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**SUBJECT:** *Research in Review*

**TO:** Executive Staff  
Superintendents  
Other Readers



**FROM:** Kristofer Bret Bucklen  
Chief of Research, Evaluation, and Projections

Enclosed please find Volume 13, Number 2 of *Research in Review* (RIR). This issue contains three pieces, including a review of the Department's Reinforcing Positive Behavior (RPB) staff training curriculum, part two in a series on criminological theory and its relevance to policy (focusing on a summary and review of the evidence for self control theory), and a summary of a study examining the prevalence of U.S. prison gangs and correctional system management responses.

Long time readers of RIR will note that the review of self control theory in this issue actually appeared in an earlier issue of RIR (Volume 10, Number 2). This is the first time that we have re-published a piece for RIR. We did so because this piece fits in well with the new series on criminological theory that we began in our last issue, and because self control theory has emerged as one of the most important theories in the field. We felt it important to (re)acquaint our readers with self control theory as a part of our "criminological theory" series. The review in this issue has been slightly modified from its original publication, and has also been updated to include results from several more recent studies of the theory. We hope that you will find this piece interesting and informative.

We welcome your feedback on RIR. We also welcome your suggestions for specific topical areas for future issues. While we cannot promise that we can produce an issue in response to all suggestions offered, we are very much interested in knowing what questions and topics are most interesting to our readers. Future issues of RIR will continue with our "criminological theory" series, as well as with a review of our own departmental research projects, article reviews, book reviews, and other relevant pieces.

Thank you for your continued interest in *Research in Review*.

# Research in Review

Bureau of Planning, Research, Statistics and Reentry

Editor: Kristofer Bret Bucklen (717) 214-8959

Volume 13, Number 2 of *Research in Review* features two extended briefing papers and an article review. The first piece in this issue (Page 2) is a review of the PA Department of Correction's Reinforcing Positive Behavior training curriculum for all new staff. This two-hour course was implemented in July 2006 as a component of new employee orientation for all new staff, as well as for existing staff on a rotating basis. The purpose of the course is to inform employees about their roles and responsibilities concerning the treatment of inmates and to teach techniques for reinforcing rehabilitation concepts. The course emphasizes that all staff play a role in correcting negative inmate behavior and modeling pro-social behavior. An evaluation of this curriculum was undertaken by the Department concurrently with its implementation. This multi-pronged evaluation revealed that the curriculum was initially effective in improving staff attitudes towards rehabilitation, but tended to show a diminishing impact over the course of staff's first year of employment. The study also revealed that corrections officers tended to be generally less supportive of the rehabilitation ideal than staff in other job categories. These results suggest that the training curriculum should be delivered at more frequent intervals to staff throughout their career, and that the curriculum may need to be modified to specifically focus on issues and topics that are more relevant to corrections officers.

The second piece in this issue (Page 6) is part two of a new RIR series on criminological theory and its relevance to policy. The last issue of RIR presented an introduction to this series. Part two (this issue) is a review of self control theory. Gottfredson and Hirschi's self control theory is one of the most important recent developments in criminological theory. The theory has generated considerable controversy and debate. Some of its components have been well-validated. Policy implications of the theory are important for criminal justice professionals to consider. This review includes an outline of the theory, a discussion of the empirical evidence, points of contention, reviews of recent articles on the theory, and a summary of the policy implications proceeding from the theory.

The third piece in this issue of RIR (page 17) is a review of a recent article by John Winterdyk and Rick Ruddell on managing prison gangs. The study reports on the results of a large scale survey of U.S. prison systems on the prevalence of prison gangs and on management strategies for responding. The article suggests that gang members represent 19% of prison populations on average, with a wide degree of variation. Promising strategies include reducing gang recruitment, enforcing misconducts, and isolating gang members to reduce their influence on institutional safety.

## EVALUATION OF *REINFORCING POSITIVE BEHAVIOR*

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### Background

In July 2006, the Pennsylvania Department of Corrections (PADOC) began delivering a two-hour training session titled *Reinforcing Positive Behavior* (RPB) to new employees as part of their required orientation to the Department. The training was also delivered on a rotating schedule to all experienced staff in each state correctional institution between 2006 and 2007. The purpose of the training was to inform all employees about their roles and responsibilities concerning the treatment of inmates and for reinforcing treatment concepts. Specifically, RPB teaches staff that treatment can be effective in reducing rates of re-offending and establishing safer and more secure prisons. The training course also emphasizes techniques staff can use to encourage positive inmate behavior, discourage inappropriate inmate behavior, serve as effective role models, and respond to inmate attitudes and behaviors using social rewards and shows of disapproval.

To evaluate these issues, the training incorporated a survey component that captured staff attitudes toward inmate treatment and rehabilitation programs. This survey component was comprised of three distinct phases. The first phase included surveying new staff who had been employed with the PADOC for approximately three weeks (N=3,354). In the second phase, these same staff were surveyed after one year of employment to measure attitude change over time (N=466). Finally, the third phase involved surveying a separate group of “experienced” staff that had been employed by the PADOC for more than two years (N=799).

### Phase 1: New Staff

The first phase of RPB started with the goal of evaluating the effectiveness of the training program. This evaluation focused on analyzing staff responses to a series of attitude questions prior to the RPB training (pre assessment) and immediately following the RPB training (post assessment).

Results from this first analysis found that staff attitudes toward inmate treatment and rehabilitation programs significantly improved following the training. Of note is that attitudes among treatment staff stayed relatively the same between the pre and post assessments. This indicates that the training clearly addressed concepts about inmate treatment and rehabilitation that they already understood and supported, therefore responses on the post survey were minimally affected. In contrast, responses from corrections officers changed dramatically between the two assessment periods. The significant change in attitude reported by corrections officers seemed to close the gap between them and treatment staff about beliefs concerning inmate treatment, rehabilitation programs, and their roles and responsibilities inside a prison. Although the analysis of post assessment scores showed some attitude similarities between treatment staff and corrections officers, some key variations were noted. Specifically, treatment staff felt more strongly that inmates can be

treated with respect while maintaining facility safety, and that staff behavior can impact the success of treatment programs and inmate behavior. Overall, corrections officers were less concerned about treating inmates with respect and also minimized the impact of their own actions on inmate behavior and rehabilitation efforts.

