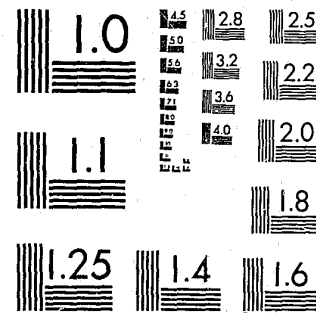


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Exporing the Dimensions
of
Judged Offense Seriousness

BY

STEPHEN D. GOTTFREDSON

Center for Metropolitan Planning and Research
The Johns Hopkins University
Baltimore, Maryland

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This is one of a series of reports on the Improved Correctional Field Services Project Evaluation. The series consists of these parts:

1. Abstract
2. Executive Summary by Don M. Gottfredson, James O. Finckenauer, John J. Gibbs and Stephen D. Gottfredson.
3. The Improved Correctional Field Services Project: A Case Study by James O. Finckenauer and Don M. Gottfredson.
4. Screening for Risk: An Assessment of the ICFS Project Instruments by Faye S. Taxman, Don M. Gottfredson and James O. Finckenauer.
5. Risk, Supervision, and Recidivism: The First Six Months of Recorded Experience in the Improved Correctional Field Services Project by Don M. Gottfredson, James O. Finckenauer, and Faye S. Taxman.
 Appendix A: ICFS Instructions for Coding.
 Appendix B: Characteristics of the Sample for the First Six Months of Experience in the ICFS Project.
6. Social Adjustment: A Preliminary Report of the Improved Correctional Field Services Project by James O. Finckenauer and Faye S. Taxman.
7. The Needs and Concerns of Probationers: A Thematic Analysis of Interviews by John J. Gibbs.
8. The Needs and Concerns of Probationers: An Analysis of Questionnaires by John J. Gibbs.
9. Additivity and Interactions in Offense Seriousness Scales by Stephen D. Gottfredson, Kathy S. Young and William S. Laufer.
10. Describing Probation Populations: Offense Seriousness by Stephen D. Gottfredson.
 Appendix A: Offense Seriousness Scoring System.
11. Exploring the Dimensions of Judged Offense Seriousness by Stephen D. Gottfredson.
 Appendix A: Offense Seriousness Study (survey form).
 Appendix B: The Question of Scale Value
 Appendix C: Replication of Factor Structures

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Is one homicide to be equated with ten petty thefts? 100? 1000? We may sense that these are incommensurables and so feel that the question of comparing their magnitude is a nonsense question. Yet this feeling is only a prelude to recognition of the more general fact that we have no strict common denominator for social problems and so have no workable procedures for comparing the scale of different problems, even when the task is simplified by dealing with two kinds of criminal acts.

(Merton, 1961, pg. 703).

The problem of the commensurability of the apparently incommensurable is old, and has received a great deal of attention from philosophers, legal theorists, and social scientists. Consider, for example, the lex talionis (an eye for an eye, a tooth for a tooth). The notion is clear: punishment should fit--be commensurate with--the crime (and, of course, the criminal). But in application, the notion quickly becomes complex. As Kleinig (1973) notes, "A literal interpretation lands one in insuperable difficulties: what penalty would you inflict on a rapist, a blackmailer, a forger, a dope peddler, a multiple murderer, a smuggler, or a toothless fiend who has knocked somebody else's teeth out?"

Moving away from a literal interpretation resolves some obvious problems, but raises others. The Supreme Court has recently ruled that a sentence of life imprisonment is not incommensurate with a history of three property offenses occurring over a period of several years, and which resulted in a total amount of property loss of under \$300. At the same time, some murderers and rapists are returned to the streets after relatively short periods of con-

finement. Although this example is extreme, and my presentation ignores the complexities surrounding the issue, the point is clear: even with a common metric (time spent in prison) commensurability may be difficult to achieve.¹ Thus, current sentencing controversies (cf. Dershowitz, 1976; Forst, 1979; Morris, 1974; Von Hirsch, 1976) are intimately involved with the commensurability issue.

Sentencing typically requires a notion of commensurability between crimes and sanctions. But as pointed out by Merton (1961, pg. 703), Wilkins (1963, pg. 337)², and others there is also the difficult problem of commensurability within crimes and sanctions. How many burglaries equal a robbery? Can we equate homicides and thefts?

Essentially, these can be considered problems of measurement. Problems of measurement abound in criminology, and the practical consequences of fundamental measurement issues can be enormous. For example, recent major reviews have suggested -- and quite strongly -- that rehabilitation or "treatment-oriented" efforts do not appear to work (e.g., Martinson, 1974; Lipton, Martinson & Wilks, 1975; National Research Council, 1979). It may well be the case, of course, that some rehabilitative efforts do work, but that our yardsticks are simply too crude to allow us this knowledge.

Dimensionality

The starting point for any measurement study designed to address the "commensurability of the (apparently) incommensurable" is to find or determine a common metric -- what Blair (1956) calls the "principle of dimensional homogeneity." While there are a number of ways that one can seek to achieve a common metric (see Blair, 1956; Sellin & Wolfgang, 1964, pp. 336-338 for a discussion), the fundamental principle is that of homogeneity.

In The Measurement of Delinquency, Sellin and Wolfgang (1964) took the position that "judged seriousness of delinquency is the homogeneous dimension which can allow for quantitative measurement of this phenomenon (crime) and that there are ways of ascribing values to the magnitudes in this common medium of seriousness" (pg. 338).

Major attempts at scaling the judged seriousness of criminal or delinquent acts have all been unidimensional; no systematic investigation of the dimensionality of offense seriousness has yet been undertaken. While a major goal of science is the parsimonious description and explanation of complex events, the assumption of unidimensionality has been questioned profitably in many measurement realms: intelligence, personality, academic achievement, and creativity, to name but a few. Quite often it has been demonstrated that despite the parsimony and simplicity benefits of single-dimension methods, the frequently found power of multidimensional methods cannot be denied for their increase in conceptual utility, explanatory power, and predictive utility. One major purpose of this paper is to provide a framework in which to test the adequacy of a unidimensional approach to the measurement of offense seriousness, and if warranted, to explore multidimensional structures for judged seriousness.³

Issues of Consensus

As suggested by Rossi et al. (1974), "the seriousness of criminal acts represents a conceptual dimension of criminality that is indispensable in common, everyday discourse, in legal theory and practice, and in sociological work" (pg. 224). In effect, this asserts that (a) there exists for each of us a subjective ordering of acts or offenses in terms of some dimension of seriousness, and (b) there exists (or should exist) some fair degree of

consensus among the populace and among specific relevant groups concerning the placement or positioning of specific acts relative to that dimension. Thus, the extent of agreement among various persons and groups is critical to an understanding of the nature of judged seriousness and to the practical application of seriousness scales.

The problem of demonstrating consensus or agreement, however, is a difficult one. Summarizing the methods employed in several major studies involving the measurement of consensus, Rossi et al. (1974) find that "the methods of ascertaining agreement among subgroups and between samples range from visual inspection of data arrays to regression coefficients" (pg. 225). Rossi et al. essentially opt for the latter (treating the problem as one of reliability--i.e., substantial correlations among subgroups or samples is taken as reflective of consensus), while noting that "It is easier to assert that there should be consensus than it is to devise a suitable standard against which a given degree of consensus should be measured" (pg. 227).⁴

There are two fundamental issues of consensus which must be addressed. The first is a "within-groups" question. That is, within relevant and identifiable groups (such as prosecutors, judges, parole board members, probation workers, police officers, or samples of the general public), do group members show agreement with respect to scale values assigned to offenses? The second is a "between-groups" question: across relevant groups, is agreement manifest with respect to the scale values assigned to offenses? The latter question is the only one which has received empirical attention.

The purpose of this paper is three-fold. First, we will examine a novel metric which allows an assessment of "within-groups" consensus relative to

the judged seriousness of criminal and delinquent acts. Second, we will explore the utility of a dimensional approach to the scaling of judged seriousness. Finally, we examine the "between-groups" consensus issue.

STUDY I: WITHIN-GROUPS CONSENSUS AND DIMENSIONALITY

Method

Offense descriptions. This investigation is part of a larger research project concerned with improving measures of criminal recidivism. Of specific concern to that larger study are offenses which may be relatively non-serious. Unfortunately, descriptions of such offenses have been under-represented in most scaling work (cf. Sellin & Wolfgang, 1964; Rossi et al., 1974).

To ensure representation of offenses at the lower end of a seriousness dimension, arresting officers' reports (which typically contain some detail of the "actual offense") were gathered from a medium-sized probation department in New York State. To ensure an adequate representation of the universe of offenses likely to be encountered in the larger project, two examples (randomly selected) of each misdemeanor offense type represented in the probation caseload in the calendar year 1977 were gathered.

Since many criminal events are composed of a number of specific acts, it is important that we identify and deal with these discrete acts, rather than with a global "offense episode" (Sellin & Wolfgang, 1964). Accordingly, each arresting officer's report was coded into these specific acts and brief (one or two sentence) summary descriptions of all such discrete acts were prepared. These were then combined with some items used by Sellin & Wolfgang (1964), Rossi et al. (1974) and others, resulting in a list of about 2500 statements.

This item pool was edited for redundancy (which was, of course, substantial), resulting in a list of 162 offense descriptions covering a wide range of apparent seriousness. Since this study is concerned only with consensus and with the underlying dimensionality of offense seriousness judgments, and since the combination of factors involved in criminal offense episodes is complex (Gottfredson, Young, & Laufer, 1980), care was taken at this point to ensure that as few aggravating, mitigating, or extra-legal circumstances as possible appeared in the offense descriptions (see Table 1 for Items).

These offense descriptions were then randomly ordered within a questionnaire booklet (Appendix A), and subjects were directed to give their judgment of the relative seriousness of each offense description on a 1 to 15 category scale, with 1 reflective of the "least serious" and 15 reflective of the "most serious" offense. A category-scaling approach was used because of its simplicity of presentation, its practical utility, and demonstrated success (cf. Rossi *et al.*, 1974; Sparks *et al.*, 1977; Gottfredson *et al.*, 1980). Further, several studies have shown that scales developed using this, as compared with more sophisticated techniques such as magnitude estimation, are monotonically related (cf. Sellin & Wolfgang, 1964; Walker, 1978).

Subjects

Subjects were 1,154 undergraduate students enrolled in day or evening classes at five different educational institutions in two states and the District of Columbia. In order to ensure as heterogeneous a sample as possible within the constraints of our budget, these schools were chosen to reflect wide differences in academic selectivity, ages of the student populations, and ethnic balance. While the sample is undoubtedly not representative of the population at large, it is clearly more heterogeneous

than the typical sample of college students. Subjects were directed either to work through the questionnaire from front to back, or back to front, resulting (for all practical purposes) in two random orderings of items.

Of the 1154 subjects given the questionnaire, responses from 130 were discarded due to lack of completion, obvious manipulation, or lack of variability in response, resulting in a final subject pool of 1024 students.

RESULTS

The Question of Scale Value⁵

A basic question addressed in any scaling study is that of the best estimate of the value of each stimulus (offense, in our case). Typically, the arithmetic mean is taken as the measure of choice because of its relative stability. However, characteristics of item distributions must be examined to ensure that this is indeed the appropriate measure to use.

Since inspection of individual response distributions suggested modest end effects (Torgerson, 1958), data were rescaled following the method of successive intervals (Torgerson, 1958; Diederich, Messick & Tucker, 1957) to minimize any displacement of item means. Results are given in Table 1, and are displayed graphically in Figure 1.⁶

Comparisons with Other Scaling Studies

As mentioned earlier, we included in our pool of offense descriptions items which were used by Sellin and Wolfgang (1964) and/or Rossi *et al.* (1974), as well as some items which are presently being used in a large scaling study employing a representative national sample of the population (Figlio, 1979). While the number of items used from each study varies, some comparisons are possible.

Figure 2 represents the joint distribution of the scale values for 29 offenses based on our scaling procedure (after transformation following

Table 1: Rank-order of 162 Offense Descriptions Based on Rescaled Means. (Successive Interval Rescaling).

Rank	Crime Description	Rescaled Mean	Standard Deviation	Std. Error of Mean	Rank	Crime Description	Rescaled Mean	Standard Deviation	Std. Error of Mean
1	A person impulsively kills a stranger.	2.593	1.517	.120	21	A person fires a gun at someone.	1.615	1.117	.088
2	A person shoots and kills someone who resists an armed robbery.	2.576	1.760	.139	22	A person practices medicine without a license.	1.567	1.340	.106
3	A person plants a bomb in a building.	2.478	1.220	.096	23	A person hijacks an airplane.	1.530	1.120	.088
4	A person plans to kill someone for a fee.	2.424	1.357	.107	24	A person forces another to engage in a homosexual act.	1.529	1.408	.111
5	A person sets fires to an occupied building.	2.338	1.150	.091	25	A parent of a young child neglects to care for it.	1.509	1.141	.090
6	A person intentionally injures someone who, as a result, dies.	2.273	1.190	.094	26	A person sells large quantities of illegal drugs.	1.498	1.549	.122
7	A person shoots someone with a gun.	2.215	1.179	.093	27	A manufacturer knowingly endangers lives by polluting the water supply.	1.375	1.200	.095
8	A person assassinates a public official.	2.184	1.674	.132	28	Without using a weapon, the parent of a young child beats it.	1.304	1.804	.142
9	Without using a weapon, a juvenile beats an elderly person.	2.023	1.190	.094	29	An employer orders an employee to commit a serious crime.	1.250	1.047	.083
10	A person sexually assaults a woman.	1.959	1.240	.098	30	A person, armed with a weapon, robs a bank.	1.240	.961	.076
11	A person forces a woman to submit to sexual intercourse.	1.928	1.278	.101	31	A person, armed with a weapon, robs a store.	1.197	.852	.067
12	A person forces a woman to submit to sexual intercourse, then flees with property belonging to her.	1.902	1.194	.094	32	A police officer knowingly makes a false arrest.	1.184	1.203	.095
13	A person kills someone during a serious argument.	1.999	1.090	.086	33	Without using a weapon, a person beats his wife.	1.103	1.292	.102
14	A person stabs someone with a knife.	1.803	1.061	.084	34	A person, armed with a weapon, robs someone.	1.077	.840	.066
15	A person kidnaps someone.	1.780	1.037	.082	35	A person attempts to prevent someone from attending a public school because of that person's race.	1.066	1.329	.105
16	A person sets fire to a building.	1.737	1.050	.083	36	A government official intentionally obstructs the investigation of a criminal offense.	1.053	1.094	.086
17	A person tries to entice a minor into a car for sexual purposes.	1.698	1.324	.104	37	An employer refuses to hire a qualified person because of that person's race.	1.028	1.347	.106
18	A person kills someone during a barroom free-for-all.	1.677	1.267	.100					
19	A producer knowingly endangers lives by marketing contaminated products.	1.654	1.140	.090					
20	A person kills someone by recklessly driving an automobile.	1.650	1.137	.090					

Table 1 (Cont'd) -9-

Rank	Crime Description	Rescaled Mean	Standard Deviation	Std. Error of Mean	Rank	Crime Description	Rescaled Mean	Standard Deviation	Std. Error of Mean
38	A public official takes public funds for personal use.	1.018	1.044	.082	56	A person, using force, robs someone.	.646	.833	.066
39	A person strikes someone with a blunt instrument.	1.004	.975	.077	57	A person signs someone else's name to a check and cashes it.	.637	1.062	.084
40	A person sells heroin.	1.000	1.436	.113	58	A person steals a car and abandons it damaged.	.622	.945	.075
41	A person pays a witness to give false testimony in a criminal trial.	.975	1.089	.086	59	A doctor cheats on claims made to a health insurance plan for patient services.	.605	1.161	.091
42	A real estate agent refuses to sell a house to a person because of that person's race.	.963	1.454	.115	60	A person bribes a public official to obtain favors.	.592	1.062	.084
43	A public official accepts bribes in return for favors.	.882	1.194	.094	61	A person, using force, robs a store.	.586	.806	.064
44	A person manufactures large quantities of illegal drugs.	.864	1.296	.102	62	A person willingly helps another commit a crime.	.562	.888	.070
45	A person threatens someone's life.	.860	1.085	.086	63	A person embezzles company money.	.531	.970	.076
46	A person pays someone to commit a crime.	.849	.972	.077	64	A person, using threats, robs someone.	.530	.876	.069
47	Without using a weapon, a person beats someone.	.845	1.226	.097	65	A person knowingly passes counterfeit money.	.500	1.051	.083
48	A person endangers the lives of others through negligent property maintenance.	.827	1.055	.083	66	A person prints counterfeit money.	.474	1.107	.087
49	A person drives a car while drunk.	.790	1.284	.101	67	A person breaks into a private residence and with no one else present, steals something.	.467	.897	.071
50	A person commits treason.	.782	1.218	.096	68	A person, using threats, robs a store.	.461	.859	.068
51	A person, involved in an automobile accident, leaves the scene.	.775	1.076	.085	69	A person impersonates a police officer.	.441	1.181	.093
52.5	A person blackmails someone.	.738	1.013	.080	70	A person possesses heroin.	.437	1.365	.108
52.5	A person commits incest.	.738	1.619	.128	71	A person intimidates a witness in a court case.	.429	1.077	.079
54	A person smuggles large quantities of illegal drugs.	.724	1.275	.100	72	A person breaks into and enters a private residence.	.402	.925	.073
55	A person knowingly cashes stolen payroll checks.	.663	1.018	.080	73	A person sells hallucinogenic drugs.	.380	1.403	.111

Table 1 (Cont'd) -10-

Rank	Crime Description	Rescaled Mean	Standard Deviation	Std. Error of Mean
74	A person illegally sells barbiturates ("downers") or amphetamines ("uppers").	.377	1.274	.100
75	A person trespasses on private property and steals something.	.371	.877	.069
76	A person illegally receives monthly welfare payments.	.361	1.226	.097
77	A person uses a forged prescription to obtain drugs.	.351	1.190	.094
78	A person vandalizes private property.	.316	.902	.071
79	A person snatches someone's handbag.	.301	.912	.072
80	A person conceals the identity of someone known to have committed a serious crime.	.300	1.060	.084
81	A person uses heroin.	.263	1.486	.117
82	A person steals money from a store while the owner is not looking.	.256	.906	.071
83	A person lends money at illegal interest rates.	.216	1.133	.089
84	A person willingly commits perjury.	.207	.965	.076
85	A person possesses an illegal weapon.	.205	1.119	.088
86	A person loots a store in a riot.	.187	1.046	.082
87	A person vandalizes public property.	.168	.901	.071
88	A person breaks into and enters a store.	.165	.835	.066
89	A person threatens someone with bodily harm.	.136	1.102	.087
90	A person trespasses on public property and steals something.	.135	.909	.072
91	A person breaks into a store and with no one else present, steals something.	.133	.887	.070

Rank	Crime Description	Rescaled Mean	Standard Deviation	Std. Error of Mean
92	A person picks someone's pocket.	.126	.932	.074
93	A person breaks into a building and with no one else present, steals something.	.120	.882	.070
94	A person illegally possesses barbiturates ("downers") or amphetamines ("uppers").	.085	1.354	.107
95	A person uses hallucinogenic drugs.	.081	1.451	.114
96	A person interferes with a police officer.	.067	.962	.076
97	A person knowingly writes worthless checks.	.046	1.081	.085
98	A person willingly hides someone who has committed a crime.	.044	1.056	.083
99	A person possesses hallucinogenic drugs.	.034	1.414	.111
100	A person steals something from a parked car.	.023	.879	.069
101	A person steals a car.	.022	.898	.071
102	A person attempts to rob someone but leaves when a police car approaches.	.012	.940	.074
103	A person turns in a false fire alarm.	.003	1.210	.095
104	A person knowingly gives false information when advertising a product.	-.002	1.133	.089
105	A person illegally uses barbiturates ("downers") or amphetamines ("uppers").	-.004	1.368	.108
106	A juvenile is beyond parental control.	-.021	1.249	.098
107	A person shows pornographic movies to a minor.	-.031	1.421	.112
108	A person sells liquor to minors.	-.038	1.184	.093

