in the data, often because it under-adjusts for prior differences at time 1.

In light of Allison's (1990) evaluation, as well as the fact that a change score makes the most intuitive sense when studying balance and investigating within-individual change, this analysis retains the change score as the dependent variable. Still, this inquiry is sensitive to the notion that regression to the mean should always be considered as a possible cause of observed change in repeated data (Barnett, van der Pols, and Dobson, 2004). Thus, for models in which the delinquency difference score is the outcome, the results will detail supplementary analyses that comment on the extent to which the results may or may not reflect regression to the mean.

The first set of regression models investigates whether respondents change their offending behavior as a result of deviance imbalance with their best friends; the next set investigates whether they resolve this incongruence through selection—that is, by changing the friendship status. These second models include relative peer deviance as the primary independent variable, both in its current form and as the absolute value of this score. In this way, the models will assess whether the direction of the gap (i.e., whether the friend is more or less deviant) matters or whether it is simply the size of the gap that influences this change. Minimal literature is available on the stability of friendships; therefore, what may be alternative causes of this outcome remains somewhat elusive. The only control variables in these models are demographics. Again, these variables are included because friendship processes and characteristics may take on different forms and meanings across gender, race, and age. As with the other set of regression models, one must address the clustering of respondents in schools and residual dependency. Thus, the models that investigate these dichotomous friendship outcomes rely on fixed-effects logistic regression with robust standard errors (Chamberlain, 1980).

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RESULTS

DOES IMBALANCE PREDICT DELINQUENCY CHANGE/
STABILITY?

Before progressing to the regression results, table 2 provides the correlations among variables of interest. The descriptives in table 1 hint that the relationship between the outcome and relative peer deviance might not be in the predicted direction. After all, even though respondents on average tend to be friends with individuals who are more deviant, they conversely tend to show a decrease in their delinquency from wave I to wave II. Yet, the correlation between these two measures is positive, which is consistent with predictions.

Table 3 investigates this bivariate relationship from another angle. For this basic inquiry, both sets of difference scores were converted into categorical variables, which reflected whether the change score was positive, zero, or negative. In this way, for example, the results demonstrate whether most subjects who had a best friend who was comparatively less deviant actually decreased their own delinquency over time, as the balance perspective would hypothesize. In the table, the bolded values are those in which the balance view would expect the highest percentage of subjects in that row. This cross-tabulation illustrates that in most cases, the cells with the observed highest percentages coincide with expectations. For instance, approximately 66 percent of the subjects whose best friend was comparatively less deviant decreased their own level of deviance over time, and about 45 percent of the subjects whose best friend had the same delinquency score illustrated stability in their offending levels over time. The table also suggests that having less deviant friends seems to be more important for change in the predicted direction than does having more deviant or "balanced" peers. Although it is speculative, despite the fact that criminogenic risk is of primary interest to the discipline, relatively prosocial influence might be more powerful than relatively delinquent influence. Of course, one should be cautious in drawing too many implications from simple bivariate relationships and instead view this as an interesting avenue for future research.

Figure 1 provides an additional view of this relationship; it shows the number of subjects who did and did not evince delinquency change/stability in the anticipated way. As the figure demonstrates, 558 subjects were placed in the diagonal cells of table 3, compared with 606 subjects who were not. In other words, three of the possible nine cells in table 3 are consistent with predictions based on relative peer deviance, and they contained almost 50 percent of the sample. Collectively then, table 3 and figure 1 show that not all subjects followed anticipated pathways, but nonetheless some early support for the role of deviance imbalance does

Table 2. Correlation Matrix of Relevant Variables

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1. Within-individual change in delinquency	1.00														
2. Subject delinquency at WI	-.65	1.00													
3. Subject delinquency at WII	.35	.49	1.00												
4. Best friend relative delinquency	.41	-.58	-.25	1.00											
5. Best friend (objective) delinquency	-.07	.17	.13	.69	1.00										
6. Change in best friend delinquency	.03	-.04	-.01	-.51	-.67	1.00									
7. Best friend at WI still best friend at WII	.03	-.02	.01	.03	.02	-.04	1.00								
8. Best friend at WI no longer a friend at WII	-.03	.01	-.02	.02	.03	-.02	-.65	1.00							
9. Change in parental attachment	-.04	.01	-.03	-.02	-.01	.02	-.01	.02	1.00						
10. Change in friend attachment	-.00	.02	.02	-.04	-.03	.01	-.07	.06	.25	1.00					
11. Change in friend involvement	-.02	.04	.02	-.06	-.04	.02	-.01	.06	-.04	.03	1.00				
12. Change in school attachment	-.02	-.04	-.07	.01	-.03	-.01	.02	-.05	.00	.04	.05	1.00			
13. Sex	.05	-.11	-.08	-.01	-.12	.05	-.05	-.00	.02	.03	-.02	-.02	1.00		
14. Race	.04	-.05	-.02	.05	.01	.01	-.02	-.08	-.02	-.02	-.02	-.03	-.07	1.00	
15. Age	-.13	.11	-.02	.03	.13	-.15	-.00	.07	.07	.03	-.03	-.01	-.11	-.19	1.00

