

AN EXPLORATORY ASSESSMENT OF TITTLE'S CONTROL BALANCE THEORY: RESULTS FROM THE NATIONAL YOUTH SURVEY*

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Charles Tittle's control balance theory states that deviant acts are the outcome of both insufficient and excessive control. Unfortunately, control balance theory is largely untested. In this study, data from the National Youth Study ($n = 1,384$) were used to investigate the effects of control imbalances at work and in relationships on autonomous and repressive forms of deviance. Findings are consistent with previous research. While control imbalances are significant predictors of deviance, they do not always operate as the initial statement of control balance theory predicts. The implications of our findings for control balance theories and future research are discussed.

Keywords: Control balance theory; National Youth Survey; Deviance; Social control; Crime; Offender

THEORETICAL BACKGROUND

In his control balance theory, Charles Tittle (1995) proposes that deviance, defined as behavior that the majority regard as unacceptable or that typically evokes a collective response of a negative type, is caused by the amount of control that individuals exercise relative to the amount of control to which they are subject. Imposing excessive control over others (e.g., having a control surplus) and bearing the excessive control of others (e.g., having a control deficit) upset an individual's control balance and impact behavior. The thesis of control balance is best explained by Tittle himself.

The main assertion of control balance theory is that the overall probability of deviance of some kind, as well as the probability of a particular type of deviance is heavily influenced by the interplay of deviant motivation with constraint. Both deviant motivation and constraint are largely functions of control, meaning whatever amount of control can be exercised relative to the amount to which a person is exposed, as well as the likelihood that potential control actually will be exercised (Tittle, 1995, p. 171).

Control balance is a general theory and purports to predict conformity, submission, and deviance. The theory delineates two forms of deviance: autonomous deviance consisting

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of decadence, exploitation, and plunder and repressive deviance consisting of defiance, predation, and submission. These forms are differentiated by their seriousness, which Tittle defines as the degree to which a deviant act will activate counter-controlling responses. Predation, the most serious form of deviant behavior, involves direct physical violence, manipulation, or property extraction by an individual or group for their own benefit. Examples of predation include murder, rape, robbery, assault, fraud, price fixing, and sexual harassment. Predatory deviance is offensive and severe, resulting in commensurately strong counter-controlling measures from victims. Exploitation is indirect predation in which an individual or group uses others or structural conditions as intermediaries to coerce, manipulate, or extract property from others. Defiance is the expressed contempt or hostility toward a controlling individual, group, or the norms associated with certain individuals or groups. Defiance is largely expressive and examples include vandalism, violence against authority figures, and interpersonal sullenness. Plunder is selfish behavior with total disregard for others. Unlike predators and exploiters who are keenly aware of their actions, plunderers have such poorly developed conscience and awareness that they do not appreciate the implications of their behavior. Genocide is one example. Contemporary examples of plunder are pollution and other environmental delinquency by corporations. Decadence is excessive and impulsive deviant behavior. Examples of decadence include any bacchanalian behavior for irrational and sadistic purposes (e.g., extremely sadistic sexual acts or destroying the work of others for the purpose of watching their reaction). Submission consists of passive, slavish obedience to the expectations, commands, or desires of others. Submission is marked by the inability of the oppressed to imagine alternative (non-submissive) social arrangements. It includes degrading and humiliating acts such as submitting to physical abuse.

Persons with a control deficit are prone to commit repressive acts of deviance. In ascending order of seriousness, these behaviors are submission, defiance, and predation. Respectively, these behaviors indicate extreme, moderate, and marginal control deficits. Persons with a control surplus are prone to commit autonomous acts of deviance. In ascending order of seriousness, these are exploitation, plunder, and decadence. Respectively, these behaviors indicate minimal, medium, and maximum control surpluses. In the middle of this theoretical continuum is the conformist: one with a balanced (no significant deficit or surplus) control ratio (Tittle, 1995: 189).

