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Examining Criminals' Decisions: A Look at Shoplifting Behavior

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EXAMINING CRIMINALS' DECISIONS:

A LOOK AT SHOPLIFTING BEHAVIOR

by

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VITA

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INTRODUCTION

The purpose of this paper is to investigate the perceptions and evaluations of crime situations by expert and novice criminals. My approach to the issues of expertise in decision making and deterrence in the criminal justice system draws upon literature from the areas of deterrence, crime perceptions, the evaluation of crime opportunities, and expertise. Because this study focuses on shoplifting as the crime of interest, a brief review of shoplifting research will also be presented.

Deterrence

Deterrence is defined as "the inhibiting effect of sanctions on the criminal activity of people" (Blumstein et al., 1978; p. 3). This appears to be the underlying assumption of many methods utilized by the legal and criminal justice system in dealing with crime. The concept of deterrence is often partitioned into general deterrence and special deterrence. General deterrence is aimed at preventing the population at large from committing criminal acts (Zimring, 1973). Imposing sanctions on one individual may demonstrate the expected penalties of a criminal act to the rest of the public, and thereby discourage similar behavior in the population (Nagin, 1978). General deterrence is based on the underlying hypothesis that increasing either the severity of penalties or the certainty of their imposition

will reduce crime by those who are not directly sanctioned (Blumstein et al., 1978). Special deterrence, which has received less attention from researchers, is concerned with the effects of legal sanctions, i.e., punishment, on the specific criminals who receive them (Henshel & Silverman, 1975). It is usually studied by examining the recidivism rates of identified, punished individuals.

The deterrence hypothesis is in accordance with economists' conceptualization of criminal behavior. Crime is regarded as a rational act resulting when individuals evaluate the expected utility of both criminal and noncriminal opportunities, and then choose the alternative with the highest utility (e.g., Becker, 1968). If the crime has a higher utility than not committing the crime, e.g., low risk of being caught and a large amount to gain, then the individual should decide in favor of committing the crime.

Research on the deterrence issue has developed only in the last two decades. In the past, professionals in the criminal justice system and most laymen took for granted that fear of sanctions was a prime motivator and inhibitor of crime. Academicians, however, were skeptical of this approach, tending instead to see behavior as a product of a large number of variables including socioeconomic status, personality, race and environmental influences (Tittle, 1980). Early deterrence research focused on the impact of certainty and severity of punishment on official crime rates. Certainty was defined as the number of offenders convicted as a proportion of offenses known to

the police, and severity of punishment was measured by median time served (Teevan, 1975). Most research has found a negative relationship between indexes of sanction probability and actual or probable incidence of deviance (Blumstein et al., 1978; Tittle, 1980).

However, the bulk of the research favoring the deterrence hypothesis is based on aggregate statistics. This approach results in severe methodological weaknesses (Carroll, 1982; Blumstein et al., 1978). An extensive review of deterrence and incapacitation effects conducted by the National Academy of Sciences (Blumstein et al., 1978) illustrates three sources of bias in research supporting the deterrence hypothesis: (a) Apparent deterrent effects can be induced as a result of errors made in measuring crimes. Citizens' reports, and police detection and subsequent reporting of crimes comprise the data on known offenses. The risk of being sanctioned for a crime is usually measured as the ratio of the number of times the sanction is imposed for an offense to the number of known offenses. The crime rate is defined as the number of known offenses per population. The number of known offenses appears in both ratios. Any variability in the reporting of the number of known offenses will, therefore, result in a spurious negative association between crime rate and sanction risk (Blumstein et al., 1978). (b) A second possible source of bias is the confounding of deterrence and incapacitation. Incapacitating offenders by putting them in prison will reduce crime even in the absence of any deterrent effect (Blumstein et al., 1978). (c) Finally,

any relationship between crimes and sanctions could be interpreted in the opposite causal direction (Nagin, 1978). Crime rates could cause variations in sanctioning. For example, an increase in crime rates could produce harsher penalties and more police to fight crime, or increased crowding in prisons due to higher crime rates could lead to sentence reductions for subsequent offenders (Carroll, 1982).

Further criticisms of the use of aggregate data have been put forth by Waldo and Chiricos (1972). They suggest that the examination of aggregate data precludes an examination of situational influences that might affect a person's response to threats of punishment. Some people may be deterred in situations in which others are not deterred, or the same individual may or may not be deterred in different situations. These authors also claim that by using aggregate statistics, researchers are unable to discern those social-psychological processes by which the presumed effects of punishment are realized.

Crime Perceptions

The underlying assumption of deterrence research has been that potential criminals are aware of both the certainty and severity of objective sanctions and operate with this knowledge in mind. Studies that regard the potential criminal as a rational being have neglected to examine the individual's perceptions of certainty and severity of punishment, i.e., measures of subjective judgments (Teevan, 1975). A series of studies dealing with individuals' perceptions of punishment

variables questions the underlying assumption (Assembly Committee on Criminal Procedure, 1975; Claster, 1967; Jensen, 1975; Teevan, 1975; Waldo & Chiricos, 1972). A sample of male registered voters, inmates at a vocational institute, and college students were surveyed to assess their knowledge about penalties for 11 selected felonies. Between 21% and 49% of respondents did not know or could not guess the maximum penalties for these crimes. The criminal subgroup had the greatest knowledge of penalties. Those who knew the least about criminal penalties were least likely to engage in crime. The committee concluded, "It appears that knowledge of penalties can not act as deterrents since these are unknown until after a person has committed a crime or become a prisoner" (p. 78).

Further research also proposes that the perception of legal sanctions, not knowledge of the actual sanctions, is the primary influence on a criminal's decision of whether or not to commit a crime (Carroll, 1982; Claster, 1967; Henshel & Carey, 1975; Teevan, 1975; Waldo & Chiricos, 1975). Claster (1967) compared delinquents and nondelinquents on their perceptions of arrest and conviction rates for various crimes, as well as perceptions of risk to themselves of arrest and conviction if they committed three hypothetical crimes. Although delinquents and nondelinquents did not differ in their answers for arrest and conviction rates, nondelinquents perceived themselves as more likely to be arrested and convicted if they committed the hypothetical crimes than did delinquents. A similar trend was found using

college students (Waldo & Chiricos, 1972). Admitted theft and marijuana use and belief in the likelihood of arrest were inversely related. No relationship, however, existed between perceptions of severe punishment and admitted criminality. Finally, Teevan (1975) found a weak negative relationship between perception of certainty of punishment and self-reported deviance. In summary, it appears that noncriminals are more influenced by their perceptions of sanctions than criminals.

Perceptions of sanctions and risks are properties of the individual, not necessarily an objective property of the situation. As was seen above, criminals tend to perceive themselves as more immune from arrest than do noncriminals (Claster, 1967; Kraut, 1976; Waldo & Chiricos, 1972). A self-report survey of deterrent influences on shoplifting indicated that respondents who shoplifted the most saw the least risk associated with shoplifting both in terms of the probability of getting caught and the severity of punishment (Kraut, 1976). As expressed by Henshel and Carey (1975; p. 57), ". . . deterrence, when and if it exists, is a state of mind." The general conclusion drawn from studies of the perceptions of sanctions and risks is that perceptions of risk act as a deterrent to illegal behaviors (Anderson, 1979; Pasternoster et al., 1982). The relationship between crime rates and perceived severity of legal punishment, however, remains unclear (Nagin, 1978; Pasternoster et al., 1982).

Evaluating Crime Opportunities

An alternative to the rational view of criminal behavior proposed by economists has been suggested by Carroll (1978, 1982; Carroll & Herz; note 1). He suggests that the individual can be regarded as a thoughtful decision-maker who chooses among alternative courses of action, both criminal and noncriminal. The individual is regarded as neither rational or irrational, but rather as "reasoning." This model is consistent with the research supporting the limited rationality of people (Ebbesen et al., 1977; Newell & Simon, 1972; Simon, 1957). If this approach is correct, attempts to deter crime will work only if they affect the perceptions and judgments of the potential criminal.