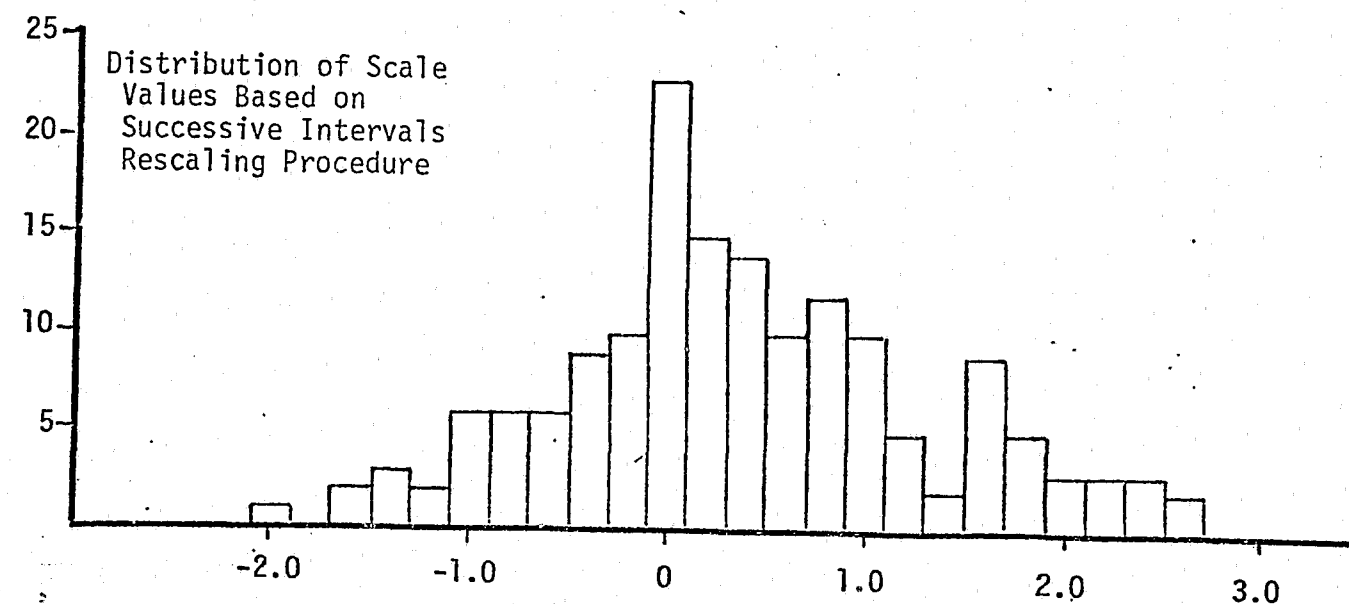
Table 1 (Cont'd) -11-

Rank	Crime Description	Rescaled Mean	Standard Deviation	Std. Error of Mean	Rank	Crime Description	Rescaled Mean	Standard Deviation	Std. Error of Mean
109	A person attempts to break into a parked car, but runs away when a police car approaches.	-.040	1.005	.079	127	A person engages in homosexual acts for money.	-.290	1.696	.134
110	A juvenile takes a car for "joyriding".	-.046	1.011	.080	128	A person runs a house of prostitution.	-.307	1.451	.114
111	A person gives illegal drugs to an acquaintance.	-.055	1.361	.107	129	A person makes obscene phone calls.	-.317	1.230	.100
112	Without breaking into or entering a building and with no one else present, a person steals something.	-.060	.952	.075	130	A person resists arrest.	-.350	.944	.074
113	A person knowingly sells stolen goods.	-.072	.894	.070	131	A person possesses stolen property.	-.361	.889	.070
114	A person steals something from a public building.	-.073	.927	.073	132	A person runs an illegal gambling operation.	-.427	1.132	.089
115	A person exposes his genitals in public.	-.081	1.396	.110	133	A person refuses to pay alimony.	-.437	1.201	.095
116	A person breaks into and enters a building.	-.086	.851	.067	134	A person knowingly buys stolen property.	-.449	1.067	.084
117	A person attempts to break into a building, but runs away when a police car approaches.	-.090	.907	.072	135	A juvenile is repeatedly truant.	-.461	1.119	.088
118	A person fixes prices on a consumer product.	-.132	1.055	.083	136	A person sells liquor illegally.	-.464	1.085	.086
119	A person steals merchandise from a store while the owner is not looking.	-.148	.886	.070	137	A juvenile repeatedly runs away from home.	-.547	1.271	.100
120	A person steals a car and abandons it undamaged.	-.167	1.003	.079	138	A person solicits for prostitution.	-.554	1.427	.112
121	A person runs his hands over a woman's body, then runs away.	-.193	1.336	.105	139	A person uses someone else's driver's license.	-.580	1.281	.101
122	A person, upon arriving home, kills a suspected burglar.	-.195	1.497	.118	140	A juvenile illegally possesses liquor.	-.590	1.143	.090
123	A person uses false identification to obtain goods from a store.	-.197	.992	.078	141	A person joins a prohibited demonstration.	-.592	1.069	.084
124	A person joins a riot.	-.204	1.091	.086	142	A person operates a car with a suspended driver's license.	-.635	1.135	.089
125	A person smuggles goods to avoid paying import duties.	-.258	1.113	.088	143	A person operates a car without insurance coverage.	-.698	1.297	.102
126	A person gives liquor to a minor.	-.278	1.260	.099	144	A person has no residence and no visible means of support.	-.701	2.430	.192
					145	A person possesses burglary tools.	-.774	1.198	.094

Table 1 (Cont'd) -12-

<u>Rank</u>	<u>Crime Description</u>	<u>Rescaled Mean</u>	<u>Standard Deviation</u>	<u>Std.Error of Mean</u>
146	A person sells marijuana.	-.812	1.485	.117
147	A person trespasses on private property.	-.834	1.122	.088
148	A person engages in sexual acts in return for money.	-.864	1.441	.114
149	A woman engages in sexual acts in return for money.	-.899	1.446	.114
150	A person buys liquor illegally.	-.920	1.086	.086
151	A person disturbs the neighborhood with loud, noisy behavior.	-.945	1.067	.084
152	A person intentionally shoves or pushes someone.	-.947	1.147	.090
153	A person participates in illegal gambling.	-.994	1.170	.092
154	A person commits adultery.	-1.016	1.750	.138
155	A person refuses to pay parking fines.	-1.251	1.076	.085
156	A juvenile breaks a curfew law.	-1.287	1.175	.093
157	A person is drunk in public.	-1.299	1.128	.089
158	A person possesses marijuana.	-1.338	1.543	.122
159	A person is a customer in a house of prostitution.	-1.447	1.698	.134
160	A person loiters in a public place.	-1.497	1.291	.102
161	A person uses marijuana.	-1.562	1.660	.131
162	Two people willingly engage in a homosexual act.	-2.038	2.326	.183

Figure 1



the method of successive intervals) (abscissa) and based on Sellin and Wolfgang's (1964) original work (ordinate). The correlation across all 29 offenses is modest at best ($r = .57$). Examinations of outliers, however, demonstrates that two phenomena account for much of the apparent disparity. Three offenses--involving the use, possession, or sale of marijuana--were judged as quite serious in Sellin and Wolfgang's original work, but were perceived as quite non-serious in the present study. Given that approximately 16 years have elapsed between these two studies, and given present interest in the legalization of marijuana, it would seem quite reasonable to ascribe these differences to changes in attitudes rather than to disparity due to scaling approaches. One additional item (having to do with truancy) was also judged quite differently in the two studies. Inspection revealed that a likely explanatory hypothesis lies in the differences in wordings between the two items.⁷ When these four items are excluded the correlation increases to .83, suggesting substantial relation between the two scales.

Figure 3 represents a plot of the joint distribution of items which were common to both our study and that of Rossi *et al.* (1974). While the same general method of scaling was used in both works, this comparison was of considerable interest since the Rossi *et al.* study employed a representative sample of the population from a large urban environment. Again, substantial correlation is observed ($r = .84$), but again some outliers are apparent. Examination demonstrates that all three apparent outliers involve the sale or use of drugs, with the most disparate having to do with the sale of marijuana. Again, a plausible hypothesis is that drug offenses have been

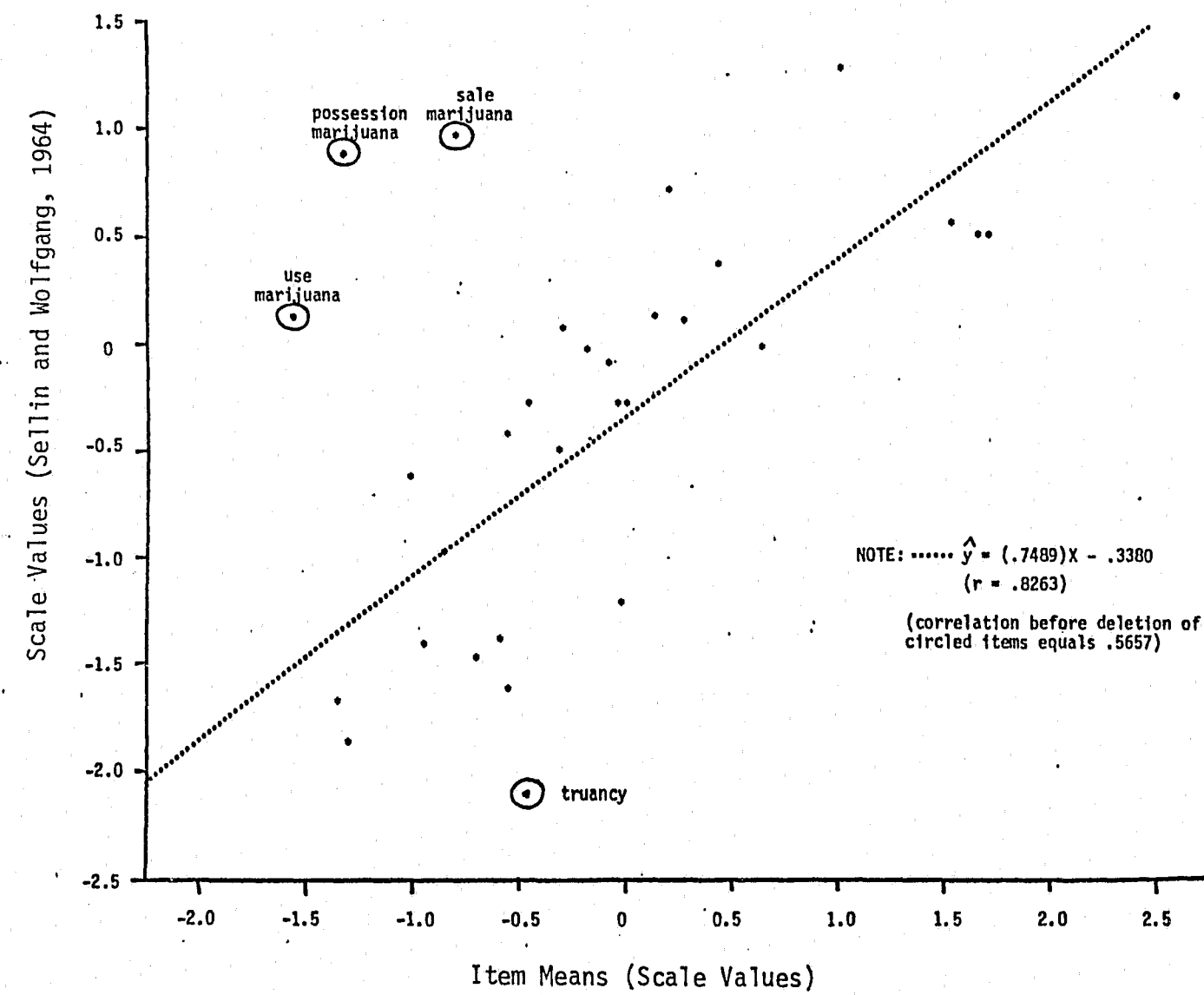


Figure 2

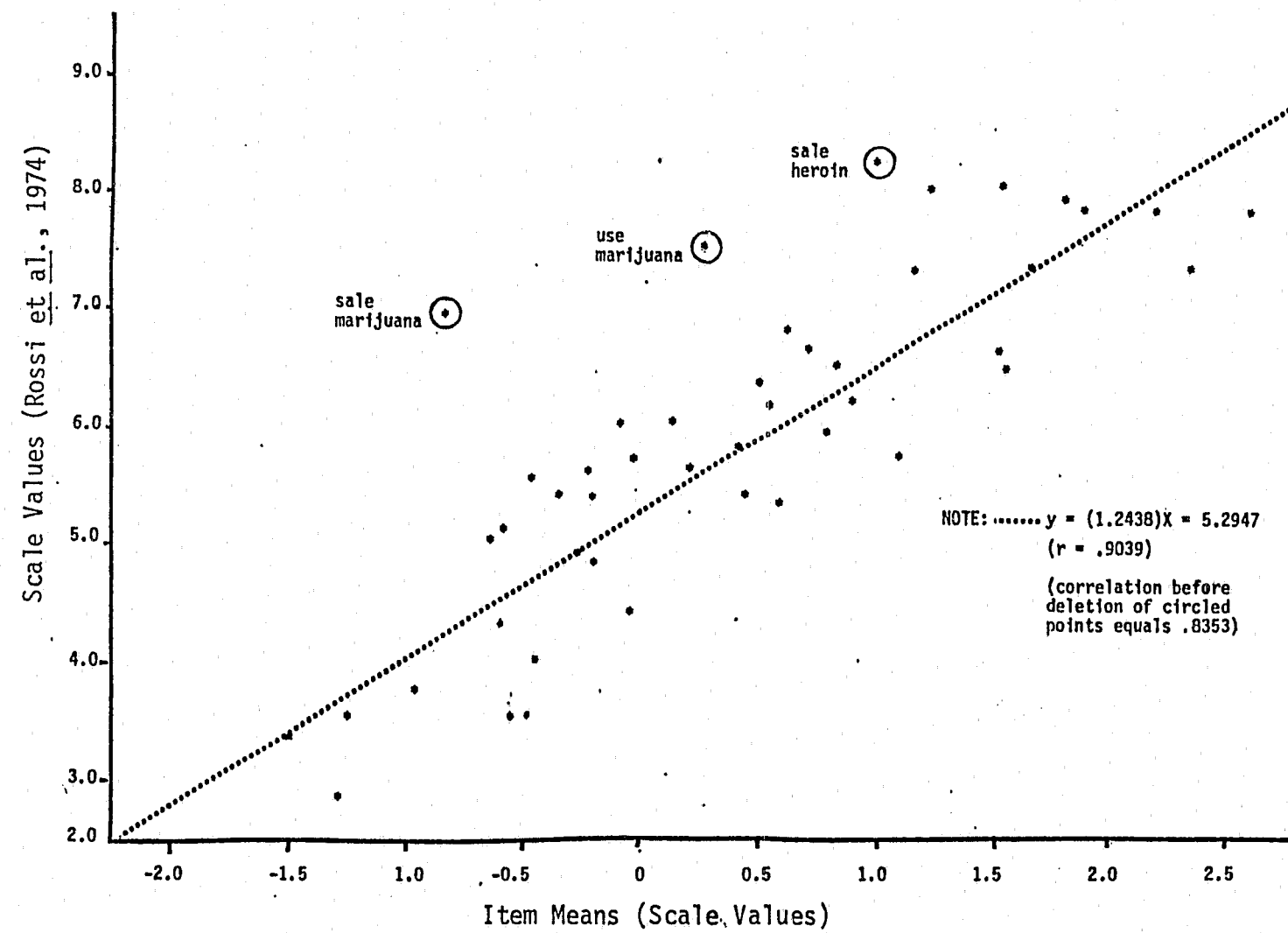


Figure 3

perceived differently over time (in this case, approximately 7 years). Controlling for these outliers, the correlation increases to .9.

Figure 4 represents the joint distribution of items in common with the current replication of Sellin & Wolfgang's scaling procedure based on a representative national sample (Figlio, 1979). The relation between the logarithm of the ratio scores observed in that study and the scale values assigned after the transformation following the method of successive intervals⁸ is .87.

It should be noted that the particular items in common with each study vary and that few items are common to all subsets. While all observed relations are quite high--and would appear to be more than respectable if considered as reliability coefficients--they are not perfect. That the relation is marginally better for the study which used a method closer to our own, suggests that some of the unexplained variability can perhaps be attributed to differences in methods. It is also likely the case, however, that some of the remaining variability can be attributed to differences in subject populations as well. Nonetheless, substantive conclusions are not likely to be affected simply by a choice of scaling procedures.

The Question of Consensus

As discussed earlier, there are two fundamental questions of consensus to be addressed in any scaling study--between-groups consensus (which has received considerable empirical test in previous studies) and within-group consensus. The latter essentially asks how well members of a relevant group (i.e., police, judges, members of the general population, etc.) agree with respect to the scale values of the offense descriptions. This is the issue to which we now turn.

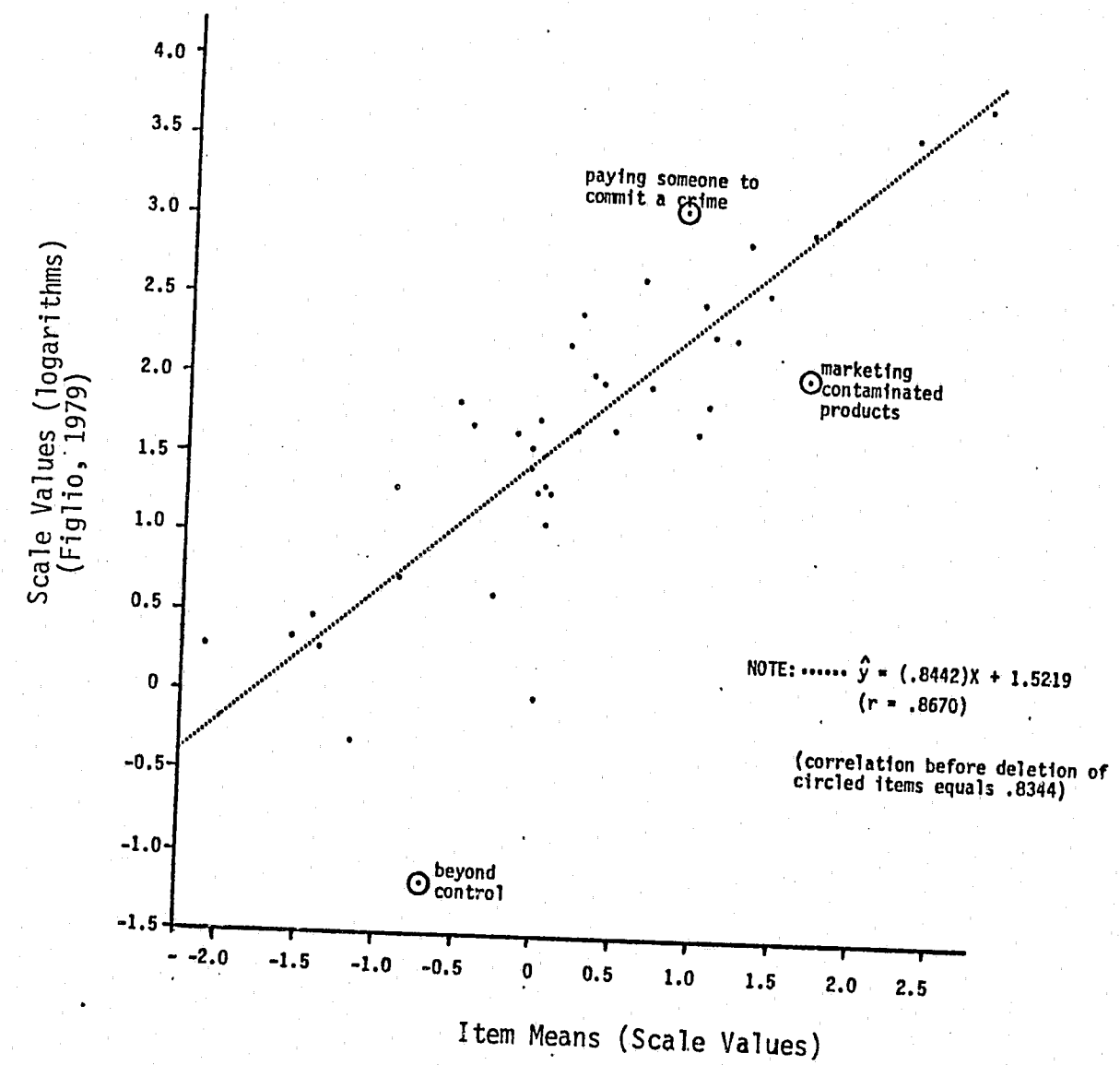


Figure 4

As part of an earlier series of studies on a conceptually related topic (Gottfredson, 1978), we⁹ devised a unique measure which allows an assessment of within-group consensus relative to scale properties, while allowing exploration of the potential value of a dimensional approach to the scaling problem.¹⁰

The configural representation of a data matrix can vary considerably with the information contained in the input matrix coefficient (Torgerson, 1968). In general, the most commonly used matrices for factor-analytic data reduction methods are the product-moment correlation matrix or the variance-covariance matrix. While the correlation coefficient standardizes variables with respect to both the mean and the variance,¹¹ the covariance allows item variances to differ, standardizing only with respect to the item means.¹² For the present problem, however, item means are of considerable importance--indeed, they are everything. What is needed, then, is a coefficient that will (a) retain information contained in the item means, while (b) standardizing with respect to variances. The variance itself, however, is of course "standardized" with respect to item means (see footnote 11). The coefficient developed to handle our need standardizes with respect to vector length while retaining information contained in the item means. Finally, to minimize spurious or artificial inflation of the coefficient due to arbitrary (original) scale assignment, the grand mean of the (subjects x items) matrix is also extracted. The resulting coefficient is thus given by:

$$c_{jk} = \frac{\sum_{i=1}^N (x_{ij} - \bar{x}_{..}) (x_{ik} - \bar{x}_{..})}{\sqrt{\sum_{i=1}^N (x_{ij} - \bar{x}_{..})^2} \sqrt{\sum_{i=1}^N (x_{ik} - \bar{x}_{..})^2}}$$

which results in a symmetric matrix of cross-products ranging from -1.00 to +1.00, with unity in the major diagonal.

