

Encyclopedia of Criminological Theory

Gottfredson, Michael R., and Travis Hirschi: Self-Control Theory

Contributors: Chris L. Gibson

Editors: Francis T. Cullen & Pamela Wilcox

Book Title: Encyclopedia of Criminological Theory

Chapter Title: "Gottfredson, Michael R., and Travis Hirschi: Self-Control Theory"

Pub. Date: 2010

Access Date: September 12, 2014

Publishing Company: SAGE Publications, Inc.

City: Thousand Oaks

Print ISBN: 9781412959186

Online ISBN: 9781412959193

DOI: <http://dx.doi.org/10.4135/9781412959193.n109>

Print pages: 393-400

©2010 SAGE Publications, Inc. All Rights Reserved.

This PDF has been generated from SAGE knowledge. Please note that the pagination of the online version will vary from the pagination of the print book.

<http://dx.doi.org/10.4135/9781412959193.n109>

More than two decades have now passed since the publication of Michael R. Gottfredson and Travis Hirschi's *General Theory of Crime*. It is this book where they articulated self-control theory, one of the most controversial criminological theories in recent history. Even now, their theory remains at the center of criminological discourse and has resulted in continued theoretical and empirical scrutiny. The roots of this intense scrutiny permeating criminological literature lies in Gottfredson and Hirschi's controversial, yet parsimonious and well-argued, constellation of propositions—namely the emphasis they place on self-control as *the* individual level cause of criminal and deviant behavior.

Their statements concerning the explanations of criminal behavior practically dismiss most criminological theories as incorrect. Gottfredson and Hirschi argue that traditional theories of delinquent and criminal behavior generate unreasonably assorted explanations for why people commit crime. They further believe that other criminological theories generally propose relationships between social and behavioral domains of life that can be accounted for by their self-control theory. For instance, they argue that the reason an individual who has delinquent peers will also be delinquent is because the person possesses low self-control. Theorists and researchers alike have remained attentive to Gottfredson and Hirschi's formulation of self-control theory for a number of reasons, including (1) its parsimonious nature, with one main explanatory construct—that is, self-control; (2) its potential explanatory power over the life course; and (3) its explanation of the link between demographic characteristics and crime.

This entry presents an overview of self-control theory as proposed by Gottfredson and Hirschi and the research that has tested its claims. First, an outline and description is provided of self-control theory, which includes a definition of self-control and the main predictions regarding the development of self-control and its consequences. Second, research supporting self-control theory is reviewed. Third, future research and implications for delinquency and crime prevention are discussed as they relate to self-control theory.

The Impact of Self-Control

In perhaps one of the most controversial statements ever made in criminology, Gottfredson and Hirschi argue that their self-control theory is a general theory that can explain a wide array of behaviors, including all types of criminal, deviant, and reckless behaviors. They argued that their theory can explain

common delinquency (theft and assault), serious crime (burglary and murder), reckless behaviors (speeding), school and employment difficulties (truancy, tardiness, in-school misbehavior, job instability), promiscuous sexual behaviors, drug use, and family violence (spouse abuse or child abuse), all of which have negative long-term consequences. No special motivation for any of these acts is assumed. They all provide immediate, obvious benefits to the actor (as indeed, do all purposeful acts). They typically entail no certain or meaningful short-term costs. They all, however, invoke substantial long-term costs to the actor. (Hirschi & Gottfredson, 1994, p. 16)

Thus, Gottfredson and Hirschi base their theory on the postulate that crime, among other deviant and reckless behaviors, provides easily accomplished, instantaneous gratification. Furthermore, such behaviors require little or no skill. Those who commit crime and deviant acts have a disposition that dictates their engagement in all behaviors that provide immediate satisfaction and pleasure. To this end, Gottfredson and Hirschi began by redefining crime as acts of force and fraud in the pursuit of self-interest.