Studies of risky decision making have shown that people do not make a logical, complete evaluation of benefits and risks as economic utility models suggest. Instead, they tend to simplify the decision situation (Ebbesen et al., 1977; Newell & Simon, 1972; Payne et al., 1978). People make rapid, selective, strategic assessments based on a reasonable, simplified view of their situation (Carroll, 1982). Since the time and effort available for processing information is limited, people focus on one or more available cues.

A complex situation such as a crime situation would be dealt with through simplified strategies or heuristics involving comparisons and judgments (cf. Kahneman et al., 1982; Slovic & Lichtenstein, 1971; Payne, 1975). A decision maker would be expected to consider simple

characteristics of a situation at any one point in time. However, an extension of decision behavior over time might reveal a number of sub-decisions that interact to control the actual outcome (Carroll, 1982). An example of this type of behavior might be the decision to burglarize a particular home. First, the burglar must decide on the area of town (e.g., the north end which is very upper class, or the west side which is middle class). Next, the burglar determines which home to burglarize by scouting the area to find the most accessible home. After selecting the house, the criminal decides on a method of entry, e.g., forced entry through a basement window. The decision to burglarize 1146 Riverside Drive on the west side using forced entry is, thus, made up of a set of sub-decisions.

A series of studies that attempted to manipulate the perceived rewards and costs associated with an immediate crime situation support the idea of a simplified evaluation of the crime situation. Hypothetical crime situations were provided to subjects by Rettig and Rawson (1963). Certainty of gain, amount of gain, certainty of punishment, and severity of punishment were varied from high to low levels, and subjects were asked to evaluate each situation in terms of their willingness to perform the crime. The strongest effect on decisions was the amount of punishment, although the others also had significant effects. A similar study by Stefanowicz and Hannum (1971) found an effect only for amount of gain. Other studies also find main effects for components rather than interactions (Rettig, 1964;

Krauss et al., 1972; Feldman, 1977), but all these studies suffer from the use of ambiguous or limited manipulations. For example, Feldman (1977) manipulated the probability of being caught as 'high' or 'low' and the probability that money would be present as 'definitely' or 'possibly.' These manipulations are ambiguous, increasing the likelihood of individual differences in interpretation. The results of such studies are questionable. Clearly, there is a need for more realistic and objectively defined variables in future studies.

Carroll (1978) attempted to overcome some of these limitations by providing specific monetary values, penalties, and likelihoods. He presented both offenders and nonoffenders with a series of situations in which they were asked to evaluate the opportunity for committing a crime. Subjects were provided with information on the probabilities of success and failure and potential amounts of gain and loss. For example, the probability of gain was either 10%, 30%, or 80%, and probability of loss, i.e., punishment, was either 5%, 15%, or 40%. It was found that instead of computing utility by multiplying probabilities and penalties to determine expected risks, subjects simplified the situation by focusing primarily on one dimension. Which dimension was salient varied among the subjects.

Salient information apparently results in the simplification of the crime evaluation. A series of studies reviewed by Taylor and Fiske (1973) support the contention that salient features of a situation will dominate subsequent judgments (see also Nisbett & Ross,

1980). The research reviewed on the evaluation of crime opportunities emphasizes this simplification process, and lends support to Carroll's (1978) model of the reasoning individual.

Expertise

An additional focus of the present research was to examine the effect of expertise on the evaluation of crime opportunities. We can conceptualize criminals with extensive crime histories as "expert." As was seen in the review of crime perceptions, laymen are truly ignorant of most aspects of the criminal justice system (Henshel & Silverman, 1975). The expert is also ignorant of certain aspects, but his/her ignorance is much more selective. A particular set of binders are set up and maintained in the expert's mind that shut off certain aspects of reality, reinforced by his/her competence and arrogance about his/her expertise (Lewinsohn, 1958). Even so, there are certain skills, knowledge and strategies possessed by expert criminals that distinguish them from novices.

In the area of decision making, expertise has been defined along several dimensions: predictive accuracy, memory, speed of recall, and organization of information (Johnson; Note 2). The superior performance of experts is dependent upon both the domain of expertise being examined and the dimension of expertise measured. The literature on the predictive or diagnostic accuracy of clinical psychologists suggests that there are few differences between experts and novices

(Goldberg, 1959; Sarbin, Taft & Bailey, 1960). Experts in medicine fare better when compared to novices (Gustafson, 1963; Johnson et al., 1982; Kundel & LaFollette, 1972), but are surprisingly unreliable in their own judgments (Einhorn, 1972; Gillis & Moran, 1981; Hoffman et al., 1968).

Although accuracy does not clearly distinguish experts from novices, researchers in the problem-solving area have found differences between experts and novices in processing speed, memory, and information organization (Adelson, 1981; Chase & Simon, 1973; Simon & Simon, 1978). In complex situations such as solving physics problems or planning chess strategies, experts solved the problems faster and more accurately than did novices (Chase & Simon, 1973; Larkin et al., 1980; Simon & Simon, 1978). Experts also have better memory for task-relevant information. Expert chess players exhibited superior recall of chess positions, retained more information in memory, and were quicker to retrieve information from memory than less experienced players (Chase & Simon, 1973). Johnson's (1980) study of admission decisions indicated that expert judges relied not only on externally available information, but also on information stored in memory. Experts made judgments in one-half the time of novices, and their information was more direct and specific. Finally, there is recent evidence that experts may organize information in a more abstract manner allowing for solutions that are more strategic solutions (Adelson, 1981; Larkin et al., 1980).

Experts have more knowledge than novices and can quickly recall the particular pieces of information that are relevant to the situation at hand. The expert decision-maker has a larger set of perceptual patterns that serve to index not only the expert's factual knowledge, but also his/her information about strategies and actions (Larkin et al., 1980).

> In every domain that has been explored, considerable knowledge has been found to be an essential prerequisite to expert skill. . . This knowledge includes sets of rich schemata that can guide a problem's interpretation and solution and add crucial pieces of information (p. 1342).

We would expect expert criminals also to be systematic and quicker in their considerations of crime opportunities than novices. Over time, criminals accumulate knowledge that should serve to improve their evaluations of subsequent crime opportunities.

Verbal Protocols

In order to examine the 'reasoning' approach to expert criminal decision making (Carroll, 1978) and to circumvent the problems of aggregate data, it is advantageous to address the deterrence issue at the individual level. Approaches at the individual level have primarily utilized surveys, interviews and first person accounts. The validity of these self-reports should be cautiously evaluated because of their vulnerability to memory reconstruction and social desirability effects (Nisbett & Wilson, 1977). Kraut (1976) used a self-report survey of shoplifting, but admitted that subjects ". . . may defensively distort their beliefs about themselves and the environment in order

to justify their behavior to themselves or to others, including the researcher" (p. 366).

To observe criminals as validly as possible, we should observe them during considerations of actual crime opportunities (cf., Ericcson & Simon, 1980). By focusing on the immediate events proximal to a crime, a better understanding of what affects the potential offender during his/her crime evaluation would become available. Several methods for studying decision making and problem solving in ongoing situations have been developed by psychologists. In naturalistic settings, the most appropriate method is the collection of verbal protocols (Ericcson & Simon, 1980; Newell & Simon, 1972; Payne et al., 1978). Subjects provide continuous verbal reports by "thinking aloud" about their perceptions, thoughts and feelings while performing the behavior of interest. Verbal protocols have been used in both laboratory settings (e.g., Newell & Simon, 1972; Payne, 1976; Svenson; note 3), and in such real world settings as stock portfolio selection (Clarkson, 1962), airline accident investigations (Braunstein & Coleman, 1967), parole decision making (Carroll & Payne, 1977), consumer behavior (Payne & Ragsdale, 1977), and medical diagnosis (Johnson et al., 1982).

Shoplifting

I have chosen to study criminal thought processes by selecting a crime that is accessible for study - shoplifting. Shoplifting is frequent, nonviolent, public and observable. It is also a serious

concern. It has been estimated that between 2% and 8% of customers engage in shoplifting (Astor, 1970; Barmash, 1971; Rosenbaum et al., 1980; Shave, 1978). Faria (1977) estimates that retail store theft accounts for 25% of all dollar crime loss in the United States, and shoplifting accounts for one-half of that amount (Shave, 1978).