Staff were also surveyed about issues of responsibility. They were asked to determine which staff members were most responsible for promoting a good social environment, modeling positive behavior, and correcting inappropriate behavior. Overall, the training succeeded in increasing new employees' understanding and recognition that all PADO staff, regardless of job category, are responsible for these duties. Analysis of the findings revealed that treatment staff were more apt to recognize this pattern, as they rated all job categories higher for level of responsibility than did corrections officers. Support staff and clerical support were consistently rated as the groups least responsible for promoting a good social environment, modeling positive behavior, and correcting inappropriate behavior. This was especially true for clerical support whose average ratings were often more than one full point lower than the other groups, including corrections officers, management, treatment staff, and maintenance personnel.

### Phase 2: One Year Cohort

For the second phase, a follow-up survey was distributed to PADO staff approximately one year after they took the RPB training. The purpose of the follow-up survey was to determine whether staff attitudes toward treatment and rehabilitation changed after one year of employment in the PADO. While results were compared to survey responses from the first phase, they were also analyzed by job category to determine whether employees in different positions felt differently about treatment efforts.

Survey results indicated that staff support for rehabilitation declined after one year of employment, as did their understanding that staff involvement in treatment programming is critical for treatment success. In fact, staff in all four job categories (clerical, maintenance, treatment, and corrections officers) indicated decreased support for treatment and rehabilitation after one year of employment. This pattern was particularly predominant for corrections officers. Clerical support and treatment staff generally reported the highest levels of support of inmate treatment and rehabilitation, and corrections officers exhibited the lowest levels of support. In particular, corrections officers felt more strongly than clerical, maintenance, and treatment staff that treatment and rehabilitation programs are only effective when inmates choose to change their behavior. They also felt more strongly than staff in the other job categories that correctional facilities provide too many privileges, services, and opportunities to inmates.

In addition, after one year of PADO employment, staff were less likely to believe that all staff are responsible for promoting a good social environment, modeling positive behavior, and correcting inappropriate behavior. Clerical support and treatment staff continually recognized (more so than corrections officers) that staff in all job categories are collectively responsible for these three areas. All respondents, however, placed limited importance on clerical support for promoting a good social

environment, modeling positive behavior, and correcting inappropriate behavior.

The Phase 2 survey gave staff an opportunity to provide qualitative responses to several questions. A number of themes emerged from these responses, namely that staff can impact the effectiveness of inmate treatment and rehabilitation through their attitudes and actions. Treatment and clerical staff often commented that correctional staff deliver fair but firm treatment, while corrections officers felt that inmates have too many freedoms and privileges.

### Phase 3: Experienced Staff

The third and final phase of the RPB study involved collecting data from a sample of experienced staff (i.e. staff employed by the PADOE for longer than two years). The data collected was used to determine how experienced staff viewed issues such as inmate rehabilitation, staff behavior in a prison, inmate discipline, respect for inmates, and staff support of treatment programs. This survey was also beneficial in capturing responses from management staff, a factor that was unavailable in prior study phases. In completing the data analysis, results were again analyzed by job category (i.e. clerical staff, treatment staff, prison administration, maintenance staff, and corrections officers) to reveal attitude differences by career path.

Analyses revealed that clerical, treatment, and prison administration staff were most supportive of treatment programming and seemed to best recognize that staff attitudes and actions impact inmate rehabilitation. Prison administration consistently reported the highest levels of support for treatment programming compared to all other job categories, and they almost unanimously agreed that staff actions in a correctional facility can impact inmate rehabilitation efforts and make a correctional facility a more positive place. In contrast, corrections officers and maintenance staff were often aligned in their opinions, and staff in these two job categories exhibited the lowest levels of support.

In addition to analyzing the results by job category, further analyses were conducted to understand how staff with different lengths of tenure viewed these issues. Analyzing the results by years of service revealed that staff with 16 or more years of employment demonstrated the strongest support for inmate rehabilitation, compared to those with 2-5 and 6-15 years of service. As staff gained more tenure, they seemed to grow more supportive of treatment programming and inmate rehabilitation. Staff with fewer years of experience also felt that correctional facilities provide too many privileges, services, and opportunities to inmates.

Respondents were given the opportunity to provide narrative responses about the importance of studying staff attitudes. While the comments covered a variety of topical areas, several common themes did emerge. This primarily included the belief that staff attitudes and behaviors affect the success of treatment programs; and that while corrections staff play a vital role in treatment programming, inmates are most responsible for their own rehabilitation.

## Overall Conclusions

The data gathered over the past four years provides a valuable look at the inmate treatment philosophy of PADOc staff. This multi-pronged study sought to understand how different factors, mainly job category and years of tenure, affect staff views of inmate rehabilitation, one of the primary goals of the corrections field. This study was most helpful in determining which staff may need additional training—beyond the initial two hour RPB session—to make them more supportive of the rehabilitation ideal.

Overall, the RPB program was found to be effective, but only initially. The training seemed to lose its effectiveness with staff, particularly corrections officers, during their first year of PADOc employment. Additional training efforts may need to target employees throughout their first year of employment to keep support for rehabilitation high as new employees adjust to their responsibilities. Another significant discovery was that staff employed for 2-5 and 6-15 years demonstrated only moderate levels of support for inmate rehabilitation. This finding reinforces the importance of delivering the RPB curriculum to new hires, but it also suggests that the training should be delivered periodically throughout an employee's career. Delivering training at more frequent intervals to staff with fewer years of service may help bridge the gap between newer staff, who are least supportive of treatment programming, and more tenured staff, who show the most supportive attitudes.

