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American College Students' Shoplifting Experience: A Comparison of Retrospective Self-Reports to Micro-Level Criminological Theory

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Abstract

This is an exploratory investigation into the relevancy of five micro-criminological theories to American college students' self-reported shoplifting (willful concealment) experience. A 146-item Likert-style questionnaire was voluntarily completed by non-randomly selected male and female undergraduates (N=259) at four American universities. From this sample, 166 reported having shoplifted. The survey items were inspired by Akers and Sellers' social learning theory, Sykes and Matza's techniques of neutralization, Gottfredson and Hirschi's self-control theory, Cornish and Clarke's rational choice theory, and Cohen and Felson's routine activity theory. Through factor analysis, 12 factors were developed, two or three for each theory. The results support these theories, but only certain elements of them seemed relevant to our data. We also found that self-control theory and rational choice theory were more relevant to low frequency shoplifters (one or two times), and social learning theory and routine activities theory were more associated with higher frequency shoplifters (three and more-than-three times).

Keywords: Shoplifting, Criminological Theory, College Students, Self-Reports, Delinquent Behavior.

Introduction

Shoplifting, often referred to in small-town newspaper police logs by its statutory title of “willful concealment,” is one of the most frequently committed, agonized over and costly crimes in societies around the world. Sociologists, psychologists, merchandizers, entrepreneurs and loss-prevention experts have long studied this international phenomenon. Social scientists look for environmental and psychological factors that might explain motivations for shoplifting, and retailers generally search for ways to thwart shoplifting to reduce lost profit. The actual number of shoplifters, the number of incidents and the amount of financial loss due to shoplifting is difficult, if not impossible, to determine as many incidents go undetected or unreported to the police. The National

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Crime Victimization Survey (NCVS, 2012) claims that roughly two-thirds of all thefts go unreported, and some experts (e.g., Dabney, Hollinger & Dugan, 2004; Hollinger & Davis, 2002) think shoplifting is one of the most underreported crimes. Shoplifting and the demographic profile of the shoplifter are also inherently difficult to explain. According to the New Hampshire Revised Statutes Annotated (USA), “A person is guilty of willful concealment if, without authority, he or she willfully conceals the goods or merchandise of any store while still upon the premises of such store” (NHRSA, 2016, p. 637, 3-a). Also defined as “the act of stealing merchandise offered for sale in a retail store” (Perlman & Ozinci, 2014, p. 685), the misdemeanor of shoplifting has been vigorously studied because of its economic, retail trade, loss prevention, and theoretical interest. The authors of this paper focus on the theoretical perspective.

There are many examples of the extent and financial cost of shoplifting around the world. In Pakistan, despite an increase in modern security and surveillance, the pilferage of smart phones and mini laptops has dramatically increased (Rana, 2015). India, an emerging global power, ranks as one of the world's leading nations in shoplifting with a \$1.6 billion annual loss (Sharma, 2010). In Russia's plunging economy, reported shoplifting accounted for a \$12 million loss, but unofficial estimates put the loss at closer to \$26 million (Telegraph.co.uk, 2015). When India, Russia and the United States are compared in terms of the economic relativity of financial loss (meaning the percentage of loss compared to their GNPs) India was first, Russia second and the United States third (Magnier, 2011). Bamfield (2004) studied 476 major European retailers and reported that over 1.2 million shoplifters were apprehended in 16 countries, including France, Germany, Greece, Austria, Spain, Norway, United Kingdom and Italy. In Australia, shoplifting is the biggest cause of retail shrinkage and, along with other forms of retail theft, contributes to a \$2.7 billion loss (Thompson, 2015). Even in Finland there were over 45,000 reported cases (Kajalo & Lindblom, 2011). Needless to say, wherever it occurs around the world, the magnitude of shoplifting negatively impacts police work and the courts, adds to the costs of goods, and results in the loss of sales taxes for towns and cities.

In the United States, the financial loss to retailers due to shoplifting is around \$10-13 billion each year (Bamfield, 2010; Blanco, Grant, Petry, Simpson, Alegria, Liu & Hasin, 2008; Chen, Shyu & Kuo, 2010; Dabney, et al., 2004; Forney & Cruisinger, 2011). Shoplifting and worker theft together cost American retailers about \$32 billion each year (Wahba, 2016). According to Bressler (2011), shoplifting in the United States has recently increased 11.2%. The National Association for Shoplifting Prevention (NASP, 2016) estimates that there are 27 million shoplifters in American today. The Federal Bureau of Investigation (FBI, 2014) Unified Crime Reports specified 1,259,577 reported incidents. Shoplifting accounts for 21.5% of all reported larceny-thefts. This is the largest proportion of property crimes in the United States (Perlman & Ozinci, 2014).

In this paper the authors use qualitative and quantitative data gathered from surveys of college students to describe differences between shoplifters and non-shoplifters. They also investigate the efficacy of explanations from micro-level criminological theories to explain the frequency of student's involvement in shoplifting.

Literature Review

The International Scene

Shoplifting occurs anywhere when people want to take something from a store without paying. It is obviously a huge international problem. In China, it is considered very unethical (Liu, Yang, Zeng & Waller, 2015; Zhao & Xu, 2013). Perpetrators are publicly shamed and forced to carry signs identifying themselves as thieves. Thompson (2015) reported that in Australia, where shoplifting was the biggest cause of retail loss for the 2014–2015 year, merchants constantly look for ways to reduce inventory shrinkage. Fraser (2013) wrote of the widespread shoplifting in France. Hirtenlehner, Blackwell, Leitgoeb and Bacher (2014) found a gender gap in juvenile shoplifting that was a major problem in Austria. Chen, Shyu and Kuo (2010) have explored many facets of this crime in Taiwan. Kajalo and Lindblom (2011) studied the effectiveness of formal and informal surveillance in reducing shoplifting in Finnish grocery stores. Perlman and Ozinci (2014) investigated anti-shoplifting security measures in Israel. Sarasola, Bergman and Toth (1998) conducted an illuminating study of repetitive shoplifting in Sweden. Bamfield (2004, 2010) analyzed the effects of shoplifting among a cross-section of retailers in 16 European countries. Adib and El-Bassiouny (2012) investigated the effect of materialism on juvenile shoplifters in Egypt. Chan (2006) highlighted the influence of materialism on the shoplifters in China. Teevan and Dryburgh (2000) studied first person accounts of shoplifting in Canada. Multiple researchers in the United States (e.g., Babin & Babin, 1996; Bartlett, Holditch-Davis & Belyea, 2007; Blanco, Grant, Petry, Simpson, Algeria, Liu & Hasin, 2008; Cox, Cox & Anderson, 1993; Forney, 2001; Osgood, McMorris & Potenza, 2002; Wahba, 2016) have all contributed to the understanding of shoplifting.