Despite the widespread prevalence of shoplifting, knowledge about the extent and nature of the problem and the effectiveness of anti-theft strategies is based on inventory counts, apprehended shoplifters and anecdotal reports. Bickman et al. (1979) conducted a recent nationwide assessment of retail theft problems and selected anti-theft strategies used by retailers. These strategies included closed-circuit television, electronic article surveillence, employee training and environmental design. One of their major conclusions was that "There is little or no scientifically acceptable evidence to document the effectiveness of current strategies" (p. 301).

Little systematic data exists regarding the specific cues potential shoplifters use when making judgments about crime opportunities in a store environment. Although Kraut (1976) found that respondents who shoplifted the most saw the least risk associated with shoplifting, there is no indication of what would represent risk in a store setting. The methods that have been used to study shoplifting, e.g., interviews, have provided inadequate and/or biased information. The present study attempted to reduce these biases by using the verbal protocol methodology in real-life shopping situations. Expert shoplifters and non-

shoplifters were asked to walk through stores and to verbalize their thoughts, feelings and perceptions.

A major goal of this research is to investigate shoplifter thought processes and in this way clarify issues in deterrence theory and expert decision making. It is hoped that examination of thought processes will reveal what the shoplifter notices about the item, people and security devices, and how these characteristics are evaluated and weighed.

I hypothesize that expert shoplifters will make rapid and strategic assessments of shoplifting opportunities based on a few salient dimensions. Although novices may also simplify shoplifting situations as would be predicted by the "reasoning" model of man (Carroll, 1982), they are expected to make slower and less strategic evaluations. Furthermore, novices should be more deterred by the risk of being caught than experts. The rich source of data provided in this study should aid in our understanding of criminal behavior, our capacity to control crime, and our understanding of expertise in natural settings.

METHOD

Subjects

Most (nearly all) subjects were recruited from the Chicago area through newspaper advertisements. An additional few were recruited from introductory psychology courses at a Chicago university by handing out questionnaires. The advertisements asked for paid volunteers, both nonshoplifters and shoplifters, to participate in a study of shoplifting. Anonymous self-reports of shoplifting activity were solicited from persons replying to the ads or questionnaires. Respondents were offered $8.00 plus travel reimbursement to participate in the study.[1] A subject was considered an expert shoplifter if he/she either shoplifted: a) 20 times or more ever, or b) 5 times in the past year, or c) 10 times ever and at least once in the past year. If the subject did not meet any of these qualifications he/she was considered a nonshoplifter. All available experts were asked to participate, and a sample of nonshoplifters were contacted. Some subjects declined or failed to show up for the experiment.

From the pool of volunteers, 17 shoplifters and 17 nonshoplifters actually participated. The expert shoplifters claim to have shoplifted

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[1]Support for this project was provided through a grant from the Graduate School of Business, University of Chicago and through a Graduate Assistantship from Loyola University of Chicago.

a median of 100 times in their lives and at least 10 times in the past year. The median nonshoplifter had not shoplifted at all. There were 20 males and 14 females in the sample. Subjects did not differ in gender across shoplifting expertise, $F(1,30)<1.0$; or condition, $F(1,30)<1.0$. The mean age of subjects was 27.2 years with an age range from 18 to 62 years. Age differed neither across expertise, $F(1,30)<1.0$; nor condition, $F(1,30)<1.0$.

Design

The study was designed as a 2 x 2 factorial experiment; the two factors were shoplifting expertise--nonshoplifter and expert shoplifter, and shopping condition--shopping and shoplift intention. Subjects were randomly assigned to either the shopping or the shoplift intention condition. Those in the shopping condition were simply asked to go on a shopping trip. Subjects in the shoplifting intention condition were additionally asked to form an intention to shoplift sometime during their shopping trip. This manipulation was incorporated to simulate situations in which shoplifting would be intended rather than precipitated by being in the store.

Procedure

Subjects were met by an experimenter of the same gender, usually at the experimenter's university office. Six graduate students (three male, three female) served as experimenters. Subjects were first given practice in the verbal protocol procedures using a booklet

of store advertisements. They were asked to "think aloud" regarding what they saw, read, thought about, and thought of doing as they looked at the ads. Instructions were also given on how to use the tape recorders, which were microcassette SONY recorders with lapel microphones.

Following this practice session, subjects were asked to take the experimenter on a shopping trip, preferably a store or stores in which they normally shopped. Upon arriving at the store, subjects were reminded of the "think aloud" procedure. In addition, 10 expert shoplifters and 8 novices were asked to form an intention to shoplift, but were cautioned not to actually remove anything without paying for it. The tape recorder was concealed in the subject's pocket or purse, with the microphone attached to the subject's clothing. Subjects walked through the stores for approximately one hour. Neutral prompts were given to subjects when pauses between verbalizations were too long (e.g., "Say what you are thinking now."; see Appendix A for a complete list of prompts.)

As subjects walked through stores, the experimenter coded each department visited on a number of characteristics. These characteristics included security devices (e.g., mirrors, cameras), store layout (e.g., height of aisles), item characteristics (e.g., locked cases, chained items), and people (e.g., number of salesclerks). At the completion of the experiment the subject was debriefed, paid for his/

her participation, and reimbursed for any travel expenses incurred.

RESULTS

Coding Protocols

Prior to any analyses, subjects' protocols were first broken down into short phrases. A phrase corresponds to a naive assessment of what constitutes a single reference or task assertion by the subject (Newell & Simon, 1972). More specifically, in this study a phrase consisted of a single idea or thought. Reliabilities were calculated by dividing the total number of phrases coded by each coder pair. The intercoder reliabilities for pairs among the 5 coders were between 81% and 91%.

A coding scheme was developed to categorize these phrases. Statements were coded into five major categories: perceptual, motivational, judgmental, feeling/emotion, and extraneous. Perceptual, motivational, and judgmental categories were further broken down into subcategories. Perceptual statements included comments about store personnel, people, security devices, item characteristics (e.g., size), and layout of the store. For example, the phrase "They have a couple of mirrors in the back..." was coded as a perceptual statement about security devices. Motivational statements indicated the subject's examination of, need for, or attraction to the item, e.g., "I like that shirt." Assessment of risk, shoplifting methods, the feasibility of taking an item, i.e., the ease with which an item

could be shoplifted, and decisions to take or not take an item were considered judgmental statements. An example of a risk assessment was, "Sometimes I wonder about the consequences of what would happen to me if I got caught" (see Table 1 for a complete list of categories and subcategories as well as frequencies). Feeling statements were not examined further since there were only 8 such statements in the entire study. An example of a feeling statement was "I'm getting nervous now." Extraneous phrases were those statements that did not fit any of the other categories and/or were not related to shopping or shoplifting. Reliabilities for the coding of all specific categories were over 80%.

Coders also indicated whether each statement was made with specific reference to the item, or to the department or store they were visiting. An example of a phrase coded at the store level was, "Kroch and Brentanos' books are always easy." Finally, coders emphasized shoplifting and buying thought sequences by bracketing the relevant statements. Discrepancies in protocol breakdown and coding were resolved by the author.