LITERATURE REVIEW

Testing of control balance is in its infancy, and, to date, few empirical studies have been published. The seminal study by Piquero and Hickman (1999) evaluated the repressive acts of predation and defiance by presenting deviance-situational vignettes to 146 university undergraduates. Segmented, nonlinear regression analysis indicated that control surpluses and deficits were significantly related to predation (measured as an aggravated assault incident in the vignette) and defiance (measured as unconventional sexual practices in the vignette). However, persons with control surpluses were significantly more likely to report that they would engage in defiance, an effect that is contrary to theory. These effects withstood the competing influence of other theoretical and demographic controls. The authors conclude that the "preliminary empirical foray into testing control balance theory, while yielding some mixed evidence regarding the significant influence of surplus control ratios, appears promising enough to warrant continued theoretical and empirical work" (Piquero and Hickman, 1999: 338).

In a second study, Hickman and Piquero (2001) explored the ability of control balance theory to explain gender differences in diverse forms of deviant behavior. The extant

literature (see Tittle, 1995: 228–241) suggests that females should be disproportionately involved in repressive forms of deviance (especially submission, defiance, and, to a lesser extent, predation) while males should be over-represented in autonomous forms of deviance (exploitation, plunder, and decadence). Using a sample of 165 undergraduates and similar vignette scenarios as in their earlier study (Piquero and Hickman, 1999), Hickman and Piquero examined the effects of gender on autonomous and repressive forms of deviance. Varied data analyses (*e.g.*, T-test, chi-square, and segmented regression) yielded mixed results. No significant gender differences existed with regard to the distribution of control ratios. However, gender did influence involvement in specific types of deviance. Male students were significantly more likely than females to engage in exploitative deviance in the form of using another student to obtain class notes. Conversely, female students were more likely than their male peers to participate in predatory deviance such as disordered eating. Contrary to Tittle's expectations, both control surpluses and control deficits predicted both autonomous and repressive forms of deviance. The effect of control imbalances varied by gender and across deviance types. Control imbalances explain repressive deviance for females, but not males; control imbalances explain autonomous deviance for males, but not females.

Piquero, Hickman, and Henderson (in press) recently extended control balance theory to account for deviant victimization using a sample of 253 urban undergraduates and the existing control balance measures (Hickman and Piquero, 2001; Piquero and Hickman, 1999; Piquero *et al.*, 2001). Controlling for age, race, sex, and two lifestyle variables, the authors found that persons with a control surplus and those with a control deficit were more likely than balanced persons to be victimized. Both groups, those with control surpluses or deficits, were also significantly likely to experience victimization by theft. Piquero and Hickman (in press) examined how varying situational conditions alter the relationship of balance to offending. Using a situational vignette that contained elements of risk and pleasure in committing deviance, they found that effects of the control balance ratio on predation are specified by the risk and pleasure subjects associate with an offense. Both control surpluses and deficits were predictive of intentions of committing predatory behavior, and the predictive power of the control balance measure is greatest under conditions of high pleasure and low risk.

The most damaging empirical critique of control balance theory asserts that the theory, particularly the typology of deviance, is fraught with conceptual ambiguities and forces dissimilar behaviors into the same categories. The dependent variable is often difficult to discern and it is unclear when the theory is explaining frequency, prevalence, type of offending or when it is referring to variations between individuals, within social groups or between social groups. Moreover, a central claim, that females, as social subordinates, are likely to commit some forms of delinquency and suicide does not mesh with our knowledge of non-specialized deviants, delinquency, or suicide (Jensen, 1999).

To summarize, empirical evaluation of control balance theory has been mixed. For repressive deviance, control imbalances are predictive of predation (*e.g.*, aggravated assault, eating disorders, victimization from theft) and defiance (*e.g.*, participating in a triadic sexual encounter). For autonomous deviance, control imbalances are predictive of exploitation (*e.g.*, using another person to obtain class notes). Contrary to Tittle's expectations, the effects of both control surpluses and deficits are often similar across repressive and autonomous deviance.