ABBREVIATIONS: WI = wave I; WII = wave II.

Table 3. Cross-Tabulation of Best Friend Relative Delinquency and Within-Subject Change in Delinquency

	Decrease in Subject's Delinquency Score from WI to WII	No Change in Subject's Delinquency Score from WI to WII	Increase in Subject's Delinquency Score from WI to WII
Best friend has lower delinquency score than subject (<i>n</i> = 484)	66.1%	10.1%	23.8%
Best friend has same delinquency score as subject (<i>n</i> = 173)	26.0%	45.1%	28.9%
Best friend has higher delinquency score than subject (<i>n</i> = 507)	33.5%	34.9%	31.6%

ABBREVIATIONS: WI = wave I; WII = wave II.

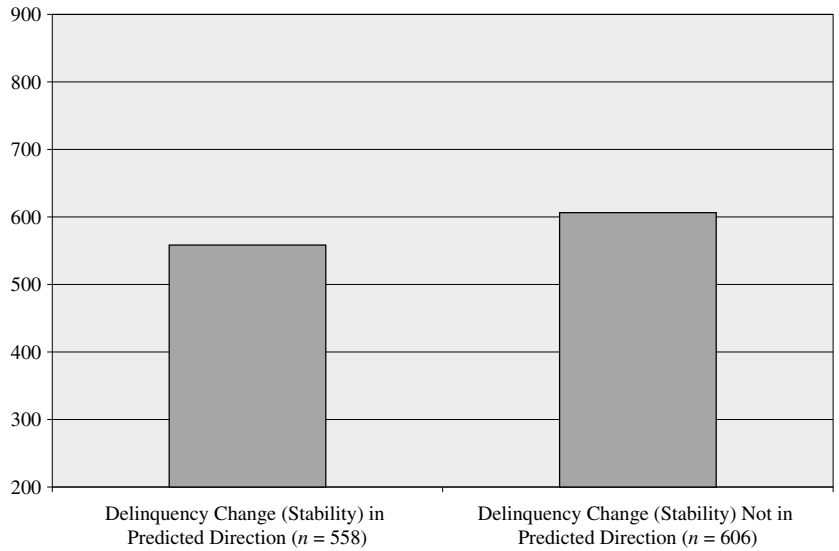
exist. Of course, such relationships are in isolation of control variables, which include the measures that assess objective peer delinquency.

Table 4 investigates whether relative peer deviance predicts within-individual change in delinquency. Model 1 assesses the impact of the relative peer deviance measure, net of controls. The significant positive coefficient for relative peer deviance indicates that when a best friend is more delinquent than the subject, the subject shows an increase in delinquency over time; when the best friend is less delinquent than the subject, the subject shows a decrease in delinquency over time. These findings are consistent with the predictions drawn from a balance perspective, as well as with the bivariate relationships discussed earlier. The *R*-square (.17), which indicates that this model explains a fair amount of variation in the outcome yet can hardly explain it fully, is also consistent with the bivariate trends portrayed in table 3 and figure 1.¹⁴

On the whole, the control variables do not do a very good job of explaining the outcome. The slope estimates for the social bond measures are in the predicted direction but do not achieve statistical significance.

14. The *R*-square for model 1 when excluding relative peer deviance is .02, which suggests that the bulk of this model's explanatory power stems from the imbalance measure.

Figure 1. Number of Subjects who Demonstrated Delinquency Change (or Stability) that Was 1) Consistent or 2) Inconsistent with Predictions Based on Relative Peer Deviance



The only measure that achieves statistical significance is the sex coefficient, which suggests that female respondents are more likely to demonstrate within-individual increases in their delinquency over time. This finding may reflect what some other scholars have reported, namely that females tend to display a later onset of antisocial behavior (Silverthorn and Frick, 1999).