Finally, results from all three study phases point to the finding that corrections officers are generally less supportive of treatment programming than staff in other job categories. This is particularly concerning given the close involvement that corrections officers have with inmates. Perhaps additional training efforts may need to focus on corrections officers, with adjustments made to the curriculum to incorporate issues and examples that are most relevant and relatable to corrections officers. Corrections officers have significant responsibilities and their presence in a correctional institution can truly shape the treatment environment. Their increased buy-in and support could establish more effective teaching moments outside of the classroom and improve the treatment climate in PADOc institutions.

## **Related Publications**

Antonio, M.E., Young, J.L., & Wingard, L.M. (2009). Reinforcing positive behavior in a prison: Whose responsibility is it? *Journal of Offender Rehabilitation*, 48, 53–66.

Antonio, M.E., Young, J.L., & Wingard, L.M. (2009). When actions and attitudes count most: Assessing perceived level of responsibility and support for inmate treatment and rehabilitation programs among correctional employees. *The Prison Journal*, 89, 363-382.

Young, J.L. & Antonio, M.E. (2009). Perceptions of leniency and support for inmate rehabilitation. *Corrections Compendium*, 34, 9-17.

Young, J.L., Antonio, M.E., & Wingard, L.M. (2009). How staff attitude and support for inmate treatment and rehabilitation differs by job category: An evaluation of findings from Pennsylvania's Department of Corrections' employee training curriculum 'Reinforcing Positive Behavior.' *Journal of Criminal Justice*, 37, 435-441.

## SELF CONTROL THEORY

### (Part 2 in the “Criminological Theory” Series)

Prepared by: Kristofer Bret Bucklen and Jacqueline Young  
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This year marks the 20 year anniversary of Michael Gottfredson and Travis Hirschi’s theory of low self-control in their groundbreaking book entitled “A General Theory of Crime”. The ideas of the book receive no less attention today than when the book was first published twenty years ago. In fact, in one recent review of the most cited authors and publications in the field of criminology/criminal justice over the past twenty years, Hirschi and Gottfredson consistently scored as the most frequently cited for their work on low self-control theory.<sup>1</sup> Many criminological textbooks point to Gottfredson and Hirschi’s theory as among the most important major theoretical developments in recent years for furthering our understanding of the etiology of criminal behavior. While tremendously popular and empirically supported by a number of follow-up studies, Gottfredson and Hirschi’s low self-control theory has nonetheless been fairly controversial and has received challenges on a number of fronts. The theory lays stake to some rather bold claims, purporting to be a general theory that “explains all crime, at all times”. Below is an outline of the major components of Gottfredson and Hirschi’s low self-control theory, a discussion of the points of contention as well as the overall empirical status of the theory, a summary of the policy implications proceeding from the theory, and a number of brief reviews of recent tests of the theory.

Gottfredson and Hirschi base their theory on the assumption that self-interested behavior is normal to human nature and therefore what must be explained by any theory of crime is the absence rather than the presence of criminal behavior.<sup>2</sup> In generating their theory, Gottfredson and Hirschi begin by making several observations about the nature and characteristics of both criminals and criminal acts. From their reading of the research, they observe that: 1) crime is mostly simple and does not require a great deal of training, planning, or effort, 2) crime provides immediate gratification, 3) criminals are versatile and tend not to specialize in any one criminal activity, 4) those who commit crimes are also more likely to participate in other risky social behaviors, and 5) there appears to be a great deal of continuity/stability in an individual’s proclivity to commit crimes over time. From these observations about the nature and characteristics of criminals and crime, Gottfredson and Hirschi generate their concept of criminal propensity (or criminality), the primary element of which is a stable trait they label ‘low self-control’. They find low self-control to fit well as a marker of criminal propensity since those with low self-control tend to be impulsive, insensitive, short-sighted, risk-takers, and thrill-seekers. Further, low self-control appears to be a relatively stable trait across an individual’s lifespan. These characteristics of low self-control are consistent with their observations of the nature of criminals and criminal acts.

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<sup>1</sup> Cohn, Ellen and Farrington, David. 2007. “Changes in Scholarly Influence in Major American Criminology and Criminal Justice Journals between 1986 and 2000.” *Journal of Criminal Justice Education*: 18(1), 6-34.

<sup>2</sup> This assumption of human nature is part of what is often called the “classical school” of criminology. Classical criminology is a school of thought encompassing a variety of criminological theories, including some of the oldest existing criminological theories.

Gottfredson and Hirschi assert that low self-control is primarily established through ineffective child-rearing. According to the theory, if parents are not able to instill self-control in their child by generally about the age of ten, low self-control becomes a stable trait which persists throughout the child's adult life and can be thought of as the child's criminal propensity. The minimum requirements for effective child rearing in order to instill self-control include: 1) adequately monitoring the child's behavior, 2) recognizing deviant behavior when it occurs, and 3) fairly and consistently punishing such behavior when it occurs. With Gottfredson and Hirschi's emphasis on the early childhood and on parenting, the theory obviously has found favor with many developmental psychologists.

