EXPLAINING REPEAT RESIDENTIAL BURGLARIES: AN ANALYSIS OF PROPERTY STOLEN

by

Ronald V. Clarke
Rutgers, The State University of New Jersey

Elizabeth Perkins

and

Donald J. Smith Jr.
Police Executive Research Forum, Washington, DC

Abstract: *Records of property stolen during repeat residential burglaries in Dallas, Texas and San Diego, California were examined for evidence that burglars sometimes return: (1) to steal items left behind on the first occasion, and (2) to steal replacements for items stolen on the first occasion. In testing these propositions, the repeats were divided into two groups: those occurring within 30 days of the first burglary ("early" repeats) and those occurring after 30 days ("delayed" repeats). Evidence was found only for the second proposition — that burglars sometimes return to steal replacement items. For delayed repeats in both cities, the same items of property were taken more often than expected on both first and second occasions. Even so, returning for replacement property explains at best only a small proportion of repeat burglaries. A more complete explanation might result from studies comparing burglaries that are repeated with those that are not.*

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INTRODUCTION

It is now well established that burglars quite often return to homes they have previously burgled, though why they do so is not entirely clear (Pease, 1998; Farrell et al., 1995). The reasons given usually relate either to burglars' familiarity with the property or to their expectations about what they can steal. Thus, if burglars found it easy to get into a house, or found goods that were easily fenced, they might be tempted to return. These "boost" accounts of repeat victimization explain repetitions in terms of positive experiences during the initial offense. Pease (1998) distinguishes them from "flag" accounts that explain repetitions in terms of the unusual attractiveness or vulnerability of particular targets that result in their victimization by a variety of offenders.

Boost accounts have been supported by interviews with burglars who have returned to the same properties (Ashton et al., 1998; Bennett, 1995; Ericsson, 1995). For instance, Ericsson found that 76% of her sample of 21 convicted multiple burglars had:

> ...gone back to a number of houses after a varying period of time to burgle them between two and five times. The reasons given for returning to burgle a house were because the house was associated with low risk...they were familiar with the features of the house...the target was easily accessible...or to steal more goods in general...The reasons for going back for goods were things they had left behind... replaced goods...and unhidden cash (Ericsson, 1995:23).

While interviews with burglars can provide general support for boost explanations, they cannot easily provide information about the relative *importance* of reasons for returning. Difficulties of identifying and interviewing repeat burglars limit the size of samples. This can mean that only small numbers of burglars will mention any one reason, which limits the usefulness of tests of significance. In addition, it can be difficult for burglars, especially prolific ones, to distinguish between the various burglaries they have committed and to remember reasons for returning on any particular occasion. They might therefore accede to various reasons for returning without being able to give the precise number of occasions on which these reasons applied. Consequently, it is perfectly possible to conclude from interviewing repeat burglars that they sometimes return to take things left behind on the first occasion, and sometimes to take property that they believe will have been replaced — when in fact one of these explanations holds far more often than the other.

Another approach to testing boost explanations of repeat victimization was therefore taken in the present study. (A similar approach has recently been taken by Ewart et al., 1997, in a British study discussed below.) Specifically, the nature of property taken during first and second burglaries was examined in order to test the importance of two explanations related to expectations about the haul. These are:

(1) that burglars return to take property noticed but not taken on the first occasion (for example, because they had no buyer for the goods or were unable to carry them away), and
(2) that burglars return to take property that will have been replaced, possibly as a result of insurance payments.

METHODOLOGY

Rationale

It was assumed in designing this study that burglars would return quickly to take property they had left behind; otherwise, they might forget about the property. When returning to steal replacements, however, it would be pointless for them to come back too soon, before the owner had had time to replace the property. The repeat burglaries sampled for this study therefore were divided into two groups:

(1) "early" repeats, occurring within 30 days after the first burglary (thought to be a short enough period for burglars to remember property they had left), and
(2) "delayed" repeats, occurring more than 30 days after the first offense (thought to be sufficient time for replacements to be bought).

For the early repeats, expected probabilities were calculated of an item of property left behind on the first occasion being taken on the second. These probabilities were compared with observed values. The formula used in calculating expected probabilities was: "1/(100/**a**)*1/(100/**b**)***N** of early repeats," where **a** is "% of cases in which TV was *not* taken on first occasion in all repeated burglaries in Dallas (or San Diego)"; **b** is "% of cases in which TV *was* taken on the second occasion for all repeated burglaries in Dallas (or San Diego)"; and **N** is 32 for Dallas and 68 for San Diego.