The protocols were adjusted by deleting extraneous statements. Protocols ranged in length from 64 to 945 statements (i.e., phrases). As a result of the wide variation in length of protocols, much of the data violated homogeneity of variance assumptions (Bartlett's test, Winer, 1971; p. 208). Therefore, median tests were used instead of

TABLE 1

Number of Shoplifting Statements Made For Each Statement Type By Condition (item level only)

	Condition		
	Shoplifter/ Shoplift	Shoplifter/ Shop	Nonshoplifter/ Shoplifter
Perceptual			
Store personnel	11 (2.0%)	6 (2.0%)	0 (0.0%)
People	3 (0.5%)	4 (1.0%)	4 (3.0%)
Security guards	5 (0.8%)	0 (0.0%)	0 (0.0%)
Security devices	8 (1.0%)	19 (6.0%)	0 (0.0%)
Store layout	0 (0.0%)	6 (2.0%)	0 (0.0%)
Size of item	15 (2.5%)	13 (4.0%)	3 (2.0%)
Price of item	8 (1.0%)	15 (5.0%)	3 (2.0%)
Naming item	72 (12.0%)	44 (14.0%)	4 (3.0%)
Orientation/location	13 (2.0%)	8 (2.0%)	1 (0.7%)
Motivational			
Attraction	60 (10.0%)	28 (9.0%)	20 (14.0%)
Use/need	40 (7.0%)	12 (4.0%)	8 (6.0%)
Examination of item	45 (7.0%)	19 (6.0%)	14 (10.0%)
Price too high	1 (0.2%)	4 (1.0%)	3 (2.0%)
Store service/policy	1 (0.2%)	1 (0.3%)	0 (0.0%)
Intention to shoplift	9 (1.5%)	3 (0.9%)	2 (1.0%)
Searching for item	2 (0.3%)	2 (0.6%)	0 (0.0%)
Shopping method	0 (0.0%)	3 (0.9%)	1 (0.7%)

TABLE 1 (cont'd)

Number of Shoplifting Statements Made For Each Statement Type By Condition (item level only)

	Condition		
	Shoplifter/ Shoplift	Shoplifter/ Shop	Nonshoplifter/ Shoplifter
Judgmental			
Feasibility (takeable)	64 (11.0%)	55 (17.0%)	9 (6.5%)
Tactic/method	107 (18.0%)	51 (16.0%)	23 (17.0%)
Risks	57 (9.0%)	9 (3.0%)	20 (14.5%)
Justifications	7 (0.8%)	0 (0.0%)	6 (4.0%)
Take/not take	77 (13.0%)	19 (6.0%)	17 (12.0%)
Buy/not buy	0 (0.0%)	1 (0.3%)	0 (0.0%)
TOTAL	603	322	138

more sophisticated methods in many of the analyses. There were no differences in length of protocol across expertise or condition, $X^2(3) < 1.0$, indicating that the amount of verbalization was not biased by the manipulations of this study.

The major purposes of this study can be organized into three areas: (a) an examination of the evaluation of shoplifting opportunities, including potential deterrents; (b) an examination of criminals' thought processes; and (c) a prediction of shoplifting from characteristics of stores and demographic information about subjects. The major hypothesis of this study was that expert shoplifters would evaluate crime situations in a rapid, strategic manner focusing on a few salient dimensions, and would be less deterred by the risks associated with being caught than novices asked to consider shoplifting.

Evaluating Shoplifting Opportunities

Initial comparisons of expert and novice shoplifting considerations yielded predictable results. Expert shoplifters devoted a median of 10.8% of their protocols to shoplifting, significantly more than the median of 1.1% by nonshoplifters ($X^2(3) = 11.12$, $p < .05$). They also considered a larger number of items to shoplift than did nonshoplifters, $X^2(3) = 9.89$, $p < .05$. Shoplifters considered a median of 7 items and nonshoplifters considered a median of 2 items. A comparison of buying statements, however, produced opposite results. Nonshoplifters devoted a median of 4.9% of their protocols to buying, signficantly more than the median of 2.2% by expert shoplifters

($X^2(3) = 7.03$, $p < .05$). These groups, however, did not differ in the number of items they planned to buy, $X^2(3) = 4.54$, ns (Mdn = 1.5; see Table 2).

When the average number of statements made for each shoplifting consideration was examined (nonshoplifters in the shop condition were not included in this analysis since they did not consider any items for shoplifting), nonshoplifters in the shoplift condition had a median of 11.25 statements, twice as many for each shoplifting consideration as the median of 5.66 statements made by the experts, $X^2(2) = 7.96$, $p < .05$. A similar but smaller effect was found for the average number of statements when considering an item to buy, $X^2(1) = 5.82$, $p < .05$. Nonshoplifters had a median of 5.33 statements related to buying an item, whereas shoplifters only had a median of 4.0 statements for each buying consideration. Expert shoplifters made more rapid, i.e., shorter, evaluations of shoplifting and buying considerations than did nonshoplifters.

Shoplifting evaluations were made at three levels--item, department and store.[2] Experts verbalized significantly more shoplifting-related thoughts at both the item level, $X^2(1) = 7.39$, $p < .05$; and at the department level, $X^2(1) = 7.19$, $p < .05$, than did nonshop-

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[2]Analyses were computed on the basis of shoplifting statements, rather than using subject comparisons.

TABLE 2

Shoplifting and Buying Statements by Condition

	Subjects' Shoplifting Expertise			
	Expert		Nonshoplifter	
Instructional Set:	Shoplift	Shop	Shoplift	Shop
No. of Subjects	10	7	8	9
Mdn. Protocol length (statements)	241.5	304.0	293.0	321.0
Mdn. % of protocol devoted to shoplifting*	41.5%	40.8%	4.9%	0%
Mdn. # of items considered to shoplift*	7.0	7.0	2.0	0
Mdn. # of statements made per item considered to shoplift*	6.09	5.35	11.25	-
Mdn. % of protocol devoted to buying	2.25%	2.0%	4.45%	13.3%
Mdn. # of items considered to buy	0.5	1.0	1.5	4.0
Mdn. # of statements made per item considered to buy*	4.0	4.0	5.33	5.73

* $p < .05$

lifters.[3] Experts devoted a median of 38% of their item-level thoughts and 29.5% of their department-level thoughts to shoplifting, whereas novices devoted a median of 5.5% of their item level thoughts to shoplifting and 0% of their department level thought phrases to shoplifting.

Perceptual statements. The salient features of shoplifting opportunities can be assessed by examining the perceptual statements made during shoplifting considerations. Because of the small frequencies of some of the subcategories of perceptual statements, these categories were combined to create three new subcategories: people (i.e., store personnel, security guards, and shoppers), physical security (i.e., store layout, location and security devices), and item characteristics (i.e., item name, price and size). At the store level experts in the two conditions differed in what perceptual characteristics they mentioned, $X^2(2) = 17.94$, $p < .01$. Nonshoplifters rarely made shoplifting-related statements at the store level, so they were not included in this analysis. Experts in the shoplift intention condition mentioned physical security 79% of the time and people 21% of the time; whereas shoplifters in the shop condition were less concerned with physical security (34%) and more interested in people (34%).

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[3]The groups did not differ in the number of shoplifting related statements made at the store level, $X^2(2) < 1.0$.

Novices and shoplifters differed in what they considered salient at the item level, $X^2(4) = 10.21$, $p < .05$; see Table 3. Post hoc X^2 analyses revealed that the differences were a result of condition, $X^2(2) = 7.91$, $p < .05$. Experts in the shop condition mentioned physical security more often (27.1%) and people less often (8.5%) than novices and shoplifters in the shoplift intention conditions (physical security - 14.7%; people - 14.4%). Physical security, e.g., security devices, is a salient dimension for experts when assessing both the store and the item for shoplifting. When specifically asked to consider shoplifting, however, people became a salient feature for both experts and novices in their shoplifting evaluations.

Motivational statements. Motivational statements were examined to determine whether experts and novices were differentially motivated to shoplift. There were no significant differences, $X^2(4) = 1.47$, ns; subjects were motivated by attraction to and/or need for the item.

Judgment statements. Finally, judgment statements were reviewed to determine what kinds of conclusions subjects drew based on their perceptions. Experts differed in the judgments they made about the store, $X^2(3) = 9.82$, $p < .05$. Shoplifters in the shoplift intention condition mentioned risks in approximately one-half of their statements (49%) and considered methods of shoplifting in 30% of their statements. The shopping condition experts devoted 40% of their judgment statements to feasibility assessments and 28% to potential risks.