[p. 393 ↓]

Gottfredson and Hirschi believe that there is an underlying factor accounting for involvement in all sorts of deviant, criminal, and reckless behaviors. This factor manifests itself across a variety of life's domains in ways that hinder achieving long-term occupational and educational goals, disrupt relationships, and undermine emotional and physical well-being. As such, crime and other “analogous behaviors”—drug use, school failure, unstable employment, failure in marriage, poor health, and having delinquent peers—are all manifestations of an underlying tendency to pursue short-

term, immediate pleasure at the expense of long-term consequences. They call this tendency low self-control. Hirschi and Gottfredson link self-control and crime in the following manner:

Criminal acts are a subset of acts in which the actor ignores the long-term negative consequences that flow from the act itself (e.g., the health consequences of drug use), from the social or familial environment (e.g., a spouse's reaction to infidelity), or from the state (e.g., the criminal justice response to robbery). All acts that share this feature, including criminal acts, are therefore likely to be engaged in by individuals unusually insensitive to long-term consequences. The immediacy of the benefits of crime implies that they are obvious to the actor, that no special skill or learning is required. The property of individuals that explains variation in the likelihood of engaging in such acts we call "self-control." (1994, pp. 1–2)

In contrast, those who possess more self-control are the opposite from those possessing very little. Individuals possessing self-control have a lower likelihood under all contexts throughout their life course to engage in crime and analogous behaviors in comparison to their counterparts with low self-control. Specifically, people who possess self-control are substantially less likely to engage in acts for short-term pleasure even in settings that have little social or legal monitoring. For example, they do not steal, drive recklessly, or do drugs even when opportunities, absent from the possibility of legal or social sanctions, are present.

Recognizing stability in criminal behavior, Hirschi and Gottfredson (1994) argue that it would be sensible to attribute the relationship between behaviors over time to a persistent underlying trait.

For Gottfredson and Hirschi, this underlying trait is low self-control. To this end, their theory not only attempts to explain juvenile delinquency, but it also offers an explanation for stability in crime and general deviance over the life course. Once formed, Gottfredson and Hirschi argue that self-control (or lack thereof) is relatively stable throughout life. Low levels of self-control increase the probability of virtually all types of criminal and deviant acts that bring pleasure, gratification, and fulfillment in

the short term. Although Gottfredson and Hirschi attribute generality and stability of criminal and deviant behavior to a trait that resides in an individual, they argue criminal and deviant behaviors will be probabilistic and contingent on opportunities. Although different people may have the same level of self-control, expressions of specific types of criminal and/or deviant acts can reflect differences in opportunities to commit them. While opportunity is present in self-control theory, their theory accords self-control the most explanatory power.

Defining and Measuring Self-Control

Gottfredson and Hirschi define self-control as the blockade that stands between the individual and deviant/criminal activity. Self-control represents the capability to abandon the short-term pleasures that potentially result in long-term, negative consequences. In describing their central construct, Gottfredson and Hirschi provide a detailed account of the elements of self-control. They identify six elements that they contend mirror the nature of criminal acts and largely define one's degree of self-control. Those lacking self-control will have a “concrete ‘here and now’ orientation,” “lack diligence, tenacity, or persistence in a course of action,” are “adventuresome, active, and physical, are indifferent, or insensitive to the suffering and needs of others,” and “tend to have minimal tolerance for frustration and little ability to respond to conflict through verbal rather than physical means” (Gottfredson & Hirschi, 1990, pp. 89–90). These characteristics, they argue, come together in individuals with low self-control. While they suggest that the immediate rewards of crime are apparent to all, individuals high in self-control are able to appreciate the harmful costs and refrain from the temptations of the moment, while those low in self-control instead embrace short-term pleasure and rewards.

[p. 394 ↓]

Gottfredson and Hirschi link each element of low self-control to the criminal act. First, the “here and now” orientation reflects the immediate gratification provided by crime, and those with low self-control have an inclination to respond to tangible stimuli in the immediate environment. Second, lacking diligence, tenacity, or persistence reflects the easy and simple gratification provided by crime, and those with low self-control tend to

want immediate rewards without much effort. Third, being adventuresome, active, and physical is reflective of the excitement, risk, and thrill attached to the criminal act. Those having low self-control will be risk-seekers as well as prefer physical activity. Fourth, being insensitive or indifferent reflects the lack of relevance of the discomfort or pain the victims of criminal acts may experience. Those with low self-control have a tendency to be unkind and lack empathy, and therefore, are insensitive toward people on whom they directly or indirectly inflict pain or discomfort. Finally, possessing a marginal tolerance for frustration reflects not the pleasure of the criminal act but rather the relief from temporary irritation. Those with low self-control will have a minimal tolerance for frustration, and they have a tendency to respond to a situation of conflict with physical rather than verbal means.