Who Shoplifts?

It has been said that one in 11 people in the United States have shoplifted (Blanco et al., 2008). While there is no profile of a typical shoplifter, the National Association for Shoplifting Prevention (NASP, 2016) reports that approximately 25% are kids and 75% are adults. Forney and Crutsinger (2001) claim that 38% are adolescents and 62% are adults. Dabney et al. (2004) found that middle-aged shoppers (35–54) were the most common shoplifters. Blanco et al. (2008) also report that out of a US national survey of 4,422 adult shoplifters, 60% were men and 40% were women. While the gender gap in shoplifting is relatively small, Hirtenlehner et al. (2014) and Dabney et al. (2004) also observed that men were more likely to steal. Sarasola et al. (1998) found that in Sweden the gender split was 50/50% and the mean age was 33. Dabney et al. (2004) observed that lower and working class people stole more often than middle and upper class folks. Blanco et al. (2008) also reported that shoplifters can be from any economic group. They also claim that 60% of shoplifters had some college, 56% were married or cohabiting, 82% were urban, 78% were white and 9% were black, and regional distribution across the United States ranged from 19% in the Northeast to 31% in the West. It has also been reported (NASP, 2016) that 73% of shoplifters, adults or juveniles, do not plan to steal before entering the store.

Two Theoretical Categories

The shoplifting research is primarily grouped in two categories. The first set of literature includes situational-prevention strategies relating to the economics of shoplifting, improved security and target hardening. This research has its theoretical roots in the earlier work of Jeffrey (1971) who coined the phrase “Crime Prevention through Environmental

Design” and Newman’s (1973) “Defensible Space Theory.” Perlman and Ozinci (2014) offer a mathematical model of retailer/security-service supplier interaction that suggests how much the retailer should spend to reduce inventory loss. Bressler (2011) presents prescriptive measures such as mirrors, locks, and security guards. Kugel (2003) surveyed New York City bodega (Mom and Pop store) owners and designed a security plan for them that included surveillance, the use of alarms and video monitoring. Chen et al. (2010) helped bookstore owners in Taiwan establish a Six Sigma management model that focused on different ways to light and display retail items, and improved methods for training employees. Mishra and Prasad (2006) studied the use of internal control systems and random inspections as ways to reduce employee shoplifting. Kajalo and Lindblom (2011) used an internet survey of Finnish grocery store retailers to discover that their preferred measures of security included CCTV (closed-circuit TV), a clean and well-lit store, visible guard patrols and motion detection devices.

The second category of literature is focused on social/psychological prevention and deterrence. Examples of this begin with Cameron’s (1964) seminal work focusing on apprehended shoplifters in Chicago’s Marshall Field’s department store. More recent inquiry includes Fraser (2013) whose personal observations of a general acceptance of rule-breaking, including shoplifting, led him to blame culture and the lack of police interest in pursuing apprehensions, prosecutions and convictions. Adib and El-Bassiouny (2012) suggested that the role of parents be expanded to include more socialization of materialistic values, and that the media be more careful in its TV programming for children. Bartlett et al. (2007) promoted more intervention by medical practitioners into children’s lives. Babin and Babin (1996) wanted to encourage faster moral development in young children. Castellanos-Ryan and Conrod (2011) studied the conduct disorder (CD) traits of impulsivity and hopelessness in adolescence. Teevan and Dryburgh (2000) used first person accounts by male high school students to ascertain the appropriateness of various well-known delinquency paradigms such as strain and control theory. Cox et al. (1993) were interested in the juveniles’ attachment to their parents and other social influences (friends) on behavior. Forney and Crutsinger (2001) studied the influence of socialization, age and gender on shoplifting. Hayes et al. (2012) focused on Clarke and Cornish’s (2003) rational choice theory that shoplifters utilize a cost-benefit (Betham’s felicity-calculus) analysis prior to the crime.

Theoretical Framework

Within this second literature group mentioned above are the classic micro-level sociological theories of crime and delinquency. These theories commonly analyze the relationship between someone’s involvement with crime and the influence of friends, emotional commitment to conformity and the perception of threat of punishment. There are five of these theories that form the framework of the present study. The first are the two most grounded in learning theory that was first formally advanced by Sutherland (1934). Akers and Sellers’ (2012) social learning theory claims that delinquent values, techniques and definitions are learned through the application of reinforcement and punishment in closely-knit peer groups just as non-delinquent behavior is learned. People learn the techniques of committing the crime and the definitions (e.g., the ethics, the attitude, the justification) favorable to crime. Related to this is Sykes and Matza’s (1957) techniques of neutralization theory that asserts that delinquents would not commit their

crime unless they can find a way to neutralize the guilt or shame (control mechanisms) they would feel should they commit the crime. These techniques (i.e., denial of injury, denial of victim, condemning the condemner) are learned as they are in Akers and Sellers' (2012) theory, but Sykes and Matza believe that people are naturally conformists and only "drift" into delinquency when temporary temptations call for the elimination of guilt prior to committing the crime.

Gottfredson and Hirschi's (1990) self-control theory that explains that crime and delinquency would not occur if people were controlled either internally (conscience or self-control) or externally (fear of punishment or positive reinforcement for social involvement). They argue that adolescents who commit crimes have not been adequately controlled and give in to risk taking and the excitement of the delinquent behavior. The controls arise from the bonds people have with society and at the time of the crime low self-control leads to impulsiveness.

The final two micro-level theories are rational choice theory and routine activity theory. Both of these focus on the offender's motivation and cost-benefit analysis and the attractiveness of the intended target for the shoplifter. In establishing rational choice theory, Cornish and Clarke (1986) drew heavily on Beccaria's classical theory and economics in their pronouncement that criminals choose to commit their crime after a hedonistic analysis of anticipated costs and benefits. This rational choice is influenced by the criminal's view of themselves, their upbringing, their past experience and their social and demographic profile (e.g., sex, class). The last theory, routine activity theory (Cohen & Felson, 1979), begins with a motivated offender and couples that factor with the offender's perceived opportunity to commit a crime. There has to be an attractive and desirable target and an absence of a capable guardian (e.g., security guard, closed-circuit TV, electronic alarms).