CURRENT RESEARCH PURPOSE

Our test of control balance theory contributes to research literature in three ways. First, a national probability sample is used to examine the potential generalizability of control

balance. This sample is representative of U. S. young adults and as a result is racially, socio-economically and gender diverse. Second, multiple forms of repressive and autonomous deviant behaviors are examined. Earlier tests focused singularly on predation, exploitation, and defiance. The current study examines predation, exploitation, defiance, submissiveness, and decadence as dependent variables. Third, we examine control imbalances in the family, work, and friendship domains. Finally, as suggested by Tittle, we evaluate the effects of control balance generally and within a domain specific form of deviance, primary relationships, to assess the relative value of examining control imbalances as predictors of deviance outside the particular domain where the imbalance occurs.

METHODS

Data

The National Youth Survey (NYS) is a national probability survey of youth in the United States that measures the self-reported prevalence, incidence, and epidemiology of delinquency (Elliott *et al.*, 1985; Elliott *et al.*, 1989). The current study uses the seventh wave (1987) from the panel study ($n = 1,384$). In this wave, respondents were 20 to 26 years of age. This wave was selected because it includes adults most likely to have established work and family relationships that reflect their own, rather than their parents, ability to exert control. We understand the problems with establishing temporal priority with one wave of data. However, given that Tittle's theory predicts that current control ratios, including the control balance in the immediate situation, contribute to deviance, lagging independent variables nearly five years would be fatal.

Measures

According to Tittle, "measures of individuals' control ratios must recognize that each person has a general, global control ratio that expresses the total control experienced and exercised that flows from all situations and domains", an ambitious methodological assignment. The general control ratio is the total of ratios of specific domains, but each particular control ratios also predicts deviance within the domain of its origin (1995: 266). The question of whether control imbalances are important only in the immediate relationships where they occur or in the larger lives of those who experience imbalance is an important theme in control balance theory and critiques of it (Braithwaite, 1997). Tittle (1995: 193) asserts that the purpose of deviance is not necessarily to balance a specific relationship or control ratio. Nevertheless, proximate domains figure prominently in total control ratios.

Because control balance is a general and complex theory of deviance, all tests are likely to leave out important variables. The NYS, for example, does not contain a great deal of data on the specific events that respondents describe. Many controls and control imbalances from varying domains of one's life probably influence any instance of deviance. One obvious shortfall of our test of control balance theory is that no data are available for examining the extent that respondents are controlled by potential legal repercussions when conforming or deviating. However, proxies that measure respondents' perceptions of the degree to which they control or are controlled by some of the most important relationships in their lives are available. Therefore, tests of the effects of at least some of the potentially significant sources of control imbalance on theorized categories of deviance are possible.

Predation

Dependent variables represent five of the six major types of deviant acts in control balance theory: predation, exploitation, defiance, submissiveness and, decadence. The NYS does not contain feasible indicators of plunder, thus it was excluded from the analyses. Tittle (1995: 137) defines predation as behaviors that “involve direct physical violence, manipulation, or property extraction”. He notes that the criminal law prohibits many of these behaviors and that most societies regard them as very morally wrong and threatening. Predatory acts include many of the offenses commonly referred to as street-crimes. Predation typically is a deviant response for people with control deficits. To measure predation we added respondent's participation in six deviant acts. Each rate ranged from 1 (no participation) to 9 (participation that occurs several times a day). Self-reported motor vehicle thefts, thefts, physical assaults, attempts to defraud by selling something worthless, pressuring and extorting sex and rape comprise the predation measure. Several authors have raised concerns about combining acts using NYS data (Lauritsen, 1998; Piquero and Hickman, in press). One such concern is that because few people commit individual acts and even fewer commit multiple acts, it is impossible to determine the reliability and validity of the resulting index. However, in control balance theory each of these acts is construed as a manifestation of the same conditions of control balance. In our view, adequately testing the theory requires understanding multiple, and often diverse, acts of deviance as manifestations of the same type of control imbalance.

Exploitation

Exploiters use other people, structural arrangements or organizational arrangements to carry out deviance. The exploitation measure is composed of three behaviors. They capture the subjects' participation in check fraud, credit card misuse, and embezzlement. Credit card and check offenders abuse their relationship to an organization, another person, or at least their contract with creditors and merchants and, thereby, use organizational and structural arrangements for deviance. Embezzlers take advantage of positions of trust provided by their employers. In sum, our exploitation measure captures manipulation of fiduciary and work relationships to accomplish deviance.