TABLE 3

Perceptual Statements Made at the Item Level

for a Shoplifting Consideration

Type of Perceptual Statements	Expertise/Condition: Expert/ Shoplift	Expert/ Shop	Nonshoplifter/ Shoplift
People (i.e., clerks, shoppers, security)	19 (14.1%)	10 (8.5%)	4 (26.7%)
Physical security (e.g., layout, mirrors, cameras)	21 (15.6%)	32 (27.1%)	1 (6.7%)
Item Characteristics (e.g., size, price)	95 (70.4%)	76 (64.4%)	10 (66.7%)

$X^2 = 10.21$, df=4, $p < .05$

When specific items were considered, judgmental statements exhibited the strongest differences among groups, $X^2(8) = 62.9$, $p < .01$; see Table 4. Post hoc X^2 analyses indicated that both level of expertise and experimental condition resulted in differences among the groups (expert/shoplift vs. expert/shop, $X^2(4) = 36.82$, $p < .01$; expert/shop vs. nonshoplifter/shoplift, $X^2 = 44.39$, $p < .01$). Experts in the shop condition devoted a median of 46.4% of their judgment statements to the feasibility of taking various items; over twice as many as the median of 20.6% for feasibility statements made by subjects in the shoplift intention conditions. Method of shoplifting was mentioned in approximately 32% of judgment statements across conditions. Nonshoplifters mentioned risks more often than either expert group (26.7% vs. 5.6% for expert/shop and 18.4% for expert/shoplift). They also provided justifications in 8% of their statements, whereas experts in the shoplift condition justified their criminal thoughts 1.5% of the time, and experts in the shop condition made no justifications at the item level. Finally, experts in the shop condition made fewer decisions to take or not take an item (15.2%) than did either experts in the shoplift condition (24.8%) or nonshoplifters (27.6%).

To summarize the findings on judgment statements, it appears that experts assess the risks of shoplifting at the store level prior to any item considerations. Experts in the shoplift condition considered specific items for shoplifting, whereas experts in the shop condition were likely to make judgments about the possibility of shoplifting,

TABLE 4

Judgmental Statements Made at the Item Level

for a Shoplifting Consideration

Type of Judgmental Statements	Expertise/Condition: Expert/ Shoplift	Expert/ Shop	Nonshoplifter/ Shoplift
Feasibility (i.e., takeable)	64 (20.6%)	58 (46.4%)	9 (12.0%)
Tactic/Method	107 (34.5%)	41 (32.8%)	23 (30.6%)
Risks	57 (18.4%)	7 (5.6%)	20 (26.7%)
Justifications	5 (1.6%)	0 (0.0%)	6 (8.0%)
Decision (i.e., take/not take)	77 (24.8%)	19 (15.2%)	17 (22.6%)

$X^2 = 62.92$, df=8, $p < .01$

rather than to make actual item considerations. Risks were mentioned by experts, but to a lesser extent than by novices. Novices rarely made judgments at the store level. When considering an item, nonshoplifters were concerned with both risks and making justifications for shoplifting an item. Justifications for shoplifting were made by only a few people. Nonshoplifters mentioned that the item was not expensive and would not be missed, while shoplifters said that they only stole items that they needed/and or shoplifted when they did not have the money to pay for the item.

Deterrents

Another way of examining subjects' evaluations of crime opportunities is by finding out what are considered deterrents to shoplifting, and how these deterrents affect evaluations. Subjects often mentioned what would and would not deter them from deciding to take an item. Both perceptual and judgmental statements could serve as deterrent statements. Deterrents included security devices, item inaccessibility (e.g., too large), and the possibility of being observed and/or caught, and negative feelings such as guilt. The lack of these deterrents plus store layout conducive to shoplifting, e.g., high counters, were considered facilitators to shoplifting. Experts and novices mentioned both deterrents and facilitators.

Looking at the specific deterrents mentioned,[4] presence (or

[4]Cell frequencies were too small to compute statistical tests on these findings.

absence) of security devices accounted for 32% of all deterrent (or facilitator) statements made by expert shoplifters, whereas nonshoplifters only mentioned security devices in 10% of their considerations. For example, one expert said "Aha, most of the cases have deadbolt locks." The novices tended to focus on the possibility of being caught (39%), and negative feelings such as guilt (12%). When considering some earrings, one novice said ". . .it would be, you know, against the law, and I guess that's where my mom comes in my head saying what right is it of yours to take." Both shoplifters and nonshoplifters did consider the accessibility of the item as a major factor in considering whether or not to take an item. Deterrents and facilitators to shoplifting are presented in Table 5.

Although the cell frequencies are small, especially for novices, and should be interpreted with caution, there are differences in what are considered deterrents. Experts consider security devices and inaccessibility of items as primary deterrents to shoplifting. The primary deterrents for novices were the possibility of being observed and/or caught and their feelings of guilt and fear. The most important facilitator to shoplifting for novices was not being observed; whereas experts considered item accessibility and the lack of security devices as favorable conditions for shoplifting.

Deterrents and decisions to take an item. Despite the differences in deterrents mentioned, the final decision to take an item

TABLE 5

Deterrents and Facilitators to Shoplifting

	Shoplifters	Nonshoplifters
Security devices	32% (61)	10% (3)
Item accessibility	38% (73)	23% (7)
Store personnel	10% (19)	6% (2)
Being observed and/ or caught	17% (33)	39% (12)
Store layout	3% (5)	10% (3)
Negative feelings	5% (11)	12% (4)

did not differ between experts and nonshoplifters, $X^2(1) = 1.44$, ns. Nonshoplifters always mentioned one facilitator and never any deterrents when they decided to take an item (N=6). However, when they decided not to take an item (N=5), they always mentioned at least one deterrent, but also often mentioned facilitators. One deterrent was enough to stop a nonshoplifter from taking an item. The following excerpt from a nonshoplifter serves to illustate this:

> This would be the kind of place. There's no cameras that you can see, doesn't look like there's any 2-way mirrors. There's no guards. 'Cause the sale, it's really crowded. There's too many people to handle. The only thing that would stop me probably is that it just doesn't seem like it's worth the risk to put something that only costs a dollar in your pocket. On the other hand, if it was really expensive, it wouldn't be worth the risk 'cause you could get in real trouble.

Experts also mentioned a median of one deterrent when they decided not to take an item (N=63). Experts in the shop condition sometimes also mentioned facilitators, but those in the shoplift condition did not. When deciding in favor of taking the item (N=72), experts in the shoplift condition mentioned a median of one facilitator. Experts in the shop condition talked about deterrents as well as facilitators. Mention of a deterrent was followed by a facilitator. In effect, experts discounted the deterrents (e.g., mirrors, a salesclerk) by talking about how to get around them. The following excerpts provide examples of this strategy:

> Belts, leather. It's got denim running through it, yeah. Once again I would say if there would be any attempt I think something like this would be sufficient, and probably relatively simple to do. It's only a saleslady around, and

she's not paying that much attention anyhow.

They have new electronic gadgets. They kill me. They only detect it if you carry it high enough to go between them. Up to a height of about 2 feet they don't work.

In summary, nonshoplifters are deterred from taking an item if they perceive a single deterrent. This is most likely to be related to the fear of being caught or the inability to conceal the item. Experts were most often deterred by physical security, but sometimes attempted to get around or discount these deterrents in their shoplifting strategies.

Thought Processes

In order to examine the way in which subjects process information to arrive at a final decision in shoplifting situations, the order of shoplifting statements was determined at the item, department and store levels. Examining beginning and ending statements of each sequence, it was found that nonshoplifters most often began with perceptual statements. All groups most often ended their shoplifting thought sequences with a judgmental statement (see Table 6). Experts often mentioned motivational thoughts prior to ending with a judgment statement. Transitions in thought were also calculated; a transition was defined as a shift from one type of statement (e.g., perceptual) to another. Nonshoplifters and experts did not differ; both made approximately two transitions per thought sequence, $t(23) < 1.0$.