The purpose of this current study is to examine the relevance of these classic criminological theories to self-reported profiles of college students who have shoplifted. This is about petty shoplifting, not organized retail theft (ORT) which is also a growing problem in the United States and elsewhere. That type of larceny involves professional theft rings that repackage the merchandize they steal and sell it back through fences to illegitimate wholesalers, flea markets and street vendors. The petty shoplifting discussed herein is committed mostly for personal use. The authors of the present study focus on motivational and state-of-mind factors before and during the shoplifting, or willful concealment. It covers the shoplifter's perception of his/her life during this period in his/her life. It explores whether the shoplifter had shoplifted before and if they might shoplift again. It focuses on parental expectations and the shoplifter's identification of their own personality. It covers the morality and criminality of shoplifting. It inquires into the utilitarian decision-making process where the perceived threat of sanctions if caught might not outweigh the gains. In short, this research takes many explanatory factors already studied by the classic sociologists and attempts to determine their current applicability. There is no single paradigm in theoretical criminology because criminologists do not agree on why crime occurs. Therefore, the current investigation based on self-reports should offer a reminder of the richness and multi-faceted nature of this perplexing field.

Methodology

Sampling Method

Sociology professors at four different American universities (three in New England and one in the mid-west) submitted this shoplifting project to their respective IRBs (institutional review boards). Once the lead researcher made IRB-suggested procedural adjustments and the project passed review, the professors gave male and female undergraduate students an opportunity to complete a Likert-type survey. Students were given a 9x12 inch manila envelope containing an informed consent form to be signed and two different, but almost identical looking, surveys. In very small font below the instructions, one survey was marked “for shoplifters” and one was marked “for non-shoplifters.” Students could choose one of the two surveys without public identification of which survey they chose to complete. They were also told that they had the right to not complete either survey. The students were given as much time as they needed and were asked to insert the signed informed consent form and both the surveys back into the envelope and return it back to the professor at the end of class.

The use of self-reports is certainly not new in shoplifting research. Attitudes are an important component of any model to explain crime. These self-report studies provide data on the “dark figure” of shoplifting behavior because it can relate to officially unknown actors. Klemke (1982) anonymously questioned college students to determine the effect of weak social bonds on their shoplifting. Babin and Babin (1996) interviewed college undergraduates and others about their shoplifting in Mississippi. Liu et al. (2015) used semi-structured interviews of shoplifters in China in their focus on unethical consumer behavior. Castellanos-Ryan and Conrod (2010) recruited secondary school participants in London to determine the effect of alcohol and substance use on reckless behavior, including shoplifting. Adib and El-Bassiouny (2012) used a Likert questionnaire and formal interviews with shoplifters in Egypt. Hirtenlehner et al. (2014) conducted an online survey of 13 and 14 year olds in Austria to investigate the influence of parental control on gender participation in shoplifting. In short, methodological research has often established the reliability and validity of self-report measures.

Other data collection methods available to criminologists are often fraught with limitations. Using arrest data, adjudication data and store loss reports of shoplifting (willful concealment) distorts the subjective aspects of crime commission. Adams and Cutshell (1984) have discussed screening biases at the prosecution stage in the criminal justice system. Farrington and Burrows (1993) raise issues with the scope and accuracy of arrest data from police departments. Davis, Lundman and Martinez (1991) questioned the consistency and apprehension methods used by store personnel in their data collection. Observational research (e.g., Dabney, Hollinger & Dugan, 2004) have observer bias and generalizability issues due to being single, store-specific observations.

Survey Instrument

The development of the Likert survey was preceded by the extensive review of research covered in the *Literature Review* section of this paper. Additionally, discussions with a district court judge who had adjudicated and sentenced hundreds of shoplifters, many of whom were college students, and the managers of the local Walmart and two New England chain grocery stores gleaned further insights into shoplifting that prompted new statements. The result was a questionnaire with 146 Likert, seven-point, agree-

disagree statements on theoretically relevant behaviors and attitudes towards shoplifting, the shoplifters' personality assessment and other related situational and motivational items.

Initial analysis encompassed descriptive measures and factor analysis. The latter statistical tool takes a rather large set of variables and presents them in terms of a smaller group of hypothetical items. The use of this process allowed the researchers to do two things. First, it served as an exploratory way to comb the shoplifting and theoretically-driven data for relationships thought to account for covariation between variables. Thus, the researchers could see what some of the underlying factors were that could be compared to previous theoretical research findings. This, in turn, allowed the researchers to partially and initially confirm the weight (loadings) these variables carried in the shoplifting process. The Likert surveys were completed by 259 undergraduates. There were 166 students who self-reported that they had shoplifted; the remaining 93 returned the "for non-shoplifters" survey.

Non-Shoplifter Demographics

Demographic characteristics of three groups (non-shoplifters, shoplifters who had been caught, and shoplifters who had not been caught) are shown in Table 1. Significant differences between the three groups of students were examined using chi-square and ANOVA analyses. In our sample, non-shoplifters were more likely to be women (78.5%) and married (18.3%) than shoplifters who were caught (53.3% and 13.3%) and those never caught (57.9% and 5.0%). Non-shoplifters were also less likely to have ever been arrested (6.5%) than shoplifters who had been caught (33.3%) than those never caught (18.2%).

There were little differences in the other basic characteristics of the non-shoplifting and the shoplifting students. For example, while 42% of the non-shoplifters were Catholic, 44% of the shoplifters were Catholic. Fifty-one percent of the non-shoplifters were in the \$30,001 to \$70,000 family income range while 57% of the shoplifters were in this group. The years of schooling, the number of siblings, the number of household members and church attendance were all similar for the non-shoplifter and shoplifter groups. Bigger differences are found in other demographics.

This information, along with data collected from open-ended questions shown in Table 2 (reasons non-shoplifters gave as to why they had never shoplifted) provide a few initial insights that provide some relevancy to the five theories being investigated. Almost 97% of the non-shoplifters claimed that their parents taught them not to shoplift and that it is illegal or wrong. In contrast, 89.6% of shoplifters disagreed with the survey statement: "When I was a child I was taught that shoplifting was wrong." Twenty-three percent of the non-shoplifters said they would feel guilty if they had shoplifted, compared to about 71% of shoplifters who agreed with the statement "I feel guilty about my shoplifting." The non-shoplifters' reasons offer support for Gottfredson and Hirschi's (1990) self-control theory and Hirschi's (1969) social bond theory. Fifty-nine percent claimed they haven't shoplifted because they were afraid of being caught. This is in keeping with Cornish and Clarke's (1986) rational choice theory. However, only 30% of shoplifters agreed with the statement "Before I shoplifted I was not afraid of getting caught and punished" and only 31% agreed with the statement "When I shoplifted I thought I might be caught, but I didn't care."