Defiance

The third category of deviance explained in control balance theory is defiance. Defiant acts violate normative expectations and are designed to inflict harm on or express contempt for an object of authority. Defiance is likely among people with control deficits. Tittle discusses both escapist forms of defiance and defiance aimed expressly or symbolically towards the source of frustration. For example, he notes that a burglar may steal to compensate in a moment of glory for the deficit of control, he has experienced due to racial and class oppression (Tittle, 1995: 196). Based on this, we constructed a measure that includes the rate of incidents in which respondents damage an employer's property, damage a non-family member's property, or attempt suicide.

Decadence

Decadent acts are impulsive and guided by “no consistent or rational life organization” (Tittle, 1995: 139). They are governed by the whim of the moment and are erratic,

undisciplined and excessive. Decadent acts are treated as serious normative violations. The meaning of *decadence* in control balance theory excludes many acts implied by common use of the word. Tittle cites extremely unusual sexual behavior as the clearest example of decadence. In truth, the definition of decadence is overly broad, but it is clear that the acts captured by the term are severe. Therefore, few decadents are likely to appear in a randomly drawn population. We constructed our decadence measure by adding the number of times in the past year that respondents committed the following acts: made obscene phone calls, harmed one's sex partner(s), committed voyeurism, and sexually exposed self to strangers. The harmed one's sex partner variable was located in a battery of sex questions in the NYS, and probably was taken by subjects in the context of sado-masochistic behavior. We converted the sum of these variables into a rate of decadent behavior based on the computational scheme for rates in other parts of the NYS. Obviously, reporting of such severely decadent acts was rare, but to stay true to Tittle's meaning, we opted not to include milder decadence in the measure.

Submission

Submission is slavish obedience to the expectations and anticipated desires of others. Submissives blindly or knowingly suppress their own rational interests by enduring costs to indulge indiscretions and harmful decisions made by others. Submission includes continued allowance of abuse and sexual degradation and other passive subordination to authority. Community response to submission is mild relative to other forms of deviance. Submissives often are viewed as pathetic people who are responsible for their own hardship. The measure of submission herein is the sum of the incidents of domestic victimization and being paid for sex. We assume that prostitutes, whether they know it or not, are participating in submissive deviance.

Domain-Specific Measures

In addition to the theorized forms of deviance, we assessed whether the effects of imbalances are relationship-specific. To do so, we devised two additional measures of repressive deviance: use of violence and tolerance for use of violence between intimate partners. A score for violent domination of partners is the sum of the annual number of times that respondents insult, threaten with violence, hit, push, assault with an object, slap, and bite or kick their partners. Family victimization is the number of times one endures these behaviors annually.

Independent Variables

Control is the degree to which behavioral expression of impulses or desires can be "potentially limited by other people's abilities (whether exercised or not) to help, reward, or hinder or punish, or by the physical social arrangements of the world" (Tittle 1995: 143). Control varies from person to person and from situation to situation. In this definition, the relational, or symmetrical, component of control is critical. Control can be understood as an actor's perceptual and actual ability to control others, in society and in the immediate situational relation of interest, *versus* the perceptual and objective constraints on action coming from others and the situation. We examine control in several spheres of life including work, familial, and friendship relationships.

Occupational Relationships

Title (1995: 258–259) focuses on the control surplus hypothetically experienced by those likely to commit white-collar or other high status offenses, assert that this correlation is near certain, and tentatively acknowledges that low occupational status can lead to conditions that engender submissiveness, defiance, and predation. We use two measures of socioeconomic status and occupational control. The first is the Duncan Socioeconomic Index (SEI). The SEI ranking is based on application of a statistical model to the entire range of 1950 occupations. The index was generated using income and educational attainment to predict prestige scores in a survey for selected occupations (range 0 = unemployed to 96 = highest prestige). The second measure of workplace control addresses an individual's perception of power over their occupation. This measure is constructed by multiplying the sum of questions measuring respondents' perceptions of job importance, work stress, and job satisfaction by importance attributed to a job. Those who are dissatisfied with work and who attribute great importance to work suffer from control deficits whereas those for whom work is less important or enjoyable have control surpluses over their occupation. If work is important to a respondent, but her work conditions are unpleasant this can be seen as a proxy for a deficit of control in the workplace. According to Tittle (1995), the direction of the relationships between occupational prestige, job power, and deviance differ for repressive and autonomous acts. Both of our measures are proxies that reflect the probable presence of control imbalance at work.