Gottfredson and Hirschi's definition of self-control has sparked a debate among criminologists. This debate has led to an interpretive divide. First, a division exists among criminologists concerning the appropriate conceptualization of the self-control construct. Second, operations used to represent or measure self-control have led to an unsettled dilemma among criminologists in choosing indicators that are most appropriate to reflect self-control. Some interpret self-control as being one trait, whereas others argue that the definition put forth by Gottfredson and Hirschi suggest that self-control consists of several traits. The former position would mean that all elements specified by Gottfredson and Hirschi are one and the same indistinguishable, and therefore do not represent different attributes. The latter position implies that self-control could be multidimensional in that different elements indicate different concept.

Harold Grasmick and his colleagues conducted one of the first studies of Gottfredson and Hirschi's theory and produced one of the first measures of self-control. In doing so, they explicitly interpreted self-control as one trait which was evident in their following statement:

A factor analysis of valid and reliable indicators of the six components is expected to fit a one factor model, justifying the creation of a single scale called low self-control. In effect, this is a very crucial premise in Gottfredson and Hirschi's theory. A single, unidimensional personality trait is expected to predict involvement in all varieties of crime as well as academic performance, labor force outcomes, success in marriage,

various “imprudent” behaviors such as smoking and drinking, and even the likelihood of being involved in accidents. Evidence that such a trait exists is the most elementary step in a research agenda to test the wealth of hypotheses Gottfredson and Hirschi have presented. (p. 9)

In creating a self-control measure, Grasmick and his colleagues paid close attention to how Gottfredson and Hirschi defined the elements of self-control. They arrived at six components that they interpret as a “personality trait,” which should capture what Gottfredson and Hirschi meant by their concept of self-control. The components they extracted from Gottfredson and Hirschi's discussion of self-control included the following: impulsivity, preference for simple rather than complex tasks, risk-seeking, preference for physical rather than cerebral activities, self-centered orientation, and volatile temper linked to a low tolerance for frustration. This gave Grasmick and his colleagues a starting point for identifying items that correspond to each component (or element) of self-control. Grasmick and his colleagues used a combination of questions in pre-testing college students to ultimately arrive at a final 24 questions (four items for each of the six components). Some sample questions in the scale include the following: (1) “I often act on the spur of the moment without stopping to think.” (2) “Sometimes I will take a risk just for the fun of it.” (3) “I lose my tempter pretty easily.” According to Grasmick and colleagues, agreeing to many of these items would indicate low self-control or, in other words, higher scores would mean a lack of self-control.

Grasmick and colleagues' self-control measure is often the measuring device of choice among many scholars when testing Gottfredson and Hirschi's concept of self-control. It has also become [p. 395 ↓] a highly contested measure, with scholars arguing that some of its dimensions are more important in predicting crime and deviance than others and that it is measuring more than only one trait.

Most recently, Hirschi has revisited their original definition of self-control and offers a reformulation, which blends self-control with social control. Hirschi stated:

Redefined, self-control becomes the tendency to consider the full range of potential costs of a particular act. This moves the focus from the long-term implications of the act to its broader and often contemporaneous implications.... Put another way, self-control is the set of inhibitions

one carries with one wherever one happens to go. Their character may be initially described by going to the elements of the bond identified by social control theory: attachment, commitments, involvement, and beliefs. (2004, pp. 543–544)

Unlike Gottfredson and Hirschi's earlier definition of self-control that focused on impulsive, short-term pleasure where individuals fail to consider long-term consequences, Hirschi now includes a larger range of anticipated costs associated with engaging in such behaviors, even contemporaneous ones. Furthermore, he incorporates the four original bonds from social bond theory, implying that when an individual is more bonded he or she is more likely to refrain from deviant and criminal behaviors.