Table 1. Sample Demographics by Shoplifting Status

Variables	Never Shoplifted	Shoplifted and Caught	Shoplifted but Never Caught	Total
	N=93	n=45	n=121	n=259
	n (%)	n (%)	n (%)	n (%)
Gender*** $\chi^2 (2) = 12.738 p=.002$				
Female	73 (78.5)	24 (53.3)	70 (57.9)	167 (64.5)
Male	20 (21.5)	21 (46.7)	51 (42.1)	92 (35.5)
Religion				
None	1 (1.1)	2 (4.4)	3 (2.5)	6 (2.3)
Catholic	39 (41.9)	14 (31.1)	58 (47.9)	111 (42.9)
Jewish	--	1 (2.2)	4 (3.3)	5 (1.9)
Protestant	26 (28.0)	13 (28.9)	25 (20.7)	64 (24.7)
Other	27 (29.0)	15 (33.3)	31 (25.6)	73 (28.3)
Marital Status* $\chi^2 (2) = 11.385 p=.023$				
Married/Divorced	17 (18.3)	6 (13.3)	6 (5.0)	29 (11.2)
Single	76 (81.7)	39 (86.7)	115 (95.0)	230 (88.8)
Family Income				
\$30,000 or below	8 (8.6)	5 (11.1)	16 (13.2)	29 (11.2)
\$30,001 to \$70,000	51 (54.8)	23 (51.1)	72 (59.5)	146 (56.4)
\$70,001 and above	34 (36.6)	17 (37.8)	33(27.3)	84 (32.4)
Ever Arrested** * $\chi^2 (2) = 18.64 p=.001$				
No	87 (93.5)	30 (66.7)	97 (80.2)	214 (82.6)
Yes	6 (6.5)	15 (33.3)	22 (18.2)	43 (16.6)
		Mean (s.e.)	Mean (s.e.)	Mean (s.e.)
Years of Schooling	13.9(0.13)	13.7 (0.26)	13.6 (0.13)	13.7 (0.14)
Number of Siblings	1.8 (0.15)	2.0 (0.22)	1.9 (0.14)	1.9 (0.09)
Number of Household Members	3.4(0.57)	3.8 (0.65)	3.9 (0.55)	3.7 (0.34)
Church attendance per year	9.8 (1.41)	10.7 (2.72)	9.8 (1.78)	9.9 (1.08)
Number of criminal acts ^{1***}	3.3 (1.17)	25.8 (11.76)	13.2 (2.40)	11.83 (2.39)
Prior no. shoplifting acts		9.7 (17.61)	7.8 (15.71)	8.3 (16.23)
Age When Shoplifted	--	12.9 (0.78)	13.9 (0.33)	13.7 (0.32)

Note: n's range from 254 to 257 due to occasional missing data.

¹ Anova (F(2,255)=10.04, p=.000)

Table 2. Reasons Why Non-shoplifters (N=93) Have Not Shoplifted

Responses:	N (%)
I would feel guilty.	21 (22.5)
My parents taught me not to shoplift. It is wrong/illegal.	90 (96.7)
It is immoral. I have morals.	22 (23.7)
Afraid of getting caught (court, fine).	54 (58.1)
Never thought of it. No need to.	50 (53.8)
Would hurt the business.	12 (12.9)
Wouldn't want my stuff stolen.	7 (7.5)
Friends or parents would disapprove.	10 (10.8)
Would be embarrassed. Not who I am.	11 (11.8)

Note: Many of the non-shoplifter respondents gave more than one explanation for not shoplifting. Two other responses were “Not fair to those who pay” (N=2) and “It is stupid” (N=5).

Shoplifter Demographics

Of those who shoplifted, 45 (27%) admitted being caught, the remaining 121 (73%) claimed they were never caught. There were 94 (57%) female and 72 (43%) male students who shoplifted. Comparing males and females, there was very little difference between those caught and those not caught. There were a few interesting comparisons between the shoplifters who had been caught and those who had not. Of all those caught shoplifting, eighty-seven percent were single, while ninety-five of those not caught were single. Sixty-seven percent of those caught had never been arrested and thirty-three percent had been. Of those never caught, eighty percent had never been arrested, yet almost twenty percent had. So the percentage of those who shoplifted and had been caught and had been arrested (33%) was almost double the percentage of those who had been arrested, but never caught (18%). Similarly, students who had shoplifted and had been caught reported more criminal acts on average than shoplifters who had not been caught and students who had never shoplifted (25.8 compared to 13.2 and 3.3 respectively). Since there are so few differences between shoplifters who were caught and those who were not caught, the authors decided to combine this group in subsequent analyses.

Theoretical Indices

The response items for the questions used in the survey were categorical variables, thus factor analysis using a polychoric correlation matrix was applied to identify concepts and compute composite scores for the underlying theoretical concepts (factors). Response categories were coded so that higher scores indicate greater endorsement of the item. Several well recognized criteria for factorability were used. Items that either did not reach the cut-off point of .40, or did not load onto a factor for which conceptual support was evident, were excluded. The Kaiser-Meyer-Olin (KMO) measure of sampling adequacy score above the recommended level of .6 and significant Bartlett's test of sphericity were found for theoretical indices. In addition to unrotated factor solutions, varimax and oblimin rotations (which allow for the simplification of the factor structure and which can improve the reliability and interpretability of derived factors) were also analyzed. Factor solutions and loadings for items in the theoretical indices are shown in Appendix A (Tables A1-A5) as are the descriptive statistics of the derived factors (Table A6).

The best fitting factor analysis model using 11 items measuring Akers and Sellers' (2012) Social Learning Theory retained ten of the eleven items and loaded onto two

factors. The items in the first factor, labelled *Attitudes* (eigenvalue (λ) of 2.01), explained 62.5% of the variance. This factor reflects values and beliefs that are theoretically proposed to be used to justify shoplifting. The second factor, *Learning* ($\lambda= 1.44$), explained 44.7% of the variance. The items in this factor signify experiences of prior shoplifting by the individual or others who further reinforce their shoplifting behavior. Social Learning Theory also suggests that individuals learn *techniques* of committing crime from close associates; however the responses to the questions, "I learned how to shoplift from someone else" and "Other people told me that shoplifting is OK," were not retained in the factor analysis.

The best fitting model for 10 items measuring concepts from Sykes and Matza's (1957) Neutralization Theory identified two factors: *Ethics* ($\lambda= 2.27$) explained 56.0% and *Denials* ($\lambda= 1.76$) explained 42.0% of the variance. The items in the *Ethics* factor demonstrate, as Sykes and Matza (1964) propose, that "subterranean values" (i.e. shoplifting does not hurt anyone) co-exist with conventional values (i.e. shoplifting is a serious offense). The items in the *Denials* factor clearly demonstrate techniques of neutralization such as "denial of responsibility" and "condemnation of the condemners."