For the delayed repeats, expected probabilities were calculated of the same items of property being taken on both the first and second occasions. These probabilities were compared with observed values. The formula used was: "1/(100/**a**)*1/(100/**b**)***N** of delayed repeats," where **a** is "% of cases in which TV *was* taken on first occasion in all

repeated burglaries in Dallas (or San Diego)"; **b** is "% of cases in which TV *was* taken on the second occasion for all repeated burglaries in Dallas (or San Diego)" and **N** is 117 for Dallas and 104 for San Diego.

Three limitations of the methodology should be noted. First, the assumptions underlying the 30-day dividing point for early and late repeats were not verified by interviewing burglars operating in the study areas. Such interviews might have confirmed that burglars do indeed return quickly to steal items they had to leave behind on the earlier occasion, or that they generally wait 30 days or so before returning to steal replacement property. Confirmation of these assumptions would strengthen confidence in the findings of the study. Second, without interviewing victims, it was not possible to ascertain whether replacement items were stolen in late repeats and not simply additional items of the same type. On the other hand, the comparison of items stolen in early and late repeats provides some control of this possibility, because additional items ought to be vulnerable to theft in both kinds of repeats. Third, it was recognized that the same burglars would not always be responsible for both offenses committed at the same address. However, Pease (1998) has estimated that in Britain as many as 75% of repeat residential burglaries are committed by the same offenders, and there is no reason to think this figure would be very different in the U.S. To the extent that the same burglars are not involved, the design of the study is weakened. This means that a negative result must be considered provisional, whereas more confidence can be placed in a positive finding.

The Samples of Repeat Burglaries

Two independent samples of repeat residential burglaries, one from Dallas and one from San Diego, were utilized for this study. Both samples were generated in the course of a larger project, undertaken by the Police Executive Research Forum and funded by the National Institute of Justice, to reduce repeat residential burglaries (Stedman and Weisel, 1999). In both cases, the sampling unit was a residence that had experienced a repeat burglary. For each residence, data about property stolen was collected only for the first and second burglaries.[1]

The Dallas sample of residential burglaries was drawn from the Northeast patrol division, which encompasses approximately one-sixth of the total area within the City of Dallas. Repeats were identified using 1995 as the baseline year. For each residential burglary occurring in that year, a search was made for one year before and one year later to identify other burglaries at that same address.[2] For

example, if a burglary occurred at an address on June 1, 1995, a search was made for other burglaries dating back to June 1, 1994 and forward to June 1, 1996. This process yielded a sample of 208 repeat burglary addresses. Thirty-nine of these addresses were discarded because they were hotel rooms, garages, storage sheds, etc. (i.e., not homes), or because the premise-type codes were inconsistent between the first and second burglaries.[3] This left a total of 149 addresses, of which 60 were single-family homes and 89 were apartments. Of the 149 repeat burglaries, 32 were early repeats (with a mean interval between first and second burglaries of 9.1 days), and 117 were delayed repeats (mean interval, 171.9 days).

The San Diego sample was drawn from a database for the entire city of all repeat residential burglary addresses for January 1, 1994 to December 31, 1996. For purposes of the parent project, all addresses that did not have a burglary in 1995 were deleted. This left a total of 276 addresses with repeat burglaries. Because data in San Diego had to be collected by hand — a time-consuming process — 200 of these cases were randomly selected for closer study. Missing data and misfiling resulted in a further 28 cases being omitted. This left a total of 172 addresses, of which 114 were single-family homes, 44 were apartments and 14 were duplexes (or semi-detached houses). Of the 172 repeat burglaries, 68 were early repeats (with a mean interval between first and second burglaries of 11 days), and 104 were delayed repeats (mean interval, 151 days).

Stolen Property Data

Information about the property stolen on both the first and second occasions was classified under 30 separate categories, falling into four broader groups: (1) electronic goods, (2) cash and jewelry, (3) equipment and (4) personal items. Since it was rare for more than two items of the same property to be stolen (say, two TVs), no record was made of the number of separate items of a specific type that were taken.

FINDINGS

The idea that burglars return to take items left behind on the first occasion was tested using the samples of *early* repeats. This idea would be supported if items not taken on the first occasion were taken on the second occasion. The samples of *delayed* repeats were used to test the idea that burglars return to steal items that have been replaced. Support for this idea would come from evidence that the same items were stolen on both the first and second occasions.