Relying on his new definition of self-control, Hirschi arrived at a nine-question measure of self-control from the Richmond Youth Study, which consisted of yes/no questions that asked adolescents about specific bonds; that is, do you like or dislike school, importance of getting good grades, and caring about what teachers think of you. While he found that his measure was related to delinquency, several shortcomings of this measure have been pointed out. In particular, data used to test his new definition did not contain any information on the actual or perceived consequences of acts or behaviors. To date, very little research has focused on measuring Hirschi's redefined construct of self-control.

The Development of Self-Control

How do children develop self-control? According to Gottfredson and Hirschi, this is a dynamic process up through 8 to 12 years of age. In their opinion, the development of self-control originates from socialization of a child from birth through pre-adolescence, largely attributing low self-control to inadequate parenting styles. For Gottfredson and Hirschi, weak direct parental controls in childhood are largely responsible for the inability of individuals to delay gratification and to pursue behaviors that may have negative short- and long-term consequences associated with them. Specifically, they suggest that parents must do three tasks to instill self-control in their children: (1) provide behavioral monitoring, (2) be aware of or recognize bad behavior that their

children engage in, and (3) consistently and appropriately punish bad behaviors. Attachment is a key mechanism that determines the quality of parent-child interaction. According to their theory, parents who are attached to their children will monitor, recognize, and punish naughty, unruly, and disobedient behaviors. To Gottfredson and Hirschi, parental affection toward a child is the motivating factor that will satisfy the three conditions above. Conversely, children will lack self-control if parents are not affectionate, do not monitor or supervise their behavior, are unsuccessful at recognizing misbehavior, and do not appropriately punish the behavior when exhibited by the child.

Although several studies now lend support for the notion that parenting influences development of self-control, Gottfredson and Hirschi, as well as most researchers, have failed to acknowledge that parenting and the development of self-control occur in a context, one of those being a neighborhood. One study has assessed whether neighborhood characteristics influence children's development of self-control. Using data from the National Longitudinal Study of Youth (NLSY), Travis Pratt and colleagues examined community-level sources of self-control. They hypothesized a direct and indirect influence of adverse neighborhood conditions on the development of self-control and found that the influence of neighborhood conditions on self-control rivaled those of parents. They also discovered that neighborhood conditions influenced self-control through poor parental monitoring and discipline.

Even more recently, some research is beginning to question the pure socialization stance that Gottfredson and Hirschi take in explaining the development of self-control. Using a twin design, [p. 396 ↓] John Paul Wright and Kevin Beaver estimated how much variation in self-control is explained by a heritable component. Their results suggest that much of the variation in self-control that has been attributed to parenting can be explained by genetic heritability. In fact, they find that once genetic similarity is taken into account, many of the parenting influences become less important.

Self-Control, Race, and Gender

Gottfredson and Hirschi devote a lengthy discussion to how their theory may account for racial differences in crime. Racial disparities in offending rates have been consistently observed and widely acknowledged. As Gottfredson and Hirschi (1990, p. 194)

point out, “there is substantial agreement that there are large, relatively stable differences in crime and delinquency rates across race and ethnic groups.” According to Gottfredson and Hirschi, past theories trying to explain these racial differences are incorrect; differences can be largely understood through inadequate childrearing and, consequently, differences in self-control. Specifically, they argue that differences in self-control will prevail over differences in supervision when accounting for racial or ethnic variation in crime.

Likewise, Gottfredson and Hirschi devote a considerable amount of time to explain why males and females differentially engage in criminal and other forms of deviant behaviors. Once again, they argue that the reason for males being more likely to engage in delinquency and criminal behavior than females can be attributed to differences in self-control. That is, females, on average, will have more self-control than their male counterparts. The reason for gender differences in self-control is due to the fact that parents monitor and socialize their daughters differently from their sons.

Research on Self-Control Theory

Numerous studies have now been published that, when considered collectively, show moderate, yet consistent, support for the proposition that low self-control predicts involvement in a wide range of criminal, deviant, and reckless behaviors. Many of these studies also indicate that the effects of low self-control exist in the presence of competing theoretically derived variables; across different groups consisting of college students, adolescents, offenders, community samples, and different countries; and when using both cross-sectional and longitudinal data.

