Low self-control and fraud offending

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Abstract

Purpose – The paper builds on and extends the existing research on self-control theory and fraud. Specifically, the purpose of this paper is to examine whether low self-control increases the odds of engaging in two common forms of fraudulent behaviors: check and credit card frauds.

Design/methodology/approach – The paper addresses these issues using a national, longitudinal sample of young adults.

Findings – The results of the multivariate logistic regression models indicate that individuals with lower levels of self-control are more likely to engage in credit card and check frauds. These findings support Gottfredson and Hirschi’s theoretical argument that fraudulent behavior is similar to acts of force in that it too is explained by the same underlying trait – low self-control.

Research limitations/implications – The paper underscores the importance of low self-control in the etiology of fraudulent behaviors. Future researchers should examine the relationship between low self-control and other fraudulent behaviors, particularly those occurring in the workplace (e.g. embezzlement).

Practical implications – Suggestions for preventing credit card and check frauds through situational crime prevention are provided.

Originality/value – The paper improves upon prior research by using a more representative sample and self-reported fraudulent behavior.

Keywords Fraud, Crimes, Behaviour, United States of America

Paper type Research paper

Fraud is a serious problem in the USA. Recent estimates show that 3.2 million Americans were victimized by credit card fraud in 2006, where the median dollar loss experienced by these victims was $500 (Federal Trade Commission, 2007). The problem appears to be getting worse, so much so that the number of fraud victims and financial losses now exceed similar estimates for street crimes (Friedrichs, 2007). Accordingly, the extent...
and subsequent costs of fraud offending in the USA underscore the need for more theoretically informed research on the subject, yet extant research has instead focused largely on describing various fraud-related schemes and identifying demographic determinants of fraud offending. Although informative and necessary, this line of research provides little insight into the etiology of fraudulent behavior.

Gottfredson and Hirschi’s (1990) self-control theory represents one potential explanation of fraud offending. The theory posits that individuals with low levels of self-control are more likely to use force and fraud to pursue their self-interest. The great majority of studies testing self-control theory, however, have focused on forceful actions, such as domestic assault and violent delinquency, where only a small handful of studies have investigated the hypothesized effect of low self-control on fraudulent behavior. Studies that have addressed this question generally reveal empirical evidence of a link between low self-control and fraud offending, but this line of research is limited in certain important ways that can be improved upon. For example, existing studies have frequently concentrated on fraud-like behaviors that are not violations of criminal statutes (e.g. academic dishonesty), leaving open the question of whether low self-control predicts fraud-related crimes, such as check fraud. A second concern involves the reliance on cross-sectional samples of college students. While fraud offending is certainly observable among some student populations, it remains to be seen whether findings from such studies can be replicated when national, longitudinal samples are used. Finally, the use of scenario-based methodologies (or hypothetical vignettes), which reflect intentions to commit fraud as opposed to actual fraudulent behavior, is also common. Studies using self-reported fraud offending measures, on the other hand, are noticeably absent from this body of literature. Put simply, while the available research investigating the link between low self-control and fraud offending has made inroads, more research is necessary before more definitive claims can be made.

To that end, the current study advances the theoretical and empirical understanding of fraud offending by using data from a national, longitudinal sample of young adults to test the effect of low self-control on two self-reported fraud offending outcomes: credit card and check frauds. Specifically, our study is intended to examine the low self-control-fraud offending link in a way that avoids the potential problems associated with the methodological limitations outlined above. Such an undertaking not only contributes to the theoretical and empirical understanding of fraud offending, but also informs fraud prevention efforts.

Low self-control theory and fraudulent behavior
Gottfredson and Hirschi (1990) argue that variations in low self-control are primarily determined by parenting during early childhood. Specifically, ineffective and/or inconsistent parenting practices (e.g. failure to recognize and/or punish unruly behavior) result in children who are unable to delay gratification, avoid risky behavior, control their impulses, and consider the feelings of others. Once developed during childhood, Gottfredson and Hirschi argue that self-control remains stable over the life course. Individuals with deficient levels of self-control prefer easy and/or simple acts, they are impatient, and they have a preference for physical over mental/cognitive activities. Gottfredson and Hirschi argue that people lacking adequate levels of self-control are predisposed to engage in a wide variety of crime and crime-analogous behaviors.
Although not without its critics (Geis, 2000; Marenin and Reisig, 1995; Reed and Yeager, 1996), self-control theory has received a considerable amount of empirical scrutiny. A large number of studies have examined the influence of low self-control on offending and related outcomes, and the link between self-control and crime/deviance is well supported (Pratt and Cullen, 2000). To date, most criminologists have focused their investigations on traditional forms of offending, such as drunk-driving and assault. As a result, the relationship between low self-control and fraudulent behavior remains a largely neglected research topic.