The next four models assess whether relative peer deviance continues to be a significant predictor after the inclusion of variables that capture exposure to peer deviance. It is possible 1) that the relative peer deviance measure is serving as a proxy for objective peer deviance, 2) that imbalance no longer matters once the model accounts for objective peer deviance, or 3) that both perspectives (i.e., exposure and imbalance) are important for understanding peer influence on the change and stability of delinquency. For these reasons, the remaining regression models include the objective level of best friend deviance and the change in exposure to best friend deviance, respectively. Specifically, a pair of models exist (models 2 and 3, and models 4 and 5) for each of the exposure measures, one of which focuses only on the peer variables and one of which includes the other

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Table 4. Fixed-Effects Regression Models Assessing the Influence of Best Friends on Within-Individual Change in Delinquency

Variable	Model 1 <i>b</i> (SE)	Model 2 <i>b</i> (SE)	Model 3 <i>b</i> (SE)	Model 4 <i>b</i> (SE)	Model 5 <i>b</i> (SE)
Best friend relative delinquency	.271*** (.041)	.570*** (.051)	.552*** (.052)	.380*** (.053)	.397*** (.058)
Best friend (objective) delinquency	—	-.541*** (.055)	-.531*** (.053)	—	—
Change in best friend (objective) delinquency	—	—	—	.218*** (.043)	.243*** (.043)
Change in parental attachment	-.249 (.199)	—	-.185 (.179)	—	-.193 (.260)
Change in friend attachment	.007 (.145)	—	-.058 (.130)	—	.165 (.191)
Change in friend involvement	-.005 (.110)	—	.043 (.088)	—	-.026 (.130)
Change in school attachment	-.190 (.154)	—	-.281* (.136)	—	-.174 (.182)
Sex (1 = female)	.522* (.240)	—	-.113 (.200)	—	.250 (.270)
Race (1 = white)	-.054 (.346)	—	.131 (.302)	—	-.064 (.408)
Age	-.142 (.102)	—	-.154 (.091)	—	-.097 (.121)
<i>N</i>	1076	1164	1076	773	723
<i>R</i> ²	.173	.407	.384	.242	.258

ABBREVIATIONS: SE = standard error; WI = wave I; WII = wave II.
p* < .05; *p* < .01; ****p* < .001.

control variables. Because the control variables are not particularly effective or informative predictors, some scholars may be most interested in the first models for each peer measure. Indeed, models 3 and 5 demonstrate that the control variables have little to no impact on the coefficients for the peer measures.

Models 2 and 4 show that relative peer deviance remains a significant predictor, and its magnitude does not dampen after the inclusion of these alternative measures of best friend deviance.¹⁵ They also demonstrate that the objective peer measures have an effect on the stability and change in

15. When separate models are estimated for each of the three peer deviance measures net of controls, indications are that the model with relative peer deviance can better explain stability and change in delinquency. As table 4 demonstrates, the *R*-square for model 1 is about .17; the other two models have *R*-squares of approximately .025.

delinquency. Specifically, model 2 shows that the coefficient for best friend objective deviance at wave I is statistically significant but negative. This finding is curious, but most studies that demonstrate a positive relationship between peer and subject delinquency focus on levels of delinquency as the outcome, not on within-individual change. Indeed, the correlations in table 2 demonstrate that this measure of peer deviance has the anticipated positive relationship with the respondents' levels of reported delinquency both at waves I and II. Even though its inclusion here is to ensure that relative peer deviance is measuring what it intends (i.e., that relative peer deviance is not simply a proxy for objective peer deviance), this result is interesting and would benefit from future research.

One possible explanation is related to the next peer-exposure variable. The objective exposure measure at wave I has a negative relationship with the change in exposure variable ($r = -.67$); in this way, respondents whose best friends at wave I report higher levels of delinquency are likely to experience a decrease in exposure to peer deviance from wave I to wave II. With this in mind, perhaps the relationship is not surprising. Furthermore, the coefficient for the change in exposure to objective peer deviance is more logical, as evidenced by model 4. It suggests that if one's exposure to deviance via his or her best friend increases over time, it is related to an increase in the respondent's delinquency over time, and vice versa. This finding is consistent with the assertions offered by the socialization perspective. Taken together, the regression models suggest that both exposure and imbalance measures "matter" when trying to understand peer influence on the change and stability in delinquent behavior.¹⁶ Therefore, these