The findings for Dallas are presented in Table 1. The number of occasions when items taken on the second occasion had not been taken on the first was lower than expected (Chi-square = 9.67, d.f. = 2, $p<0.01$),[4] providing no support for the idea that burglars sometimes return for property they left on the first occasion. On the other hand, the findings provide support for the second idea, that burglars sometimes return for replacement property: observed instances of the same items of property being taken on both occasions were significantly higher than expected (Chi-square = 29.07, d.f. = 2, $p<0.001$).

Findings were similar in San Diego (Table 2). Observed instances of items being taken on the second occasion that were not taken on the first were lower, though not significantly lower, than expected (Chi-square = 2.23, d.f. = 2, N.S.), while observed instances of the same items being taken on both occasions were higher than expected (Chi-square = 46.53, d.f. =2, $p<0.001$).

The consistency of the findings seems to have been unaffected by important differences between the samples. For example, more of the Dallas addresses were apartments, and more of the Dallas repeats were "delayed." Moreover, there were differences in the property stolen in the two cities. For example, more TVs and VCRs were taken in Dallas, whereas in San Diego items of equipment were particularly at risk (except for guns).

As can be seen from the combined data for Dallas and San Diego in Table 3, there were no significant differences between the first and second burglaries in the items of property stolen (Chi-square = 25.71, d.f. = 24, N.S.).[5] This is consistent with the findings that burglars seem not to return for property left on the first occasion, but that they do sometimes return for replacement items.

SUMMARY AND DISCUSSION

This study had the limited objective of testing two boost accounts of repeat victimization using data about property stolen during repeat burglaries in Dallas and San Diego. An examination of data for early repeats found no support for the suggestion that burglars sometimes return to the same premises in order to take property left behind on the first occasion. Because it was not known what proportion of repeats were committed by the same offenders, this result must be taken as lack of support for, rather than refutation of, the proposition tested. On the other hand, data for "delayed" repeats showed a pattern consistent with the idea that burglars sometimes return to steal replacements for property taken on the first occasion. Again, limitations of the methodology — in particular the lack of precise data about how often same offenders were involved and whether they

did indeed take replacement property — mean that this conclusion must be tentative. Ewart et al. (1997) had previously concluded that repeat burglaries for TVs and VCRs were more likely the result of burglars returning for a second TV or VCR that they had seen on the first occasion, than of returning to steal replacement items. They reached this conclusion because they had found a shorter interval (mean 79 days) between the second and third burglaries than between the first and second (109 days), but their sample was very small and the intervals of time not especially short.

Even if Ewart et al.'s (1997) conclusion is unfounded, returning to steal replacement property seems at best only a small part of the explanation for repeat burglaries. There were only 34 more occasions than expected by chance in Dallas when the same property was taken during the first and second burglaries. For San Diego, the comparable figure was 17. These figures represent only about 23% of repeat burglaries in Dallas and 10% in San Diego.

The larger number of repeats in Dallas apparently motivated by a search for replacement items could be related to the fact that TVs and VCRs seem especially at risk in that city. Nearly new TVs and VCRs might command particularly good prices and the market for these stolen goods in Dallas might be especially well-organized. Indeed, the market for stolen TVs and VCRs might generally be better organized than for other categories of stolen property, and might exercise more control over the activities of burglars. However, these speculations must await the further research on stolen goods markets for which others have already made a persuasive case (Kock et al., 1996; Sutton, 1998).

A study that compares property taken during first and second burglaries at the same addresses is limited in its conclusions. The present study therefore permits little commentary on Polvi et al.'s (1991:414) contention that, while dwelling characteristics may determine the risk of a first burglary "it is more what is found inside which induces an offender to return." For example, the lack of any real difference between property taken during first and second burglaries in Dallas and San Diego (Table 3) could mean that repeat burglars are looking for the same items whenever they burgle. On the other hand, it could mean that on both occasions they take whatever property they can make use of or sell. To test these alternatives, as well as other boost explanations related to the rewards of burglary, studies are needed of property taken during burglaries that are repeated and those that are not.