Gottfredson and Hirschi (1990, p. 14) define crime as “acts of force or fraud undertaken in pursuit of self-interest” (emphasis added). In their discussion of low self-control and white-collar crime, they argue against the conceptual divide between fraud and force given that both types of offenses serve as a means of pursuing one’s self-interest. Consistent with this line of reasoning, fraudulent behaviors should be explained by the same underlying causal mechanism that explains forceful behaviors – low self-control. Regarding legal definitions of crime, Gottfredson and Hirschi (1990, p. 192) also point out that, much like instances of force, offenses such as embezzlement, fraud, and forgery are “defined without reference to the occupational setting in which they occur.” While there has been an ongoing theoretical debate as to whether self-control can in fact explain “high status” frauds committed during the course of one’s legitimate occupation (e.g. securities violations; see Benson and Moore, 1992; Reed and Yeager, 1996; Simpson and Piquero, 2002), common offenses such as check fraud and credit card fraud unmistakably fall squarely within the scope of self-control theory.

Despite the potential applicability of self-control and other prominent criminological theories to this domain of illegal behavior, fraud offending research has been largely restricted to describing various types of fraud (e.g. comparing the nature or prevalence of identity theft to other frauds; see Allison et al., 2004; Daly, 1989; Goldstraw et al., 2005) and to examining the demographic correlates of fraud offending (e.g. age, gender, education, and criminal history). For example, Allison et al.’s (2004) study of fraud incidents reported to police revealed that fraudsters tended to be white males ranging in age from 26 to 34. Similarly, Holtfreter (2005, 2008a, b) found that serious fraud offenders tended to be older, better educated, male, and individuals who achieved high-level organizational positions when compared to individuals who committed less serious fraud-related crimes (Weisburd et al., 1991).

Although theoretically informed studies of fraud and related offenses are still relatively rare, they are becoming more common (Langton and Piquero, 2007). Among this small grouping include studies on the effects of low self-control. For example, Blickle et al. (2006) found that incarcerated fraudsters had lower levels of self-control relative to non-offending managers. Another study found a positive association between low self-control and intentions to commit employee theft (Langton et al., 2006). While theoretical strides in the fraud offending literature have indeed been made, some key methodological improvements would serve to bolster previous findings.

For example, among criminologists the term “fraud” has been used to depict a wide array of behaviors. Fraud offending, however, refers to a specific and conceptually distinct subcategory of crime. While some self-control researchers have incorporated direct measures of fraud into their analyses (Beaver and Holtfreter, 2009; Benson and Moore, 1992), others have relied on proxy measures that might more accurately be
described as dishonest or deceitful acts that are not necessarily criminal in nature (e.g. academic dishonesty; see Smith, 2004). Within a self-control framework, behaviors under the umbrella of academic fraud may be considered crime-analogous acts, and certainly fall within the scope of self-control theory. Nevertheless, it is important that criminologists note the conceptual and operational differences between distinct fraud types, and that they also attempt to examine whether other fraud-related crimes (e.g. check fraud) are associated with low self-control.

Another potential limitation of existing studies of the influence low self-control on fraud offending is the frequent practice of sampling from college student populations (Bolin, 2004; Cochran et al., 1998; Holtfreter et al., 2010; Smith, 2004; Tibbetts and Myers, 1999; Vowell and Chen, 2004). The use of college student samples to investigate fraud provides little insight into the nature and frequency of this form of offending in the general adult population. What is more, college student samples drawn from universities with strict admissions standards and low acceptance rates may be relatively homogeneous (e.g. predominately white and middle-class), which can lead to range restriction on the variables of interest (Gibbs and Geiver, 1995; Payne and Chappell, 2008). Just as important is Hagan and McCarthy’s (1997) admonition that an overreliance on “school criminology” (i.e. student samples) in tests of criminological theory may underestimate the value of key theoretical constructs such as self-control, since individuals with low self-control may never attended college. At a minimum, then, it is important to confirm the findings generated from studies using cross-sectional college student samples by testing the effects of low self-control using more samples that have the potential for greater generalizability.