Three factors emerged from the best fitting model for the 15 items measuring concepts from Gottfredson and Hirshi's (1990) Self-control Theory. *Bonds* ($\lambda= 2.42$) explained 38.3%; *Thrills* ($\lambda= 2.20$) explained 34.8% and *Control* ($\lambda= 1.35$) explained 21.4% of the variance. The first factor, *Bonds*, contains items that are consistent with people who have low self-esteem and weak bonds to social norms. The second factor, *Thrills*, includes measures that fit with Grasmick, Tittle, Rursik and Arneklev's (1993) characterization of people with low self-control as impulsive, seeking instant gratification, and seeking sensation and excitement. The third factor that emerged from the analysis, *Control*, contains items that measure internal (self) and external (parental) levels of control. Two questions used to measure parental efficacy ("When I was a child I was taught that shoplifting was wrong" and "Before I shoplifted I was not afraid of getting caught and punished") failed to meet the criteria for inclusion in this analysis.

Five items that measured the *Rewards* all loaded on a single factor ($\lambda= 2.63$) in a principal component analysis as suggested in Cornish and Clark's (1986) version of Rational Choice Theory. These items represent adolescent and young adult motives for shoplifting (i.e., being cool, excitement, monetary gain). The items were unrelated to the other important concept from the theory, costs associated with shoplifting. The factor analysis of 7 items measuring such costs identified two facets: *Punishments* ($\lambda= 2.16$) and *Awareness* ($\lambda= 1.05$) which explained 71.0% and 34.4% of the variance. The items in the *Punishment* factor represent perceived costs that would have deterred respondents and the second factor *Awareness* indicate their awareness of costs associated with shoplifting.

The best fitting model for the 9 items measuring Cohen and Felson's (1979) Routine Activities Theory produced two factors: *Forethought* ($\lambda= 2.52$) and *Opportunity* ($\lambda= 1.26$) which explained 57.6% and 28.9% of the variance, respectively. The items in the *Forethought* factor are consistent with the theoretical proposition that offenders are motivated to commit shoplifting; and items in the *Opportunity* factor are consistent with their perceptions of the ease of shoplifting and the lack of a capable guardian as suggested by this theory.

Results

One or Two-Time Shoplifters and Three or More-than-Three-Time Shoplifters

Demographic differences between shoplifters and non-shoplifters have previously been discussed, because non-shoplifters completed a different Likert survey (one that inquired into their perceptions as to why people shoplifted) we are unable to make any further comparisons between these two groups. Our analytic plan was to test the efficacy of the theories using the continuous variable indicating a student's total number of shoplifting acts as the dependent variable. The values on this variable ranged from 1 to 100; however, they were not normally distributed among the students in our sample. Consequently, we categorized shoplifters into two groups: those who shoplifted once or twice and those who shoplifted three or more times.

Table 3 shows differences between these two groups at the bivariate level on the 12 factors that represent concepts from the five theories. Respondents who shoplifted once or twice scored significantly higher (were in more agreement with) on factors measuring Sykes and Matza's (1957) Neutralization Theory, Cornish and Clarke's (1986) Rational Choice Theory and Gottfredson and Hirschi's (1990) Self-Control Theory. Scores on the *Denials* of Sykes and Matza's (1957) Neutralization Theory were higher for the lower frequency shoplifting group. The items in this factor included "I am being treated unfairly for this shoplifting." The group that shoplifted only once or twice also had significantly higher scores on the *Thrills* factor from Gottfredson and Hirschi's (1990) Self-Control Theory, which included items such as "It is more fun to steal something than to pay for it" and "It is more exciting to steal something and get away with it." They also had higher scores on the *Rewards* factor from Cornish and Clarke's (1986) Rational Choice Theory. This factor included questions such as "The more expensive the item I can shoplift, the more exciting."

The respondents who reported having shoplifted three or more times had significantly higher scores on factors measuring from Akers and Sellers (2012) Social Learning Theory and Cohen and Felson's (1979) Routine Activity Theory. The higher frequency shoplifting groups had significantly higher scores on the *Attitudes* factor. This factor included items such as "Nothing is illegal unless you get caught" and "You have to cheat to get ahead in this country." The higher frequency shoplifters also had significantly higher factor scores on both *Forethought* and *Opportunity* factors from Cohen and Felson's (1979) Routine Activity Theory. *Forethought* included "Before I entered the store I thought I might shoplift" and "When I shoplifted I tried to take advantage of inexperienced store clerks." The *Opportunity* factor included the item "I did not intend to shoplift, but the items were right there and easy to take."

Table 4 also shows differences between the two groups on demographic and theoretically relevant control variables. The group who reported shoplifting only once or twice also reported being significantly younger (12 versus 14.3 years of age) when they shoplifted; being involved in far fewer criminal acts (9.6 versus 16.8 on average); and were more likely to be married (14.3% versus 4.3%) than were students who reported shoplifting three or more times. This is consistent with other research that shows that some involvement in minor criminal behavior is normative for adolescents (Moffitt 2008). Subsequent analysis aimed at testing the efficacy of micro-level criminological theories to explain shoplifting behavior will examine differences between these two groups of shoplifters.

Table 3. Theoretical Factor Scores and Control Variables by Shoplifting Frequency