Pratt and Francis Cullen completed an extensive review of the empirical status of Gottfredson and Hirschi's theory. In summarizing the results of 21 empirical studies, they showed that low self-control has an average effect size of approximately .27. According to Pratt and Cullen, this effect size qualifies low self-control as “one of the strongest known correlates of crime” (p. 952). Nevertheless, Pratt and Cullen question whether low self-control is the sole cause of a range of deviant and criminal acts as other variables still have important effects in their meta-analysis, namely social learning variables.

Studies testing the relational proposition that low self-control is the cause of a wide array of behaviors have been the cornerstone of support for Gottfredson and Hirschi's theory. Low self-control has been shown to affect the following: gambling; binge-drinking; using force or fraud in the pursuit of self-interest; drunk driving or intentions to drive while drunk; intentions to commit larceny and sexual assault; cutting class and alcohol use among undergraduates; academic dishonesty; drug use among adolescents; offending behaviors among samples of criminal offenders; speeding, driving without a seat belt, and smoking; intimate violence; involvement in accidents; and victimization.

Other key propositions embedded in Gottfredson and Hirschi's theory have received less empirical attention. As noted earlier, they state that early in a child's life parents and/or caregivers will have a direct impact on the development of self-control. Once developed, self-control (or a lack thereof) will be a stable trait throughout life that, in the presence of opportunity, will explain variation in the persistence of criminal and deviant behavior, versatility in deviance, and predict other negative social outcomes. Some studies have generated preliminary empirical support for the above claims made by Gottfredson and Hirschi. First, Carter Hay found that a lack of parental monitoring and discipline predicts low levels of self-control. Furthermore, John Gibbs and colleagues found that parental management has an indirect impact on delinquency through self-control. Second, levels of self-control have been shown to be relatively stable over short periods of time (e.g., one academic semester), as [p. 397 ↓] well as longer periods of time (e.g., 5 years). Third, moderate support has been observed for an interaction between low self-control and opportunity in predicting deviant and criminal outcomes. Finally, several studies have shown that low self-control is related to negative social consequences beyond deviance and criminal behaviors. For example, Bradley Wright and colleagues found that a lack of self-control in childhood predicted disrupted social bonds (e.g., lack of educational attainment, unemployment, and poor intimate relationships later in life). Furthermore, Chris Gibson and colleagues found similar results in that low self-control predicted lack of school commitment, lack of cohesiveness with parents, limited goals and aspirations, and involvement with delinquent peers. Both the Wright et al. and Gibson et al. studies, however, found that low self-control did not substantially reduce the impact of other social and psychosocial variables on delinquency.

Criticisms of Self-Control Theory

Overall, considerable evidence shows support for several predictions made by Gottfredson and Hirschi. On the other hand, self-control theory has attracted numerous criticisms that include the following: The theory is too general by attempting to explain a broad range of deviant behaviors; it is based on a misconception of the age-crime relationship; it ascribes too much explanatory power to self-control; it overlooks the distinction between prevalence and incidents of criminal involvement and the possibility that the predictors of participation may not be the same as those for frequency of offending; and it is tautological. While these are all important criticisms of Gottfredson and Hirschi's theory, it is important to discuss one in particular, since it illustrates the difficulties with conceptualizing, operationalizing, and measuring self-control. Ronald Akers has accused Gottfredson and Hirschi's theory of being tautological. Akers states,

it would appear to be tautological to explain the propensity to commit crime by low self-control. They are one and of the same, and such assertions about them are true by definition. The assertion means that low self-control causes low-self control. Similarly, since no operational definition of self-control is given, we cannot know that a person has low self-control (stable propensity to commit crime) unless he or she commits crimes or analogous behaviors. The statement that low self-control is a cause of crime, then, is also a tautology. (p. 204)

Akers implies that Gottfredson and Hirschi's logic is flawed since they contend that crime and low self-control are indistinguishable. This is problematic to Akers because Gottfredson and Hirschi also advocate the use of behavioral indicators to measure low self-control. The results, therefore, would closely resemble an empirical tautology because the independent and dependent variables resemble each other too closely. Thus, Akers writes, "to avoid the tautology problem, independent indicators of self-control are needed" (p. 204).