A primary element necessary for understanding Gottfredson and Hirschi's theory is their explanation of the relationship between age and crime. They provide evidence to support the conclusion that age has a direct impact on criminal behavior and that the age impact is universal (i.e., invariant across different times, places, demographic groups, and crime types). More specifically, all criminal careers generally follow what is labeled as the "age-crime curve", which means that criminal behavior increases during adolescence, peaks by the late teens to early twenties, and declines thereafter. Gottfredson and Hirschi are not entirely clear on an explanation for this effect of age on crime, but suggest that it may be explained by factors such as "burn-out" due to natural biological aging or a reduced opportunity for criminal behavior at older ages. One thing that they are clear on is that it is not due to any known social factors such as getting married, having a job, or disassociating from anti-social friends. They are in fact critical of those who suggest that social circumstances, such as hanging around with bad friends or losing a job, causes an individual to commit crimes. These circumstances are viewed by Gottfredson and Hirschi as situations which are self-selected into by those with low self-control, and not as situations which cause criminal behavior. For example, those who already possess a high propensity for criminal behavior will naturally choose to hang around with others who have a high propensity for criminal behavior (the old "birds of a feather flock together" argument).

In addition to viewing an individual's underlying criminal propensity as being constant over time (even at older ages when the individual actually commits less crime), Gottfredson and Hirschi also propose that there is a relative stability of criminal behavior between individuals. What this means is that an individual with extremely low self-control (i.e., a high criminal propensity) will still commit more crimes at age 50 than an individual at age 50 with only moderately low self-control, even though both individuals will commit less crimes at age 50 than they did at age 20. So while the offender's criminal behavior decreases over time, his or her criminal propensity is still constant and his or her relative ordering of criminal behavior in comparison to others is constant. Essentially then, Gottfredson and Hirsch argue that the adult lifecourse is mostly irrelevant for understanding criminal behavior.

Gottfredson and Hirschi's theory has certainly been among the most tested theories of criminal behavior. Perhaps the most comprehensive summary of the empirical status of their theory is found



in a meta-analysis conducted by Travis Pratt and Francis Cullen.<sup>3</sup> This meta-analysis summarizes results from 21 individual tests of the theory. Pratt and Cullen conclude that, regardless of how self-control is measured, low self-control is a strong and robust predictor of crime among diverse samples, lending strong support for the theory. However, the impact of self-control on crime was not found to be as strong in longitudinal studies, calling into question the theory's hypothesis that low self-control is a stable trait over the lifecourse.

Due in no small part to the bold assertions of the theory, several points of the theory remain quite contentious and unresolved. First, it is unclear as to how stable criminal propensity is across the lifecourse. On a related point, it has also been highly debated as to whether the age-crime curve is invariant.<sup>4</sup> If Gottfredson and Hirschi's propositions on these two issues hold up to empirical testing, meaning that criminal propensity indeed remains virtually unchanged in adulthood and all criminals eventually "age out" of crime regardless of what happens to them, then corrections professionals face a nearly impossible task of making any significant impact on criminal behavior.

A second unresolved issue is the definition and measurement of low self-control. Gottfredson and Hirschi provided a somewhat broad definition of low self-control in their book and have evolved their definition since the book. A core issue in this debate is whether low self-control is measured primarily by behavior or by attitudes. Early on, Gottfredson and Hirschi mostly argued for a behavioral measure of low self-control by suggesting that key indicators for low self-control included "analogous behaviors" such as promiscuous sexual behavior or compulsive gambling. On the other hand, Grasmick and colleagues have proposed an attitudinal measure of low self-control, which is considered by many as the most validated measure of the construct.<sup>5</sup> While important to resolve, the current state of knowledge indicates that low self-control is a strong predictor of criminal behavior regardless of how it is measured.

Gottfredson and Hirschi's early definition of low self-control raises a third contentious point. Many have criticized the theory as being tautological. These critics point out that, according to the theory, "analogous behavior" such as smoking or compulsive gambling serves as an indicator of low self-control and is caused by low self-control at one and the same time. This seems to add a degree of circular logic to the theory. Gottfredson and Hirschi have addressed this critique but it remains a point of debate.

A fourth general point of contention is the whole issue of social causation versus social selection. In other words, do social events such as employment and marriage causally impact future criminal

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<sup>3</sup> Pratt, Travis and Cullen, Francis. 2000. "The Empirical Status of Gottfredson and Hirschi's General Theory of Crime: A Meta-Analysis." *Criminology*: 38, 3.

<sup>4</sup> The issue of an invariant age-crime curve was the subject of a heated debate between Gottfredson and Hirschi and Alfred Blumstein et. al. in the mid 1980's, which has been frequently referred to as "the great debate" in criminology.

<sup>5</sup> Grasmick, Harold, Charles Tittle, Robert Bursik, and Bruce Arneklev. 1993. "Testing the Core empirical Implications of Gottfredson and Hirschi's General Theory of Crime." *Journal of Research in Crime and Delinquency* 30:5-29.

behavior or do individuals self-select themselves into these social situations according to their prior criminal propensity. There has been considerable debate on this issue and it appears as if the answer may lie somewhere in the middle.

Finally, a fifth issue of the theory that is still debated (though mostly resolved) is whether or not offenders specialize in certain criminal behavior. Gottfredson and Hirschi hold that offenders by in large do not specialize and thus they claim that their theory is a general theory explaining all crime. The bulk of the evidence has supported their position that offenders mostly do not specialize.

Below are several short summaries of recent tests of self control theory, followed by a short discussion of policy implications:

Charles Tittle and Ekaterina Botchkovar. 2005. "Self-Control, Criminal Motivation and Deterrence: An Investigation Using Russian Respondents." *Criminology*, 43(2), 307-354.

Using data from a Russian sample, the authors examine the generality of self-control theory. They find evidence to conclude that the strength of the relationship between low self-control and criminal behavior is comparable to that found in other studies, suggesting that the theory is not culturally bound and therefore is a generalizable theory in this sense. It is noteworthy to point out that low self-control theory has also been tested in the past among other ethnic groups including Japanese, Europeans, African-Americans, and Native Americans, all more or less finding reasonable evidence for the generality of the theory.

John Paul Wright and Kevin Beaver. 2005. "Do Parents Matter in Creating Self-Control in Their Children? A Genetically Informed Test of Gottfredson and Hirschi's Theory of Low Self-Control." *Criminology*, 43(4), 1169-1202.