Intimate Relationships

One source of potential imbalance in a relationship is income inequality between partners. To construct the measure for financial inequality between partners, partners' estimated annual earnings were divided by respondents' estimated annual wages and the quotient was collapsed into a variable (range 1 to 12). A salary for respondent that is less than half of partner's income = 1 and a salary for respondent that is more than 10 times partner's income = 12. Restricting the variation in this way eliminated the complications presented by extremely unequal financial situations where one partner, for example, earned only a few dollars in comparison to their partner's thousands. Emotional imbalance in a relationship was calculated by dividing the respondent's perception of their partner's warmth and support (range 1 to 5) by the importance they assign to activities with their partner. This ratio that reflects how the respondent sees their partner's emotional investment in a relationship *versus* their own needs.

Parental Relationships

Since NYS respondents are relatively young (age 20 to 26), relationships with parents likely impact their level of personal autonomy. Imbalance with one's own parents is measured by adding the importance attributed to family activities (range 1 = not important to 5 = very important) to parental influence (range 1 = very little to 5 = a great deal). This sum is divided by the sum of two questions measuring stress and satisfaction with parental relationships. Imbalance with partner's parents is computed by the same procedure.

Friendship Relationships

Respondents' perceptions of the amount of affection, encouragement, and warmth from friends was divided by the extent to which they report wanting to be like friends and the

importance they attribute to activities shared with friends. The result is a ratio of imbalance in friendships. Again, the rationale is that the ratio indicates investment by friends *versus* the investment by the respondent in friendship. The product of questions that measure friends' influence and stress and of questions addressing pressure in relationships with friends serves as a second measure of friendship imbalance. Friends that are pressuring and stressful, but who still exert high degrees of influence on the respondent indicate unbalanced relationships. Unpleasant relations with friends who have little influence are not as unbalanced.

Control Variables

Tittle (1995: 227) suggests that "single variable demographic variations" have theoretical significance. For example, females occupy a subordinate position that subjects them to a great deal of control and results in conformity for many. However, as a result of patriarchy, females are likely to be most highly represented in the repressive forms of deviance, particularly submissiveness. Women will be less likely to be defiant and to deviate by predation. Moving toward autonomous deviance, female participation continues to decrease. In other words, gender (females = 0/males = 1) should predict deviance in different directions depending on the type of deviance (Hickman and Piquero, 2001). Similarly, minorities (non-white = 0/white = 1) are subject to great control relative to whites. The economic and social subordination of racial minorities provides few opportunities for decadence and exploitative acts, but encourages defiance and predation. Age (range 20 to 26) should be inversely related to repressive deviance and related to autonomous deviance positively.

Data Analysis

Ordinary least-squares (OLS) regression was used to determine the effect of independent variables on our continuous dependent variables. Others (Piquero and Hickman, 1999) segmented their analyses to account for theorized relationships between control deficits, control surpluses, control balance and dependent variables. However, Tittle asserts that not only the direction of these relationships but also the type of deviance changes as offenders move from one end of the spectrum of control imbalance to the other. Therefore, the theory "explains the probability of deviance of an unspecified form in a way different than it explains particular forms of deviance" (Tittle, 1995: 176). As a whole, the theory proposes a non-linear relationship. In tests of component parts of the theory, however, linearity is a safe assumption. For example, those who suffer control deficits should be more likely to be submissive and submissiveness should decline with each unit of improvement moving from deficit to surplus.

RESULTS

Repressive Deviance

Predation

Stressful and influential relationships with friends, SEI, age, and sex significantly predicted predatory behavior. Consistent with control balance theory, friendship and operates in the expected direction; greater imbalances led to greater predation scores. Age and sex were significantly related to predation in the expected direction. Older respondents, females,

and persons with higher occupational prestige scored lower than younger respondents, males, and persons with lower socioeconomic status for predatory deviance.