The interesting property of this coefficient is that the first principal component extracted from the n x n matrix of such coefficients should reflect agreement with respect to the item scale values. The interpretation of subsequent dimensions is problematic, unless (a) they are large, and (b) clear patterns emerge. If the first component or dimension does not adequately summarize the total variance of the n x n matrix of "standardized" cross-products, explorations of dimensionality become potentially interesting, and dimensional solutions can be sought in the usual fashion.

Results. Using all 1,024 subjects, the 162x162 matrix of standardized cross-products was prepared and a principal components analysis of the matrix was performed.¹³

Only the first two eigenvalues are large enough to be of any interest (eigenvalues for the first three (for example) were 50.02, 33.74, and 6.68). The magnitude of the first component, which accounts for 31% of the total variance, suggests substantial (but not remarkable) agreement with respect to the "placement" of each of the 162 items on the scale. Figure 5 shows the relation between the item means and their loadings on the first (unrotated) component. The function is clearly monotonic, although not linear, with very little scatter evident. Figure 6 shows the theoretical relation which would obtain if there (a) were only a single dimension - i.e., one dimension would completely specify the domain of interest, (b) no error (of measurement), and (c) no irrelevant items (totally irrelevant items would fall at the zero point on the ordinate, and could range over the entire abscissa).

The second component (21% of the total variance) is displayed graphically in Figure 7. This component appears to represent the degree of an item's

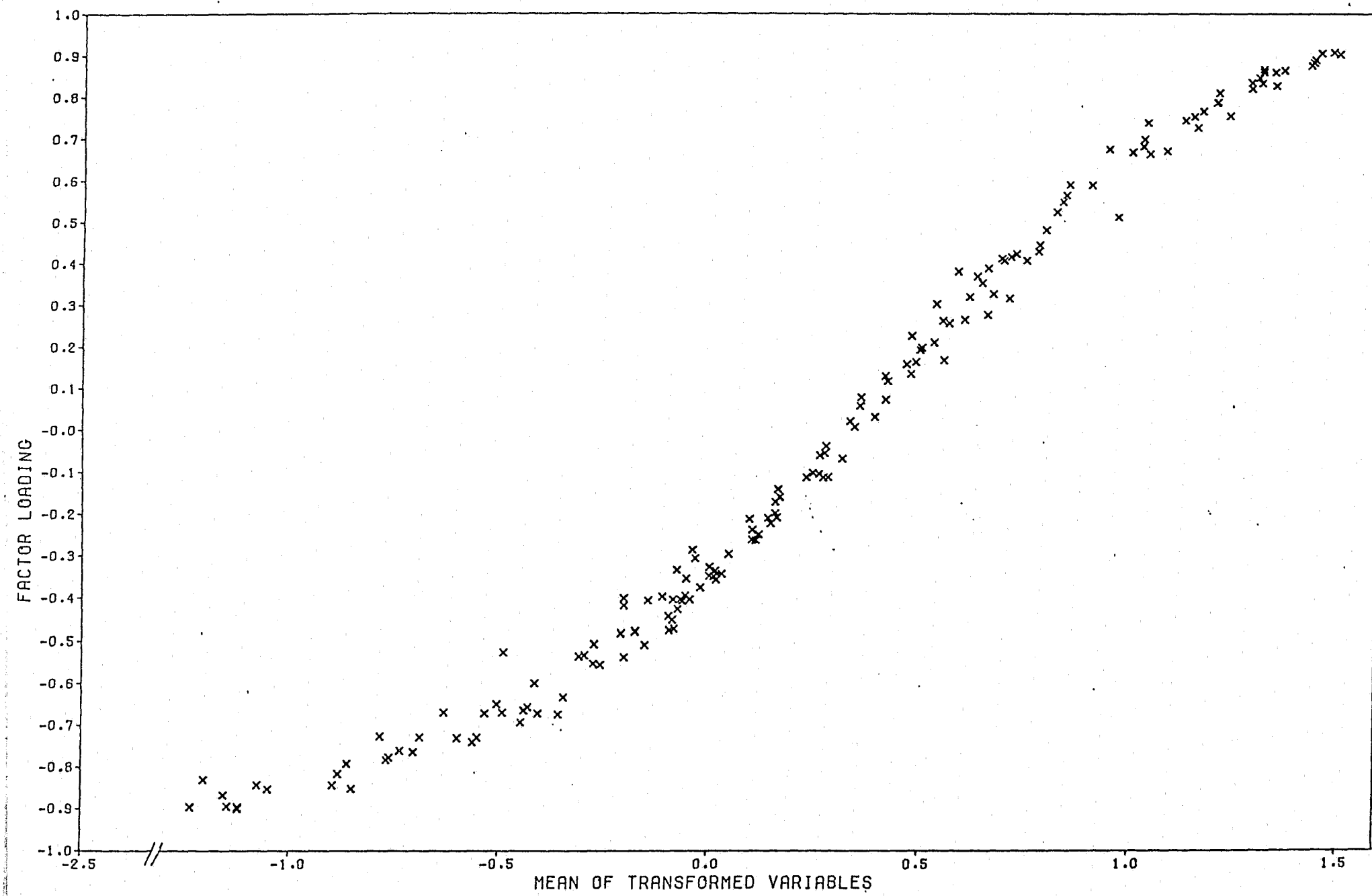


Figure 5

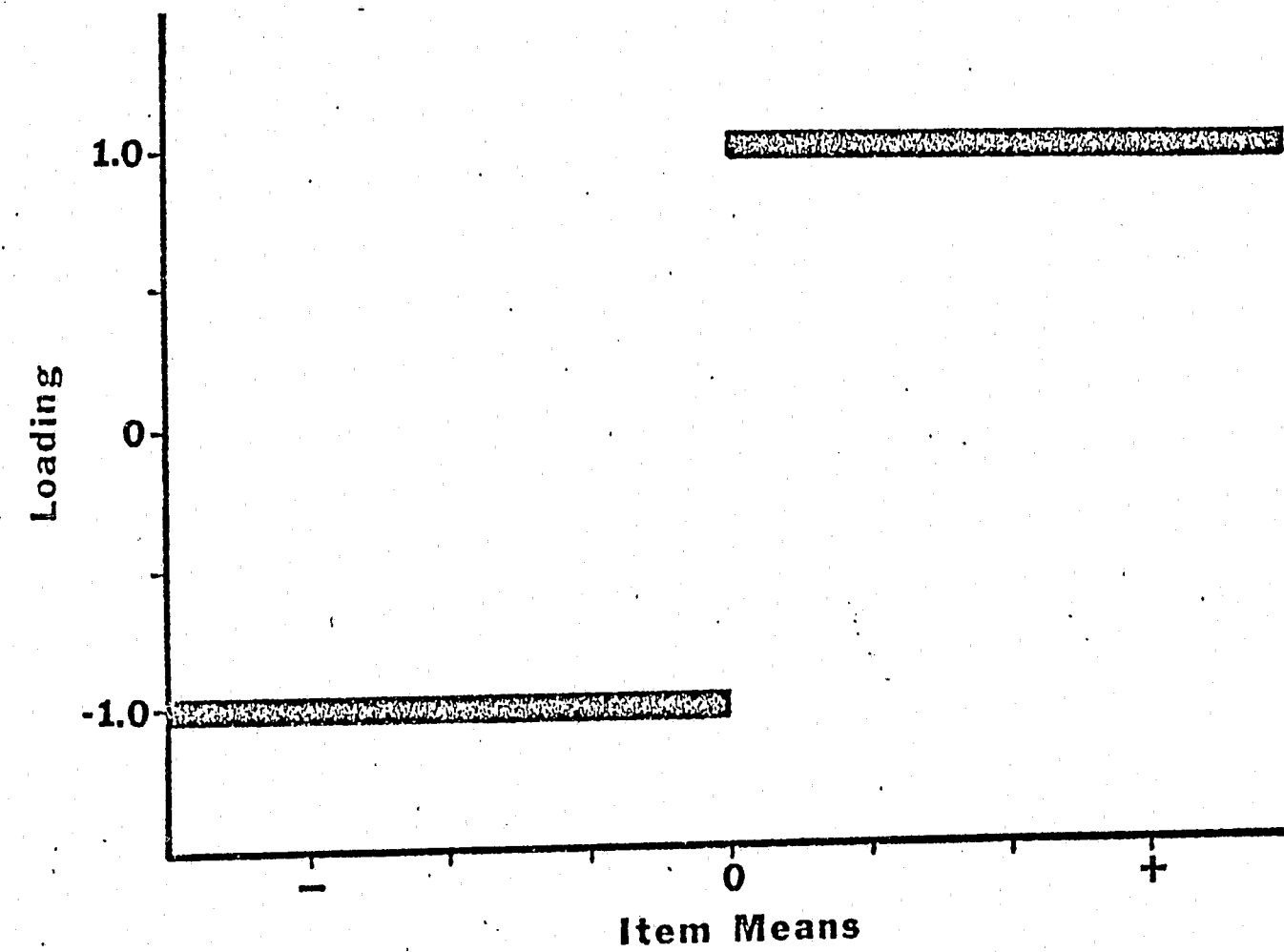


Figure 6
Theoretical Relation between Item Means and Loadings
on the First Principal Component (based on "standardized" cross-product)
Assuming No Error, No Irrelevance, and a Single Dimension.

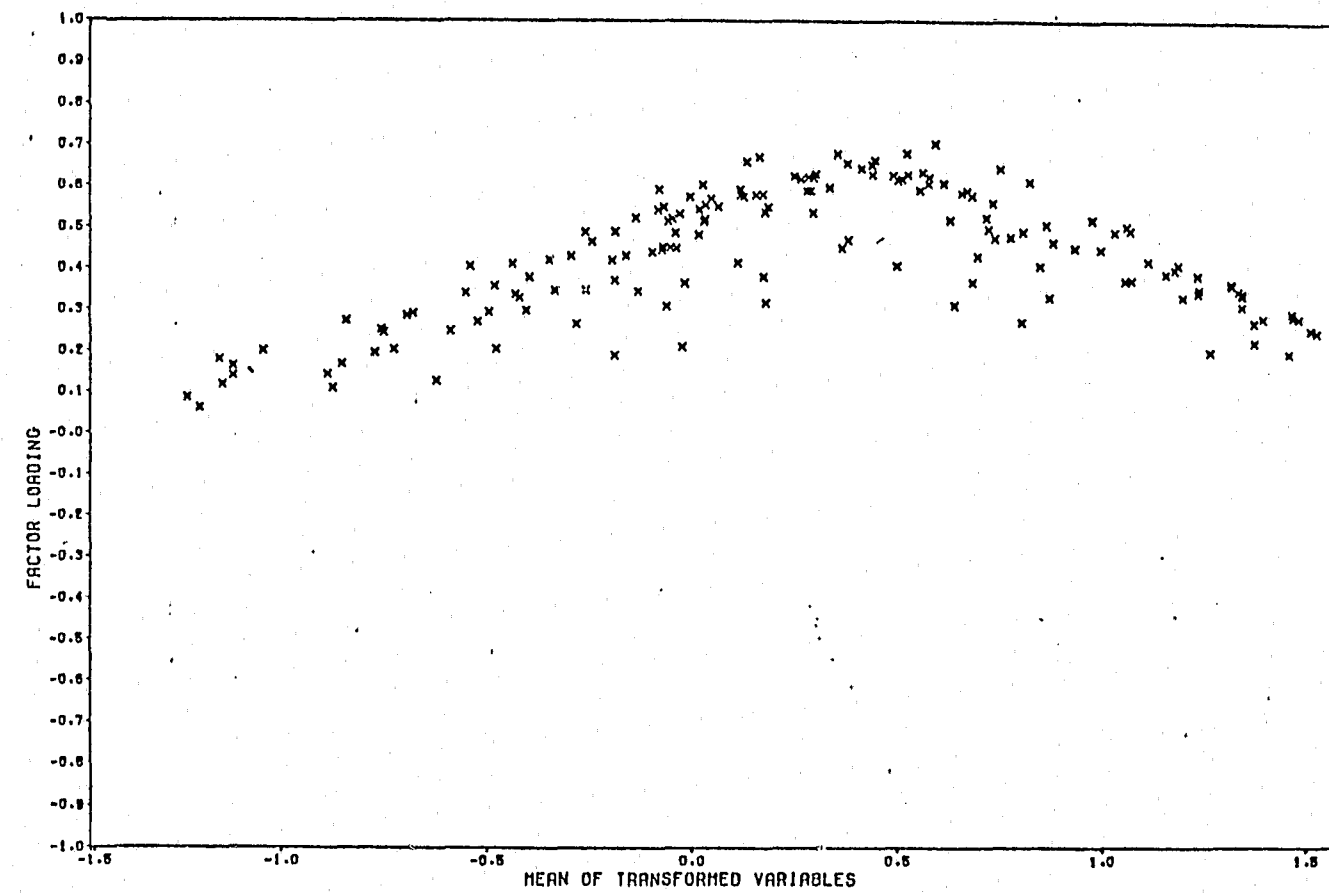


Figure 7

salience (or relevance) to the conceptual dimension underlying the first component. The relation between item means and loadings on the component is clearly curvilinear, and has the form of an inverted "U." High and low placing items load poorly, while items falling in the "mid-range" of the original scale load relatively well.¹⁴

While the first principal component based on the analysis of "standardized" cross-products does account for a substantial proportion of the variance (31%), it cannot be considered to adequately summarize the total variation in the matrix (and hence, the items). Even if we include the second dimension (as perhaps we should), the proportion of variance for which we account is only about half of that available (52%). Explorations of underlying dimensionality are therefore of interest.

The Question of Dimensionality

As the object of these analyses is to represent as much of the remaining information contained in the n-variable matrix as possible with as few composites as possible, a principal components approach is again appropriate. This remaining variance can in effect be thought of as individual differences variance--that portion of the variance left over after "agreement" with respect to scale values has been taken out.

These second-order analyses were performed on a matrix of product-moment coefficients, which (as described above) discard information about item means.

Split-Sample Investigations

The replicability of factor structures is an important (but often ignored) issue. In general, it is usually observed that beyond the first few components--which typically are large relative to the remainder--structures fail to replicate. Since our sample of subjects is relatively

large, we were in a position to examine the replicability of our structures. Accordingly, the subject sample was randomly halved, resulting in two independent samples of sizes 505 and 519.^{15,16}

A principal components analysis of the n = 505 subsample resulted (after Varimax rotation) in a readily interpretable six component solution which accounted for 45% of the available variance. Components are well-defined, and few items load on more than one component. The six-component solution of the remaining subsample (n = 519) was also computed. While the ordering of dimensions was (trivially) different, it is clear from inspection alone that the structures are substantively identical. Appendix C gives details of these analyses.

In general, there are two empirical approaches to the question of the "fit" of factor (or other) matrices. One involves rotating matrices to maximal fit or similarity, and then assessing that similarity using a "congruence" coefficient. The other involves no further rotation, and compares specific dimensions, rather than the entire matrix. The latter (more conservative) approach was followed here. Table 2 gives the coefficients of factorial similarity (Harmon, 1967) observed. Four dimensions clearly replicate very well--all coefficients are above .95. The two smaller dimensions also replicate well, but somewhat less powerfully--coefficients are both larger than .86.

Clearly, then, our investigation of dimensionality has borne fruit. At least six clearly-defined and readily interpretable dimensions appear to underlie peoples' judgments of the seriousness of crime.

Table 2

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Coefficients of Factorial Similarity
Between Corresponding Components

	Component ^a	Coefficient
I	(Victimless/Vice-Type Offenses)	.9723
II	(Assaultive/Injury-Type Offenses)	.9516
III	(Property Loss Offenses)	.9819
IV	(Crimes of Social Order)	.9682
V	(Serious Drug Offenses)	.8661
VI	(Frauds)	.8869

Full-Sample Analyses

The analyses discussed above are conservative since the n/variable ratio is somewhat low. Accordingly, the full sample of 1024 subjects was also analyzed, since the resulting structure should be substantially more robust (having essentially doubled the n/variable ratio). Results of these analyses are displayed in Tables 3 and 4.

These results (of course) confirm those of the subsample analyses, and the interpretation of components does not change. The structure accounts for 44% of the total variance with six dimensions. Remaining discussion focuses on this solution.

The first component, which represents 11% of the variance after rotation, can be interpreted in a number of ways. Many of the offenses which load heavily on this component are "vice"-type crimes: prostitution, gambling, use and possession of marijuana, adultery, homosexual acts, exposures, etc. A second possible interpretation rests on the fact that many of these offenses would fall under the general rubric of "victimless crimes." Whether victimless crimes or vice-type crimes, it is clear from an inspection of item means (the last column of figures in the table) that in general, people view crimes which loaded on this dimension as relatively non-serious.

The second component (7% of the variance after rotation) clearly involves physical assault, personal harm, and interpersonal confrontation. The third component (12% of the variance after rotation) equally clearly represents theft, property damage or loss, and property crimes in general.

The fourth dimension, which also accounts for a substantial portion of the variance after rotation (6%), seems to represent crimes against the social order. In general, these are either crimes which are committed by an agency in power (an employer, a real estate agent, a police officer, a manufacturer, a producer, a doctor, a public official), or are social crimes (i.e., against groups) (racism, the pollution of a water supply,

Table 3

Summary of Principal Components Solution

162 Items, N = 1024

UNROTATED SOLUTION

Component:	I	II	III	IV	V	VI
Eigenevalue	43.97	10.47	5.69	4.82	3.47	3.33
Cum % of Variance Explained	37.14	33.60	37.11	40.09	42.23	44.29

VARIMAX ROTATED SOLUTION

Component:	I	II	III	IV	V	VI
Eigenvalue	17.45	10.45	19.39	10.12	7.08	7.26
Cum % of Variance Explained	10.77	17.22	29.19	35.44	39.81	44.29

TABLE 4

PRINCIPAL COMPONENTS SOLUTION - 162 OFFENSE DESCRIPTIONS

(N = 1024)

COMPONENT							X	OFFENSE DESCRIPTION
I	II	III	IV	V	VI	R ²		
<u>.789</u>	.096	.134	-.008	.062	-.031	.655	-0.7597	A woman engages in sexual acts in return for money.
<u>.752</u>	.087	.156	.084	.090	.039	.614	-0.4896	A person solicits for prostitution.
<u>.738</u>	.064	.054	-.057	.194	-.042	.595	-0.7343	A person engages in sexual acts in return for money.
<u>.715</u>	.017	.160	.015	-.046	.036	.541	-1.0750	A person is a customer in a house of prostitution.
<u>.684</u>	.101	.102	.084	.135	.398	.673	-0.0395	A person illegally uses barbiturates ("downers") or amphetamines ("uppers").
<u>.673</u>	-.042	.217	.016	.009	.303	.594	-1.0502	A person possesses marijuana.
<u>.657</u>	-.022	.236	.012	.008	.273	.563	-1.1569	A person uses marijuana.
<u>.643</u>	.037	.180	.045	-.065	.123	.468	-0.2679	A person engages in homosexual acts in return for money.
<u>.642</u>	.128	.117	.055	.242	.392	.657	0.0363	A person illegally possesses barbiturates ("downers") or amphetamines ("uppers").
<u>.640</u>	.002	.292	.203	.169	.096	.575	-0.8493	A person buys liquor illegally.
<u>.638</u>	.096	.146	.142	.079	<u>.497</u>	.711	-0.0141	A person possesses hallucinogenic drugs.
<u>.612</u>	-.017	.238	.117	.217	.140	.512	-0.4045	A person runs an illegal gambling operation.
<u>.607</u>	-.006	.160	.068	.052	.369	.538	-0.6865	A person sells marijuana.
<u>.606</u>	.073	.015	-.030	.245	-.008	.434	-0.2909	A person runs a house of prostitution.
<u>.599</u>	.065	.121	.161	-.002	-.077	.409	-0.7814	A person commits adultery.
<u>.596</u>	-.054	.128	-.032	.374	-.026	.516	-0.8946	A person participates in illegal gambling.
<u>.576</u>	.095	.086	.109	.253	.343	.542	0.0216	A person uses hallucinogenic drugs.
<u>.567</u>	.165	.076	-.047	.317	.279	.534	-0.0797	A person gives illegal drugs to an acquaintance.
<u>.563</u>	.136	.119	.085	.066	<u>.441</u>	.555	.167	A person uses heroin.
<u>.562</u>	-.091	.181	-.002	-.137	.040	.378	-1.2041	Two people willingly engage in a homosexual act.
<u>.555</u>	.016	.279	.358	.144	.179	.567	-0.5497	A juvenile illegally possesses liquor.
<u>.554</u>	.077	.293	.200	.244	.102	.508	-0.4468	A person sells liquor illegally.
<u>.533</u>	.036	.187	<u>.416</u>	.099	.275	.579	-0.2704	A person gives liquor to a minor.
<u>.507</u>	-.055	.388	.222	-.100	-.010	.470	-1.1480	A person is drunk in public.
<u>.503</u>	.175	.134	.081	.184	<u>.468</u>	.560	0.3239	A person possesses heroin.
<u>.488</u>	-.143	.363	.310	.103	.052	.500	-1.1229	A juvenile breaks a curfew law.
<u>.474</u>	-.139	.260	.248	.124	-.045	.391	-1.2362	A person loiters in a public place.