	Shoplifted Once or Twice n=49 m(s.d.)	Shoplifted Three Times or More n=117 m(s.d.)	Total n=166 m(s.d.)	Significance
Theoretical Factor Scores				
Social Learning Theory				
Attitudes***	6.09(1.11)	6.97(0.84)	6.71(1.01)	F(1, 163) = 31.22, p = .000
Learning	3.12(1.15)	3.46(1.16)	3.36(1.16)	
Neutralization Theory				
Ethics	0.80(0.97)	0.96(1.07)	0.92(1.04)	
Denials*	2.61(1.10)	2.15(1.09)	2.28(1.11)	F(1, 164) = 6.11, p = .014
Social Control Theory				
Bonds	6.98(1.07)	6.95(1.18)	6.96(1.18)	
Thrills***	3.33(1.34)	2.39(1.31)	2.66(1.38)	F(1, 162) = 17.17, p = .000
Control	1.60(1.10)	1.77(1.16)	1.72(1.14)	
Rational Choice Theory				
Rewards***	6.27(1.40)	5.46(1.27)	5.70(1.36)	F(1, 164) = 13.41, p = .000
Sanctions	5.63(1.24)	5.88(1.25)	5.81(1.25)	
Awareness	4.41(1.09)	4.52(1.17)	4.49(1.14)	
Routine Activities Theory				
Forethought***	3.38(1.69)	4.54(1.48)	4.20(1.63)	F(1, 163) = 19.39, p = .000
Opportunity**	4.42(1.07)	5.01(1.02)	4.84(1.07)	F(1, 163) = 11.15, p = .000
Control Variables				
Age***	12.0 (5.45)	14.3 (2.99)	13.65(4.01)	F(1, 157) = 11.57, p = .000
Gender	n(%)	n(%)	n(%)	
Female	31 (63.2)	63 (53.8)	94 (56.6)	
Male	18 (36.7)	54 (46.2)	72 (43.4)	
Marital Status*				$X^2 (2) = 5.16 p=.023$
Married/Divorced	7 (14.3)	5 (4.3)	12 (7.2)	
Single	42 (85.7)	112 (95.7)	154 (92.3)	
Family Income				
\$30,000 or below	6 (12.2)	15 (12.8)	21 (12.65)	
\$30,001 to \$70,000	31 (63.3)	64 (54.7)	95 (57.23)	
\$70,001 and above	12 (24.49)	38 (32.5)	50 (30.1)	
Ever Caught - Yes	31 (63.3)	90 (76.9)	121 (72.9)	
Ever Caught - No	18 (36.7)	27 (23.1)	45 (27.1)	
Ever Arrested - Yes	10 (20.8)	27 (23.3)	37 (22.6)	
Ever Arrested - No	38 (79.2)	89 (76.7)	127 (77.4)	
Taught to Shoplift*				$X^2 (2) = 4.405 p=.036$
Yes	33 (32.2)	58 (49.6)	91 (54.8)	
No	16 (67.3)	59 (50.4)	75 (45.2)	

Table 4. Logistic Regression Predicting Level of Shoplifting Involvement

	Social Learning Odds Ratio S.E.	Social Control Odds Ratio S.E.	Rational Choice Odds Ratio S.E.	Routine Activities Odds Ratio S.E.
Attitudes	2.235** -0.5208	Bonds 1.14 0.212	Rewards .719* 0.1137	Forethought 1.5387** 0.2388
Learning	1.178 0.2311	Thrills 0.657* 0.1109	Sanctions 1.131 0.1828	Opportunity 1.693* -0.3903
Taught to Shoplift	1.864 0.8176	Control 1.18 0.2215	Awareness 1.074 0.2082	-- --
Age	1.138 0.6313	1.14* 0.0611	1.143* 0.0622	1.109 0.0598
Male	1.51 0.8175	1.506 0.6116	1.233 0.5156	1.132 0.4899
Income <\$30,000	1.195 0.7726	1.37 0.5886	1.314 0.8162	1.1964 0.7994
Income >\$70,000	1.498 0.74	1.58 0.539	1.767 0.8391	1.88 0.9297
Married	1.024 0.8165	0.399 0.3432	0.561 0.4096	0.8748 0.6519
No. of Crimes	1.012 0.013	1.02 0.0136	1.018 0.0133	1.017 0.0141
Been Caught	0.76 0.357	0.546 0.2454	0.519 0.2249	0.6305 0.2905
Ever arrested	0.909 0.487	0.838 0.4414	0.919 0.4772	0.969 0.5214
Log Likelihood	-74.536	-	-28.253	-75.177
LR Chi-square	.000	.002	0.003	0.000
Pseudo r2	20.92	16.26	14.93	20.21

Multivariate Models Predicting Level of Shoplifting Involvement

Table 4 shows the logistic regression analysis assessing the relative effect of theoretical concepts, demographic variables, and other theoretically relevant variables (i.e., extent of criminal involvement) on the level of students' involvement in shoplifting. Separate models were constructed for theories that had scores on the theoretical indices that differed significantly between the students who shoplifted only once or twice and those who shoplifted three or more times, as reported in Table 3. The significance of students' level of agreement on the *Denials* scale (Neutralization Theory model) that was seen at the bivariate level was not supported in the full model testing this theory; in particular, age was a better predictor of shoplifting involvement than denying responsibility or condemnation of condemners.

The remaining four models (shown in Table 4) have highly significant Chi-square values ($p < .003$). The McFadden pseudo R^2 values ranged from .15 to .21. Across models, only one demographic variable was consistently significant: age at the time of the shoplifting occurrence. The results indicate that for every one year increase in the age at the time of shoplifting there was about a 14% increase in the odds of being in the more frequent shoplifter group, even after controlling for other relevant variables such as gender, level of family income, and other measures of criminal involvement.

Two models seem to identify theoretical propositions that were better at explaining minimal involvement in shoplifting: Self-Control theory and Rational Choice theory. Every one point increase in a student's score on the *Thrills* measure reduces the odds of being in the three or more shoplifting category by about 34%. Similarly, a one point increase in the *Rewards* measure reduces the odds of being in the three or more shoplifting category by about 28%.

The two models testing Social Learning theory and Routine Activities theory showed support for the ability of these theories to better explain greater involvement in shoplifting. First, a one point higher score on the *Attitudes* measure was associated with 2.2 times greater odds of greater involvement in shoplifting. Second, both theoretical indices of Routine Activities theory had a direct effect on a student's frequency of shoplifting. Each one point increase in their score on the *Forethought* measure was associated with a 1.5 times greater odds of being in the 3 or more times rather than once or twice category; and, each 1 point difference in their score on the *Opportunity* measure was associated with about 1.7 times greater odds of being in the more frequent shoplifter rather than the category of students who only shoplifted once or twice.

Discussion and Conclusion

We have attempted here to challenge, but not test, some traditional micro-criminological theories while recognizing at the outset that explaining crime is a very complex enterprise and there will never be one single theoretical consensus. While only an exploratory study, the applications of this shoplifters' profile and micro-criminal theory comparison manifest themselves in many ways. We agree with Cullen, Wright, and Blevins (2008) who wrote, "Convincing falsification is difficult because data sets generally are not complex enough to measure theories systematically and because it is typically impossible to test competing ideas through experimental designs" (p. 2). Acknowledging this difficulty, we did find, however, support for Social Learning Theory (Akers and Sellers 2012), Social Control Theory (Cornish and Clarke 1986), and Routine Activities Theory (Cohen and Felson 1979), but only certain elements of these theories seemed relevant to our data.

We also found that Sykes and Matza's (1957) Neutralization Theory did not offer much to our explanation of self-reported college student data on shoplifting. These latter two theories may, however, have more relevancy to why our student respondents had not shoplifted. The qualitative data from the open-ended questions revealed that anticipated guilt was a major preventative explanation. The guilt could not be "neutralized" (Sykes and Matza 1957). One student responded, "I would feel guilty about stealing something that is not mine. Also, if I ever got caught shoplifting I would definitely be embarrassed." Another student wrote, "The guilt of doing something wrong would bother me too

much. There is also the fact that I work really hard for the things I do have and it is satisfying to go into a store and pay for something I have saved for.”