By examining the specific subcategories of statements made, an

TABLE 6

Shoplifting Thought Order at the Item Level

	Expertise/Condition		
	Expert Shoplift	Expert Shop	Nonshoplifter/ Shoplift
Average number of transactions*	2.06	1.93	1.90
Beginning statement	Motivational (53%)	Perceptual (56%)	Perceptual (54%)
End Statement	Judgmental (71%)	Judgmental (67%)	Judgmental (54%)
Thought order	M→J	P →(M) →J	P →(M) →J

*$t < 1.0$, df=1, ns

attempt was made to construct the most probable item level thought sequence for each group. Nonshoplifters began by indicating how much they liked and could use a particular item, then contemplated the possible risks involved and the strategies they could use for taking a particular item, and finally made a judgment as to whether or not they would take the item. Experts in the shopping and shoplifting conditions evidenced analogous thought sequences. Both began by naming the item they were considering; experts in the shop condition went on to examine the item, often mentioning price. They then determined the "takeability" (i.e., the ease with which the item could be shoplifted) of the item and planned their method of shoplifting. After naming the item, experts in the shoplift condition mentioned that they liked the item, determined whether or not the item was feasible to take, and finally assessed the method of shoplifting and the risks involved (see Table 7).

Although expert and novice groups did not differ in the proportion of shoplifting statements that were begun by naming the item, $X^2(2) = 5.64$, ns, there was some indication of a trend in the data. Experts in the shoplift condition began by naming a median of 42% of their items, experts in the shop condition named a median of 33% of the items considered for shoplifting. Nonshoplifters, at the median, did not name any items.

Thought patterns were not examined for nonshoplifters at the

TABLE 7

Shoplifting Thought Processes at the Item Level

	Statement Order			
Expertise/Condition	First	Second	Third	Fourth
Experts/Shoplift	Item (P)* →	Like (M) →	Takeability →	Tactic and Risks (J)
Experts/Shopping	Item (P) →	Examine/Price (M) (P) →	Takeability (J) →	Tactic (J)
Nonshoplifters/ Shoplift	Like (M) →	Use (M) →	Risks and Tactic (J) →	Take or not take (J)

*(P) = Perceptual statement

(M) = Motivational statement

(J) = Judgmental statement

department and store levels since they made too few shoplifting-related statements at these levels. At the department level, thought order was not clear for shoplifters. Experts in the shoplift condition usually mentioned that they could use items in a particular department and how easy it would be to take something in that department (i.e., feasibility judgment). Shoplifters in the shop condition were much more observant of store layout and people, and were also likely to make a judgment about the feasibility of shoplifting in that department. The order of thoughts at the store level was variable. Experts in both conditions most often mentioned security devices and how feasible it was to shoplift in each store. As was the case when individual statements were examined, we find that shoplifters assess the feasibility of the store and department for shoplifting. For the most part, their assessments included scanning security devices and people.

Levels of shoplifting thoughts were inspected to determine whether any hierarchical processing occurred. Hierarchical processing would occur if subjects mentioned characteristics of the store, then the department, and lastly, a specific item, in sequence. Nonshoplifters exhibited no apparent hierarchy of thoughts. This is in part attributable to the prior finding that nonshoplifters made few shoplifting-related statements at the department and store levels. Experts, in contrast, did evidence a slightly hierarchy of thoughts. They often assessed the feasibility of either the store or the department first,

and then considered items within the store or department for shoplifting.

Predicting Shoplifting

The characteristics of each department visited were recorded by experimenters during the subjects' store trips, and later they were given scores as to the feasibility of the department for shoplifting: higher scores indicated lower feasibility (see Appendix B for sample of department coding sheet).[5] Security device and item characteristic scores ranged from 0-3, and store layout scores ranged from 0-7. The number of salesclerks and shoppers present were estimated. Since security personnel were infrequently present, only the presence or absence of security personnel in each department was recorded. A visibility index was used as a rating scale to indicate what percentage of the time the subject was visible to others in the department. The index was broken down into 5 intervals from (1) visible 80-100% of the time to (5) visible 20% or less. The median score across departments for these measures was calculated for each store subjects patronized. Additional independent variables included in the following analyses were: store type, time of day, and age, gender and shoplifting experience of the subject. Using this information a series of

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[5]Unless otherwise indicated, the remaining analyses were calculated using the store rather than the subject or item as the unit of analyses. Nonshoplifters in the shopping condition were not included in the remaining analyses.

multiple regression analyses were computed in an attempt to predict various shoplifting measures: the number of items considered to shoplift, the proportion of thoughts devoted to shoplifting, and the final decision to take an item. Store type and time of day were dummy coded. Evening served as the criterion group for morning, midday and afternoon times. Department, drug and grocery stores were coded using "other" stores (i.e., all stores that did not fit in the prior categories) as the criterion group.

Number of items considered. The type of store was the only significant predictor of the number of items a subject considered for shoplifting, accounting for 25% of the variance using multiple regression, $F(2,59) = 9.86$, $p < .002$. The number of items considered in department and drug stores ($\bar{X} = 2.59$) was greater than the number considered in grocery and other stores ($\bar{X} = 0.93$). When only expert shoplifters were examined, both the type of store and the time of day predicted the number of items considered, explaining 38% of the variance, $F(3,34) = 7.09$, $p < .001$. Shoplifters considered more items in department and drug stores than in grocery and other stores ($\bar{X}$'s = 3.24 and 0.68, respectively). A mean of 4 items were considered in evening hours, whereas only a mean of 1.7 items were considered across the other time periods. However, since only one expert was run in the evening this should be interpreted cautiously.

Proportion of shoplifting thoughts. The proportion of thoughts

devoted to shoplifting was best predicted by the gender of the subject, the visibility of salesclerks, past shoplifting experience, age, and time of day. These predictors accounted for 51% of the variance in a multiple regression analysis, $F(5,56) = 11.82$, $p < .001$; see Table 8. Gender alone accounted for 22% of the variance in the proportion of shoplifting-related thoughts. Males devoted a mean of 36% of their protocols to shoplifting, whereas females only devoted a mean of 4% of their thoughts to shoplifting. Salesclerk visibility increased explained variance beyond that attributed to gender by 13%. The more visible salesclerks were, the smaller the proportion of protocol devoted to shoplifting. When salesclerks were visible 80% to 100% of the time, only a mean of 9% of subjects' protocols were devoted to shoplifting. This increased, however, as salesclerks visibility decreased, to the point where a mean of 56% of protocols were shoplifting-related when visibility was 20% or less. Also, as would be expected, the more experienced the subject was, the larger the proportion of protocol devoted to shoplifting. The novices, those who had never shoplifted, devoted a mean of 5% of their protocols to shoplifting, whereas the most experienced shoplifters (i.e., those who shoplifted 500 times or more) devoted a mean of 70% of their thoughts to shoplifting.

Salesclerk visibility and gender were the best predictors of the percent of thoughts devoted to shoplifting when only shoplifters were examined. These variables accounted for 38% of the variance,

TABLE 8

Predictors of the Percent of Protocol Devoted to Shoplifting

Variable	Additional Variance Explained	Beta	Stepwise F
Sex	22.5%	-.527	17.38
Salesclerk visibility	12.1%	.200	15.62
Past shoplifting experience	6.4%	.344	13.46
Age	5.9%	-.411	12.63
Time of day (afternoon)	4.5%	-.249	11.82
Total			

All variables were significant at the $p < .001$ level or better.

$F(2,35) = 10.53$, $p < .003$. The more visible salesclerks were, the less shoplifters thought about shoplifting ($\bar{X}$ = 17.6% for 80% to 100% visible, increasing to $\bar{X}$ = 73.3% for 20% or less visible). Male shoplifters also thought more about shoplifting than did females.

A closer examination of this gender difference was conducted using subject as the unit of analysis. A oneway ANOVA indicated that male and female shoplifters did not differ in the number of items considered for shoplifting, $F(1,15) < 1.0$. Shoplifters considered a mean of 9.4 items. Gender differences were found for the percent of protocol devoted to shoplifting, $F(1,15) = 6.67$, $p < .02$. Males devoted 56.4% of their protocols to shoplifting on the average, whereas females only devoted a mean of 13.2% of their verbalizations to shoplifting. Although there was a trend for male shoplifters to make more statements when considering an item for shoplifting than females, this trend was not significant, $t(13) = 2.07$, ns; ($\bar{X}$ = 6.01 items for males, and $\bar{X}$ = 4.14 items for females). Looking at higher levels statements, i.e., store and department levels, it was obvious without any analyses that females were not making any shoplifting statements at the store or department levels. Females accounted for only 7% of all statements made at the store and department levels.