TABLE 4 (contd.)

-30-

COMPONENT						h ²	X	OFFENSE DESCRIPTION
I	II	III	IV	V	VI			
.467	-.031	.391	.182	.121	.170	.449	-0.5600	A person joins a prohibited demonstration.
.464	.156	.165	.282	.113	.045	.361	-0.1057	A person exposes his genitals in public.
.462	-.134	.371	.187	.174	.061	.438	-1.1226	A person refuses to pay parking fines.
.417	.050	.110	.330	.347	.103	.428	-0.0617	A person sells liquor to minors.
.402	.082	.298	.153	.314	.253	.443	0.0221	A person willingly hides someone who has committed a crime.
.365	.066	.312	.039	.346	.103	.366	-0.4292	A person knowingly buys stolen property.
.361	.188	.073	.050	.011	-.090	.181	-0.1973	A person upon arriving home, kills a suspected burglar.
-.011	.642	.227	.059	-.117	.081	.488	1.3304	A person stabs someone with a knife.
.091	.598	.152	.236	-.027	.056	.488	1.3039	A person forces a woman to submit to sexual intercourse.
-.045	.594	.096	.173	.067	.137	.418	1.4686	A person intentionally injures someone who, as a result, dies.
-.026	.565	.219	.271	-.085	.129	.465	1.3210	A person forces a woman to submit to sexual intercourse, then flees with property belonging to her.
.077	.562	.101	-.087	.075	.010	.346	1.3590	A person kills someone during a serious argument.
.061	.551	.131	.248	.054	.011	.389	1.3281	A person sexually assaults a woman.
.066	.541	.152	.055	-.069	.107	.339	1.1863	A person kills someone during a barroom free-for-all.
.091	.534	.232	-.060	.130	-.177	.399	0.6716	Without using a weapon, a person beats someone.
.080	.534	.183	.019	-.083	.133	.350	1.4538	A person shoots someone with a gun.
.026	.531	.081	.153	.089	-.079	.327	1.3804	Without using a weapon, a juvenile beats an elderly person.
-.008	.514	.158	.049	.064	.211	.340	1.4506	A person plans to kill someone for a fee.
.082	.509	.271	.151	.149	-.022	.384	0.8680	A person strikes someone with a blunt instrument.
.042	.496	.289	.113	.074	.101	.360	1.2207	A person fires a gun at someone.
-.091	.494	.251	.118	.083	.272	.410	1.3310	A person kidnaps someone.
.070	.490	.211	.240	-.080	-.030	.354	0.8356	Without using a weapon, a person beats his wife.
.003	.468	.234	.157	.129	.223	.365	1.3026	A person sets fire to a building.
.066	.462	.102	.197	.145	.025	.288	1.2232	A person kills someone by recklessly driving an automobile.
.100	.450	.089	-.075	.038	-.065	.232	0.7913	Without using a weapon, the parent of a young child beats it.
-.025	.427	-.005	-.092	.123	-.067	.211	1.4460	A person impulsively kills a stranger.
-.067	.419	.075	.153	.182	.106	.253	1.4980	A person sets fire to an occupied building.
.137	.404	.089	.316	.134	.149	.330	1.1738	A person tries to entice a minor into a car for sexual purposes.
.042	.404	.177	.199	-.025	.117	.251	1.0593	A person forces another to engage in a homosexual act.
.320	.374	.217	.089	.160	-.130	.339	0.1024	A person threatens someone with bodily harm.

TABLE 4 (contd.)

-31-

COMPONENT						h ²	\bar{x}	OFFENSE DESCRIPTION
I	II	III	IV	V	VI			
.189	.366	.334	.073	-.003	.090	.295	0.7260	A person threatens someone's life.
-.056	.361	.108	.104	-.136	.028	.175	1.3606	A person shoots and kills someone who resists an armed robbery.
-.030	.353	.065	.034	.242	.191	.227	1.5139	A person plants a bomb in a building.
.121	.172	<u>.778</u>	.202	.010	.057	.693	0.0168	A person steals something from a parked car.
.152	.188	<u>.755</u>	.079	.142	.120	.670	0.1225	A person breaks into a store and with no one else present, steals something.
.197	.125	<u>.741</u>	.159	.077	.181	.667	-0.0891	A person breaks into and enters a building.
.162	.167	<u>.728</u>	.172	.075	.160	.645	0.1524	A person breaks into and enters a store.
.214	.160	<u>.725</u>	.084	.064	.057	.612	-0.1479	A person steals merchandise from a store while the owner is not looking.
.156	.177	<u>.723</u>	.116	.070	.070	.602	-0.0912	A person attempts to break into a building, but runs away when a police car approaches.
.123	.240	<u>.689</u>	.205	.108	.022	.602	0.3423	A person trespasses on private property and steals something.
.248	.183	<u>.660</u>	.025	.092	-.021	.541	-0.0682	Without breaking into or entering a building and with no one else present, a person steals something.
.147	.211	<u>.656</u>	.084	.208	.006	.547	0.2381	A person steals money from a store while the owner is not looking.
.135	.171	<u>.646</u>	.032	.092	.011	.474	0.0068	A person steals a car.
.135	.234	<u>.645</u>	.110	.239	-.008	.559	0.4334	A person breaks into a private residence and with no one else present, steals something.
.174	.256	<u>.639</u>	-.043	.320	-.017	.608	0.1079	A person breaks into a building and with no one else present, steals something.
.112	.227	<u>.635</u>	.172	.074	.058	.506	0.0075	A person attempts to rob someone but leaves when a police car approaches.
.129	.154	<u>.629</u>	.307	-.004	.045	.531	0.1078	A person picks someone's pocket.
.109	.240	<u>.613</u>	.273	.049	.099	.532	0.3665	A person breaks into and enters a private residence.
.085	.283	<u>.604</u>	.213	-.093	.182	.539	0.4889	A person, using threats, robs someone.
.139	.158	<u>.600</u>	.363	-.036	.073	.542	0.2711	A person snatches someone's handbag.
.095	.290	<u>.583</u>	.157	.045	.220	.508	0.5481	A person, using force, robs a store.
.111	.261	<u>.579</u>	.105	.282	-.001	.506	0.2858	A person vandalizes private property.
.155	.273	<u>.573</u>	.144	.083	.182	.488	0.4263	A person, using threats, robs a store.
.299	.082	<u>.569</u>	.096	.195	.205	.510	-0.0774	A person knowingly sells stolen goods.
.245	.167	<u>.559</u>	-.025	.106	.260	.480	0.1622	A person loots a store in a riot.
.033	.364	<u>.554</u>	.220	-.013	.177	.520	0.5998	A person, using force, robs someone.
.381	.101	<u>.539</u>	.083	.144	.119	.487	-0.3556	A person possesses stolen property.
.210	.220	<u>.520</u>	-.010	.250	-.031	.427	-0.1702	A person steals a car and abandons it undamaged.

TABLE 4 (contd.)

-32-

COMPONENT						h ²	r̄	OFFENSE DESCRIPTION
I	II	III	IV	V	VI			
.263	.213	<u>.517</u>	.112	.317	-.116	.508	0.1162	A person trespasses on public property and steals something.
.188	.152	<u>.513</u>	.124	.304	-.062	.434	-0.0495	A person attempts to break into a parked car, but runs away when a police car approaches.
.236	.086	<u>.508</u>	.265	.153	.072	.420	-0.0575	A juvenile takes a car for "joyriding".
.186	.236	<u>.492</u>	.186	.321	-.081	.476	0.1460	A person vandalizes public property.
.161	.218	<u>.465</u>	.280	.163	.014	.395	0.5630	A person steals a car and abandons it damaged.
.283	.185	<u>.457</u>	-.076	.372	-.040	.469	-0.0818	A person steals something from a public building.
.075	.391	<u>.441</u>	.204	.076	.209	.444	0.9616	A person, armed with a weapon, robs someone.
<u>.432</u>	-.055	<u>.443</u>	.140	.015	.190	.433	-0.7023	A person possesses burglary tools.
.052	.241	<u>.430</u>	.340	.035	.299	.429	0.6447	A person blackmails someone.
.072	.336	<u>.423</u>	.126	.077	.379	.462	1.0457	A person, armed with a weapon, robs a bank.
.027	<u>.413</u>	<u>.421</u>	.217	.156	.217	.467	1.0552	A person, armed with a weapon, robs a store.
.259	.231	<u>.419</u>	.137	.364	.185	.482	0.5103	A person willingly helps another commit a crime.
.251	.004	<u>.408</u>	.319	.011	-.092	.340	-0.8603	A person intentionally pushes or shoves someone.
.304	-.002	.397	.169	.178	.270	.438	-0.2537	A person smuggles goods to avoid paying import duties.
.321	.068	.394	.268	.334	.079	.452	-0.1974	A person uses false identification to obtain goods from a store.
.169	.176	.392	.340	.292	.370	.551	0.5785	A person knowingly cashes stolen payroll checks.
.233	.189	.391	.158	.275	.198	.383	0.0533	A person interferes with a police officer.
.264	.151	.385	.097	.107	.248	.323	-0.2038	A person joins a riot.
.188	.226	.385	.246	.240	.351	.475	0.7375	A person pays someone to commit a crime.
.376	.037	.383	.213	.183	-.019	.369	-0.7660	A person trespasses on private property.
.336	.139	.372	.012	.361	-.037	.403	-0.3420	A person resists arrest.
.153	.109	.368	.165	.306	.177	.323	0.2830	A person illegally receives monthly welfare checks.
.147	.244	.110	<u>.696</u>	.059	-.051	.584	0.7939	A person attempts to prevent someone from attending a public school because of that person's race.
.174	.187	.087	<u>.691</u>	.102	-.089	.568	0.7635	An employer refuses to hire a qualified person because of that person's race.
.171	.140	.052	<u>.681</u>	.084	-.117	.536	0.6835	A real estate agent refuses to sell a house to a person because of that person's race.
-.030	.203	.194	<u>.544</u>	.076	.185	.416	0.9207	A police officer knowingly makes a false arrest.
.143	.261	.214	<u>.505</u>	.027	.129	.407	0.7045	A person endangers the lives of others through negligent property maintenance.
.100	.037	.267	<u>.501</u>	.127	-.050	.352	-0.0263	A person knowingly gives false information when advertising a product.
-.066	.231	.136	<u>.496</u>	.110	.083	.341	1.0437	A manufacturer knowingly endangers lives by polluting the water supply.
<u>.403</u>	-.014	.149	<u>.495</u>	.094	.010	.439	-0.5029	A juvenile repeatedly runs away from home.

TABLE 4 (contd.)

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COMPONENT						h ²	\bar{x}	OFFENSE DESCRIPTION
I	II	III	IV	V	VI			
.303	.014	.233	<u>.485</u>	.016	.180	.414	-0.0477	A juvenile is beyond parental control.
.093	.338	.063	<u>.483</u>	.036	.132	.378	1.1443	A parent of a young child neglects to care for it.
-.039	.139	.298	<u>.479</u>	.217	.204	.428	0.8505	A public official takes public funds for personal use.
<u>.464</u>	-.062	.207	<u>.474</u>	.084	.065	.499	-0.4389	A juvenile is repeatedly truant.
.104	.311	.199	<u>.442</u>	.159	.187	.403	1.0171	An employer orders an employee to commit a serious crime.
.073	.060	.313	<u>.441</u>	.118	.010	.315	-0.1400	A person fixes prices on a consumer product.
-.005	.178	.205	<u>.435</u>	.213	.250	.371	0.7096	A public official accepts bribes in return for favors.
.134	.093	.330	<u>.433</u>	.216	.294	.456	0.4987	A doctor cheats on claims made to a health insurance plan for patient services.
.230	.096	.291	<u>.424</u>	.117	.225	.391	0.1739	A person lends money at illegal interest rates.
.326	.092	.348	<u>.412</u>	.026	.084	.414	-0.3042	A person makes obscene phone calls.
.089	.241	.337	<u>.411</u>	.207	.136	.410	0.6570	A person, involved in an automobile accident, leaves the scene.
-.104	.378	.110	<u>.406</u>	.103	.222	.390	1.2254	A producer knowingly endangers lives by marketing contaminated products.
.119	.149	.361	<u>.402</u>	.210	.268	.444	0.5134	A person bribes a public official to obtain favors.
.205	.193	.237	.378	.030	.175	.310	0.6147	A person drives a car while drunk.
.122	.052	.172	.138	<u>.578</u>	.141	.420	0.3540	A person impersonates a police officer.
.359	-.071	.193	.127	<u>.544</u>	.032	.485	-0.5974	A person operates a car with a suspended driver's license.
.352	-.085	.118	.214	<u>.539</u>	.060	.485	-0.5312	A person uses someone else's driver's license.
<u>.445</u>	.111	.088	.173	<u>.481</u>	.293	.566	0.2785	A person uses a forged prescription to obtain drugs.
.242	.149	.337	.138	<u>.459</u>	.201	.465	0.4282	A person knowingly passes counterfeit money.
.215	.197	.249	.250	<u>.440</u>	.096	.412	0.5427	A person signs someone else's name to a check and cashes it.
.183	-.045	.109	.099	.391	.074	.216	-0.6291	A person operates a car without insurance coverage.
.261	.068	.351	.195	.388	.102	.396	0.0190	A person knowingly writes worthless checks.
-.102	.136	.048	.307	.384	.111	.285	0.8605	A government official intentionally obstructs the investigation of a criminal offense.
.087	.238	.318	.347	.371	.273	.497	0.8099	A person pays a witness to give false testimony in a criminal trial.
.044	.200	.228	.315	.355	.027	.320	0.3693	A person intimidates a witness in a court case.
.380	.120	.091	.141	.145	<u>.680</u>	.670	0.6692	A person manufactures large quantities of illegal drugs.
<u>.433</u>	.117	.129	.138	.160	<u>.668</u>	.708	0.5651	A person smuggles large quantities of illegal drugs.
.369	.184	.089	.149	.075	<u>.626</u>	.598	0.7206	A person sells heroin.

TABLE 4 (contd.)

-34-

COMPONENT						h ²	X	OFFENSE DESCRIPTION
I	II	III	IV	V	VI			
<u>.488</u>	.166	.084	.134	.104	<u>.619</u>	.684	0.2681	A person sells hallucinogenic drugs.
<u>.546</u>	.117	.146	.143	.101	<u>.581</u>	.701	0.2892	A person illegally sells barbiturates ("downers") or amphetamines ("uppers").
.381	.207	.011	-.086	.294	<u>.449</u>	.484	0.9836	A person sells large quantities of illegal drugs.
.246	.053	.362	.192	.331	.386	.490	0.4007	A person prints counterfeit money.
.271	.159	.342	.149	.278	.352	.439	0.2532	A person conceals the identity of someone known to have committed a serious crime.

NOTE: LOADINGS $\geq .40$ underlined.

the marketing of contaminated products, price-fixing, false advertising), or both. Interestingly, two offenses involving juveniles ("a juvenile repeatedly runs away from home, and "a juvenile is beyond parental control") load on this dimension. At first glance, they are anomalous, but their interpretation is clarified if one assumes that (in some sense, at least) subjects were in effect judging the actions of parents, rather than that of the juveniles. This interpretation is at least consistent with the overall pattern of this dimension.

The fifth and sixth dimensions, while relatively small (4% and 5%, respectively, of the variance after rotation) and defined by relatively few items, are nonetheless readily interpretable.¹⁷ Items loading on the fifth dimension (with two exceptions) all involve serious drug offenses: The sale or manufacture of heroin, hallucinogens, or barbiturates and amphetamines. Items loading in the sixth (and final) dimension by-and-large involve fraud or deception.

Discussion: Study I

Torgerson (1958) has stressed the difference between classification and measurement. Basic to that distinction is the notion that we classify objects or events or things; while we measure attributes of things. Thus, for example, we cannot measure burglary, other than through the use of specified attributes. (We can, of course, classify burglaries. Any of a number of reasonable classification schemes, can be developed: commercial versus non-commercial, daytime versus nighttime burglaries, and so forth).

To use Torgerson's example, a stick is therefore not measurable--although its length, weight, diameter, hardness, etc. might well be. Likewise, crime is not measurable, other than through its attributes. The fundamental problem

is to find and utilize a common metric, a common attribute in the assessment of the crime. "Seriousness" would seem to represent, at first glance, such a metric. And yet this metric leaves us dissatisfied--and this dissatisfaction has been voiced by many.

The present study casts considerable doubt on the assumption that judged seriousness is in fact an homogeneous dimension (Sellin & Wolfgang, 1964). Consider again Torgerson's "stick" example. Suppose we have a large pile of sticks each of which varies along a number of dimensions: length, heaviness, roughness, diameter and so forth. If we ask our experimental subjects to judge each stick on a scale representing length, we would anticipate very considerable consistency (within-groups consensus) with respect to the scaling of the sticks. Likewise, subjects could easily array our sticks along a single dimension representing heaviness..

Suppose, however, we asked our experimental subjects to judge the "bigness" of the set of sticks. Again, we would expect to find a fair amount of agreement among our subjects with respect to the placement of the sticks relative to the "bigness" dimension, but considerable variability might also be expected. Furthermore, a substantial amount of this variability might be expected to be attributable to separate dimensions of "bigness"--such as length, width, roughness, and heaviness.

We might also expect, of course, subjects to report some discomfort in making a decision such as "which stick is bigger" when confronted with a short heavy stick and a long, light stick. Likewise, subjects experience considerable discomfort in comparing, for example, an assault and a theft.

What our studies have shown is that the metric or dimension of "seriousness" can in some ways be considered analogous to the dimension of "bigness."

Such dimensions are in some respect non-specific or heterogeneous, and we might expect to find that the combined use of a number of more specific dimensions will increase the specificity with which we can assess the events of interest (see Von Hirsch, 1973, pp. 79-83).

While we have discovered a clean and clear-cut, six-dimensional structure which apparently underlies people's judgments of offense seriousness, that structure quickly loses some of its conceptual utility if in fact the dimensions merely represent "ranges" along a single underlying dimension. That is, it is clearly of little interest simply to know (for example) that people judge "victimless," vice-type offenses as less serious than assaultive confrontational offenses, and that factor-analytic techniques can demonstrate this fact. In order for a dimensional structure to be theoretically and conceptually heuristic, we would like the distinction among factors or dimensions not simply to be one of relative magnitude. The question, then, is the extent to which these second-order dimensions overlap one another along the first-order dimension of overall judged seriousness.

Figure 8 provides a graphical illustration of this overlap. What we have done is simply to overlap the second-order dimensions on the original graphical representation of the first-order dimension (Figure 5). Thus, the ordinate represents the unrotated loading on the first component extracted from the analysis of the "standardized" cross-products (the "agreement" dimension), the abscissa represents the scale values of the offense descriptions, and the boxes represent the ranges of the item means for items loading on each of the second-order dimensions. Clearly, overlap is substantial.