The authors of this article point out that relatively little research has examined the factors that give rise to low self-control. Gottfredson and Hirschi would seem to propose that parents are the sole contributors. This article finds evidence to suggest that heritable genetic differences may more strongly explain the development of low self-control. The impact of parenting is found to still be important but mostly by interacting with genetic differences. In other words, parents will have more difficulty instilling self-control in children who possess the genetic risk factors for low self-control than in children who do not possess these risk factors. Genetic indicators include deficits in the frontostriatal part of the brain and Attention Deficit Hyperactivity Disorder (ADHD).

Constance Chapple. 2005. "Self-Control, Peer Relations, and Delinquency." *Justice Quarterly*, 22(1), 89-106.

This study examines the social causation versus social selection debate, particularly as it pertains to the impact of delinquent peers. The authors find mixed evidence for Gottfredson and Hirschi's position that delinquent peers will not influence delinquent behavior once low self-control (i.e., criminal propensity) is taken into account. Consistent with low self-control theory, associating with delinquent peers did not contribute much to delinquency once low self-control was taken into account. On the other hand, peer rejection was an important cause of delinquency even after accounting for self-control, which is contrary to the position of low self-control theory.

Lorraine Latimore, Charles Tittle, and Harold Grasmick. 2006. "Childrearing, Self-Control, and Crime: Additional Evidence." *Sociological Inquiry*, 76(3), 343-371.

The authors of this study examine whether the three critical elements of effective child-rearing for instilling self-control (i.e., adequately monitoring behavior, recognizing deviant behavior when it occurs, and fairly and consistently punishing deviant behavior) are indeed significantly related to self-control. They find that while the elements, both individually and in combination, are related to increased self-control, the relationship is not very strong. The conclusion of these results is that effective self-control is most likely dependent on other things in addition to good parenting. The study does not specifically test for other potential contributors but hints that self-control may even be influenced by factors in adulthood, contrary to what Gottfredson and Hirschi propose in their theory.

Callie Burt, Ronald Simons, and Leslie Simons. 2006. "A Longitudinal Test of the Effects of Parenting and the Stability of Self-Control: Negative Evidence for the General Theory of Crime." *Criminology*, 44(2), 353-396.

This study tests two propositions of Gottfredson and Hirschi's theory: 1) that poor parenting impacts delinquency by failing to instill self-control and 2) that low self-control is stable throughout life after the age of ten. In both cases the authors find disconfirming evidence. While self-control is indeed found to be related to delinquency, it only partially explains the relationship between poor parenting and delinquency. In other words, some additional quality of poor parenting leads to increased delinquency other than simply failing to instill self-control. Also, self-control is found to be changeable later in life, implying that low self-control can be improved through appropriate intervention or social experiences. The authors caution against strong conclusions from this study due to several limitations, including not following the study participants into adulthood to more fully measure the stability of their level of self-control. They thus call for both further replications of their findings and a softening of some of the propositions of Gottfredson and Hirschi's theory.

Carter Hay and Walter Forrest. 2006. "The Development of Self-Control: Examining Self-Control Theory's Stability Thesis." *Criminology*, 44(4), 739-774.

Similar to the previously summarized study, this study explores the stability of self-control after the age of ten. The study sets out to provide "the most rigorous test to date" of this stability thesis and largely accomplishes this goal, improving on prior methodological weaknesses. The authors conclude that the absolute and relative level of self-control was stable for 84% of the sample, confirming Gottfredson and Hirschi's thesis. There was, however, a smaller sub-sample (16% of the sample) who experienced substantial changes in self-control after the age of ten. Also, parental influences continued to affect self-control well into adolescence. This study provides strong support for Gottfredson and Hirschi's stability thesis, while at the same time concluding that the stability thesis is not as absolute as suggested by Gottfredson and Hirschi given that about one in six respondents demonstrated significant changes in their self-control after age ten.

Elaine Doherty. 2006. "Self-Control, Social Bonds, and Desistance: A Test of Life-Course Interdependence." 2006. *Criminology*, 44(4), 807-833.

In this study, the author attempts to examine the extent to which both self-control and social situations can simultaneously impact desistance from crime. Recall that Gottfredson and Hirschi would say that social situations such as employment, marriage, or friends, are irrelevant for explaining adult desistance from crime. However, this author finds that both a person's level of self-control and level of social integration are strong predictors of criminal desistance. In other words, an individual with high self-control or who is more socially integrated is significantly more likely to desist. The author also attempts to follow up on previous studies which have explored whether those with low self-control would show greater reductions in offending if socially integrated than those with high self-control. She finds that this is largely not the case; self-control and social integration have mostly independent effects.

Alex Piquero and Jeff Bouffard. 2007. "Something Old, Something New: A Preliminary Investigation of Hirschi's Redefined Self-Control." *Justice Quarterly*, 24(1), 1-27.

This study attempts to: 1) examine the predictive ability of an instrument intended to measure Hirschi's recently revised definition of self-control, and 2) compare this instrument to Grasmick's attitudinal measure of self-control. Hirschi has recently redefined self-control as "the tendency to consider the full range of potential costs of a particular act". The authors find that their instrument, based on this new definition, is strongly associated with two types of criminal acts (i.e, drunk driving and sexual coercion). Further, when their measure and Grasmick's attitudinal measure are both used, Grasmick's measure is no longer associated with these two types of criminal acts. The authors conclude that situational-based measures of self-control should be more seriously considered and may replace or at least be incorporated with attitudinally-based measures.

Alexander Vazsonyi and Lara Belliston. 2007. "The Family, Low Self-Control, Deviance: A Cross-Cultural and Cross-National Test of Self-Control Theory" *Criminal Justice & Behavior*, 34(4), 505-530.