Accusations of tautology do not bother Gottfredson and Hirschi, as for them it shows the strength of their theory. They argue that the character of the actor is reflected in the character of the act; therefore, crimes and behaviors analogous to crime are both

consequences and indicators of low self-control. Simply stated, their theory implies unrestrained people behave in unrestrained ways. Nevertheless, whether Gottfredson and Hirschi's logic is flawed or ingenious, this particular dilemma has led to many questions of how to accurately measure self-control in a way that avoids tautological criticism.

Future Research and Policy Implications

Studies testing self-control theory have revealed clues that will challenge theorists and researchers to think outside the strict parameters of Gottfredson and Hirschi's theoretical model if the development of self-control and its relationship to criminal and analogous behavior is to be understood. For instance, in support of Gottfredson and Hirschi, studies show that parenting practices and socialization techniques are related to children's self-control, such as disciplining practices, monitoring, and attachment—to name only a few. However, and perhaps unfortunately for Gottfredson and Hirschi's theory, research shows that parenting factors alone are not responsible for why children vary in their levels of self-control. Stated differently, parenting practices and socialization do not explain large amounts of variation in children's self-control. This could be due to inaccuracies in measuring parenting factors or to not considering the full range of parenting factors that may affect self-control development. On the other hand, factors that are largely dismissed by Gottfredson and Hirschi may be important for understanding self-control differences between children. These factors include genetic and biological differences, neighborhood influences, and socialization that occurs within the net of primary caregivers (e.g., teachers, friends).

Many past studies testing claims from Gottfredson and Hirschi's theory have used samples of children, adolescents, and adults residing in the United States. While justified, [p. 398 ↓] self-control theory is general and should explain participation in and frequency of criminal and analogous behaviors not only in the United States but also across various cultural contexts. Some studies show initial evidence of self-control theory's applicability to youths residing in different countries, but more research should be conducted in this area to explore the generality of self-control theory.

To date, many studies have been concerned with testing propositions from Gottfredson and Hirschi's theory with observational data that are both cross-sectional and longitudinal. Given that these studies have revealed an important relationship between low self-control and a wide array of negative outcomes, it will be important for future research to use experimentally controlled studies, with random assignment, to determine what interventions in childhood may help positively change levels of self-control to benefit children in the short and long run. Furthermore, it will be important to understand if self-control levels can be changed in adolescents and adulthood, and what factors may influence such change. Currently, Gottfredson and Hirschi do not leave much room for substantial change in self-control within individuals after it is developed in early childhood, but this may not be correct and is ultimately an empirical question.

While there is much work left undone in understanding how self-control develops and influences various individual outcomes, some implications for prevention are evident and somewhat straightforward. The earlier the interventions the better, especially targeting socialization processes that begin early in the life course. Gottfredson and Hirschi argue that early intervention is critical because, roughly between the ages of 8 and 12, levels of self-control form and remain relatively stable throughout the life course. A good example of such a program comes from Patterson's coercive family model, which has shown that family management practices help develop monitoring, disciplining, and problem-solving skills which, in turn, leads to reductions in later delinquency. They have shown moderate success of their program using experimental designs with random assignment. While such programs may show positive results in changing behaviors, programs have yet to be developed that target self-control specifically, and it is unknown if programs will be effective in changing levels of self-control once formed.

Chris L.Gibson

<http://dx.doi.org/10.4135/9781412959193.n109>

See also

- [Colvin, Mark: Coercion Theory](#)
- [Hirschi, Travis: Social Control Theory](#)

- [Nye, F. Ivan: Family Controls and Delinquency](#)
- [Patterson, Gerald R.: Social Learning, the Family, and Crime](#)
- [Sampson, Robert J., and John H. Laub: Age-Graded Theory of Informal Social Control](#)
- [Wells, Edward L., and Joseph H. Rankin: Direct Controls and Delinquency](#)

References and Further Readings

Akers, R. L. Self-control as a general theory of crime . *Journal of Quantitative Criminology* 7 201–211. (1991). <http://dx.doi.org/10.1007/BF01268629>