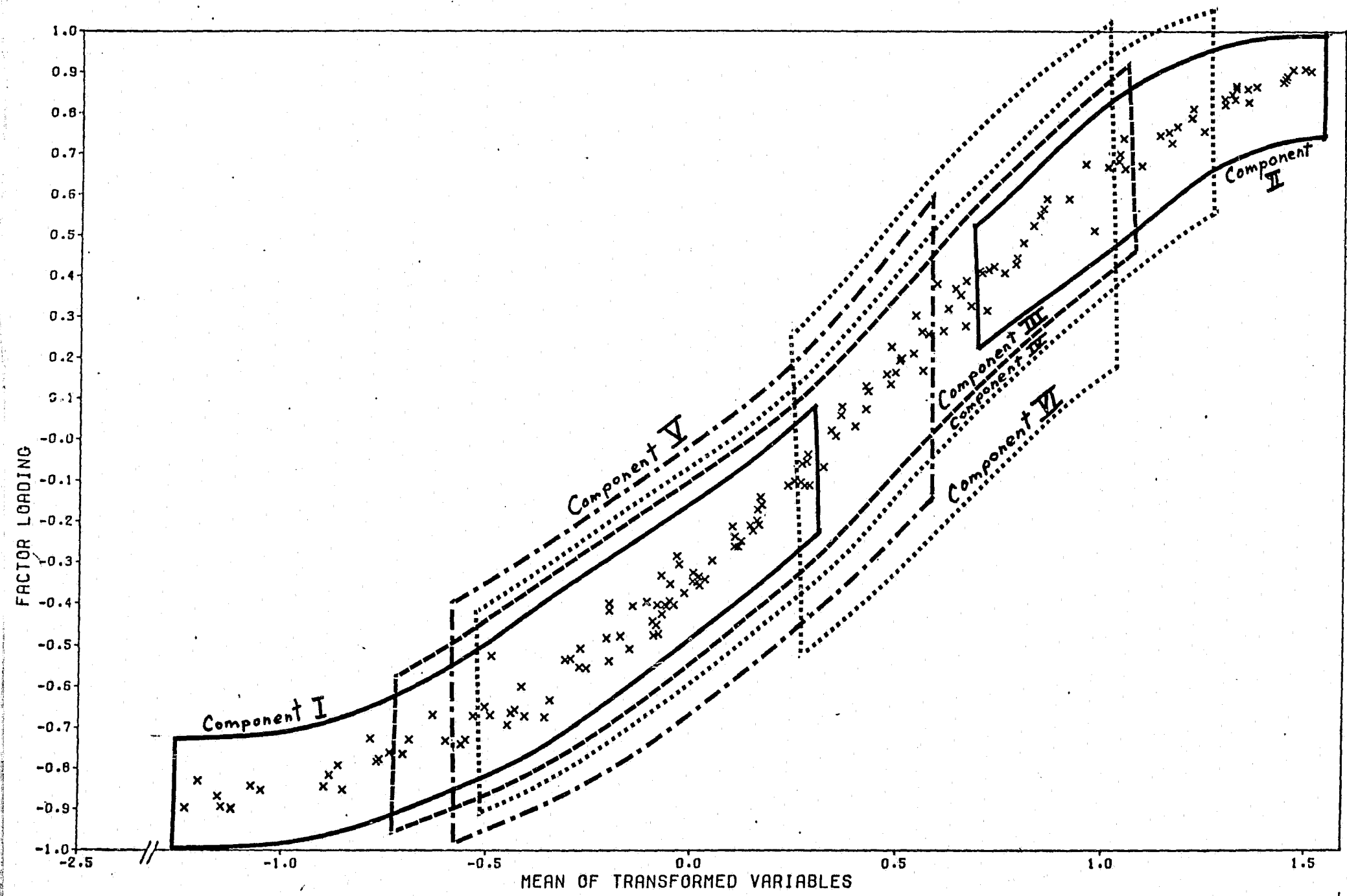


Figure 8

Thus, the orthogonal dimensions of seriousness obtain within roughly the same ranges of judged seriousness, and the second-order dimensions are conceptually meaningful. What this illustration suggests is that two (or more) offenses may be judged as roughly (or completely) equivalent in terms of seriousness, but that they may be so judged for different reasons.

Conclusion

We have shown that substantial agreement within a large, heterogeneous sample of subjects can be demonstrated with respect to the judged seriousness of criminal and/or delinquent acts, but that the exploration of dimensional structures for judged offense seriousness is indeed appropriate. We have seen that approximately six dimensions appear to underlie our judgments of the seriousness of criminal and/or delinquent acts, and that these dimensions obtain within roughly the same ranges of apparent judged seriousness. Clearly, this has major implications for our understanding of the nature of offense seriousness.

I should note, however, that the fundamental problem of identifying a means of combining different dimensions into a single overall index remains. We now know why we are uncomfortable in equating any number of thefts with a death, but we have not resolved the incommensurability issue. Indeed, we have highlighted it. In earlier studies, it has been demonstrated that the assumption of additivity made in the Measurement of Delinquency is untenable (Gottfredson, Young, & Laufer, 1980; Pease, Ireson, & Thorpe, 1974; Wagner & Pease, 1978; Walker, 1978). When considering offenses such as rape or robbery which result in a death, subjects' judgments of seriousness simply do not covary with monetary loss. As expected, these offenses fall on different dimensions in the present study.

While offenses may not be additive they might still be agglomerative in some other sense. In the future, our efforts must be directed toward identifying a more reasonable way of agglomerating specific criminal acts into an overall measure of criminal activity.

STUDY II: BETWEEN-GROUPS CONSENSUS

As stressed in the introduction to this report, two issues of consensus must be addressed. The studies reported above addressed the "within-groups" question: we observed that considerable consensus could be achieved within a large and heterogeneous sample with respect to the judged seriousness of criminal and/or delinquent acts. While consensus or "agreement" on the overall relative seriousness of crimes was reasonable (approximately 50% of the variance in judgments can be assumed to reflect agreement on scale values), we also saw that the investigation of underlying dimensions was fruitful.

We now turn to our second "consensus" question: agreement across relevant groups concerning the seriousness of crimes. Since a dimensional approach can be expected to add to our understanding of judged seriousness, it is followed in the studies reported below.

Method

Our first step was to construct a set of six scales representing the six dimensions described in the earlier study. Scales were constructed by simply adding together scores for single items which fell on a given dimension, thus resulting in a "total score" for a dimension.

Scale Reliability

Thus far, we have assumed that items falling on the same component are somehow tapping a similar underlying dimension of judged seriousness. If we are to use these results meaningfully, however, it is necessary that we further

investigate this issue. For our scales to be conceptually useful, it is necessary that they be reliable, and that they in fact represent separable dimensions of seriousness.

Table 5 gives the internal consistency reliability coefficients observed for the full sample of 1024 students discussed above. Clearly, all scales have high reliability--homogeneity coefficients are all above .80.

Table 6 shows that scales are not completely orthogonal, which is to be expected, since all reflect, to some extent, the concept of seriousness. Still, in no instance can even half of the variance in one scale be accounted for given knowledge of another.

Subjects

Several groups of subjects voluntarily participated:

- a) Students. A ten percent (n = 112) random sample of students who participated in the earlier study was generated for use here.
- b) Police Officers. Seventy-four Maryland State Troopers from across the state participated.
- c) Correctional Officers. One hundred twenty guards from Maryland Correctional Institutions completed our forms.
- d) Parole & Probation Officers. A total of 87 officers from several Maryland jurisdictions participated.
- e) Judges/Lawyers. Twenty-three members of the Council of Juvenile Court Judges participated, as did 41 defense and prosecuting attorneys from Maryland. These groups were too small to analyze separately, and were combined in all analyses.

Finally,

- f) Inmates. Seventy-four inmates confined in Maryland Correctional Institutions voluntarily completed the forms. Inmates were contacted at the Reception Diagnostic Classification Center, and hence can be considered representative of the State confinement population.

Table 5

SCALE	INTERNAL CONSISTENCY ^a	N ^b	NUMBER OF ITEMS
1) Victimless/Vice Dimension	.959	910	32
2) Bodily Harm Dimension	.888	934	22
3) Property Loss Dimension	.967	899	38
4) Tertiary Victimization Dimension	.915	922	21
5) Fraud Dimension	.809	996	8
6) Serious Drug Offense Dimension	.921	939	6

^aCronbach's alpha

^bN's vary due to incomplete response

Table 6

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Intercorrelations Among Scale Scores

SCALE:	Victimless/ Vice	Bodily Harm	Property Loss	Tertiary Victimization	Fraud	Serious Drug Offenses
Victimless/Vice	—	.263 (N=897)	.584 (N=873)	.526 (N=891)	.640 (N=893)	.700 (N=902)
Bodily Harm		—	.592 (N=885)	.516 (N=906)	.305 (N=914)	.329 (N=919)
Property Loss			—	.664 (N=878)	.564 (N=880)	.443 (N=888)
Tertiary Victimization				—	.538 (N=904)	.454 (N=912)
Fraud					—	.504 (N=923)
Serious Drug Offenses						—

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Analysis

Each respondent in the samples described above was scored on each of six scales constructed from items loading on the six components of seriousness. Scale scores were entered as discriminating variables in a multiple discriminant function analysis (with sample membership as the variable to be distinguished) to determine whether members of the respective groups differ in their treatment of these scales. Analyses were performed without regard to prior knowledge of group size. Since all six scales are presumed to be meaningful, all six were used in the calculations of the functions.

Results

Thy hypothesis that sample members differ with respect to their treatment of the six scales was confirmed. The original value of Wilk's lambda, which assesses potential discriminability based on the scale scores, is $.476 \left[\chi^2_{(30)} = 389.16; p < .001 \right]$, which suggests considerable discrimination. The canonical correlation between the first discriminant function and the group membership variable is .590, and the function is of the form

$$\begin{aligned} \hat{y} = & .625 \text{ (Victimless/Vice Scale)} \\ & - .422 \text{ (Personal Harm Scale)} \\ & - .693 \text{ (Property Loss Scale)} \\ & + .993 \text{ (Tertiary Victimization Scale)} \\ & - .173 \text{ (Fraud Scale)} \\ & - .480 \text{ (Major Drug Scale),} \end{aligned}$$

where \hat{y} equals predicted group membership.

After removing the effect of the first discriminant function, lambda increases to $.730 \left[\chi^2_{(20)} = 164.74; p < .001 \right]$, which suggests significant remaining discriminability. The canonical correlation between the second linear

composite and the group membership variable is .41, and the composite is of the form

$$\begin{aligned}\hat{y} = & -.377 \text{ (Victimless/Vice Scale)} \\ & -.613 \text{ (Personal Harm Scale)} \\ & +.103 \text{ (Property Loss Scale)} \\ & -.410 \text{ (Tertiary Victimization Scale)} \\ & -.050 \text{ (Fraud Scale)} \\ & +.181 \text{ (Major Drug Offenses)}\end{aligned}$$

where \hat{y} is as before.

While a third discriminant function was also statistically significant ($\lambda = .880$; $\chi^2_{(12)} = 66.8$; $p < .001$), the canonical correlation is small (.32). I therefore decided to restrict further discussion to the two-function solution.

Figure 9 shows the positions of the group centroids in the reduced space defined by the two functions. Using the functions in a "predictive" way, we correctly classified 58% of the students, 59.5% of the Inmates, and 50% of the Judges and Lawyers. The remaining three groups (Police Officers, Parole and Probation Officers, and Guards) were highly confusable but (and as suggested by Figure 9) only among themselves. That is, while guards were often classified as police officers (and vice versa), neither would likely be classified as an inmate, a student, or a member of the legal profession. Table 7 gives the means and standard deviations of each scale for each group. Clearly, large differences in the perceived seriousness of different offenses is manifest across groups. For example, inmates perceive property crimes, major drug offenses, and offenses involving personalizing as being much less serious than do other groups, while the student group perceives all of these as more serious than do the others.

Interestingly, the student sample appears to perceive all types of offenses

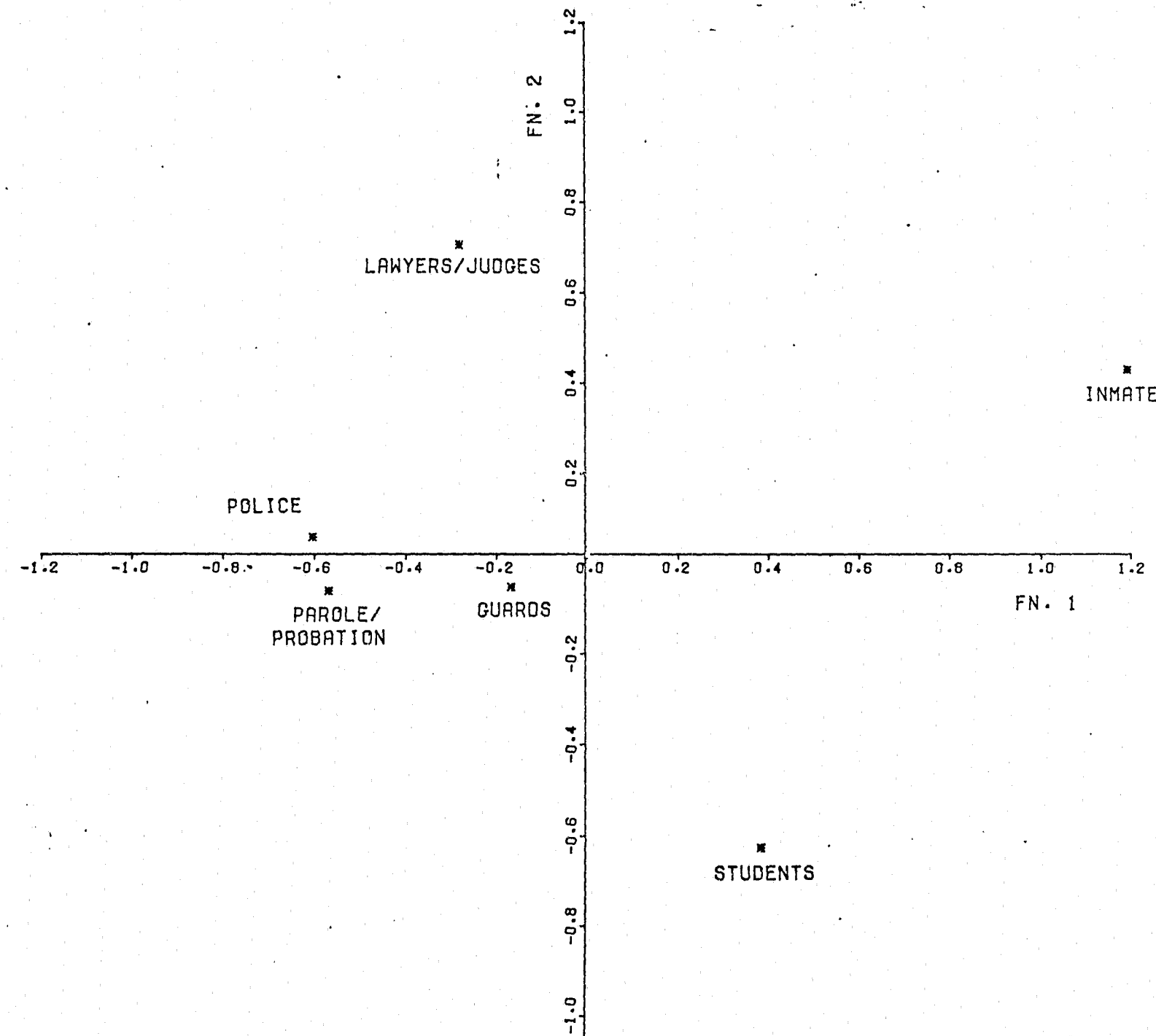


Figure 9
Centroids of Samples in Reduced Space

Table 7

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		Students	Guards	Parole/ Probation Officers	Inmates	Police Officers	Judges/ Lawyers	Total
		N=112	N=120	N=87	N=74	N=74	N=64	N=531
Scale 1	Victimless/ Vice							
	Mean	-13.6	-20.8	-29.9	-24.8	-18.0	-41.7	-23.5
	Standard Deviation	23.3	19.6	18.2	26.9	17.6	17.7	22.5
Scale 2	Personal Harm							
	Mean	27.7	25.0	27.8	14.6	24.9	19.6	23.9
	Standard Deviation	8.0	8.0	6.0	15.2	7.4	8.9	10.1
Scale 3	Property Loss							
	Mean	10.3	1.9	4.8	-14.6	8.7	- 9.1	1.5
	Standard Deviation	21.4	20.8	18.0	30.8	17.9	15.3	22.9
Scale 4	Tertiary Victim- ization							
	Mean	12.2	1.8	1.5	2.4	- 1.5	- 5.6	2.7
	Standard Deviation	12.1	13.3	12.1	14.8	10.4	11.3	13.6
Scale 5	Fraud							
	Mean	0.8	- .7	- 1.3	- 3.3	- 0.4	- 3.8	- 1.1
	Standard Deviation	4.7	4.6	4.1	6.4	4.3	3.8	4.9
Scale 6	Major Drug							
	Mean	4.5	4.6	4.1	0.4	5.3	1.1	3.6
	Standard Deviation	5.0	4.3	4.2	6.4	3.4	5.1	5.1

as being much more serious than to any of the other groups - perhaps "familiarity" with crime breeds contempt.

Conclusions: Study II

This study has demonstrated that a meaningful set of scales can be developed which reflect the dimensions underlying the concept of offense seriousness. The scales are highly reliable (internally consistent) and are modestly interrelated - a finding to be expected given the method of development employed and the fact that all reflect (to some extent) the concept of seriousness. Finally, we have seen that the ways in which specified groups of people perceive these dimensions differ. Offenders' perceptions of offenses differ dramatically from those of other groups. Finally, it appears that there may be a "familiarity" effect with respect to judgments of the seriousness of crime: groups having involvement with the criminal justice system all judge offenses - of all sorts - as less serious than do persons not having criminal justice system involvement.

SUMMARY

This report has presented a series of studies designed to assess the ways in which we judge the seriousness of crimes. We have seen that substantial agreement within a large, heterogeneous sample of subjects can be demonstrated with respect to the judged seriousness of criminal and/or delinquent acts, but that the exploration of dimensional structures for judged offense seriousness is indeed appropriate. We have seen that approximately six dimensions underlie our judgments of the seriousness of criminal and/or delinquent acts, and that these dimensions are reliable and replicable. We have seen that several of these dimensions lie within the same ranges of apparent seriousness: suggesting that two or most offenses may be judged as of the same relative seriousness, but for different reasons. Finally, we have seen that different relevant groups of people

appear to use these dimensions in different ways. The practical consequences of these fundamental measurement issues can be enormous. For example, recent major reviews of the rehabilitation and/or treatment literature have suggested--and quite strongly--that rehabilitative or "treatment-oriented" efforts do not appear to work (see, for example, Martinson, 1974; Lipton, Martinson, & Wilks, 1975; National Research Council, Panel on Research on Rehabilitative Techniques, 1979). It may well be the case, of course, that some rehabilitative efforts do indeed work, but that our yardsticks are simply too crude to allow us this knowledge. These studies, therefore, are important not only because they shed light on important psychological and cognitive processes, but because it is precisely on these issues of fundamental measurement that advances in our knowledge of the system and its capabilities must ultimately rely.

Footnotes

¹Note that even this apparently simple "common metric" is problematic. For example, is it possible to equate time spent in county jails with time spent in state prisons? or time spent in maximum security with time spent in minimum security? Should we consider a sentence of two years given to a seventy-year old man to be equivalent to two years given to a twenty-year old man, even if both are sentenced to the same institution?

²Wilkins asks: "How many bicycle thefts and indecent exposures equal how many drunks or attempted suicides?" (Wilkins, 1963, p.337).

³The approach to be described is truly multidimensional, in that it allows for the simultaneous examination of several dimensions. However, "multi-dimensional scaling" is commonly used to describe the general class of techniques developed by Young and Householder (1938; 1941), Richardson (1938), Torgerson (1952), and others. It should be noted that the approach to be described is distinct from "multidimensional scaling" in that sense. It is, however, multidimensional. The "multidimensional scaling" of offense seriousness would of course be of considerable interest -- however, the complexity of the stimuli and the requirements of the techniques are highly problematic.