In our convenience sample of 259 college students from four universities, about 36% said that they had never shoplifted. Of the 64% who admitted to shoplifting, less than one-third (27%) said that they had been caught shoplifting. There were few demographic differences between college students who had been caught shoplifting and those who had not. The only distinguishing difference between these two groups is that shoplifters who were caught on average reported higher numbers of prior shoplifting experiences as well as about twice as much involvement in criminal acts. Not surprisingly, the shoplifters who had been caught were also about twice as likely to have ever been arrested. College students who were non-shoplifters were more likely to be female, married, involved in fewer criminal acts of any type and to report ever having been arrested compared to their peers who had shoplifted.

Students who reported shoplifting only once or twice constituted about one-third of the shoplifters in our sample, on average they were younger when they shoplifted and retrospectively reported being involved in significantly fewer criminal acts of any type. Low frequency shoplifters had significantly higher scores on our measure of *Denials*; however, this difference was not significant in the model that controlled for demographic and general criminal experience variables.

Low frequency shoplifters were also significantly more likely to endorse shoplifting for *Thrills*, as suggested by Self-Control theory (Gottfredson & Hirshi 1990), or for other *Rewards* (monetary benefit, admiration of peers, being cool), as proposed by Rational Choice theory (Cornish & Clark, 1986). Why would respondents who had shoplifted only once or twice be significantly more associated with Cornish and Clarke's (1986) Rational Choice Theory and Gottfredson and Hirschi's (1990) Self-Control Theory? It could be that the motivation for shoplifting was only temporary as exemplified by the response from a student who wrote, “I only stole to return the items to get money for drugs. Once I got clean I stopped stealing. I was never caught. What can I take that costs the most money and who can I get to return it for me.” It could also be that the “thrill” (Gottfredson & Hirschi, 1990) wore off. As another shoplifter wrote, “I shoplifted mostly because my friend wanted me to. For me it was the thrill of getting things for free. I know that it's wrong and won't do it again. I'm a happy person from a good family. I was just a teenager who experienced peer pressure.”

As predicted by Social Learning theory (Akers & Sellers, 2012), students who were in the higher frequency shoplifting group had greater endorsement of attitudes favorable to involvement in delinquency. Greater endorsement of attitudes favorable to crime was associated with greater odds of being in the higher rather than lower frequency group, even after controlling for demographic and general criminal experience variables. Students in the higher frequency group also had significantly higher scores on the indices measuring the concepts of *Forethought* and *Opportunity* proposed by Routine Activities theory (Cohen & Felson, 1979). The logistic model indicated that even after controlling for demographic and criminal experience variables, greater endorsement of the concepts of *Forethought* and *Opportunity* increased the odds of being in the higher frequency shoplifting rather than having shoplifted just once or twice.

Why would the “three and more-than-three time” shoplifters be more associated with Akers and Sellers (2012) Social Learning Theory and Cohen and Felson's (1979) Routine Activity Theory? For one thing, many of our respondents in this group had never been

caught. One of those students wrote, "Everyone at my job does it so we all think it is OK." And another said, "I still shoplift once in a while. I always check for cameras and employees. It's like being on a mission. It's a thrill to see if you can accomplish your goal without getting caught. Also, it's faster than standing in line." Another student who had never been caught wrote, "It is so easy. I look for the opportunity and take it. It is there and easy to take. I hide it (the item) so they can't see it through my clothes." One respondent wrote, "I have never been caught. There are places in the stores that you could go and it is a blind spot. So there is no way you can be seen stealing anything. I know this from working in a department store. Stealing is 'old hat.' It is a way to save money. I'm thirty." Several shoplifters responded with variations of, "I shoplift the petty things that are easily concealed. And only when money is tight."

While our sample was non-random and limited to college students who did not grow up on the streets of impoverished and/or drug infected urban neighborhoods, we believe our research has, to some extent, supported the micro-criminological theories we focused on. So the question we are left with is what theoretical and practical efforts should be made to reduce shoplifting? In answering this question, we are reminded of Hobbes' notation that "the pursuit of self-interest often leads people to harm one another" (Cullen et al., 2014, p. 27) and Beccaria's (1763) attention to the purpose of punishment. In response to the general idea that we are all driven by hedonistic motives and we make our choices by free-willed rationality, Beccaria proposed that punishment should serve as a deterrent. In fact, he believed that prevention was the primary purpose of punishment. So one way to slow down shoplifting is to make the punishment for this crime clearly understood by all who enter the store. There could be friendly greeters when we enter, and a clearly visible friendly warning sign. Then, as suggested by Cornish and Clarke (1986) the potential shoplifter might be more aware of the risks. Judges and legislators should assure that the punishment is proportionate to the crime and the punishment should be prompt, certain and made public. And the punishment, especially for juveniles, should be non-shaming. Also in keeping with the deterrence principal is the continued attention to "target hardening" or making it more difficult to shoplift. More money should be invested in closed-circuit TVs, good lighting, electronic labelling and security personnel who can respond quickly to alarms before shoplifters leave the building. The security sensors should be placed between security guards and the exit doors.

And, of course, the importance of moral guidance and the teaching of right and wrong is never to be abandoned. Unfortunately, in certain homes parental supervision and discipline is wanting. In today's society the parental role has to be picked up by schools, churches, police and the courts. When we look at the reasons given by our college students as to why they have never shoplifted, almost 97% reported that their parents taught them not to and that it was illegal. In their self-control perspective, Gottfredson and Hirschi (1990) point of the importance of good parenting practice in keeping children away from criminal behavior.

Limitations

There are limitations and weaknesses to any social science research and these contaminate, to a greater or lesser extent, the applicability of the findings. Research that relies on self-reports, especially while trying to uncover the "hidden" aspect of a crime like shoplifting, always has validity and reliability concerns. The present research is no

exception. There are possible problems with respondent recall, respondent exaggeration or frankness, sampling bias and measurement error. Some consolation from this comes from the fact that the respondents have voluntarily responded and, thus, have shown some interest in the topic. This should result in more honesty.

The representativeness of the sample is always a question. Random sampling in criminological investigations is obviously the ideal data collection method. This study's small sample size and the non-randomness of the sample contribute to the non-generalizability of the results. While the authors surveyed students from four different universities, the samples were all accidental and the authors do not claim them to be representative of all college students. And, of course, these students from a narrow age group do not represent all shoplifters around the world. However, given the exploratory nature of the investigation here, there did not appear to be a perfect methodological alternative.