Finally, the use of vignette-based methodology, or hypothetical scenarios, in many previous studies of fraudulent behavior may also be a cause for concern in this particular research context (Holtfreter et al., 2010; Piquero and Piquero, 2006; Simpson and Piquero, 2002). Responses to hypothetical scenarios reflect intentions to behave as opposed to actual behavior, and such methodologies have been criticized as artificial representations of real-world situations (Reynolds, 2006; Ulrich and Ratcliffe, 2007, Weber, 1992). On the one hand, several studies have confirmed the existence of moderate to strong associations between behavioral intentions and subsequent offending behaviors (Fishbein and Ajzen, 1975; Green, 1989; Kim and Hunter, 1993; Pogarsky, 2004). Nonetheless, there is evidence that the methodological framework employed to test criminological hypotheses influences the magnitude of observed relationships between key theoretical variables – particularly when it comes to offender decision making. For example, Pratt et al.’s (2006) meta-analysis of the perceptual deterrence/rational choice criminological literature revealed that scenario-based studies produced stronger effect sizes than research relying on other methods (e.g. official records). In sum, research using alternative methodologies, such as self-reported fraudulent behavior, is needed to confirm that the effects demonstrated in fraud studies relying on indicators of intentions to behave are not upwardly biased.

**Current focus**
The objective of the current study is to determine whether low self-control explains a growing crime problem in the USA – fraud offending. In doing so, we extend prior research by overcoming a series of methodological limitations, including the reliance on proxy fraud measures (e.g. academic dishonesty), scenario-based methods
(i.e. behavioral intentions), and/or cross-sectional college student samples. In the analyses that follow, the influence of low self-control is observed on two self-reported fraud offending outcomes – credit card fraud and check fraud – using a national, longitudinal sample of young adults.

Methods

Data

The current study uses data from the National Longitudinal Study of Adolescent Health (Add Health). The Add Health is a prospective and nationally representative sample of American adolescents enrolled in middle or high school during the 1994-1995 academic school year (Udry, 2003). The data set consists of three waves. During wave 1, surveys were administered to more than 90,000 students attending 132 schools. A subsample of 20,745 adolescents was then selected to participate in the wave 1 in-home component of the Add Health study, which involved interviewing respondents and their primary caregivers (usually their mother) about various aspects of the youth’s life (e.g. family environment, peer relationships, risky behaviors, and other issues) (Harris et al., 2003).

Approximately, one to two years after wave 1, the second wave of data was collected. The survey instruments remained relatively unchanged between waves 1 and 2. To illustrate, respondents were asked about their delinquent behaviors, social relationships, and school experiences at both waves. A total of 14,738 adolescents participated in wave 2. Wave 3 interviews were completed between 2001 and 2002, when most of the adolescents were young adults. Given that they were no longer adolescents, the wave 3 survey instruments included questions relevant to young adults, such as marital status, employment, and contact with the criminal justice system. Overall, 15,197 respondents were interviewed at wave 3 (Harris et al., 2003). After removing cases that had missing data, the sample used in the current study consisted of 10,598 respondents.

Dependent variables

Two dependent variables that reflect fraud-oriented violations of criminal statutes were used in this study. The first outcome measure, credit card fraud, is a single survey item that was administered during wave 3. Specifically, respondents were asked to report the number of times in the past year that they had “used someone else’s credit card or bank card without the owner’s permission or knowledge.” The second dependent variable, check fraud, is also operationalized using a single item from the wave 3 survey. Respondents were asked how many times in the past year they had “deliberately written a bad check.” Both of the survey items featured a four-point response scale, ranging from 0 (never) to 3 (five or more times). Summary statistics revealed that very few respondents had engaged in credit card fraud (approximately 1 percent) and check fraud (approximately 4 percent). Because of the extreme positive skew that characterized both variable score distributions, responses for both items were dichotomized (1 = yes, 0 = no). This coding strategy is consistent with prior research (Beaver and Holtfreter, 2009).