Defiance

Title (1995) suggests that defiance results from control deficits. Emotional imbalance in the partner relationship and friendship imbalance significantly predict defiance. However, the effect operates in divergent directions. Both measures of control over jobs, occupational prestige and powerlessness over work achieved significance in the expected directions. Sex was related to defiant deviance in the same direction that it was related to predation. Males were more likely to offend. This supports critics claims that control balance theory neglects existing evidence concerning proposed relationships between single variable demographics and deviance (Jensen, 1999).

Submission

Surprisingly, no independent variable significantly predicted submission. This could be due to the well-established fact that both males and females, and presumably dominant and submissive partners, in troubled relationships strike their mates. Regardless, the NYS offers little evidence that control imbalances or single variable demographics contribute to our measure of submission. Regression coefficients for repressive deviance appear in Table I.

Autonomous Deviance

Exploitation

Our equations did an extremely poor job of explaining exploitation, evidenced by the R^2 of 1%. Only occupational prestige and unbalanced friendships were significant predictors of exploitation. However, those employed in socially esteemed occupations were less not more likely to exploit through embezzlement or check and credit fraud. Little support is found that exploitation, as currently operationalized, is the result of unchecked power.

TABLE I Standardized OLS Regression Coefficients (β) for Repressive Deviance.

<i>Variable</i>	<i>Submission</i>	<i>Defiance</i>	<i>Predation</i>	<i>Family offense</i>	<i>Family victim</i>
Socioeconomic status	0.013	-0.112***	-0.060**	-0.054*	-0.038
Occupational power	0.032	0.050*	0.037	-0.005	0.035
Partner \$ imbalance	-0.011	-0.015	-0.033	-0.028	-0.017
Partner emotional imbalance	-0.037	-0.058**	0.025	-0.230***	-0.373***
Imbalance with Parents	-0.029	0.008	-0.043	-0.236	0.001
Imbalance with Partner's Parents	-0.027	-0.028	-0.027	0.840	0.022
Friendship Imbalance	0.045	-0.022	0.022	0.123	-0.003
Friendship Stress Imbalance	0.023	0.113***	0.077***	0.067**	0.025
Age	0.003	-0.028	-0.065**	-0.051**	-0.062**
Race	0.011	0.003	0.077	0.012	0.001
Sex	0.033	-0.129***	-0.146***	0.105	-0.084***
R^2	0.01	0.06	0.05	0.08	0.15

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$.

TABLE II Standardized OLS Regression Coefficients (β) for Autonomous Deviance.

<i>Variable</i>	<i>Exploitation</i>	<i>Decadence</i>
Socioeconomic status	-0.053*	-0.009
Occupational power	0.039	-0.004
Partner \$ imbalance	-0.021	-0.009
Partner emotional imbalance	-0.015	-0.040
Imbalance with parents	0.184	-0.018
Imbalance with partner's parents	-0.001	-0.001
Friendship imbalance	-0.018	0.019
Friendship stress imbalance	0.050*	0.062**
Age	-0.005	-0.011
Race	-0.020	0.022
Sex	0.018	-0.109
R^2	0.01	0.03

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$.

Decadence

Gender and unpleasant influence from friends, were predictive of decadence. Consistent with the theory, decadent acts were extremely rare in this sample. Therefore, readers should not place a great deal of confidence in findings for decadence. Not surprisingly, men commit more decadent acts than women. However, those who are subject to unpleasant friendships are more likely to offend. Obviously, we understand that Tittle (1995) is referring to control imbalances between victim and offender in many of the acts he calls decadent. Nevertheless, in our analysis, there is little support for the contention that decadence occurs when individuals exercise unchecked autonomy in other spheres of life. Regression coefficients for autonomous deviance appear in Table II.