Final decisions. The best determinants of the proportion of items subjects decided to take were store type and time of day. These variables accounted for 25% of the variance, $F(2,59) = 9.90$,

$p < .0002$. Subjects decided to take a larger proportion of items in department stores than in all other types of stores ($\bar{X}$'s = 0.61 and 0.28, respectively), and a larger proportion of items in the evening hours than during other times of the day ($\bar{X}$ = 0.98 and 0.34, respectively).[6] For shoplifters, the only predictor of the proportion of items decided to take was store type. Store type accounted for 31% of the variance, $F(2,35) = 8.03$, $p < .0013$. Shoplifters decided to take items more often in both department and drug stores than in other stores ($\bar{X}$ = 0.51 and 0.13, respectively).

Two-way analyses of variance were computed using store type and time of day as independent variables and store characteristics as dependent variables to determine whether stores differed on these characteristics. The only significant store characteristic was the number of store personnel present, $F(3,69) = 4.79$, $p < .004$. A post hoc studentized range statistic indicated that grocery stores had more sales personnel ($\bar{X}$ = 7.7) than other stores ($\bar{X}$'s = 4.3 for department store, 3.6 for drug stores, and 2.9 for other stores).

In summary, the predictors of shoplifting were similar for experts and nonshoplifters. Both groups not only considered more items for shoplifting in department stores than in other stores, but

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[6]The time of day that subjects visited stores did not differ by either shoplifting status, $F(1,30) < 1.0$; nor experimental condition, $F(1,30) < 1.0$.

also decided to take a larger proportion of these items than items considered in other stores. Experts also considered and decided to take more items in drug stores. More decisions to take an item were made during evening hours. Male subjects devoted a larger proportion of their protocols to shoplifting than female subjects. The strongest influence on subjects' thoughts, second only to gender, was salesclerk visibility. As salesclerk visibility increased, subjects made fewer shoplifting verbalizations.

DISCUSSION

The major contribution of this research was to provide a more detailed understanding of criminal behavior. This was accomplished through the analysis of crime evaluations made in shoplifting situations. Verbal protocols generated by both expert and novice shoplifters furnished information about which features of the situation are salient, which features serve as deterrents to shoplifting, and how individuals make evaluations of crime opportunities. The discussion will concentrate on two major areas: the evaluation of potential crime opportunities and expert decision making.

Evaluation of Potential Crime Situations

The results suggest first that the instructional manipulation influenced shoplifting verbalizations. Novices only spoke of shoplifting if they were told to do so in the instructions. Experts also differed by condition. The experts in the shoplift condition made more actual considerations of items, whereas experts in the shop condition made more risk assessments at the store level and made fewer decisions to take (or not take) an item. These differences are most likely due to the instructions. Experts decided to take (or not take) more items when the instructions explicitly said to think about shoplifting. Expert subjects in the shop condition, although they considered as many items as experts in the shoplift condition, were more likely to assess the likelihood of shoplifting rather than making any

final decisions. The data suggest that experts may typically consider shoplifting while shopping, even when they do not have any prior intention to shoplift. However, the potential effect of demand characteristics may have resulted in more shoplifting verbalizations than might actually occur. There was no opportunity in this study to assess this threat.

Secondly, the results also suggest that experts and novices do not evaluate shoplifting situations in the same way. The only obvious similarity between these groups was the motivation for shoplifting. Experts and nonshoplifters were motivated by either the need for or the attraction to an item. As was predicted by the "reasoning" model (Carroll, 1978), both experts and novices based their evaluations on simplified versions of situations. What was considered salient for shoplifting considerations, however, differed from novices and experts. Novices considered people to be a key factor, whereas experts, although aware of people, placed more weight on the evidence of physical security. Experts were more concerned with the specific strategies needed to shoplift and the physical deterrents to shoplifting, e.g., security devices, and less worried about the risks involved when they considered items for shoplifting. In contrast the risks of being observed and/or captured, as well as justifications for shoplifting, were major concerns for nonshoplifters.

What was considered an effective deterrent also differed with

level of expertise. Perceptions of the likelihood of sanction, i.e., being observed and captured, were the strongest influences on nonshoplifters' thoughts. The perception of a single deterrent was sufficient to prohibit shoplifting. Apparently, some type of deterrent effect is operating for novices. Experts, on the other hand, were deterred by strategy-specific problems such as item size, security devices, and the chance of being observed. These deterrents are proximal to the crime opportunity. Few expert shoplifters considered the distal consequences of shoplifting - arrest, trial, fines, jail. These findings are consistent with the literature on crime perceptions (e.g., Claster, 1967; Kraut, 1976; Waldo & Chiricos, 1972). Experienced criminals give the least weight to the probability of being caught. Shoplifters were most concerned with immediate issues of concealing items and avoiding detection. In a number of cases, the experts also attempted to work around deterrents or simply discounted them in planning their strategies. These findings, along with previous research, suggest that experts perceive the risks of being detected and caught as under their own control because they can rely on their expertise to avoid detection.

Store characteristics were coded to provide a more objective measure with which to assess subjects' crime evaluations. Store type consistently predicted the number of items considered to shoplift and the final decision to take an item for both shoplifters and novices. Subjects considered more items in department and drug stores than in

other kinds of stores. This finding coincides nicely with earlier research. Morton (1975) found that department stores account for 41% of total retail sales in the United States but account for 61% of all crimes. Drug stores represent 6% of retail sales but claim 10% of all losses due to crime, and grocery stores make up 42% of retail sales but only experience 21% of all criminal losses. Shoplifting occurs primarily in department and drug stores. When store types were compared, however, the only significant difference was the number of sales personnel present. Grocery stores had more sales personnel than any other store type. Although this may be a partial explanation for the small number of items considered in grocery stores, it does not explain why few items were also considered in "other" stores, e.g., bookstores, which had few sales personnel to serve as deterrents.

One potential explanation for the lack of differences in stores is the nonstandardized method used to code stores. Rather than obtaining a thorough assessment of each store, coders only noted what was visible to them while in the store. Because subjects varied in the amount of time they spent in each store, the extensiveness of the coding for each store also varied. Furthermore, the intercoder reliabilities for coding were not determined. Therefore, a definitive explanation of why a larger number of items are considered in department and drug stores can not be given. I would speculate, however, that department and drug stores carry items that are more interesting and/or accessible, e.g., easily concealable, to shoplifters.

A strong influence on the amount of shoplifting verbalizations generated was the degree to which sales personnel was visible. The more visible sales personnel were, the less subjects verbalized shoplifting thoughts. The larger number of sales people in grocery stores resulted in less shoplifting verbalizations, and subsequently, fewer items considered for shoplifting. Shoplifters can adjust their strategies to overcome static deterrents, i.e., security devices and store layout, and in fact, some of the shoplifters in the study attempted to do that. Store personnel, however, are dynamic and can change their behavior to interfere with shoplifters' strategies. Other studies agree that sales personnel are effective deterrents of shoplifting behavior (Bickman et al., 1979). Stores can effectively have a strong negative impact on shoplifting because sales personnel are potential deterrents that stores can control. However, when stores cut their costs by lowering salaries or reducing sales staff, an increase in shoplifting would be a natural consequence.

A further interesting finding was that subjects decided to take a larger proportion of items during evening hours than at any other time. This finding did not hold when only shoplifters were examined. While there is no clear consensus regarding peak shoplifting hours, some studies suggest that the largest volume of shoplifting occurs during afternoon hours (Griffin, 1978; Shave, 1978). Apparently, subjects, especially novices, perceived the least likelihood of being apprehended during evening hours. Increased surveillence by sales

staff during evening hours could potentially decrease shoplifting.