Independent variables

The key independent variable, low self-control, is a nine-item summated scale. During wave 3 interviews, respondents were asked questions that tapped into individual
variation in self-control, including whether they “do things based on how they feel at the moment,” “try new things for fun or thrills,” “follow their instincts without thinking through all of the details,” and “get so excited that they lose control.” The low self-control scale exhibited a high level of internal consistency (Cronbach’s $\alpha = 0.87$). The scale is coded so that higher values reflect lower levels of self-control. Similar scales have been used previously by researchers analyzing the Add Health data (Perrone et al., 2004).

A number of additional variables were included in the multivariate regression models to control for potential spuriousness. To take into account the possibility that drug users are more likely to commit fraud, a six-item drug use index was included, termed multiple substance use. At wave 3, participants were asked whether they had used alcohol, marijuana, cocaine, crystal methamphetamine, injectable drugs, or any other drug (e.g. ecstasy and lysergic acid diethylamide). Each item was dummy coded ($1 = \text{yes}$, $0 = \text{no}$). Consistent with prior research, responses were used to create an additive scale (Choi and Lahey, 2006). Prior research also suggests that depressive symptoms are linked to involvement in various forms of crime and delinquency (Siennick, 2007). Depression is a summed scale constructed using nine survey items (wave 3) originally featured in the Center for Epidemiologic Studies Depression Scale (Radloff, 1977). For example, respondents were asked whether they “were bothered by things that do not usually bother them,” “could not shake the blues,” “felt depressed,” and were “too tired to do things.” The reference period for the items was the past seven days. Overall, the scale possessed a high level of internal consistency (Cronbach’s $\alpha = 0.80$). Higher scale values indicate more symptoms of depression.

To account for the possibility that fraud offending is a manifestation of a latent antisocial propensity, prior delinquency is included in the multivariate models. During wave 2, respondents were asked how many times in the past 12 months they had committed 11 different acts of delinquency, such as “stealing something worth more than $50,” “taking part in a group fight,” “shooting or stabbing someone,” “using or threatening to use a weapon,” and “breaking into a house/building” (Guo et al., 2007, p. 131). The closed-ended responses ranged from 0 (participant did not commit the act) to 3 (participant committed the act several times). Responses to the 11 items were summed to create a scale where higher values reflect higher levels of delinquency (Cronbach’s $\alpha = 0.78$).

Five personal characteristics were also included as statistical control variables. Married is a dummy variable ($1 = \text{yes}$, $0 = \text{otherwise}$; wave 3 survey). A second dummy variable, employed, reflects whether participants work 40 or more hours each week ($1 = \text{yes}$, $0 = \text{otherwise}$; wave 3 survey). To control for potential gender difference, male is included in the multivariate models ($1 = \text{male}$, $0 = \text{female}$). Age is a continuous variable, reflecting the respondent’s age (in years) at wave 3. To control for the possibility of racial differences in fraud offending, minority is included as a control variable ($1 = \text{racial/ethnic minority}$, $0 = \text{white}$). Summary statistics for the dependent and independent variables are provided in Table I.

Results
Because check fraud and credit card fraud are binary response variables, the effects of low self-control and the statistical control variables are assessed by estimating logistic regression equations. Given the large sample size, more conservative $p$-values are used to determine whether the $H_0$ can be rejected (0.01 significance level). As shown in
Table II, the model $\chi^2$ statistics reveal that both of the models possess superior predictive ability relative to a constant-only model. In short, the two models fit the data well.

The logistic model featured at the left-hand side of Table II shows that low self-control has a statistically significant and positive effect on credit card fraud. The odds ratio indicates that each unit increase in the low self-control scale corresponds to a 5 percent increase in the odds of committing credit card fraud. This finding conforms to hypothesis derived from Gottfredson and Hirschi’s theoretical argument. It is important to note that a number of the control variables were also statistical significant covariates of credit card fraud. Specifically, individuals who reported having used multiple mind-altering substances, participants who reported depressive symptoms, younger respondents, racial/ethnic minorities, and males were more likely to engage in credit card fraud during the year prior to the wave 3 interview.