⁴The problem with a correlational approach, of course, is that the product-moment correlation coefficient (r) is independent of both unit of origin and interval width. Hence, for example, two groups' judgments could be highly correlated even though the groups' judgments could differ with respect to (a) origin, (b) unit size, or (c) both. The use of regression coefficients (as was done by Rossi et al.) to assess differences among groups with respect to judged seriousness could ameliorate this problem since these coefficients represent differences inslope.

⁵Appendix B provides a full discussion of these analyses.

⁶The intercorrelations of scale values or the 162 offense descriptions based on the arithmetic mean, the median, the geometric mean, and on the results of the successive intervals scaling procedure all exceed .98. This suggests that end effects were relatively mild, and that substantive conclusions should not be affected based simply on the measure of central tendency employed.

⁷In our study, the offense description read: A juvenile is repeatedly truant. In the Sellin and Wolfgang study, the description was given as "A juvenile plays hookey from school and thereby becomes an offender."

⁸Again, three outliers have been omitted. In one case, our item read "A person knowingly endangers lives by marketing contaminated products" while the other study's item read "Knowing that a shipment of cooking oil is bad a store owner decides to sell it anyway." In the second instance, we had "A person pays someone to commit a crime" while the other study described the offense as "A person pays another person to commit a serious crime." In the final instance, we had "A juvenile is beyond parental control" as compared to "A person under 16 years of age is reported to police by his parents because they are unable to control him."

⁹The procedure to be described was developed in collaboration with Warren S. Torgerson, and the coefficient used was developed by him. I am deeply indebted.

¹⁰My use of the term "value" is an empirical one. I make no claim that the procedures discussed necessarily address the conceptual utility of the dimensional approach.

$$^{11} \text{ Since } r_{xy} = \frac{\sum_{i=1}^n xy}{N s_x s_y} = \frac{\sum_{i=1}^n (x_i - \bar{x})(y_i - \bar{y})}{N \sqrt{\frac{1}{N} \sum_{i=1}^n x_i^2 - \bar{x}^2} \sqrt{\frac{1}{N} \sum_{i=1}^n y_i^2 - \bar{y}^2}}$$

$$^{12} \text{Since } \text{Cov}_{xy} = r_{xy} \sigma_x \sigma_y = \frac{\sum_{i=1}^n xy}{n \sigma_x \sigma_y} = \frac{1}{n} \sum_{i=1}^n (x_i - \bar{x})(y_i - \bar{y})$$

¹³ Note that this matrix is thus based on over 165,000 individual judgments, and considerable stability might be expected.

¹⁴ See Torgerson's (1968) discussion of salience (pp.88-93) and his figures 9, 10, and 11.

¹⁵ Subjects were selected for inclusion in either sample using a probabilistically weighted random sample generator. As each subject is considered for inclusion independently of all others, subsamples are not of precisely the same size.

¹⁶ The analyses which follow are, of course, conservative since the n/variable ratio is somewhat low. This could reduce the stability of any resulting structures.

¹⁷ It could, of course, be the case that these dimensions are small in terms of the proportion of the overall variance for which they account precisely because there were relatively few items available to define them.

¹⁸ It should be noted that this conclusion is probably unwarranted. A more realistic conclusion would appear to be that, given the quality of the evaluative work undertaken, it is difficult to tell whether or not anything works.

References

- Blair, G.W. The Measurement of Mind and Matter. New York: Philosophical Library, 1956.
- Dershowitz, A. Background paper, in Fair and Certain Punishment. Report of the Twentieth Century Fund Task Force on Criminal Sentencing. New York: McGraw-Hill, 1976.
- Diederich, G., Messick, S. & Tucker, L. A general least squares solution for successive intervals. Psychometrika, 1957, 22, 159-173.
- Figlio, R.M. The national survey of crime severity: some general findings. Unpublished paper, University of Pennsylvania, 1979.
- Forst, B., Rhodes, W., & Wellford, C. Sentencing and social science: research for the formulation of Federal Sentencing Guidelines. Hofstra Law Review, 1979, 1(2), 355-378).
- Gottfredson, S.D. Evaluating psychological research reports: Dimensions, reliability and correlates of quality judgements. American Psychologist, 1978, 33 (10), 920-934.
- Gottfredson, S.D., Young, K.L., & Laufer, W.S. Additivity and interactions in offense seriousness scales, Journal of Research for Crime and Delinquency, 1980, 17, 26-41.
- Harmon, H. Modern Factor Analysis, (2nd Ed.) Chicago: University of Chicago Press, 1967.
- Kleinig, J. Punishment and Desert. The Hague: Martinus-Nijhoff, 1973.
- Lipton, D., Martinson, R., & Wilks, J. The effectiveness of consectional treatment: a survey of treatment evaluation studies. New York: Praeger, 1975.
- Martinson, R. What works? - Questions and answers about prison reform. Public Interest, 1974, 10, 22-54
- Merton, R.K. Social problems and social theory. Chapter 15 in Merton, R., and Nisbet, R. (Eds.) Contemporary Social Problems. New York: Harcourt, Brace & World, 1961.

Morris, N. The Future of Imprisonment. Chicago: University of Chicago Press, 1974.

National Research Council, Panel on Research on Rehabilitational Techniques. The Rehabilitation of Criminal Offenders: Problems and Prospects. Washington, D.C.: National Academy of Sciences, 1979, 210-224.

Pease, K., Ireson, J., & Thorpe, J. Odditivity assumptions in the measurement of delinquency, British Journal of Criminology, 1974, 14, 256-263.

Richardson, M. Multidimensional psychophysics, Psychological Bulletin, 1938, 35, 659-660.

Rossi, P., Waite, E., Base, C., & Berk, R. The seriousness of crime: normative structure and individual differences, American Sociological Review, 1974, 39, 224-237.

Sellin, T., & Wolfgang, M. The Measurement of Delinquency. New York: Wiley, 1964.

Sparks, R., Genn, H., & Dodd, D. Surveying Victims. New York: Wiley, 1977.

Torgerson, W.S. Multidimensional Representation of similarity structures. In M. Katz, J. Cole, and W. Barton (Eds.), Classification in Psychiatry and Psychopathology. Washington, D.C.: U.S. Govt. Printing Office, 1968.

Torgerson, W. Multidimensional Scaling: I. Theory and Method, Psychometrika, 1952, 17, 401-419.

Torgerson, W. Theory and Methods of Scaling. New York: Wiley, 1958.

Von Hirsch, A. Doing Justice: the Choice of Punishments. New York: Hill-Wang, 1976.

Wagner, H., & Pease, K. On adding up scores of offense seriousness, British Journal of Criminology, 1978, 18, 175-178.

Walker, M. Measuring the seriousness of crimes, British Journal of Criminology, 1978, 18, 348-364.

Young, G., & Householder, A. A note on multidimensional psychophysical analysis, Psychometrika, 1941, 6, 331-333.

Young, G. & Householder, A. Discussion of a set of points in terms of their mutual distances, Psychometrika, 1938, 3, 19-22.

APPENDIX A



THE JOHNS HOPKINS UNIVERSITY

CENTER FOR METROPOLITAN PLANNING AND RESEARCH

BALTIMORE, MARYLAND 21218

OFFENSE SERIOUSNESS STUDY

The Criminal Justice Studies Program of the Center for Metropolitan Planning and Research is involved in a series of studies designed to understand the ways in which people view the seriousness of criminal behaviors. We would greatly appreciate your help with one of our studies.

This booklet describes a series of violations of the law. *Each violation is different from all others.* Some may seem to be very serious; others may seem to be much less serious. Some statements are quite specific; others are more general.

Your task is to show how serious *you* feel each violation is, *not* what the law says, or how you believe the courts might act. You do this by circling a number from 1 to 15 below each statement. If you feel the violation is in the least serious category circle 1:

Least Serious 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 Most Serious
①

If you feel it is of middle, or average seriousness, circle 8:

Least Serious 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 Most Serious
⑧

If you think it is the most serious category circle 15:

Least Serious 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 Most Serious
⑮

You may circle any number just so long as it shows how serious you think the offense is. Each of the 15 categories is an equal step on the scale of seriousness so that 4 is one step more serious than 3 and 10 is one step more serious than 9, and so forth.

Take your time. Every statement should have one and only one answer. Remember, this is not a test. We are only interested in how *you* feel about each offense. Please be sure that your name does not appear anywhere on the booklet.

Thank you for your time and consideration.

1. A person turns in a false fire alarm.

Least Serious 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 Most Serious

2. A person willingly commits perjury.

Least Serious 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 Most Serious

3. A person operates a car without insurance coverage.

Least Serious 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 Most Serious

4. A person shows pornographic movies to a minor.

Least Serious 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 Most Serious

5. A person assassinates a public official.

Least Serious 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 Most Serious

6. A person runs a house of prostitution.

Least Serious 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 Most Serious

7. A person disturbs the neighborhood with loud, noisy behavior.

Least Serious 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 Most Serious

8. A government official intentionally obstructs the investigation of a criminal offense.

Least Serious 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 Most Serious

9. A person has no residence and no visible means of support.

Least Serious 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 Most Serious

10. A person uses someone else's driver's license.

Least Serious 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 Most Serious

11. A person plants a bomb in a building.

Least Serious 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 Most Serious

12. A person participates in illegal gambling.

Least Serious 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 Most Serious

13. A person operates a car with a suspended driver's license.

Least Serious 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 Most Serious

14. A person impersonates a police officer.

Least Serious 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 Most Serious

15. A person sells large quantities of illegal drugs.

Least Serious 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 Most Serious

16. A person engages in sexual acts in return for money.

Least Serious 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 Most Serious

17. A person commits treason.

Least Serious 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 Most Serious

18. A person impulsively kills a stranger.

Least Serious 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 Most Serious

19. A person possesses an illegal weapon.

Least Serious 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 Most Serious

20. Without using a weapon, a juvenile beats an elderly person.

Least Serious 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 Most Serious

21. A person sells liquor to minors.

Least Serious 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 Most Serious

22. A person uses a forged prescription to obtain drugs.

Least Serious 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 Most Serious

23. A person sets fires to an occupied building.

Least Serious 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 Most Serious

24. A person steals something from a public building.

Least Serious 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 Most Serious

25. A person gives illegal drugs to an acquaintance.

Least Serious 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 Most Serious

26. A person signs someone else's name to a check and cashes it.

Least Serious 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 Most Serious

27. Without using a weapon, a person beats someone.

Least Serious 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 Most Serious

28. A person threatens someone with bodily harm.

Least Serious 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 Most Serious

29. A person trespasses on public property and steals something.

Least Serious 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 Most Serious

30. A person resists arrest.

Least Serious 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 Most Serious

31. A person runs his hands over a woman's body, then runs away.

Least Serious 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 Most Serious

32. A person vandalizes public property.

Least Serious 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 Most Serious

33. A person intimidates a witness in a court case.

Least Serious 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 Most Serious

34. A person uses hallucinogenic drugs.

Least Serious 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 Most Serious

35. A person commits incest.

Least Serious 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 Most Serious

36. A person strikes someone with a blunt instrument.

Least Serious 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 Most Serious

37. A person knowingly buys stolen property.

Least Serious 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 Most Serious

38. A person sexually assaults a woman.

Least Serious 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 Most Serious

39. A person attempts to break into a parked car, but runs away when a police car approaches.

Least Serious 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 Most Serious

40. A person kills someone by recklessly driving an automobile.

Least Serious 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 Most Serious

41. A person knowingly passes counterfeit money.

Least Serious 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 Most Serious

42. A person tries to entice a minor into a car for sexual purposes.

Least Serious 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 Most Serious

43. A person illegally possesses barbiturates ("downers") or amphetamines ("uppers").

Least Serious 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 Most Serious

44. A person steals a car and abandons it undamaged.

Least Serious 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 Most Serious

45. Without using a weapon, the parent of a young child beats it.

Least Serious 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 Most Serious

46. A person breaks into a building and with no one else present, steals something.

Least Serious 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 Most Serious

47. A person vandalizes private property.

Least Serious 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 Most Serious

48. A person willingly helps another commit a crime.

Least Serious 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 Most Serious

49. A person forces another to engage in a homosexual act.

Least Serious 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 Most Serious

50. A person kills someone during a serious argument.

Least Serious 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 Most Serious

51. A person breaks into a private residence and with no one else present, steals something.

Least Serious 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 Most Serious

52. A person possesses heroin.

Least Serious 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 Most Serious

53. A person trespasses on private property.

Least Serious 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 Most Serious

54. A person practices medicine without a license.

Least Serious 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 Most Serious

55. A person knowingly writes worthless checks.

Least Serious 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 Most Serious

56. A person commits adultery.

Least Serious 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 Most Serious

57. A person knowingly gives false information when advertising a product.

Least Serious 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 Most Serious

58. A real estate agent refuses to sell a house to a person because of that person's race.

Least Serious 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 Most Serious

59. A person steals a car and abandons it damaged.

Least Serious 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 Most Serious

60. A person illegally receives monthly welfare payments.

Least Serious 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 Most Serious

61. A woman engages in sexual acts in return for money.

Least Serious 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 Most Serious

62. An employer refuses to hire a qualified person because of that person's race.

Least Serious 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 Most Serious

63. An employer orders an employee to commit a serious crime.

Least Serious 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 Most Serious

64. A person, armed with a weapon, robs a store.

Least Serious 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 Most Serious

65. A juvenile repeatedly runs away from home.

Least Serious 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 Most Serious

66. A manufacturer knowingly endangers lives by polluting the water supply.

Least Serious 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 Most Serious

67. A person illegally uses barbiturates ("downers") or amphetamines ("uppers").

Least Serious 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 Most Serious

68. A person, armed with a weapon, robs someone.

Least Serious 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 Most Serious

69. A person forces a woman to submit to sexual intercourse.

Least Serious 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 Most Serious

70. A person uses false identification to obtain goods from a store.

Least Serious 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 Most Serious

71. A person sells liquor illegally.

Least Serious 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 Most Serious

72. A person solicits for prostitution.

Least Serious 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 Most Serious

73. A person willingly hides someone who has committed a crime.

Least Serious														Average Seriousness														Most Serious
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15														

74. A person interferes with a police officer.

Least Serious														Average Seriousness														Most Serious
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15														

75. A person fires a gun at someone.

Least Serious														Average Seriousness														Most Serious
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15														

76. A person refuses to pay alimony.

Least Serious														Average Seriousness														Most Serious
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15														

77. A person hijacks an airplane.

Least Serious														Average Seriousness														Most Serious
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15														

78. A person runs an illegal gambling operation.

Least Serious														Average Seriousness														Most Serious
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15														

79. A juvenile is repeatedly truant.

Least Serious														Average Seriousness														Most Serious
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15														

80. A person buys liquor illegally.

Least Serious														Average Seriousness														Most Serious
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15														

81. A person attempts to prevent someone from attending a public school because of that person's race.

Least Serious														Average Seriousness														Most Serious
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15														

82. A person shoots and kills someone who resists an armed robbery.

Least Serious														Average Seriousness														Most Serious
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15														

83. A person uses heroin.

Least Serious														Average Seriousness														Most Serious
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15														

84. A person exposes his genitals in public.

Least Serious														Average Seriousness														Most Serious
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15														

85. A person, using threats, robs a store.

Least Serious														Average Seriousness														Most Serious
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15														

86. A producer knowingly endangers lives by marketing contaminated products.

Least Serious														Average Seriousness														Most Serious
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15														

87. A person pays a witness to give false testimony in a criminal trial.

Least Serious														Average Seriousness														Most Serious
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15														

88. A person loiters in a public place.

Least Serious														Average Seriousness														Most Serious
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15														

89. A public official accepts bribes in return for favors.

Least Serious														Average Seriousness														Most Serious
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15														

90. A person plans to kill someone for a fee.

Least Serious														Average Seriousness														Most Serious
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15														

91. A person kidnaps someone.

Least Serious														Average Seriousness														Most Serious
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15														

92. A person sets fires to a building.

Least Serious														Average Seriousness														Most Serious
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15														

93. A person threatens someone's life.

Least Serious														Average Seriousness														Most Serious
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15														

94. Without breaking into or entering a building and with no one else present, a person steals something.

Least Serious														Average Seriousness														Most Serious
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15														

95. A juvenile illegally possesses liquor.

Least Serious														Average Seriousness														Most Serious
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15														

96. A person breaks into and enters a private residence.

Least Serious														Average Seriousness														Most Serious
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15														

97. A person fixes prices on a consumer product.

Least Serious														Average Seriousness														Most Serious
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15														

98. A person forces a woman to submit to sexual intercourse, then flees with property belonging to her.

Least Serious														Average Seriousness														Most Serious
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15														

99. A person trespasses on private property and steals something.

Least Serious														Average Seriousness														Most Serious
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15														

100. A person intentionally injures someone who, as a result, dies.

Least Serious														Average Seriousness														Most Serious
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15														

101. A person steals money from a store while the owner is not looking.

Least Serious														Average Seriousness														Most Serious
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15														

102. A person, upon arriving home, kills a suspected burglar.

Least Serious														Average Seriousness														Most Serious
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15														

103. A person steals a car.

Least Serious														Average Seriousness														Most Serious
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15														

104. A person possesses stolen property.

Least Serious														Average Seriousness														Most Serious
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15														

105. A juvenile takes a car for "joyriding".

Least Serious														Average Seriousness														Most Serious
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15														

106. A person intentionally shoves or pushes someone.

Least Serious														Average Seriousness														Most Serious
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15														

107. A person sells marijuana.

Least Serious														Average Seriousness														Most Serious
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15														

108. A person, using force, robs a store.

Least Serious														Average Seriousness														Most Serious
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15														

109. A parent of a young child neglects to care for it.

Least Serious														Average Seriousness														Most Serious
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15														

110. A person joins a riot.

Least Serious														Average Seriousness														Most Serious
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15														

111. A person knowingly sells stolen goods.

Least Serious														Average Seriousness														Most Serious
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15														

112. A person conceals the identity of someone known to have committed a serious crime.

Least Serious														Average Seriousness														Most Serious
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15														

113. A person possesses marijuana.

Least Serious														Average Seriousness														Most Serious
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15														

114. A person refuses to pay parking fines.

Least Serious														Average Seriousness														Most Serious
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15														

115. Without using a weapon, a person beats his wife.

Least Serious														Average Seriousness														Most Serious
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15														

116. A person embezzles company money.

Least Serious														Average Seriousness														Most Serious
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15														

117. A person breaks into a store and with no one else present, steals something.

Least Serious														Average Seriousness														Most Serious
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15														

118. A person, involved in an automobile accident, leaves the scene.

Least Serious														Average Seriousness														Most Serious
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15														

119. A person attempts to rob someone but leaves when a police car approaches.

Least Serious														Average Seriousness														Most Serious
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15														

120. A public official takes public funds for personal use.

Least Serious														Average Seriousness														Most Serious
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15														

121. A person uses marijuana.

Least Serious	Average Seriousness										Most Serious			
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15

122. A person, using force, robs someone.

Least Serious	Average Seriousness										Most Serious			
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15

123. A person attempts to break into a building, but runs away when a police car approaches.

Least Serious	Average Seriousness										Most Serious			
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15

124. A person steals something from a parked car.

Least Serious	Average Seriousness										Most Serious			
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15

125. A person kills someone during a barroom free-for-all.

Least Serious	Average Seriousness										Most Serious			
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15

126. A person stabs someone with a knife.

Least Serious	Average Seriousness										Most Serious			
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15

127. A person is drunk in public.

Least Serious	Average Seriousness										Most Serious			
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15

128. A person steals merchandise from a store while the owner is not looking.

Least Serious	Average Seriousness										Most Serious			
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15

129. A juvenile is beyond parental control.

Least Serious	Average Seriousness										Most Serious			
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15

130. A person snatches someone's handbag.

Least Serious	Average Seriousness										Most Serious			
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15

131. A person breaks into and enters a store.

Least Serious	Average Seriousness										Most Serious			
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15

132. A person illegally sells barbiturates ("downers") or amphetamines ("uppers").

Least Serious	Average Seriousness										Most Serious			
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15

133. A juvenile breaks a curfew law.

Least Serious	Average Seriousness										Most Serious			
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15

134. A person manufactures large quantities of illegal drugs.

Least Serious	Average Seriousness										Most Serious			
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15

135. A person lends money at illegal interest rates.

Least Serious	Average Seriousness										Most Serious			
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15

136. A person knowingly cashes stolen payroll checks.

Least Serious	Average Seriousness										Most Serious			
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15

137. A person, armed with a weapon, robs a bank.

Least Serious	Average Seriousness										Most Serious			
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15

138. A person engages in homosexual acts for money.

Least Serious	Average Seriousness										Most Serious			
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15

139. A person drives a car while drunk.

Least Serious	Average Seriousness										Most Serious			
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15

140. A person makes obscene phone calls.

Least Serious	Average Seriousness										Most Serious			
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15

141. A person smuggles large quantities of illegal drugs.

Least Serious	Average Seriousness										Most Serious			
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15

142. A police officer knowingly makes a false arrest.

Least Serious	Average Seriousness										Most Serious			
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15

143. A person picks someone's pocket.

Least Serious	Average Seriousness										Most Serious			
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15

144. A doctor cheats on claims made to a health insurance plan for patient services.

Least Serious	Average Seriousness										Most Serious			
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15

145. A person breaks into and enters a building.

Least Serious	Average Seriousness										Most Serious			
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15

146. A person pays someone to commit a crime.

Least Serious	Average Seriousness										Most Serious			
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15

147. A person possesses hallucinogenic drugs.

Least Serious	Average Seriousness										Most Serious			
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15

148. A person gives liquor to a minor.

Least Serious	Average Seriousness										Most Serious			
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15

149. A person prints counterfeit money.

Least Serious	Average Seriousness										Most Serious			
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15

150. A person loots a store in a riot.

Least Serious	Average Seriousness										Most Serious			
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15

151. A person smuggles goods to avoid paying import duties.

Least Serious	Average Seriousness										Most Serious			
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15

152. A person sells heroin.

Least Serious	Average Seriousness										Most Serious			
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15

153. A person shoots someone with a gun.

Least Serious	Average Seriousness										Most Serious			
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15

154. A person endangers the lives of others through negligent property maintenance.

Least Serious	Average Seriousness										Most Serious			
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15

155. A person bribes a public official to obtain favors.

Least Serious	Average Seriousness										Most Serious			
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15

156. A person joins a prohibited demonstration.

Least Serious	Average Seriousness										Most Serious			
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15

157. A person, using threats, robs someone.

Least Serious	Average Seriousness										Most Serious			
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15

158. A person blackmails someone.

Least Serious	Average Seriousness										Most Serious			
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15

159. Two people willingly engage in a homosexual act.

Least Serious	Average Seriousness										Most Serious			
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15

160. A person sells hallucinogenic drugs.

Least Serious	Average Seriousness										Most Serious			
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15

161. A person possesses burglary tools.

Least Serious	Average Seriousness										Most Serious			
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15

162. A person is a customer in a house of prostitution.

Least Serious	Average Seriousness										Most Serious			
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15

Appendix B: The Question of Scale Value

A fundamental question addressed in any scaling study is "what is our best estimate of the value of each stimulus?" (in this case, offense). Typically, of course, the arithmetic mean is taken as the measure of choice because of its relative stability. On the other hand, characteristics of the distribution itself should be examined to ensure that this is indeed the appropriate measure to use.