Expert Criminal Decision Making

The results provide a fairly clear indication that expert shoplifters not only verbalize more shoplifting thoughts than nonshoplifters, but also, think differently when evaluating a shoplifting opportunity. Experts were much more efficient in their strategies, making rapid and orderly evaluations of items for shoplifting. They averaged fewer than six statements per item considered, whereas nonshoplifters made twice as many statements per consideration. Novices had a difficult time making a decision, vacillating between taking and not taking the item. The efficiency of these experts is consistent with research indicating that even when experts and novices use similar decision rules, the experts are faster (Johnson, 1981).

The purposive manner of experts' strategies is seen in their tendency to assess the department and store for the feasibility of shoplifting prior to examining specific items. Shoplifters focused attention on the evidence of security devices, the physical layout of the store, and the number of people present. A negative evaluation of the store was less likely to result in the consideration of items in that store for shoplifting. Nonshoplifters rarely ascertained the feasibility of the store for shoplifting. The thought order of experts' considerations followed logically from identifying the item, examining it to determine shoplifting potential, and then

planning the method of shoplifting. Nonshoplifters were less logical, often becoming preoccupied with the assessment of risks and failing to determine the takeability of the object.

The experts' protocols are consistent with a schematic method of information processing. Although not statistically significant, the completely unexpected finding that experts tended to name the item they were considering for shoplifting more often than novices suggests that shoplifters have information about items organized around the item-type or item-name. These categories might contain information about the "takeability" of the item and the best methods to shoplift the item. For example, an item such as sunglasses, a frequently mentioned shoplifting item in this study, might activate a schema of a small, easily concealable item that is very feasible for shoplifting. This schema could be based on past shoplifting experience with similar items. The organization of information by item-type fits the concept of prototypes (Rosch & Mervis, 1975), or a central tendency schema (Hastie, 1981). A prototype can be defined as the member of a category that has the most characteristics in common with other members of the category and the least attributes in common with members of contrasting categories. When experts name an item, they may be activating a schema or prototype of a "shopliftable" item. Novices also named items they were considering, but much less frequently than experts. This suggests that novices may have schemas that are only partially developed and lacking in richness (cf., Lurigio & Carroll,

note 4).

A further implication of schematic processing is the hierarchical nature of experts' shoplifting considerations. Shoplifters typically assessed the store or department prior to considering a particular item. Hastie (1981), Abelson (1981), and others have proposed schema hierarchies of information processing. According to Hastie (1981), there are three levels of schemas. The highest level consists of the procedural schema which directs information search and plans of action. The second level is the template schema that provides a filing system for classifying incoming information. Prototypes comprise the lowest level of schema processing. Shoplifters' evaluations are suggestive of this pattern. The shoplifter first assesses the security set-up of the store (or department) and makes a determination of shoplifting feasibility. This is very similar to the description of procedural schema. Specific items are than considered for shoplifting. For those items that meet the qualifications for a shopliftable object, i.e., match the prototype, a strategy for shoplifting is recalled or devised that is dependent on the object and the situation. Apparently, once a prototype is evoked, another procedural schema is used to plan the shoplifting act. The template schema of classifying information appears to be utilized at both the store and items levels. Although shoplifters' evaluations do not strictly conform to Hastie's levels of schematic processing, they suggest that a similar process is occurring. The schematic

nature of experts' shoplifting evaluations is only suggestive but conforms to findings of schema processing by experts in other domains (e.g., Chase & Simon, 1973; Johnson, 1981; Larkin et al., 1980).

Validity

Evaluating the extent to which these results provide valid insights about shoplifting is a difficult process. Some indications of validity are that the deterrent effect of sales personnel, the prevalence of shoplifting thoughts in department and drug stores, and the perceptions of risks mentioned are in accord with other accounts of shoplifting activity (e.g., review of Bickman et al., 1979; Kraut, 1976). The expected differences between shoplifters and nonshoplifters, and the general impression obtained by the experimenters that subjects were serious and motivated augments the perception of validity.

There are, however, some indications that demand characteristics influenced subjects to say what they thought was expected. All subjects knew the study related to shoplifting because the newspaper advertisements specifically mentioned shoplifting. Many shoplifters seemed motivated to impress the experimenters with their expertise, and a few were disappointed when they learned that they would not actually steal anything. There was an obvious difference in the percentage of protocol devoted to shoplifting by males and females. Male shoplifters may have been trying to impress their (male) experimenters and/or the females may have been inhibited from revealing

socially unacceptable behavior. It should be noted that gender did not affect the number of items considered for shoplifting. Additionally, the effect of sales personnel visibility may have resulted in an inhibition of shoplifting verbalizations of shoplifting thoughts. At this time, there is no truly convincing argument one way or another.

SUMMARY

Using a verbal protocol methodology, both expert shoplifters and nonshoplifters verbalized their thoughts during evaluations of actual shoplifting situations. This procedure was successful at providing observations of typically covert thought processes. Results revealed that expert shoplifters were more strategic, efficient and schematic than nonshoplifters. Experts considered more items to shoplift and did so in a shorter amount of time (i.e., fewer verbalizations per item) than novice shoplifters. Novices were more likely to vacillate between taking and not taking an item. Experts also named the item they were considering more often than novices suggesting that experts might be activating schemas related to shoplifting and shoplifting strategies.

With regard to deterrence, experts were deterred by sales personnel and strategic difficulties (e.g., size of the item) whereas nonshoplifters were deterred by fear, morality, lack of knowledge and lack of skills. The implication of this finding is that expert shoplifters might be deterred most successfully through the wise use of store personnel who provide a highly visible and mobile deterrent. Although the research was demanding in time and effort, it provides a useful corollary to studies of aggregate crime and inventory statistics and retrospective self-reports of apprehended criminals.

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APPENDIX A

APPENDIX A

Neutral Prompts

1. Remember, say anything that comes to mind, no matter how unimportant it seems to you.
2. Say what you are doing now.
3. Remember, talk about whatever you see.
4. Talk about what observations you are making.
5. Mention anything that you are thinking about.
6. Be sure to say what you are doing now.

APPENDIX B

APPENDIX B

Department Coding Form

Subject_____ Dept._____

Condition_____ Size of Dept. 633 659 M BB H

Interviewer_____ Time_____

Store_____ Date_____

DEVICES

signs_____

CRIME THIEF RUIN REP.

ARREST PROSECUTE JAIL

cameras_____

two-way mirrors_____

convex mirrors _____

misc._____

ITEM CONTROL

tags: ALL ITEMS_____
EXPENSIVE ONLY_____

chains: ALL ITEMS_____
EXPENSIVE ONLY_____

cases: ALL ITEMS_____
EXPENSIVE ONLY_____

misc._____

LAYOUT

Exits:

to street: CONTROLLED_____
NOT CONTROLLED_____

rest of store: CONTROLLED_____
NOT CONTROLLED_____

Fire exits: CONTROLLED_____
NOT CONTROLLED_____

Stockroom: CONTROLLED_____
NOT CONTROLLED_____

Restroom: CONTROLLED_____
NOT CONTROLLED_____

aisle: Height_____ft.
Length 633 659 M BB H

transparency: YES____ NO____

cashiers: CENTER PERIPHERY
NEAR EXIT RAISED

dressing room:
doors: FULL ½ CURTAIN
locks: YES____ NO____
attendant: YES____ NO____
RECEIPT____ COUNT____

PEOPLE

	# visible	# spying	vis. index	# appr.	content (what happened)
Security					
Sales					
Shoppers					

visibility index: 1. always (80-100%) 4. slightly (20-40%)
2. very (60-80%) 5. rarely (0-20%)
3. moderately (40-60%)

= 1, 2, ...10, 14, 20, 30

APPROVAL SHEET

The thesis submitted by Frances M. Weaver has been read and approved by the following committee:

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The final copies have been examined by the director of the thesis and the signature which appears below verifies the fact that any necessary changes have been incorporated and that the thesis is now given final approval by the Committee with reference to content and form.

The thesis is therefore accepted in partial fulfillment of the requirements for the degree of Master of Arts.

7/18/83
Date

Director's Signature