<table>
<thead>
<tr>
<th>Table I. Summary statistics</th>
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<tbody>
<tr>
<td><strong>Dependent variables</strong></td>
</tr>
<tr>
<td>Credit card fraud (%)</td>
</tr>
<tr>
<td>Check fraud (%)</td>
</tr>
<tr>
<td><strong>Independent variables</strong></td>
</tr>
<tr>
<td>Low self-control</td>
</tr>
<tr>
<td>Multiple substance use</td>
</tr>
<tr>
<td>Depression</td>
</tr>
<tr>
<td>Prior delinquency</td>
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<tr>
<td>Married (%)</td>
</tr>
<tr>
<td>Employed (%)</td>
</tr>
<tr>
<td>Age</td>
</tr>
<tr>
<td>Minority (%)</td>
</tr>
<tr>
<td>Male (%)</td>
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</tbody>
</table>

**Note:** $n = 10,598$

Table II. Binary logistic regression models

<table>
<thead>
<tr>
<th>Variables</th>
<th>Credit card fraud</th>
<th>Check fraud</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$b$ (s.e.)</td>
<td>Wald</td>
</tr>
<tr>
<td>Low self-control</td>
<td>0.05 (0.01)</td>
<td>18.62*</td>
</tr>
<tr>
<td>Multiple substance use</td>
<td>0.37 (0.07)</td>
<td>31.35*</td>
</tr>
<tr>
<td>Depression</td>
<td>0.08 (0.02)</td>
<td>17.25*</td>
</tr>
<tr>
<td>Prior delinquency</td>
<td>0.04 (0.02)</td>
<td>3.26</td>
</tr>
<tr>
<td>Married</td>
<td>−0.29 (0.34)</td>
<td>0.73</td>
</tr>
<tr>
<td>Employed</td>
<td>−0.08 (0.19)</td>
<td>0.18</td>
</tr>
<tr>
<td>Age</td>
<td>−0.14 (0.05)</td>
<td>7.18*</td>
</tr>
<tr>
<td>Minority</td>
<td>0.56 (0.18)</td>
<td>9.51*</td>
</tr>
<tr>
<td>Male</td>
<td>0.54 (0.19)</td>
<td>7.94*</td>
</tr>
<tr>
<td>Constant</td>
<td>−3.98 (1.19)</td>
<td>11.24*</td>
</tr>
<tr>
<td>Model $\chi^2$</td>
<td>143.62*</td>
<td>158.60*</td>
</tr>
</tbody>
</table>

**Notes:** *$p < 0.01$ (two-tailed test); $n = 10,598$; entries are unstandardized partial regression coefficients ($b$) and standard errors in parentheses.
None of these variables, however, mediate the effect of low self-control, leading to the conclusion that the effect of low self-control on credit card fraud is relatively robust.

The model featured on the right-hand side of Table II shows that low self-control is also a significant predictor of check fraud. As hypothesized, the relationship is positive and statistically significant. The exponentiated coefficient indicates that the odds of check fraud increase by 4 percent for each unit increase in the low self-control scale. Similar to the credit card fraud results, the test statistics indicate that individuals who use multiple substances and those who are depressed are also more likely to commit check fraud. After taking these factors into account, however, the effect of low self-control on check fraud persists.

It is important to note that the findings observed in Table II also shed light on the inherent limitations of research that investigates exclusively the impact of demographic factors on fraudulent behavior. One obvious limitation of the purely demographic approach is that it tells us little (if anything) about why certain individuals are more likely to engage in fraudulent behavior than others. Instead, the researcher is forced to impute a causal explanation based on the effect of one or more statistically significant demographic covariates – a process that is bound to be tainted by a considerable amount of error born out of guesswork. Indeed, not only does doing so at best represent a weak empirical test of empirical propositions (and at worst retrospective theorizing), but such scholarly undertakings must be viewed with a healthy dose of skepticism when demographic factors are found to behave differently across models with similar outcomes, which is the case in Table II. To be sure, our models showed that the demographic covariates of age, minority, and male predicted credit card fraud, but that these same factors failed to achieve statistical significance in the check fraud model. These findings might lead a scholar conducting a purely demographic analysis to the erroneous conclusion that credit card fraud and check fraud have unique causal structures, when in actuality the two share a common etiological source – that of low self-control. Accordingly, the differential effect of demographic factors between the two logistic regression equations underscores the need for theoretically informed research on fraud-related outcomes.