Table 1: Property Stolen in 149 Repeat Burglaries Dallas, 1994-1996

		ALL REPEAT BURGLARIES (N=149)				EARLY REPEATS (N=32)		DELAYED REPEATS (N=117)	
						Not 1st but 2nd		Both 1st and 2nd	
	PROPERTY	1st burglary	% 1st burglary	2nd burglary	% 2nd burglary	Expected	Observed	Expected	Observed
	Electronics								
1	TV	37	24.8	45	30.2	7.3	5	8.8	14
2	VCR	55	36.9	43	28.9	5.8	3	12.5	24
3	CD player/stereo	30	20.1	30	20.1	5.1	6	4.7	7
4	Cassette player/radio	4	2.7	5	3.4	1.0	1	0.1	0
5	Computer	8	5.4	6	4.0	1.2	0	0.3	1
6	Nintendo, etc.	4	2.7	4	2.7	0.8	1	0.1	0
7	Camcorders/video	5	3.4	4	2.7	0.8	0	0.1	2
8	Tapes/cassettes/CDs	8	5.4	8	5.4	1.6	1	0.3	2
9	Phone/answer mach.	16	10.7	11	7.4	2.1	1	0.9	3
	Cash/Jewelry								
10	Jewels	40	26.8	28	18.8	4.4	3	5.9	10
11	Cash	26	17.4	21	14.1	3.7	1	2.9	5
12	Wallet/credit/checks	6	4.0	4	2.7	0.8	0	0.1	0
	Equipment								
13	Camera	11	7.4	6	4.0	1.2	0	0.3	1
14	Guns/ammunition	20	13.4	8	5.4	1.5	3	0.8	1
15	Bike	8	5.4	2	1.3	0.4	0	0.1	0
16	Microwave	3	2.0	5	3.4	1.1	2	0.1	0
17	Vacuum cleaner	2	1.3	1	0.7	0.2	0	0	0
18	Power tools	0	0	0	0	0	0	0	0
19	Hand tools	0	0	1	0.7	0.2	1	0	0
20	Gardening tools	0	0	0	0	0	0	0	0

		ALL REPEAT BURGLARIES (N=149)				EARLY REPEATS (N=32)		DELAYED REPEATS (N=117)	
						Not 1st but 2nd		Both 1st and 2nd	
	PROPERTY	1st burglary	% 1st burglary	2nd burglary	% 2nd burglary	Expected	Observed	Expected	Observed
21	Lawn mower	1	0.7	1	0.7	0.2	0	0	0
22	Furniture/appliances	1	0.7	2	1.3	0.4	1	0	0
23	Luggage/cases	1	0.7	2	1.3	0.4	0	0	0
	Personal Items								
24	Drugs/medicine	5	3.4	4	2.7	0.8	0	0.1	1
25	Food/liquor/tobacco	4	2.7	5	3.4	1.0	2	0.1	1
26	Clothes	20	13.4	16	10.7	3.0	2	1.7	3
27	Household items	5	3.4	9	6.0	1.9	3	0.2	0
28	Toys/sporting goods	2	1.3	4	2.7	0.8	3	0	0
29	Knives	0	0	3	2.0	0.6	0	0	0
30	Other	14	9.4	9	6.0	1.8	2	0.7	0
	TOTALS	336		287		50.1	41	40.8	75

Table 2: Property Stolen in 172 Repeat Burglaries, San Diego, 1994-1996

		ALL REPEAT BURGLARIES (N=172)				EARLY REPEATS (N=68)		DELAYED REPEATS (N=104)	
						Not 1st but 2nd		Both 1st and 2nd	
	PROPERTY	1st burglary	% 1st burglary	2nd burglary	% 2nd burglary	Expected	Observed	Expected	Observed
	Electronics								
1	TV	29	16.9	35	20.3	11.5	10	3.6	6
2	VCR	40	23.3	34	19.8	10.3	11	4.8	8
3	CD player/stereo	33	19.2	35	20.3	11.2	10	4.1	5
4	Cassette player/radio	8	4.7	10	5.8	3.8	3	0.3	1
5	Computer	12	7.0	6	3.5	2.2	3	0.3	0
6	Nintendo, etc.	6	3.5	10	5.8	3.8	2	0.2	0
7	Camcorder/video	6	3.5	7	4.1	2.7	1	0.1	0
8	Tapes/cassette/CDs	9	5.2	19	11.0	7.1	5	0.6	2
9	Phone/answer mach.	23	13.4	21	12.2	7.2	7	1.7	1
	Cash/Jewelry								
10	Jewels	38	22.1	33	19.2	10.2	10	4.4	7
11	Cash	25	14.5	22	12.8	7.4	4	1.9	2
12	Wallet/credit/checks	11	6.4	11	6.4	4.1	3	0.4	1
	Equipment								
13	Camera	10	5.8	11	6.4	4.1	5	0.4	0
14	Guns/ammunition	8	4.7	5	2.9	1.9	1	0.1	0
15	Bike	11	6.4	13	7.6	4.8	5	0.5	1
16	Microwave	1	0.6	5	2.1	2.0	4	0	0
17	Vacuum cleaner	0	0	4	2.3	1.6	2	0	0
18	Power tools	16	9.3	12	7.0	4.3	5	0.7	1
19	Hand tools	21	12.2	15	8.7	5.2	4	1.1	3
20	Garden tools	3	1.7	2	1.2	0.8	0	0	1