16. Supplemental analyses addressed whether the impact of relative peer deviance was conditioned by three variables. First, results demonstrated that the results did not differ according to whether the best friend was stable at wave II, demoted, or no longer a friend. Although this finding may seem curious, it is consistent with some previous work (Urberg, Degirmencioglu, and Pilgrim, 1997). During adolescence, peers simply might be so important that even relatively transient close friends have the capacity to influence and shape behavior. Alternatively, some literature suggests that the most intense friendships last the least amount of time, which may essentially balance out any conditioning effect of stability (Bell, 1981). On this note, even though the best friends are typically the closest friend(s) *within* individuals, the extent to which the subjects are close to these best friends may vary *across* individuals. Subjects answered five questions that had simple binary answers: Did you go to the best friend's house over the past week, did you meet the best friend after school to hang out or do something over the past week, did you spend time with the best friend over the previous weekend, did you talk with the best friend about a problem over the past week, and did you talk with the best friend on the phone over the past week. An interaction term between the relative deviance peer measure and the summed scale of these items was not statistically significant. Thus, like friendship stability, the level of closeness to the best friend does not moderate the impact of relative

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models underscore the notion that the deviant peer risk can encompass more than one mechanism of influence.

DOES IMBALANCE TRULY MATTER OR IS IT REGRESSION TO THE MEAN?

Before progressing to the models that assess whether imbalance predicts changes in friendship status, it is important to consider whether the robust finding that relative peer deviance predicts individual-level change in delinquency is being driven by regression to the mean, especially because the outcome is a difference score. Sensitivity analyses addressed this concern in four ways. Collectively, they suggest that some regression to the mean may be present, which is not surprising, but it is not fully responsible for the findings presented here. First, if regression to the mean is driving the results, then removing the cases in which subjects have “extreme” delinquency values at wave I should alter the regression results (i.e., the relative peer deviance measures should become insignificant). Because values on the delinquency at wave I measure are positively skewed, the extreme scores are those in the right tail (i.e., high levels of delinquency). After selecting out the subjects who were within the top 10 percent of the delinquency score distribution at wave I, the substantive regression results remained the same.

Second, researchers note that regression to the mean is most problematic when the selection criterion for treatment is the same as the baseline from which one assesses change (Zhang and Tomblin, 2003). Although this study does not assess the impact of a “treatment” on a particular group, the problem nonetheless develops if those individuals who deviate most from the delinquency score mean at wave I are also those who experience the largest deviance gap with their best friends. If this is the case, then the results indicating that the deviance gap predicts within-individual change may simply be capturing regression to the mean. To investigate this possibility, a correlation between the absolute value of the subjects’ mean-centered deviance at wave I and the absolute value of the deviance gap with the best friend was considered. The correlation is .479, which suggests a

peer deviance. Again, it may simply be that in adolescence, peers are generally influential, especially in a school setting where they are likely to interact frequently on a daily basis. Finally, some scholars assert that friendship patterns and qualities vary by gender (see Crosnoe, 2000; Giordano, Cernkovich, and Pugh, 1986; Giordano, Cernkovich, and Holland, 2003). It is possible, therefore, that gender differences exist in the desire to achieve delinquency balance with one’s best friend. Supplemental analyses investigated whether these gender differences emerged by running the same regression models within male and female subsamples. The results were consistent with the main findings reported here (i.e., no gender differences were evident).

relationship but not a complete overlap between extreme values at wave I and the dosage of the “treatment.”

Third, if regression to the mean were driving the results, then all individuals who substantially deviated from the delinquency score mean at wave I would move toward the mean at wave II. Again, because the most extreme cases on this measure were in the right tail, the cases in the top 25 percent of the delinquency at the wave I distribution were selected. According to regression to the mean, all of these subjects should have a negative value on the change score outcome because that would indicate they moved toward the mean and reported less delinquency at wave II. Although this is the trend, 20 percent of these subjects either evidenced no change or increased their delinquency (i.e., becoming *more* deviant, especially because the sample’s mean delinquency at wave II is less than that at wave I). Importantly, those subjects who did decline in their reported deviance (i.e., moved toward the mean), had larger negative “deviance gaps” with their best friends than did the 20 percent.