**Discussion**

A good amount of the systematic research on fraud offending in the USA has been limited to descriptive accounts of fraud schemes and assessments of demographic correlates of fraudulent behavior. Theoretically informed tests are, by comparison, still relatively rare. Given the breadth of the fraud problem and the need for effective fraud prevention strategies, the lack of theory-driven research is an unfortunate, yet entirely correctable, part of the problem. As such, the current study sought to determine whether self-control theory could help fill this void in the literature. While an appropriate candidate for the task, critics of self-control theory have argued that its goal of explaining both forceful and fraudulent behaviors, as well as a host of crime-analogous acts, simply seems too ambitious. Indeed, criticism from white-collar crime researchers, who argue that self-control theory is a more suitable explanation of forceful behavior, is in no short supply (Benson and Moore, 1992; Reed and Yeager, 1996; Steffensmeier, 1989). Although previous studies shed some light on this debate by finding support for low self-control as an explanation for fraudulent behaviors, these studies suffer from various limitations. The current study addressed these theoretical
and empirical concerns by assessing the effect of low self-control on two common forms of fraud using a national, longitudinal sample of young adults. As a result of the analyses presented here, three conclusions warrant additional consideration.

First, the results clearly show that low self-control is an important predictor of both check and credit card frauds, net of statistical controls. These findings support Gottfredson and Hirschi’s (1990) theoretical argument that fraudulent behavior is similar to acts of force in that it too is explained by the same underlying trait – low self-control. What is more, the results reported above are consistent with prior research findings derived using alternative research designs, suggesting that earlier findings are not simply methodological artifacts. Put simply, our results lend additional credence to the notion that understanding these forms of fraudulent behavior requires an understanding of the consequences of low self-control.

Second, the results from the current study also illuminate some important research questions for future scholars. For example, a next logical step would be to determine whether variation in self-control explains an even broader set of fraudulent behaviors (e.g. embezzlement and forgery) as well as fraud that takes place in the context one’s occupational surroundings. It is important to note that Gottfredson and Hirschi (1990, p. 191) do not suggest, as some critics have argued, that their theory accounts for all forms of organizational offending. Rather, they contend that we would expect a relatively low rate of offending among white-collar segments of the population. Along these lines, they also argue that many of the traits conducive to business success (e.g. risk-taking, activity levels, and aggressiveness) should predict crime. This suggests that an impulsive individual may also be more likely to embezzle from his or her employer. A task for future research is to examine the extent to which low self-control explains variation in rates of fraudulent behaviors across social settings.

Another important research inquiry would be to develop a body of knowledge concerning how best to prevent fraudulent behaviors – whether they involve using a credit card without permission, knowingly passing bad checks drawn from one’s own bank account, or more diverse forms of fraud that occur within organizations. The stable nature of self-control over the life course suggests that interventions designed to alter offender behavior may have limited effectiveness at preventing crime. Accordingly, fraud prevention may be better informed by strategies derived from theories of situational crime prevention (e.g. target hardening within business) and from routine activity theory (Cohen and Felson, 1979; Holtfreter et al., 2008), where efforts to reduce fraud offending would be based on making completing a fraudulent act more difficult or inconvenient for offenders (Clarke, 1997, 1999). For example, even simple strategies such as photo identification and signature checks, PIN number requirements, and online password protections may prevent a considerable amount of fraudulent targeting and behavior (Newman and Clarke, 2003; see also the discussion by Pratt et al., 2010). These strategies may “work” not because they tap into the full spectrum of a potential offender’s weighing of the long-term relative costs and benefits of the crime, but rather because those who are predisposed to offend (i.e. those with low self-control) are generally lazy and, therefore, unlikely to want to put forth the short-term effort necessary to commit a fraud offense if it looks like it will take too much effort to do so (see, e.g. the discussion by Pratt, 2009).

Finally, our results indicate that there is little utility in thinking about fraud offenders as if they are somehow fundamentally different from other offender groups.
We admit that it is certainly attractive to think of offenders as exclusively fraudsters – much in the way that it is often convenient to think of offenders as exclusively killers or drug fiends or pyromaniacs – who require a unique and separate etiological framework. After all, making such distinctions is the linchpin of much of what we do with fraud offenders – and all offenders, for that matter – once they are caught and processed by the criminal justice system. Nevertheless, there is little evidence that offenders specialize in this way (Blumstein et al., 1986; Wright et al., 2008), and even spurts of short-term offending specialization have been shown to be predicted by levels of self-control (McGloin et al., 2007; Sullivan et al., 2006). Thus, it appears that the future study of fraud behavior would benefit most by the recognition that understanding the specifics of fraud may require a more general understanding of criminological theory and research than has been typically applied thus far by social scientists to this form of illegal behavior.

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Further reading


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