This study is another examination of the link between family/parenting, low self-control, and deviant behavior. From a large sample of seven different cultural and national groups, the authors find that family processes such as closeness, support, and monitoring have a consistently strong impact on deviant behavior. Not all of the family impact on deviant behavior is indirectly through its impact on self-control either, which is consistent with Burt et. al.'s findings previously summarized. In other words, something more about family socialization has an impact on deviant behavior other than simply instilling self-control. This piece confirms the generalizability of Gottfredson and Hirschi's theory to different cultural/ethnic groups but only partially confirms their thesis on the relationship between parenting, self-control, and deviance.

Stacey Nofziger. 2008. "The 'Cause' of Low Self-Control: The Influence of Maternal Self-Control." *Journal of Research in Crime and Delinquency*, 45(20), 191-224.

This study uses data from the National Longitudinal Survey of Youth to examine the relationship between parental and child self-control. While the research finds that mothers with low self-control produced children with low self-control, the authors attempt to explain this relationship by examining specific punishment and supervision practices. Results suggest that a mother's level of self-control affects her choice of parenting techniques, and that children develop higher levels of self-control when they receive more parental supervision. The authors also find that being female and having a higher family income level are factors associated with higher self-control.

Kevin M. Beaver, Matt DeLisi, Daniel P. Mears and Eric Stewart. 2009. "Low Self-Control and Contact with the Criminal Justice System in a Nationally Representative Sample of Males." *Justice Quarterly*, 26(4), 695-715.

In this study, the authors explore the relationship between self-control and criminal justice contact using data from the National Longitudinal Study of Adolescent Health (Add Health). They use a variety of factors to measure contact with the criminal justice system (number of police contacts, age of first police contact, etc.) and develop a scale to measure self-control using Add Health interview data from parents and subjects. Using this methodology, the authors find that respondents with low levels of self-control generally have more police contact, a greater chance of arrest, and increased probability of being convicted.

Kevin M. Beaver, J. Eagle Schutt, Brian B. Boutwell, Marie Ratchford, Kathleen Roberts, and J.C. Barnes. 2009. "Genetic and Environmental Influences on Levels of Self-Control and Delinquent Peer Affiliation: Results from a Longitudinal Sample of Adolescent Twins." *Criminal Justice and Behavior*, 36(1), 41-60.

Using data from the National Longitudinal Study of Adolescent Health (Add Health), the authors examine how environmental and genetic factors influence self-control and contact with delinquent peers. The analysis is based on a sample of twins and finds that genetics, rather than the environment, most influence associations with antisocial and drug using friends. Based on their analysis, the authors suggest that parenting involvement and social factors only minimally influence involvement with delinquent peers.

George E. Higgins, Wesley G. Jennings, Richard Tewksbury and Chris L. Gibson. 2009. "Exploring the Link Between Low Self-Control and Violent Victimization Trajectories in Adolescents." *Criminal Justice and Behavior*, 36(10), 1070-1084.

This study addresses the gap in research related to the connection between self-control theory and violent victimization. Drawing from Gang Resistance Education and Training data, the authors examine the connection between low self-control and victimization over time in a group of adolescents. They first develop three group-based models that explain levels of self-control over time. Secondly, in examining the connections between the trajectories of these models and victimizations, they find that those with higher levels of self-control are less likely to be victimized, and those who report the most violent victimizations generally have the lowest levels of self-control.

Ryan C. Meldrum, Jacob T. N. Young and Frank M. Weerman. 2009. "Reconsidering the Effect of Self-Control and Delinquent Peers: Implications of Measurement for Theoretical Significance." *Journal of Research in Crime & Delinquency* 46(3), 353-376.

This study examines how self-control affects delinquency when controlling for several measures of delinquent peers. The authors hypothesize that measuring the strength of self-control while using improved measures of peer delinquency will increase the understanding of self-control and social learning theories when they are used to explain delinquent behavior. Specifically, the authors study—both cross-sectionally and longitudinally—the impact of self-control, as well as indirect and direct measures of peer delinquency. Findings indicate that using more refined measures of peer delinquency results in a stronger effect from self-control. Results also suggest that examining self-control and social learning theories in tandem may lead to a more accurate understanding of criminal offending.

Brian B. Boutwell and Kevin M. Beaver. 2010. "The Intergenerational Transmission of Low Self-Control." *Journal of Research in Crime and Delinquency*, 47(2), 174-209.

This study explores whether levels of self-control are transmitted between parent and child using data from the Fragile Families and Child Wellbeing Study. The authors find that low maternal self-

control is the strongest predictor of the child's self-control. While the same trend holds for paternal self-control, maternal effects have a much stronger effect. In examining the connection between maternal and paternal self-control measures, the authors also find that individuals tend to mate based on similar levels of self-control. An examination of several other factors reveals that low maternal levels of self-control predict increased smoking during pregnancy and lower levels of self-control in the child. In terms of paternal patterns, lower levels of self-control in fathers predict an increased likelihood of incarceration and lower levels of self-control in the child.

Brian B. Boutwell and Kevin M. Beaver. 2010. "The Role of Broken Homes in the Development of Self-control: A propensity Score Matching Approach." *Journal of Criminal Justice*, 38(4), 489-495.

Using data from the Fragile Families and Child Wellbeing Study, the authors research the impact of broken homes on the development of self-control during childhood. The study initially finds a significant relationship between broken homes and self-control. After controlling for a number of factors, this relationship is no longer statistically significant. These patterns suggest that after certain parental measures (i.e., self-control levels, depression, education, criminal involvement) are considered, there is no longer a significant relationship between levels of self-control in children living in a broken home environment. This suggests that parental characteristics, rather than the broken home environment itself, best predicts levels of self-control.