Inspection of the response distributions suggested relatively mild end effects (Torgerson, 1958), and further examination was felt warranted.

Tables 1 through 3 give the scale values for the 162 offense descriptions based on the arithmetic mean, the median, and the geometric mean respectively, and Figures 1 through 3 give the distributions of scale values based on each of these measures. Clearly, all orderings of items are essentially identical, suggesting that substantive conclusions are unlikely to be affected based on any of these three measures.

Nonetheless, since modest end effects were observed, data were rescaled following the method of successive intervals (Torgerson, 1958; Diederch, Messick & Tucker, 1957) to minimize any displacement of item means. Results

of the rescaling are given in Table 4, and are displayed graphically in Figures 4 and 5. The desired objective has been attained - that is, the scale has been "stretched" in its extremes (Figure 4) to approximate the presumably continuous underlying distribution of attitudes (Torgerson, 1968; Edwards, 1957), and the distribution of scale values is now approximately normal (Figure 5).

One problem with the successive intervals rescaling procedure, however, is that it does not directly allow us to assign each subject a score, since (under the assumption that the variate of interest is in fact continuously distributed) the lower real limit of the lowest response category, and the upper real limit of the uppermost response category are undefined (Edwards, 1957; Diederch, Messick & Tucker, 1957; Torgerson, 1958). In order to assign scores to individuals, therefore, some form of interpolation to the upper- and lower-most values is necessary.

Figure 6 displays the relation between the original scale values (on the 1-15 category judgment scale) and the 13 rescaled midpoints calculated from results of the successive intervals scaling procedure. Since the function is nearly linear ($r=.998$), we simply fit a regression line ($\hat{y}=.273X-2.394$) to

allow estimation of the two desired values.

Since our further analyses will require individual scores (rather than simply a scale value for a variable), all data were then transformed using this method of approximation. Results are given in Table 5, and displayed graphically in Figure 7. While no dramatic change in the distribution is apparent over that based on the "Raw" Arithmetic Means (see Figure 1), some modest improvement is noted.

Table 6 gives a summary comparison of the rank-ordered scale values assigned to each stimulus based on the five measures of central tendency discussed. Since in general differences between successive ranks are not significant given the observed standard errors of the mean (Tables 4 and 5), it is apparent that no substantive differences between scale values emerge based simply on the different measures employed to estimate them. Indeed, from Tables 7 (which gives the intercorrelations of ranked scale values) and 8 (which gives the intercorrelations of the assigned values themselves) it is apparent that no method is likely to result in substantive differences in scale values. In general, this is due to the relative lack of severe end-effects.

CONTINUED

1 OF 3

TABLE 1: Rank-order of 162 offense descriptions
based on the arithmetic mean.

Rank	Crime Description	Mean
1	A person plants a bomb in a building.	14.260
2	A person sets fire to an occupied building.	14.199
3	A person intentionally injures someone who, as a result, dies.	14.086
4	A person plans to kill someone for a fee.	14.036
5	A person shoots someone with a gun.	14.028
6	A person impulsively kills a stranger.	14.023
7	Without using a weapon, a juvenile beats an elderly person.	13.766
8	A person shoots and kills someone who resists an armed robbery.	13.708
9	A person kills someone during a serious argument.	13.698
10.5	A person sexually assaults a woman.	13.586
10.5	A person stabs someone with a knife.	13.586
12	A person kidnaps someone.	13.580
13	A person forces a woman to submit to sexual intercourse, then flees with property belonging to her.	13.563
14	A person forces a woman to submit to sexual intercourse.	13.491
15	A person sets fires to a building.	13.489
16	A person assassinates a public official.	13.392
17	A producer knowingly endangers lives by marketing contaminated products.	13.212
18	A person kills someone by recklessly driving an automobile.	13.207

Rank	Crime Description	Mean
19	A person fires a gun at someone.	13.180
20	A person kills someone during a barroom free-for-all.	13.076
21	A person tries to entice a minor into a car for sexual purposes.	13.038
22	A person hijacks an airplane.	12.997
23	A parent of a young child neglects to care for it.	12.930
24	A person forces another to engage in a homosexual act.	12.612
25	A person practices medicine without a license.	12.767
26	A person, armed with a weapon, robs a store.	12.591
27	A manufacturer knowingly endangers lives by polluting the water supply.	12.565
28	A person, armed with a weapon, robs a bank.	12.564
29	An employer orders an employee to commit a serious crime.	12.475
30	A person sells large quantities of illegal drugs.	12.351
31	A person, armed with a weapon, robs someone.	12.273
32	A police officer knowingly makes a false arrest.	12.121
33	A person strikes someone with a blunt instrument.	11.937
34	A government official intentionally obstructs the investigation of a criminal offense.	11.925
35	A public official takes public funds for personal use.	11.891
36	Without using a weapon, a person beats his wife.	11.821
37	A person pays a witness to give false testimony in a criminal trial.	11.733
38	A person attempts to prevent someone from attending a public school because of that person's race.	11.675
39	Without using a weapon, the parent of a young child beats it.	11.639

Table 1 (Cont'd)

Rank	Crime Description	Mean	Rank	Crime Description	Mean
40	An employer refuses to hire a qualified person because of that person's race.	11.561	64	A person embezzles company money.	10.548
41	A person pays someone to commit a crime.	11.491	65	A person breaks into a private residence and with no one else present, steals something.	10.390
42	A person threatens someone's life.	11.430	66	A person, using threats, robs a store.	10.379
43	A person sells heroin.	11.394	67	A person knowingly passes counterfeit money.	10.373
44	A public official accepts bribes in return for favors.	11.364	68	A person prints counterfeit money.	10.262
45	A person endangers the lives of others through negligent property maintenance.	11.353	69	A person breaks into and enters a private residence.	10.158
46	A real estate agent refuses to sell a house to a person because of that person's race.	11.274	70	A person intimidates a witness in a court case.	10.154
47	Without using a weapon, a person beats someone.	11.229	71	A person impersonates a police officer.	10.092
48	A person manufactures large quantities of illegal drugs.	11.203	72	A person trespasses on private property and steals something.	10.068
49	A person, involved in an automobile accident, leaves the scene.	11.184	73	A person possesses heroin.	9.962
50	A person blackmails someone.	11.146	74	A person vandalizes private property.	9.872
51	A person commits treason.	11.068	75	A person illegally sells barbiturates ("downers") or amphetamines ("uppers").	9.849
52	A person drives a car while drunk.	11.014	76	A person illegally receives monthly welfare payments.	9.829
53	A person, using force, robs someone.	10.999	77	A person uses a forged prescription to obtain drugs.	9.812
54	A person knowingly cashes stolen payroll checks.	10.904	78	A person snatches someone's handbag.	9.811
55	A person steals a car and abandons it damaged.	10.853	79	A person sells hallucinogenic drugs.	9.763
56	A person smuggles large quantities of illegal drugs.	10.845	80	A person conceals the identity of someone known to have committed a serious crime.	9.739
57	A person, using force, robs a store.	10.819	81	A person steals money from a store while the owner is not looking.	9.688
58	A person signs someone else's name to a check and cashes it.	8.496	82	A person willingly commits perjury.	9.448
59	A person willingly helps another commit a crime.	10.684	83	A person lends money at illegal interest rates.	9.434
60	A person bribes a public official to obtain favors.	10.666	84	A person possesses an illegal weapon.	9.408
61	A doctor cheats on claims made to a health insurance plan for patient services.	10.617	85.5	A person loots a store in a riot.	9.399
62	A person, using threats, robs someone.	10.606	85.5	A person breaks into and enters a store.	9.399
63	A person commits incest.	10.549	87	A person uses heroin.	9.382

Table 1 (Cont'd)

Rank	Crime Description	Mean
88	A person vandalizes public property.	9.367
89	A person breaks into a store and with no one else present, steals something.	9.282
90	A person trespasses on public property and steals something.	9.249
91	A person breaks into a building and with no one else present, steals something.	9.222
92	A person picks someone's pocket.	9.221
93	A person threatens someone with bodily harm.	9.177
94	A person interferes with a police officer.	9.020
95	A person illegally possesses barbiturates ("downers") or amphetamines ("uppers").	8.924
96	A person willingly hides someone who has committed a crime.	8.895
97	A person steals something from a parked car.	8.888
98	A person knowingly writes worthless checks.	8.880
99	A person uses hallucinogenic drugs.	8.865
100	A person steals a car.	8.863
101	A person attempts to rob someone but leaves when a police car approaches.	8.848
102	A person possesses hallucinogenic drugs.	8.741
103	A person knowingly gives false information when advertising a product.	8.706
104	A person turns in a false fire alarm.	8.689
105	A person illegally uses barbiturates ("downers") or amphetamines ("uppers").	8.642
106	A person attempts to break into a parked car, but runs away when a police car approaches.	8.639
107	A juvenile is beyond parental control.	8.620
108	A juvenile takes a car for "joyriding".	8.596
109	Without breaking into or entering a building and with no one else present, a person steals something.	8.580

Rank	Crime Description	Mean
110	A person sells liquor to minors.	8.579
111	A person knowingly sells stolen goods.	8.548
112	A person shows pornographic movies to a minor.	8.535
113	A person steals something from a public building.	8.532
114	A person breaks into and enters a building.	8.518
115	A person attempts to break into a building, but runs away when a police car approaches.	8.497
116	A person gives illegal drugs to an acquaintance.	8.496
117	A person exposes his genitals in public.	8.396
118	A person fixes prices on a consumer product.	8.300
119	A person steals merchandise from a store while the owner is not looking.	8.290
120	A person steals a car and abandons it undamaged.	8.192
121	A person uses false identification to obtain goods from a store.	8.093
122	A person runs his hands over a woman's body, then runs away.	8.065
123	A person joins a riot.	8.059
124	A person, upon arriving home, kills a suspected burglar.	8.055
125	A person smuggles goods to avoid paying import duties.	7.877
126	A person gives liquor to a minor.	7.791
127	A person engages in homosexual acts for money.	7.787
128	A person runs a house of prostitution.	7.719
129	A person makes obscene phone calls.	7.668
130	A person resists arrest.	7.562
131	A person possesses stolen property.	7.519
132	A person runs an illegal gambling operation.	7.323

Table 1 (Cont'd)

<u>Rank</u>	<u>Crime Description</u>	<u>Mean</u>	<u>Rank</u>	<u>Crime Description</u>	<u>Mean</u>
133	A person refuses to pay alimony.	7.288	157	A person refuses to pay parking fees.	4.642
134	A person knowingly buys stolen property.	7.225	158	A juvenile breaks a curfew law.	4.640
135	A juvenile is repeatedly truant.	7.194	159	A person is drunk in public.	4.549
136	A person sells liquor illegally.	7.175	160	A person uses marijuana.	4.523
137	A person solicits for prostitution.	6.983	161	Two people willingly engage in a homosexual act.	4.348
138	A person has no residence and no visible means of support.	6.973	162	A person loiters in a public place.	4.221
139	A juvenile repeatedly runs away from home.	6.943			
140	A person uses someone else's driver's license.	6.837			
141	A juvenile illegally possesses liquor.	6.769			
142	A person joins a prohibited demonstration.	6.751			
143	A person operates a car with a suspended driver's license.	6.603			
144	A person operates a car without insurance coverage.	6.472			
145	A person sells marijuana.	6.259			
146	A person possesses burglary tools.	6.208			
147	A person engages in sexual acts in return for money.	6.086			
148	A woman engages in sexual acts in return for money.	5.994			
149	A person trespasses on private property.	5.970			
150	A person commits adultery.	5.903			
151	A person buys liquor illegally.	5.676			
152	A person intentionally shoves or pushes someone.	5.617			
153	A person disturbs the neighborhood with loud, noisy behavior.	5.538			
154	A person participates in illegal gambling.	5.508			
155	A person possesses marijuana.	4.918			
156	A person is a customer in a house of prostitution.	4.824			

TABLE 2: Rank-order of 162 offense descriptions based on the median.

Rank	Crime Description	Median
1	A person plants a bomb in a building.	14.797
2	A person impulsively kills a stranger.	14.792
3	A person plans to kill someone for a fee.	14.773
4	A person sets fires to an occupied building.	14.772
5	A person shoots and kills someone who resists an armed robbery.	14.739
6	A person intentionally injures someone who, as a result, dies.	14.731
7	A person shoots someone with a gun.	14.706
8	A person assassinates a public official.	14.673
9	A person sexually assaults a woman.	14.619
10	Without using a weapon, a juvenile beats an elderly person.	14.618
11	A person kills someone during a serious argument.	14.612
12	A person forces a woman to submit to sexual intercourse, then flees with property belonging to her.	14.611
13	A person forces a woman to submit to sexual intercourse	14.566
14	A person stabs someone with a knife.	14.549
15	A person kidnaps someone.	14.505
16	A person sets fires to a building.	14.496
17	A person tries to entice a minor into a car for sexual purposes.	14.361
18	A person kills someone during a barroom free-for-all.	14.291

Rank	Crime Description	Median
19	A person kills someone by recklessly driving an automobile.	14.264
20	A producer knowingly endangers lives by marketing contaminated products.	14.243
21	A person fires a gun at someone.	14.016
22	A person practices medicine without a license.	13.968
23	A person hijacks an airplane.	13.870
24	A parent of a young child neglects to care for it.	13.833
25	A person forces another to engage in a homosexual act.	13.759
26	A person sells large quantities of illegal drugs.	13.617
27	A manufacturer knowingly endangers lives by polluting the water supply.	13.363
28	Without using a weapon, the parent of a young child beats it.	13.315
29	A person, armed with a weapon, robs a bank.	13.078
30	An employer orders an employee to commit a serious crime.	13.045
31	A person, armed with a weapon, robs a store.	12.963
32	A police officer knowingly makes a false arrest.	12.961
33	Without using a weapon, a person beats his wife.	12.677
34	A person, armed with a weapon, robs someone.	12.601
35	A government official intentionally obstructs the investigation of a criminal offense.	12.565
36	A person attempts to prevent someone from attending a public school because of that person's race.	12.549
37	A person strikes someone with a blunt instrument.	12.470
38	A person sells heroin.	12.439

Table 2 (Cont'd)

<u>Rank</u>	<u>Crime Description</u>	<u>Median</u>
39	An employer refuses to hire a qualified person because of that person's race.	12.380
40	A public official takes public funds for personal use.	12.357
41	A real estate agent refuses to sell a house to a person because of that person's race.	12.278
42	A person pays a witness to give false testimony in a criminal trial.	12.226
43	A person manufactures large quantities of illegal drugs.	12.105
44	A public official accepts bribes in return for favors.	12.074
45	A person threatens someone's life.	12.038
46	Without using a weapon, a person beats someone.	11.966
47	A person commits treason.	11.862
48	A person drives a car while drunk. rs through negligent property maintenance.	11.861
49	A person endangers the lives of others through negligent property maintenance.	11.851
50	A person pays someone to commit a crime.	11.842
51	A person, involved in an automobile accident, leaves the scene.	11.667
52	A person blackmails someone.	11.625
53	A person commits incest.	11.618
54	A person smuggles large quantities of illegal drugs.	11.605
55	A person knowingly cashes stolen payroll checks.	11.330
56	A person, using force, robs someone.	11.263
57	A person steals a car and abandons it damaged.	11.215
58	A person signs someone else's name to a check and cashes it.	8.409
59	A doctor cheats on claims made to a health insurance plan for patient services.	11.139
60	A person bribes a public official to obtain favors.	11.137

<u>Rank</u>	<u>Crime Description</u>	<u>Median</u>
61	A person, using force, robs a store.	11.082
62	A person willingly helps another commit a crime.	11.019
63	A person embezzles company money.	10.982
64	A person, using threats, robs someone.	10.801
65	A person possesses heroin.	10.744
66	A person breaks into a private residence and with no one else present, steals something.	10.681
67	A person prints counterfeit money.	10.672
68	A person knowingly passes counterfeit money.	10.604
69	A person, using threats, robs a store.	10.559
70	A person intimidates a witness in a court case.	10.491
71	A person illegally sells barbiturates ("downers") or amphetamines ("uppers").	10.435
72	A person breaks into and enters a private residence.	10.419
73	A person sells hallucinogenic drugs.	10.375
74	A person impersonates a police officer.	10.307
75	A person illegally receives monthly welfare payments.	10.250
76	A person trespasses on private property and steals something.	10.129
77	A person uses a forged prescription to obtain drugs.	10.096
78	A person uses heroin.	10.063
79	A person conceals the identity of someone known to have committed a serious crime.	10.060
80	A person vandalizes private property.	10.050
81	A person snatches someone's handbag.	9.893
82	A person lends money at illegal interest rates.	9.879
83	A person steals money from a store while the owner is not looking.	9.877

Table 2 (Cont'd)

<u>Rank</u>	<u>Crime Description</u>	<u>Median</u>
84	A person loots a store in a riot.	9.837
85	A person possesses an illegal weapon.	9.732
86	A person breaks into and enters a store.	9.534
87	A person breaks into a store and with no one else present steals something.	9.531
88	A person illegally possesses barbiturates ("downers") or amphetamines ("uppers").	9.402
89	A person vandalizes public property.	9.392
90	A person picks someone's pocket.	9.236
91	A person threatens someone with bodily harm.	9.079
92	A person breaks into a building and with no one else present, steals something.	9.071
93	A person trespasses on public property and steals something.	8.983
94	A person willingly commits perjury.	8.913
95	A person attempts to rob someone but leaves when a police car approaches.	8.870
96	A person interferes with a police officer.	8.854
97	A person steals something from a parked car.	8.656
98	A person uses hallucinogenic drugs.	8.576
99	A person possesses hallucinogenic drugs.	8.554
100	A person willingly hides someone who has committed a crime.	8.498
101	A person illegally uses barbiturates ("downers") or amphetamines ("uppers").	8.468
102	A person knowingly writes worthless checks.	8.461
103	A person gives illegal drugs to an acquaintance.	8.409
104	A person steals a car.	8.395
105	A juvenile is beyond parental control.	8.391
106	A person attempts to break into a building, but runs away when a police car approaches.	8.389