Finally, cases in which the subject 1) clustered about the delinquency mean at wave I and 2) had a best friend with an extreme deviance score were selected for attention. In particular, this included selecting those subjects whose delinquency score at wave I was within $\pm .5$ standard deviations of the mean and who also had a best friend with a deviance score at wave I of 10 or greater (i.e., peers in the top 10 percent of the distribution). According to regression to the mean, these people should not have more extreme delinquency values at wave II, even though the premise of delinquency balance would assert the opposite. Of the 28 subjects selected into this group, 20 (i.e., 71 percent) moved farther away from the delinquency score mean at wave II. Therefore, most of these cases support the balance thesis. In conclusion, Barnett, van der Pols, and Dobson (2004) note that regression to the mean is ubiquitous with repeated data; as such, one cannot rule out its presence. Even so, these supplemental analyses indicate that it is not driving the results of the current investigation.

DO SUBJECTS RESOLVE IMBALANCE THROUGH SELECTION?

The next set of results turn attention to the possibility that subjects resolve the supposed tension that emerges from imbalance through peer selection, in addition to changing their behavior. As demonstrated in table 5, four regression models determined whether relative peer deviance (in its original form and as an absolute value) predicted having a stable best friend or breaking off the friendship (the third alternative is demoting him or her from the status of best friend). All the models illustrate that the extent of the deviance gap with one’s best friend, whether considered in terms of both size and direction or only size, does not have a relationship with the stability of this friendship. Thus, although relative peer deviance

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is related to changes in offending behavior, ostensibly in an attempt to achieve balance with one's peer, it does not seem that the deviance gap prompts subjects in this sample to achieve congruence by altering the friendship (i.e., through selection). Additionally, none of the demographic characteristics have a statistically significant effect on friendship stability.

Table 5. Fixed-Effects Logistic Regression Models Predicting Friendship Stability

Variable	WI Best Friend Still BF at WII		WI Best Friend Not a Friend at WII	
	<i>b</i> (SE)	<i>b</i> (SE)	<i>b</i> (SE)	<i>b</i> (SE)
Best friend relative delinquency	.016 (.010)	—	.005 (.010)	—
Absolute value of best friend relative delinquency	—	-.002 (.014)	—	.004 (.014)
Sex (1 = female)	-.209 (.124)	-.204 (.126)	.143 (.128)	.150 (.131)
Race (1 = white)	-.153 (.204)	-.149 (.203)	-.058 (.200)	-.058 (.200)
Age	-.024 (.055)	-.024 (.055)	.100 (.060)	.100 (.060)
<i>N</i>	1170	1170	1170	1170

ABBREVIATIONS: SE = standard error; WI = wave I; WII = wave II.
p* < .05; *p* < .01; ****p* < .001.

DISCUSSION

Many variables impact delinquency, but deviant peers consistently emerge as one of the most robust risk factors. This empirical relationship encompasses a myriad of potential causal mechanisms (Warr, 2002). Which process(es) is responsible for the peer effect remains elusive, however. This has prompted scholars to argue that, “there is a need to be much more specific about the complement of concerns, emphases, and specific mechanisms that operate to produce these high levels of behavioral homophily” (Giordano, 2003: 275). The current investigation proposed that one particular social process may shed unique insight on the peer effect—a form of “delinquency homeostasis.” Using balance theory as a reference point (Heider, 1958; Newcomb, 1968), this inquiry hypothesized that adolescents seek congruent levels of deviance with their close friends. From this view, it is the direction and extent of the imbalance in

deviance between peers that impacts within-individual change in delinquency. Therefore, an objectively delinquent friend may actually temper a subject's deviant behavior because the friend is the relatively less serious delinquent.

Relying on longitudinal data for adolescents, the current inquiry examined this alternative view of the deviant peer effect. The findings provided consistent support for the idea that an imbalance between a subject's and a best friend's deviance predicts within-individual shifts in delinquency. Subjects who were less delinquent than their friend at wave I were likely to amplify their own level of delinquency at wave II, and subjects who were relatively more delinquent than their best friend were apt to reduce their level of delinquency over time. Moreover, these results remained when accounting for objective levels of best friend deviance (i.e., objective exposure). This result suggests that having deviant peers may not be an automatic or inherent risk for increased delinquency and, conversely, that less deviant peers are not always beneficial. The distinction between objective and relative peer delinquency is not simply semantic, but instead it provides insight on an important criminogenic process. Such findings urge us to broaden the manner in which we think about how deviant peers might influence behavior and to speak in less absolute or universal language.