Chris L. Gibson, Christopher J. Sullivan, Shayne Jones, and Alex R. Piquero. 2010. "Does it Take a Village? Assessing Neighborhood Influences on Children's Self-Control." *Journal of Research in Crime and Delinquency*, 47(1), 31-62.

The authors of this study examine whether neighborhood conditions affect levels of self-control in children and adolescents. The study finds that some neighborhood factors such as residential stability, economic disadvantage, and prevalence of immigrants, predict levels of self-control. However, after additional controls such as caregiver characteristics are incorporated, neighborhood characteristics are found to be insignificant. In addition, the authors find that certain parenting variables have the greatest effect on self-control. Specifically, children with the highest levels of self-control report that their primary caregivers demonstrate more "warmth" toward them, more supervision and monitoring, and less hostility.

Chris L. Gibson, Jeffrey T. Ward, John Paul Wright, Kevin M. Beaver and Matt Delisi. 2010. "Where Does Gender Fit in the Measurement of Self-Control?" *Criminal Justice and Behavior*, 37(8), 883-903.

This study explores whether specific measures of self-control can be applied to both males and females. Prior studies have shown that males generally have lower self-control than female. The authors examine this finding further, however, by investigating whether this is a function of measurement bias. Using Grasmick et al.'s 24-item self-control scale, the authors identify a series of

biased measures which, when removed, indicate that males still have lower levels of self-control than female respondents. When further analyses were conducted without these biased measures, the authors found that both this instrument and the full version revealed comparable findings.

Robert Svensson, Lieven Pauwels and Frank M. Weerman. 2010. "Does the Effect of Self-Control On Adolescent Offending Vary By Level of Morality?: A Test in Three Countries." *Criminal Justice and Behavior*, 37(6), 732-743.

The authors of this study examine the effect of self-control on offending for adolescent subjects with low versus high levels of morality. Self-report data from samples in Belgium, Sweden, and the Netherlands reveal that an offender's level of morality affects the impact of their level of self-control on offending. They find that having low self-control is associated with low morality and higher levels of offending; and specifically that both low levels of self-control and morality are associated with serious theft and violence. In sum, the authors suggest that self-control can be related to delinquency, but other personal factors—morality in this case—also play a role.

### Summary

Gottfredson and Hirschi's low self-control theory contains several important policy implications for criminal justice professionals to consider. Perhaps the most important consideration for corrections professionals is their "invariance thesis". If indeed criminal propensity remains mostly unchangeable after age ten and no social variables can explain reductions in criminal behavior over time, then correctional programming would be expected to have very minimal impact on future criminal behavior. Fortunately for corrections professionals, tests of Gottfredson and Hirschi's theory mostly conclude that there is more room for change in criminal propensity than acknowledged by the theory. Further, we now know from correctional program evaluations over the past 30 years that criminal behavior can be impacted through correctional treatment.

On the other hand, many tests of low self-control theory (including a few of those summarized above) find an impressive degree of stability in criminal propensity over time, suggesting that human change occurs less frequently than many corrections professionals are comfortable with admitting. In discussing continuity versus change in criminal behavior over time, what Gottfredson and Hirschi are perhaps best at doing is focusing our attention on the importance of early childhood. Regardless of the degree of change that is possible later in life, clearly early childhood is an extremely important phase of the lifecourse for impacting future criminal behavior. Gottfredson and Hirschi's theory would seem to suggest that broader social policy targeting childhood risk factors may provide the greatest "bang for the buck" in preventing criminal behavior. The good news seems to be that there is certainly room for influencing change among adult offenders later in life. The bad news is that the potential for impacting change in adult offenders may be more limited when compared with the impact which is possible through childhood interventions.



Aside from the invariance debate, the consensus from tests of Gottfredson and Hirschi's theory is that self-control is certainly among the most important targets related to criminal behavior. The PA DOC's own Parole Violator Study also provides confirming evidence of low self-control as a major criminogenic risk factor differentiating recidivists from non-recidivists (see a summary of this study in *Research In Review* Vol. 8, No. 1 and Vol. 9, No. 4).

Related to the issue of the importance of low self-control as a treatment target is the issue of how to measure or assess self-control. If an individual's level of self-control can indeed change, then clinicians must have a way to assess self-control so as to prioritize targeted treatment towards those with a higher need. Although not exactly measures of self-control, the PA DOC has pilot tested two instruments for assessing problem-solving skills. Unfortunately neither instrument was found to be valid among an offender sample. As was discussed previously, assessing low self-control has been a major debate that remains unsettled in the discussion of Gottfredson and Hirschi's theory. Self-control needs to be more clearly operationalized. Additionally, instruments measuring self-control must be refined, validated, and compared to one another in order to provide treatment staff with the proper clinical tool to assess this important domain.

Finally, some policy implications can be drawn from the debate on causation versus correlation. From a risk assessment perspective, it matters little whether a variable causes crime or is simply correlated with crime. If it is strongly enough correlated to criminal behavior so as to improve the predictive ability of a risk assessment, then it should be included on the instrument. On the other hand, from a treatment perspective, clinicians want to focus more of their time on root causes rather than symptoms. So in this sense it is important to disentangle whether certain risk factors cause criminal behavior or are simply correlated with criminal behavior. For example, it is not disputed that hanging out with pro-criminal friends has a strong correlation to one's own criminal behavior. However, Gottfredson and Hirschi's theory would suggest that this is simply a function of the individual's prior level of low self-control and that friends don't cause a person to commit more or less crimes. If this is the case, treatment should spend more time on building self-control skills rather than on discouraging individuals to disassociate with pro-criminal friends. If one's pro-criminal friends do however cause an otherwise low risk person to commit more future crimes, then considerable time would need to be spent discouraging these friendships. It appears from studies on this issue that the answer may lie somewhere in between causation and correlation, but it will be important for future research to disentangle the weight of each so as to understand which occurs more or less frequently. From a research perspective, causation is difficult to demonstrate absent a randomized experiment. Obviously researchers can't feasibly or ethically conduct studies where, for instance, participants are randomly assigned to hang around with good versus bad friends. With the advent of longitudinal datasets and more sophisticated statistical techniques, however, researchers are making progress towards having the tools to properly disentangle causation from correlation.