The next limitation is the question of generalizing the findings of this study to the commission of other types of crime. First, as mentioned above, this investigation of shoplifting among college students is a small subset of all shoplifting. Even if the data presented here perfectly fit the theoretical models, there would have to be many more representative studies to generalize with any confidence to all shoplifters and then to the numerous alternative forms of property crimes and even violent crimes.

The quantitative emphasis of the present study also poses limitations. On the positive side, the sets of theoretically derived items can often represent the meaning of a construct more clearly than any single item (Osgood et al. 2002). Also, the larger set of items (factors or indices) more clearly defines the differences between each respondent's responses. However, the use of Likert-type, multiple-item scaling (combining a set of items into a composite score) has its obvious measurement issues. Each statement and factor when measured numerically might not be truly valid. The current research began with 146 very diverse items. Thus, a wide net was cast at the expense of more theory-specific focus. The possible ramification is that each of the six theories might be under-measured. The final indices might not capture the complete intent of each theoretical model. Thus, any conclusions must be read keeping this and the other limitations in mind.

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APPENDIX A:

**FACTOR LOADINGS AND DESCRIPTIVE STATISTICS OF DERIVED
 FACTOR SCORES**

Table A1. Factor Loadings Based on Factor Analysis with Varimax Rotation for 10 Items Measuring Akers and Sellers’(2012) Social Learning Theory (n = 165)

	Attitudes	Learning
Nothing is illegal unless you get caught.	.64	
You have to cheat to get ahead in this country.	.61	
Prior to my shoplifting people thought of me as deviant.	.49	
Shoplifting is a serious offense.	.46	
Shoplifting is easy	.38	.42
I know other people who have shoplifted.		.64
I have shoplifted before without getting caught.		.70
Many people commit crimes without being caught or punished.		.60
People steal regularly and are not caught.		.55
I have shoplifted before.		.52

KMO=.72; Bartlett’s test = (χ^2 (45) = 30.71, p<.000)

Table A2. Factor Loadings Based on Factor Analysis with Varimax Rotation for 10Items Measuring Sykes and Matza’s (1957) Neutralization Theory (n = 166)

	Ethics	Denials
Shoplifting is immoral.	.54	
Everyone steals.	.52	
Shoplifting does not hurt anyone.	.71	
Shoplifting is a serious offense.	.51	
It's OK for people to shoplift in order to give a nicer gift than they could afford to buy.	-.69	
When I was a child I was taught that shoplifting was wrong.	.53	
I am guilty of this shoplifting case, but I should be let off because 'society' owes me one.	-.43	
I am mad at the people at the store who caught me shoplifting.		-.76
I am being treated unfairly for this shoplifting.		.73
I am angry that I am being punished for this shoplifting case.		.75

KMO=.70; Bartlett’s test = (χ^2 (45) = 462.03, p<.000)

Table A3. Factor Loadings Based on a Factor Analysis with Varimax Rotation for 13 Items Measuring Gottfredson and Hirshi's (1990) Self Control Theory (n = 164)

	Bonds	Thrills	Control
Life has been unfair to me.	.55		
I don't like myself very much.	.57		
My life is boring	.66		
Just before shoplifting, I had been drinking.	.74		
Just before shoplifting, I used pot or some other drug.	.75		
I shoplifted for the thrill.		-.53	
It is more fun to steal something than to pay for it.		.72	
It is exciting to steal something and get away with it.		.79	
The more expensive an item I can shoplift, the more exciting.		.66	
I feel guilty about my shoplifting.			.47
My family would be upset if they knew I shoplifted.			.45
Shoplifting is immoral.			-.40
I am embarrassed that I got caught shoplifting.			-.51

KMO=.68; Bartlett's test = (χ^2 (78) = 846.00, p<.000)

Table A4. Factor Loadings Based on Factor Analyses for 12 Items Measuring Concepts from Cornish and Clark's (1986) Rational Choice Theory (n = 166)

	Rewards	Sanctions	Awareness
Successful shoplifters should be admired	.69		
It's more fun to steal something than to pay for it.	.82		
It exciting to shoplift and get away with it.	.76		
It's cool to be able to tell someone that you got away with shoplifting.	.65		
The more expensive the item I can shoplift, the more exciting.	.69		
I would not shoplift if I knew my name would be published in the local paper.		.70	
An automatic \$1000 fine would keep me from shoplifting.		.70	
I would have been less likely to shoplift if I had seen armed guards in the store.		.76	
I would have been less likely to shoplift if I thought the store was doing spot searches of clothes and bags.		.70	
Before I shoplifted I did not think about getting caught.			.64
Before I shoplifted I had no idea what the penalty would be if I got caught.			.52
Before I shoplifted I was not afraid of getting caught and punished.			.56

KMO=.74; Bartlett's test = (χ^2 (10) = 365.18, p<.000)

Table A5. Factor Loadings Based on Factor Analysis with Varimax Rotation for 9 Items Measuring Cohen and Felson's (1979) Routine Activities Theory (n = 165)

	Forethought	Opportunity
I might shoplift again.	.77	
Before I entered the store I thought I might shoplift.	.74	
I knew what I was going to shoplift before entering the store.	.57	
I will shoplift again if given the opportunity.	.75	
Shoplifting is easy.	.49	
When I shoplifted I tried to take advantage of inexperienced store clerks.	.40	.
Before I took the item(s) I though how easy it would be to conceal		.72
I did not intend to shoplift, but the items were right there and easy to take.		.61
Before I took the item(s) I looked around to see if anyone was watching.		.51

KMO=.64; Bartlett's test = ($\chi^2(36) = 595.05, p < .000$)

Table A6. Descriptive Statistics for the Derived Factors

	No. of Items	M(SD)	Skewness	Kurtosis	Alpha
Attitudes	5	3.36 (1.16)	0.11	2.53	0.64
Learning	6	6.70 (1.01)	-0.62	3.01	0.65
Ethics	7	0.92 (1.04)	-0.15	3.05	0.72
Denials	3	2.29 (1.11)	0.5	3.91	0.78
Expectations	9	5.61 (1.23)	-0.35	3.1	0.86
Bonds	5	6.96 (1.14)	-0.44	3.12	0.72
Thrills	4	2.66 (1.38)	-0.01	2.48	0.78
Control	4	1.72 (1.14)	0.05	2.96	0.55
Rewards	5	5.70 (1.35)	0.15	2.36	0.83
Sanctions	4	5.81 (1.25)	-0.44	3.56	0.76
Awareness	3	4.49 (1.14)	0.30	3.04	0.60
Forethought	6	4.20 (1.63)	0.12	2.58	0.74
Opportunity	3	4.84 (1.07)	-0.16	3.26	0.59