For instance, consider two subjects in the current data set who identified the same best friend. This friend had a delinquency score of 5 at wave I (out of a possible 39), which indicates a low-to-mild level of deviance. The first subject had a delinquency score of 11 on the same scale at wave I, which means the friend was relatively less delinquent. At wave II, this subject was still engaging in deviant behavior, but his score decreased to a 6, moving closer to the best friend, but not dipping below his/her level. The second subject had a delinquency score of 2 at wave I, which means the friend was a relatively more serious delinquent. This subject's score increased to a 5 at wave II, which again behaviorally moved "toward" the friend yet did not surpass the friend's level of deviance. This example provides a window into the view that both the direction and magnitude of within-individual shifts in delinquency are influenced by an intimate peer's relative deviance.

As a whole, this inquiry reminds researchers that friendships are reciprocal and are based on mutual interaction and exchange (Cairns and Cairns, 1994; Giordano, Cernkovich, and Holland, 2003; Jussim and Osgood, 1989). Attending to the idea of friends negotiating a form of delinquency balance orients us to the importance of microsocial processes in understanding offending behavior (McGloin, 2007; Short, 1985, 1998). Although propensity theorists have consistently argued that such a focus is unwarranted (Gottfredson and Hirschi, 1990; Hirschi and Gottfredson,

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2000), it remains that delinquency “imbalance” between friends predicted within-individual change in delinquency. Even if individuals self-select into friendships with similar individuals, people rarely have identical behavioral profiles (see Cohen, 1977). Indeed, research has shown that even as individuals self-select into relatively homogeneous friendships, they become even more alike over time (Cairns and Cairns, 1994; Kandel, 1978).

Furthermore, the findings presented here underscore the idea that this tendency toward balance is not caused by selection. Although Kandel (1978) reported that peers became more alike over time through socialization and selection (i.e., abandoning dissimilar peers and selecting more similar ones), these data provided no evidence that relative peer deviance predicted dimensions of friendship stability. This finding suggests that when confronted with delinquency incongruence with a best friend, a person is apt to change his or her behavior to be more like the friend rather than to end or change the status of the relationship. In this way, this investigation joins others in asserting that peers “matter” and offers a somewhat novel consideration of how and why they matter.

Importantly, the results also confirm that exposure to deviant peers remains an important factor. Specifically, the findings suggested that if one’s exposure to peer deviance decreases over time, it is related to a parallel decrease in one’s own delinquency, and vice versa. In this way, the current inquiry demonstrates that at least two mechanisms of peer influence can be implicated in the connection between deviant peers and the change/stability of delinquency. The fact that exposure and imbalance were important predictors underscores the notion that one risk can encompass many causal pathways (Wikström, 2006), and that peer influence has more than one avenue (Warr, 2002). On this note, Osgood et al. (1996) have argued that the nature of peer social activities, particularly in unstructured and unsupervised settings, lends itself to the commission of deviant acts, regardless of whether the peers are delinquent. Recent work has confirmed that unstructured and unsupervised interactions do increase delinquency, independent of exposure to delinquent peers (Haynie and Osgood, 2005). Although these alternative views are often pitted against each other as a way of clarifying differences among their arguments and assumptions, they need not be viewed as competitive. Instead, collectively they provide a more complete view of how and why peers influence behavior. The discipline would be well served by continued work on articulating these causal processes and by determining the extent to which they overlap and diverge.

This inquiry was a first step in determining the tenability of the balance concept for delinquency—it was concerned primarily with establishing whether relative deviance significantly predicted within-individual changes

in delinquency. As such, it likely suggests more questions than it answers and creates many fruitful lines for future work. First and foremost, future research should seek theoretical clarity in terms of why imbalance promotes individuals to alter their delinquency. Is it the case that it produces tension, which an adolescent seeks to reduce? Or, might other processes be at work (e.g., shared opportunity structures) as individuals negotiate and construct balance? Second, this inquiry focused on within-individual changes in the *level* of delinquency. Individuals who truly seek social homeostasis (i.e., balance) with their best friend arguably may enact behavioral changes in response to incongruence in both the amount *and the type* of offending behavior. If an adolescent is anxious over anticipated rejection or ridicule because he is not “like” his friend, for instance, his adaptive behavior may reflect a change not only in the level of delinquency but also in the form. Given that some research has demonstrated that the criminogenic impact of deviant peer exposure is crime-type specific [e.g., Conway and McCord (2002) found that violent accomplices predicted an increase in violence], this line of inquiry would also help to delineate the points of overlap and divergence among mechanisms of peer influence.