Domain-Specific Repressive Deviance

To examine how control imbalances affect a particular sphere of control we looked to violent deviance in the family. We hypothesized that control deficits should predict victimization by abuse and control surpluses should predict abusive behavior. Friendship imbalance predicted increased partner abuse. Emotional imbalance with partner contributed to abuse. The direction of the relationship indicates that a person who perceives that they invest more in a relationship than their partner is more likely to abuse. Older subjects abuse partners less and those with better jobs also are less likely to abuse. Victimization by partner is predicted by emotional imbalance in the relationship. Levels of victimization by partner decrease with age. Women are more likely to be victims of abuse in the family. In other words, similar factors predict both offending and victimization. It is important to remember that predators and submissives are not at opposite ends of the spectrum of control according to control balance theory.

DISCUSSION

Tittle is skeptical about the potential to test his theory using existing data, and is evasive in creating firm hypothesis and models for use by the research community (1995: 262). Complete measures of control balance ratios and of many of the types of deviance he discusses are unavailable. In fact, a test of the theory that approaches its complexity and

abstractness is difficult to imagine. However, Tittle has developed a general theory of crime that is more nuanced and elaborate than previous control theories, thus criminologists need to empirically assess the theory's accuracy. The current study presents a partial assessment of five of the six types of deviance with a renowned nationally representative sample and multiple attitudinal and behavioral measures. Overall, the current exploration was supportive of other preliminary tests of control balance theory (Hickman and Piquero, 2001; Piquero and Hickman, 1999, in press; Piquero, Hickman, and Henderson, in press; Piquero *et al.*, 2001).

Results demonstrate that control imbalances generally predict deviance. Although findings are not sufficiently strong to engender unequivocal confidence, they do merit consideration and future research. We found that the relationships between control balance and outcomes operate in a different manner than hypothesized. Generally speaking, powerless people were more likely to commit all sorts of offenses. However, Tittle does not assume *a priori* that social characteristics and social structure predict deviance. Control balance theory acknowledges that the effects of imbalances are filtered through subjects' perceptions of their situations and other contingencies and that control imbalances often intersect and interact with other processes (Tittle, 1995: 205). Following the advice of others (Savelsberg, 1999; Singer, 1997), future research could operationalize subjective perceptions of control, situational contexts, and criminal opportunities to determine more precisely how social status and structure influence deviance.

The current findings may be confounded by measures that touch on other theories. For example, our measure of emotional imbalance in a relationship worked in the expected direction in some equations and not in others. The measure potentially captures a number of processes addressed by other theories. Those who think that they are more heavily invested in a relationship than partners have control deficits and those who think that they are less invested have control surpluses. In either case, the intimate relationship is not healthy and may place few constraints on all forms of deviant behavior. This is the relationship traditional control theorists would expect. Moreover, those who do not or cannot maintain equitable and lasting relationships often find themselves in many types of trouble as self-control theorists would expect. Control balance may push offenders toward one type of offense or another, but their position, as theorized in traditional control theories, may make them more likely to offend for all offenses. Non-controlled offenders are not likely to be exclusively attracted to autonomous crimes (Jensen, 1999).

According to the analyses here, control balance theory works better for understanding certain types of deviance more than others. It seems to do a better job of explaining repressive deviance than autonomous forms. Admittedly, our measures of repressive deviance were better than the relatively rare acts that compose decadence. The strongest models were for those types of deviance that occur within the family. Both general and situational control ratios predict deviance. It makes sense, therefore, that interpersonal control imbalances would predict best deviance in primary relationships. The current study demonstrates that both surplus and deficit control ratios predict offending and not always in the direction the theory supposes. Other tests of control balance reported the same finding (Piquero and Hickman, 1999; Hickman and Piquero, 2001).

According to Tittle (1995), useful secondary data sources with variables or proxies for testing control balance theory are scant. Despite this warning, empirical research will ultimately determine the value of control balance theory. Only research can tell us which control ratios are the most significant predictors of offending or what happens when control ratios from different domains combine and interact. If nothing else, the theory reminds us that deviance stems from human interactions and that we should examine it with relationships in mind. For this reason, we hope that other investigators will locate or collect additional data and conduct further tests to determine the merits of control balance theory. We suggest that theory testing

proceed at the micro-situational level since this seems to be where control balance theory has the most to offer.

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