Arneklev, B. J., Grasmick, H. G., Tittle, C. R., and Bursik, R. J. Low self-control and imprudent behaviors . *Journal of Quantitative Criminology* 9 225–247. (1993). <http://dx.doi.org/10.1007/BF01064461>

Geis, G. On the absence of self-control for the basis of a general theory of crime: A critique . *Theoretical Criminology* 4 35–53. (2000). <http://dx.doi.org/10.1177/1362480600004001002>

Gibbs, J. J., and Giever, D. Self-control and its manifestations among university students: An empirical test of Gottfredson and Hirschi's general theory . *Justice Quarterly* 12 231–255. (1995). <http://dx.doi.org/10.1080/07418829500092661>

Gibson, C. L., Wright, J. P., and Tibbetts, S. G. Empirical assessment of the generality of the general theory of crime: The effects of low self-control on social development . *Journal of Crime and Justice* 23 109–134. (2000). <http://dx.doi.org/10.1080/0735648X.2000.9721125>

Goode, E. (2008). *Out of control: Assessing the general theory of crime* . Stanford, CA: Stanford University Press.

Gottfredson, M. R., & Hirschi, T. (1990). *A general theory of crime* . Stanford, CA: Stanford University Press.

Gottfredson, M. R., & Hirschi, T. (1994). Aggression . In *The generality of deviance* (pp. 23–45). New Brunswick, NJ: Transaction.

Grasmick, H. G., Tittle, C. R., Bursik, R. J., and Arneklev, B. J. Testing the core empirical implications of Gottfredson and Hirschi's general theory of crime . *Journal of Research in Crime and Delinquency* 30 5–29. (1993). <http://dx.doi.org/10.1177/0022427893030001002>

Hay, C. Parenting, self-control, and delinquency: A test of self-control theory . *Criminology* 29 707–736. (2001).

Hirschi, T. (2004). Self-control and crime . In R. F. Baumeister, ed. , & K. D. Vohs (Eds.), *Handbook of self-regulation* (pp. 537–553). New York: Guilford Press.

Hirschi, T., and Gottfredson, M. R. Commentary: Testing the general theory of crime . *Journal of Research in Crime and Delinquency* 30 47–54. (1993). <http://dx.doi.org/10.1177/0022427893030001004>

Hirschi, T., & Gottfredson, M. R. (1994). The generality of deviance . In *The generality of deviance* (pp. 1–22). New Brunswick, NJ: Transaction.

Longshore, D., and Turner, S. Reliability and validity of a self-control measure: Rejoinder . *Criminology* 36 175–182. (1998).

Marcus, B. Self-Control in the general theory of crime: Theoretical implications of a measurement problem . *Theoretical Criminology* 8 33–55. (2004). <http://dx.doi.org/10.1177/1362480604039740>

Nagin, D. S., and Paternoster, R. Enduring individual differences and rational choice theories of crime . *Law and Society Review* 27 467–496. (1993). <http://dx.doi.org/10.2307/3054102>

Pratt, T. C., and Cullen, F. T. The empirical status of Gottfredson and Hirschi's general theory of crime: A meta-analysis . *Criminology* 38 931–964. (2000). <http://dx.doi.org/10.1111/j.1745-9125.2000.tb00911.x>

Pratt, T. C., Turner, M. G., and Piquero, A. R. Parental socialization and community context: A longitudinal analysis of the structural sources of low self-control .

Journal of Research in Crime and Delinquency 41 219–243. (2004). <http://dx.doi.org/10.1177/0022427803260270>

Schreck, C. J. Criminal victimization and low self-control: An extension and test of a general theory of crime . Justice Quarterly 16 633–654. (1999). <http://dx.doi.org/10.1080/07418829900094291>

Wright, B. R., Caspi, A., Moffitt, T. E., and Silva, P. A. Low self-control, social bonds, and crime: Social causation, social selection, or both? Criminology 37 479–514. (1999). <http://dx.doi.org/10.1111/j.1745-9125.1999.tb00494.x>

Wright, J. P., and Beaver, K. M. 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 1169–1202. (2005). <http://dx.doi.org/10.1111/j.1745-9125.2005.00036.x>