Next, the point of focus here was on the best friends, but individuals exist in an expansive network of social connections to peers, siblings, romantic partners, parents, and other relations. Recent research has shown the importance of this wider network in shaping delinquency (Haynie, 2001; McGloin and Shermer, 2009; Payne and Cornwell, 2007), along with the important and unique criminogenic contributions of associates other than friends (Haynie, Giordano, and Manning, 2005; Haynie and McHugh, 2003). In short, individuals exist in a social world and are influenced by more than their best friends. In social psychology, balance theory has evolved in a manner sensitive to this issue by extending past studies of dyads and triads and by focusing on network structure, subsequently asserting that attending to individual-level and group level processes is the most accurate and complete way to understand balance mechanisms (see Cartwright and Harary, 1956; Hummon and Doreian, 2003). With this in mind, it would be beneficial to determine how balance operates as a person negotiates and manages several relationships. How might an individual alter his or her behavior when responding to both associates’ relative levels of deviance and the balance of overall delinquency associates (i.e., the ratio of deviant associates)? Although the requisite data are limited, researchers should attempt to expand past best friends and to elucidate on the criminological importance of offending balance in social networks. Such work should also be cognizant of gender, because some scholars argue that girls tend to be influenced more by best

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friends compared with the larger social group, whereas the opposite holds true for boys (see Berndt and Keefe, 1995).

Next, future research should consider perceptions of peer deviance. In recent years, researchers have concluded that, when the data afford the opportunity, peer self-reports of deviance are preferable to a subject's perceptions of peer deviance. This finding is largely in response to the notion that the latter measure overestimates the peer effect because it taps into a subject's projections of his or her own behavior, rather than the actual behavior of the peers (see Aseltine, 1995; Cohen, 1983; Gottfredson and Hirschi, 1990; Hirschi and Gottfredson, 2000; Jussim and Osgood, 1989). It is true that the former measure has a more modest relationship with a subject's deviance (Kandel, 1996; Weerman and Smeenk, 2005). Even so, perceptions nonetheless may play an important role in the balance process. First, individuals might reduce imbalance with a best friend by reducing the perceptual gap. In this way, they could project greater delinquency congruence while also changing behavior. Alternatively, it is also conceivable that the perceived gap conditions the effect of the actual gap on changes in offending behavior (Davis and Rusbult, 2001; Hummon and Doreian, 2003; Newcomb, 1953, 1968). For instance, a large perceived gap in deviance might amplify the impact of an objective deviance gap because it produces a heightened sense of tension. Conversely, what might happen if an objective gap in deviance exists, but the person does not perceive one? Under such circumstances, would cognitive balance preclude making any changes in behavior? Given such possibilities, as well as Jussim and Osgood's (1989) finding that people are influenced by their perceptions of peer deviance independent of objective peer deviance, it would be prudent to begin investigations into such questions. Unfortunately, the current data do not have measures of perceived best friend deviance. Therefore, an important "next step" would be to extend these questions to data that allow research to elaborate on this issue, which would also provide a commentary on the potentially renewed utility of perception-based measures of peer deviance.

Finally, although adolescents are apt to find and form friendships in school (Ennett and Bauman, 1993), the fact that AddHealth data focus on school-based friendships nonetheless limits its generalizability. Perhaps individuals with best friends outside of school, who they may not see every weekday during the school year, are less apt to change behavior in the face of imbalance. Or, individuals with out-of-school best friends may be more likely to resolve any tension from incongruence through selection, because they might not be confronted with seeing this friend on a frequent or regular basis. Simply put, the extent to which the relationships reported here would also emerge in non-school best friends and for those friends who

did not provide information on the delinquency items is unclear and deserves empirical attention.

In the end, this study suggests that criminologists would be well served by incorporating social balance into their theorizing and research. This is not to suggest that we should abandon objective views of peer deviance, especially because the findings presented here demonstrated that change in objective exposure to deviant peers also influences within-individual change in delinquency. Rather, the argument is that this additional layer of the peer effect can also shed unique insight on within-individual offending changes over the criminal career. Of course, this inquiry invites replication and extension. In doing so, I hope it prompts new dialogue that is sensitive to microlevel social processes and mutual interactions in the long-standing conversation about the role peers have in shaping offending pathways.

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