		ALL REPEAT BURGLARIES (N=172)				EARLY REPEATS (N=68)		DELAYED REPEATS (N=104)	
						Not 1st but 2nd		Both 1st and 2nd	
	PROPERTY	1st burglary	% 1st burglary	2nd burglary	% 2nd burglary	Expected	Observed	Expected	Observed
21	Lawn mower	3	1.7	3	1.7	1.2	0	0	1
22	Furniture/appliances	5	2.9	8	4.7	3.1	2	0.1	1
23	Luggage/cases	8	4.7	0	0	0	0	0	0
	Personal Items								
24	Drugs/medicine	0	0	1	0.6	0.4	0	0	0
25	Food/liquor/tobacco	7	4.1	9	5.2	3.4	5	0.2	0
26	Clothes	20	11.6	12	7.0	4.2	5	0.8	1
27	Household items	9	5.2	5	2.9	1.9	5	0.2	0
28	Toys/sporting goods	6	3.5	3	1.7	1.1	0	0.1	2
29	Knives	1	0.6	1	0.6	0.4	1	0	0
30	Other	5	2.9	2	1.2	0.8	0	0	0
	TOTALS	374		354		122.7	113	26.6	44

Table 3: Property Stolen in 321 Repeat Burglaries, Dallas and San Diego, 1994-1996

	PROPERTY	1st Burglaries		2nd Burglaries	
		N	%	N	%
	Electronics				
1	TV	66	20.6	80	24.9
2	VCR	95	29.6	77	24.0
3	CD player/stereo	63	19.6	65	20.2
4	Cassette player/radio	12	3.7	15	4.7
5	Computer	20	6.2	12	3.7
6	Nintendo, etc.	10	3.1	14	4.4
7	Camcorder/video	11	3.4	11	3.4
8	Tapes/cassettes/CDs	17	5.3	27	8.4
9	Phone/ answer mach.	39	12.2	32	10.0
	Cash/Jewelry				
10	Jewels	78	24.3	61	19.0
11	Cash	51	15.9	43	13.4
12	Wallet/credit/checks	17	5.3	15	4.7
	Equipment				
13	Camera	21	6.5	17	5.3
14	Guns/ammunition	28	8.7	13	4.0
15	Bike	19	5.9	15	4.7
16	Microwave	4	1.3	10	3.1
17	Vacuum cleaner	2	0.6	5	1.6
18	Power tools	16	5.0	12	3.7
19	Hand tools	21	6.5	16	5.0
20	Garden tools	3	0.9	2	0.6
21	Lawn mower	4	1.3	4	1.3
22	Furniture/appliances	6	1.9	10	3.1
23	Luggage/cases	9	2.8	2	0.6
	Personal Items				
24	Drugs/medicine	5	1.6	5	1.6
25	Food/liquor/tobacco	11	3.4	14	4.4
26	Clothes	40	12.5	28	8.7
27	Household items	14	4.4	14	4.4
28	Toys/sporting goods	8	2.5	7	2.2
29	Knives	1	0.3	4	1.3
30	Other	19	5.9	11	3.4
	TOTALS	710		641	

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Address correspondence to: Ronald Clarke, School of Criminal Justice, Rutgers University, 123 Washington Street, Newark, NJ 07102.

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NOTES

1. Of the 149 residences in Dallas included in this study, 20 were burgled three or more times; for San Diego the equivalent figures were 18 out of 172.

2. For apartments to be included, the apartment numbers, not merely the building address, had to match exactly.

3. In some cases the inconsistency was due to coding errors; in others it was due to garages or sheds being targeted at addresses where the home itself had been entered on the other occasion.

4. Because of small numbers in individual cells, property data were combined into three groups before Chi-square could be calculated for this and other statistical tests undertaken on Tables 1 and 2: electronics, cash/jewelry and equipment/personal items.

5. In calculating significance, data were omitted for five categories of property with fewer than five items stolen for "first" burglaries. These were as follows: microwave, vacuum cleaner, garden tools, lawn mower and knives.