## Article Review:

John Winterdyk and Rick Ruddell. 2010. "Managing Prison Gangs: Results from a Survey of U.S. Prison Systems" *Journal of Criminal Justice*, 38, 730-736.

Prison gang membership is a pervasive concern in corrections, affecting issues ranging from daily prison management to community reintegration after release. As Winterdyk and Ruddell point out in this study, it is widely acknowledged that gangs, or security threat groups (STGs), are associated with increased institutional violence, involvement in contraband, a negative influence on rehabilitation programming, "radicalization" and recruitment of other inmates, and incorporation of parolees in gang activities following release from prison. In an effort to contribute to the existing literature on gang membership and its effect on the criminal justice system, the authors structured a study that explores the effectiveness of gang management strategies in state and federal prison systems across the United States. The purpose of their research was to study how prison systems manage gang involvement while determining which approaches appear most promising.

In March 2009, the authors surveyed all U.S. prison systems and two private systems. They received responses from 37 prison systems, which represented a response rate of 69.8 percent. Survey respondents were typically security directors, investigative directors, and personnel from gang or STG management units. The questionnaire contained questions focused on prison gangs and interventions. Specifically, the survey measured six particular areas: the prevalence of gangs; the impact of gangs on daily prison operations; theories about why prisoners join gangs; and the effectiveness of gang investigations, interventions, and information sharing. The survey borrowed the definition of gangs from Knox, who characterized STGs as groups of three or more prisoners who act in a threatening manner or cause disruptive behavior.<sup>6</sup>

Winterdyk and Ruddell first sought to determine the prevalence of gang membership in U.S. prison systems. Results from their survey showed that respondents estimated that between 2 and 50 percent of their population were in gangs (average of 19 percent). As the authors emphasize, these figures indicate that a significant number of gang members are imprisoned and, as a result, most likely produce safety challenges for the prison systems and public at large. When asked about changes in gang prevalence, the majority of respondents felt that the number of gang members in prison has increased over the past five years. The majority also felt that gangs were more sophisticated than they were previously, that they were involved in increasingly disruptive behavior, and that a larger number of gang members with violent backgrounds were now being housed in prison systems. Related survey questions also explored the motivations for joining a STG. Respondents generally thought that offenders joined gangs out of fear of violence, wanting to "belong," and in an effort to increase their status in the prison system. While access to contraband was also indicated as a motivation, respondents felt this was a lesser motivation for gang involvement.

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<sup>6</sup> Knox, G.W. (2005). The problem of gangs and security threat groups (STG's) in American prisons today: Recent research findings from the 2004 prison gang survey. Retrieved August 31, 2010, from <http://www.ngcrc.com/corr2006.html>

Moving beyond the prevalence of gangs in prison, Winterdyk and Ruddell were also interested in determining what respondents felt were the most effective gang management strategies. Overall, respondents felt that segregation/isolation, restricting privileges (i.e., visits, program participation, and commissary), placement in specialized housing, and increasing security rating/classification of gang members were the most effective strategies. Others felt that establishing gang-free prisons could be a promising approach.

Winterdyk and Ruddell additionally explored issues related to investigating gang member activities. Respondents believed that several strategies were most effective, including monitoring telephone calls/records, searching mail, and analyzing prisoner incidents and misconducts. In contrast, survey responses indicated that other strategies such as analyzing financial records, monitoring community contacts, and using computer-based methods like crime mapping, were rarely effective. Respondents seemed to think that information sharing could be one of the more promising approaches in managing gang activities. This included sharing within the same prison system; with local, state, and federal law enforcement officials; and with prisons in other jurisdictions. The majority felt that this internal and external information sharing was a very effective approach for monitoring the behaviors of gang members in the institution and their communication with community members.

While the majority of the study results were based on perceptions and opinions, Winterdyk and Ruddell did ask respondents to report on any evaluations that had been conducted to formally evaluate the effectiveness of their gang management approach. A small minority (20 percent) reported having completed an outcome evaluation related to gang management interventions. Those who provided feedback on these evaluation efforts confirmed some of the findings found through the current surveying effort. For example, evaluations found that gang populations were increasing, but that decreases in staffing and funding within the prison systems have resulted in less quality work related to STG management.

Even though this study provided useful and timely data about gang management techniques, Winterdyk and Ruddell did note several limitations. First and foremost, the survey responses were based on the perceptions and opinions of prison staff. As the authors note, these perceptions may not reveal a completely accurate picture of prison gang activity. For gang-related research, insight may unfortunately be the only resource available since gang activities and affiliations are kept quite guarded. While staff are certainly conscious of gang-related incidents, they may not be completely aware of all gang-related activities that occur in their prison system.

This study also leaves room for further study on managing prison gangs. As Winterdyk and Ruddell indicate, additional research is needed about paths to gang membership and motivation to join gangs. Further study could also concentrate on how different factors (demographic or geographic, for example) affect gang membership. Continued study could also provide vital information about transitions in and out of gang membership while offering considerable information about gang affiliations inside and outside of prison. For example, do prisoners discontinue their gang affiliations when they are released? Does gang affiliation that begins in prison lead to stronger

gangs and increased violence in the community? While further exploration is needed in these areas, what Winterdyk and Ruddell can conclude is that prison systems should restrict prisoner association with STGs in the first place, therefore reducing the likelihood of further gang recruitment. As the authors suggest, the most promising strategies at this point are reducing gang recruitment, enforcing misconducts, and isolating these groups to reduce the influence of gangs on institutional and community safety.