<u>Rank</u>	<u>Crime Description</u>	<u>Median</u>
107	A person attempts to break into a parked car, but runs away when a police car approaches.	8.388
108	Without breaking into or entering a building and with no one else present, a person steals something.	8.371
109	A person knowingly gives false information when advertising a product.	8.349
110	A person breaks into and enters a building.	8.343
111	A person knowingly sells stolen goods.	8.323
112	A juvenile takes a car for "joyriding".	8.318
113	A person turns in a false fire alarm.	8.296
114	A person sells liquor to minors.	8.268
115	A person steals something from a public building.	8.267
116	A person shows pornographic movies to a minor.	8.236
117	A person exposes his genitals in public.	8.233
118	A person steals merchandise from a store while the owner is not looking.	8.209
119	A person steals a car and abandons it undamaged.	8.170
120	A person fixes prices on a consumer product.	8.169
121	A person, upon arriving home, kills a suspected burglar.	8.117
122	A person joins a riot.	8.104
123	A person uses false identification to obtain goods from a store.	8.097
124	A person runs his hands over a woman's body, then runs away.	8.049
125	A person smuggles goods to avoid paying import duties.	7.975
126	A person engages in homosexual acts for money.	7.940
127	A person runs a house of prostitution.	7.911
128	A person resists arrest.	7.869
129	A person gives liquor to a minor.	7.835
130	A person makes obscene phone calls.	7.782

Table 2 (Cont'd)

<u>Rank</u>	<u>Crime Description</u>	<u>Median</u>
131	A person possesses stolen property.	7.761
132	A person runs an illegal gambling operation.	7.743
133	A person knowingly buys stolen property.	7.687
134	A person refuses to pay alimony.	7.659
135	A juvenile is repeatedly truant.	7.655
136	A person sells liquor illegally.	7.584
137	A person uses someone else's driver's license.	7.321
138	A person solicits for prostitution.	7.233
139	A juvenile repeatedly runs away from home.	7.198
140	A person joins a prohibited demonstration.	7.042
141	A juvenile illegally possesses liquor.	6.810
142	A person operates a car with a suspended driver's license.	6.733
143	A person operates a car without insurance coverage.	6.147
144	A person has no residence and no visible means of support.	6.000
145	A person possesses burglary tools.	5.992
146	A person sells marijuana.	5.875
147	A person engages in sexual acts in return for money.	5.654
148	A person trespasses on private property.	5.623
149	A person buys liquor illegally.	5.511
150	A woman engages in sexual acts in return for money.	5.366
151	A person participates in illegal gambling.	5.231
152	A person intentionally shoves or pushes someone.	5.141
153	A person disturbs the neighborhood with loud, noisy behavior.	4.981
154	A person commits adultery.	4.778

<u>Rank</u>	<u>Crime Description</u>	<u>Median</u>
155	A person refuses to pay parking fines.	3.879
156	A person is drunk in public.	3.830
157	A person possesses marijuana.	3.700
158	A juvenile breaks a curfew law.	3.519
159	A person is a customer in a house of prostitution.	3.235
160	A person loiters in a public place.	2.983
161	A person uses marijuana.	2.921
162	Two people willingly engage in a homosexual act.	1.661

TABLE 3: Rank-order of 162 offense descriptions based on the geometric mean.

Rank	Crime Description	Geometric Mean
1	A person plants a bomb in a building	14.112
2	A person sets fires to an occupied building.	14.069
3	A person intentionally injures someone who, as a result, dies.	13.915
4	A person shoots someone with a gun.	13.832
5	A person plans to kill someone for a fee.	13.818
6	A person impulsively kills a stranger.	13.749
7	A person kills someone during a serious argument.	13.504
8	Without using a weapon, a juvenile beats an elderly person.	13.491
9	A person stabs someone with a knife.	13.383
10	A person kidnaps someone.	13.356
11	A person forces a woman to submit to sexual intercourse, then flees with property belonging to her.	13.316
12	A person sexually assaults a woman.	13.290
13	A person sets fires to a building.	13.263
14	A person shoots and kills someone who resists an armed robbery.	13.197
15	A person forces a woman to submit to sexual intercourse.	13.158
16	A person kills someone by recklessly driving an automobile.	12.884
17	A producer knowingly endangers lives by marketing contaminated products.	12.871
18	A person fires a gun at someone.	12.833
19	A person assassinates a public official.	12.730

Rank	Crime Description	Geometric Mean
20.5	A person kills someone during a barroom free-for-all.	12.642
20.5	A person hijacks an airplane.	12.642
22	A person tries to entice a minor into a car for sexual purposes.	12.541
23	A parent of a young child neglects to care for it.	12.528
24	A person, armed with a weapon, robs a store.	12.317
25	A person, armed with a weapon, robs a bank.	12.231
26	A person practices medicine without a license.	12.207
27	An employer orders an employee to commit a serious crime.	12.061
28	A manufacturer knowingly endangers lives by polluting the water supply.	12.037
29	A person, armed with a weapon, robs someone.	11.989
30	A person forces another to engage in a homosexual act.	11.870
31	A police officer knowingly makes a false arrest.	11.496
32	A person strikes someone with a blunt instrument.	11.485
33	A person sells large quantities of illegal drugs.	11.450
34.5	A government official intentionally obstructs the investigation of a criminal offense.	11.382
34.5	A public official takes public funds for personal use.	11.382
36	A person pays a witness to give false testimony in a criminal trial.	11.134
37.5	Without using a weapon, a person beats his wife.	11.001

Table 3 (Cont'd)

<u>Rank</u>	<u>Crime Description</u>	<u>Geometric Mean</u>	<u>Rank</u>	<u>Crime Description</u>	<u>Geometric Mean</u>
37.5	A person pays someone to commit a crime.	11.001	58.5	A person drives a car while drunk.	10.074
39	A person attempts to prevent someone from attending a public school because of that person's race.	10.837	58.5	A person signs someone else's name to a check and cashes it.	10.074
40.5	A person endangers the lives of others through negligent property maintenance.	10.762	60.5	A person bribes a public official to obtain favors.	9.895
40.5	A person threatens someone's life.	10.762	60.5	A person embezzles company money.	9.895
42	An employer refuses to hire a qualified person because of that person's race.	10.644	62	A person, using threats, robs a store.	9.885
43	A person, using force, robs someone.	10.591	63	A person smuggles large quantities of illegal drugs.	9.855
44	A public official accepts bribes in return for favors.	10.580	64	A person breaks into a private residence and with no one else present, steals something.	9.806
45	A person blackmails someone.	10.528	65	A doctor cheats on claims made to a health insurance plan for patient services.	9.699
46	A person, involved in an automobile accident, leaves the scene.	10.517	66	A person knowingly passes counterfeit money.	9.602
47	A person, using force, robs a store.	10.423	67.5	A person trespasses on private property and steals something.	9.507
48	Without using a weapon, a person beats someone.	10.360	67.5	A person breaks into and enters a private residence.	9.507
49	A person sells heroin.	10.350	69	A person prints counterfeit money.	9.356
50	A person manufactures large quantities of illegal drugs.	10.280	70	A person vandalizes private property.	9.253
51.5	A person knowingly cashes stolen payroll checks.	10.268	71	A person intimidates a witness in a court case.	9.244
51.5	A person steals a car and abandons it damaged.	10.268	72	A person snatches someone's handbag.	9.171
53	Without using a weapon, the parent of a young child beats it.	10.227	73	A person impersonates a police officer.	9.079
54.5	A real estate agent refuses to sell a house to a person because of that person's race.	10.186	74	A person commits incest.	9.034
54.5	A person willingly helps another commit a crime.	10.186	75	A person steals money from a store while the owner is not looking.	8.989
56	A person commits treason.	10.166	76	A person conceals the identity of someone known to have committed a serious crime.	8.837
57	A person, using threats, robs someone.	10.085	77	A person breaks into and enters a store.	8.793
			78	A person uses a forged prescription to obtain drugs.	8.750

Table 3 (Cont'd)

Rank	Crime Description	Geometric Mean	Rank	Crime Description	Geometric Mean
79	A person willingly commits perjury.	8.715	101	A person knowingly sells stolen goods.	7.737
80	A person vandalizes public property.	8.688	102.5	Without breaking into or entering a building and with no one else present, a person steals something.	7.660
81	A person illegally receives monthly welfare payments.	8.645	102.5	A person steals something from a public building.	7.660
82	A person illegally sells barbiturates ("downers") or amphetamines ("uppers").	8.611	104	A juvenile takes a car for "joyriding".	7.629
83	A person possesses heroin.	8.602	105	A person attempts to break into a building, but runs away when a police car approaches.	7.614
84.5	A person breaks into a store and with no one else present, steals something.	8.534	106	A person attempts to break into a parked car, but runs away when a police car approaches.	7.606
84.5	A person trespasses on public property and steals something.	8.534	107	A person knowingly gives false information when advertising a product.	7.576
86	A person breaks into a building and with no one else present, steals something.	8.525	108	A person turn in a false fire alarm.	7.448
87	A person picks someone's pocket.	8.432	109	A person steals merchandise from a store while the owner is not looking.	7.434
88	A person loots a store in a riot.	8.390	110	A person illegally possesses barbiturates ("downers") or amphetamines ("uppers").	7.382
89	A person sells hallucinogenic drugs.	8.373	111	A person sells liquor to minors.	7.279
90	A person lends money at illegal interest rates.	8.348	112	A juvenile is beyond parental control.	7.236
91	A person possesses an illegal weapon.	8.298	113	A person uses hallucinogenic drugs.	7.207
92	A person steals something from a parked car.	8.150	114	A person fixes prices on a consumer product.	7.171
93.5	A person steals a car.	8.125	115	A person possesses hallucinogenic drugs.	7.128
93.5	A person threatens someone with bodily harm.	8.125	116	A person steals a car and abandons it undamaged.	7.121
95	A person interferes with a police officer.	8.117	117	A person illegally uses barbiturates ("downers") or amphetamines ("uppers").	7.043
96	A person attempts to rob someone but leaves when a police car approaches.	7.941	118	A person uses false identification to obtain goods from a store.	7.038
97	A person willingly hides someone who has committed a crime.	7.893	119	A person shows pornographic movies to a minor.	6.931
98	A person knowingly writes worthless checks.	7.838	120	A person gives illegal drugs to an acquaintance.	6.848
99	A person uses heroin.	7.783			
100	A person breaks into and enters a	7.760			

Table 3 (Cont'd)

<u>Rank</u>	<u>Crime Description</u>	<u>Geometric Mean</u>
121	A person joins a riot.	6.801
122	A person exposes his genitals in public.	6.780
123	A person possesses stolen property.	6.600
124	A person smuggles goods to avoid paying import duties.	6.567
125	A person resists arrest.	6.534
126	A person runs his hands over a woman's body, then runs away.	6.456
127	A person gives liquor to a minor.	6.360
128	A person makes obscene phone calls.	6.246
129	A person, upon arriving home, kills a suspected burglar.	6.203
130	A person knowingly buys stolen property.	5.956
131	A person runs a house of prostitution.	5.883
132	A person runs an illegal gambling operation.	5.877
133	A person sells liquor illegally.	5.865
134	A juvenile is repeatedly truant.	5.824
135	A person refuses to pay alimony.	5.778
136	A person engages in homosexual acts for money.	5.714
137	A juvenile illegally possesses liquor.	5.430
138	A person joins a prohibited demonstration.	5.398
139	A juvenile repeatedly runs away from home.	5.382
140	A person uses someone else's driver's license.	5.265
141	A person operates a car with a suspended driver's license.	5.249
142	A person solicits for prostitution.	5.186
143	A person operates a car without insurance coverage.	4.914

<u>Rank</u>	<u>Crime Description</u>	<u>Geometric Mean</u>
144	A person possesses burglary tools.	4.693
145	A person trespasses on private property.	4.572
146	A person sells marijuana.	4.442
147	A person has no residence and no visible means of support.	4.437
148	A person disturbs the neighborhood with loud, noisy behavior.	4.336
149	A person engages in sexual acts in return for money.	4.315
150	A person buys liquor illegally.	4.310
151	A person intentionally shoves or pushes someone.	4.263
152	A woman engages in sexual acts in return for money.	4.216
153	A person participates in illegal gambling.	4.035
154	A person commits adultery.	3.900
155	A person refuses to pay parking fines.	3.425
156	A juvenile breaks a curfew law.	3.357
157	A person is drunk in public.	3.320
158	A person possesses marijuana.	3.241
159	A person is a customer in a house of prostitution.	3.102
160	A person loiters in a public place.	2.918
161	A person uses marijuana.	2.889
162	Two people willingly engage in a homosexual act.	2.540

Figure 1:

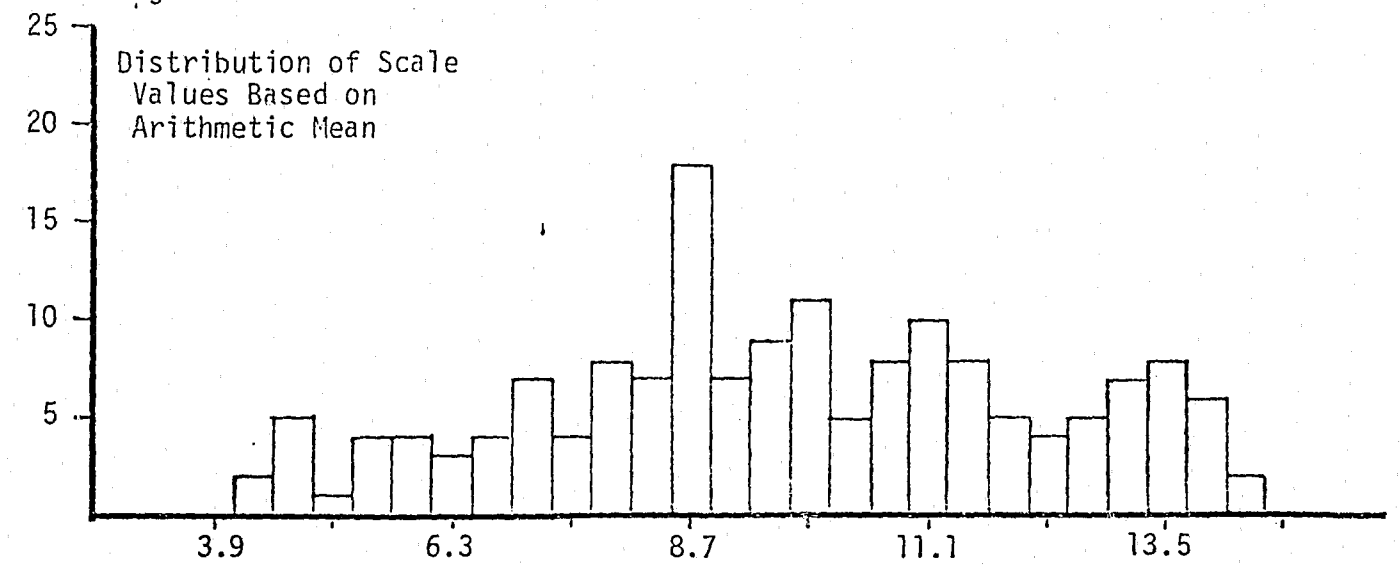


Figure 2:

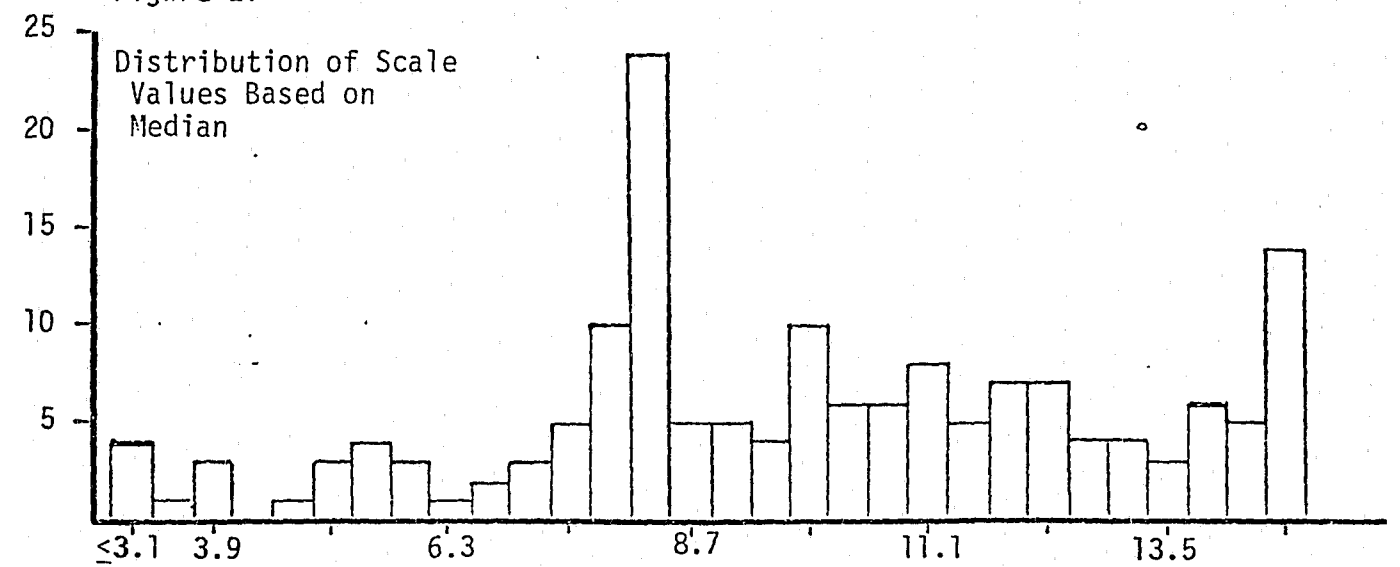


Figure 3:

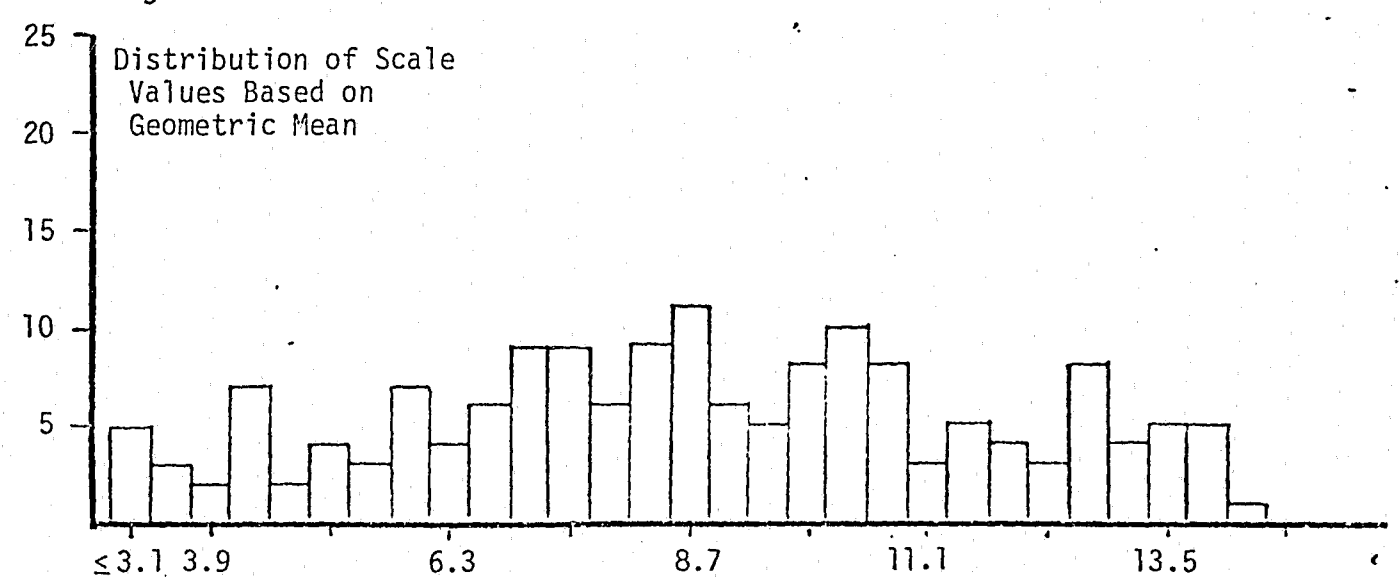


Table 4: Rank-order of 162 Offense Descriptions Based on Rescaled Means. (Successive Interval Rescaling).

Rank	Crime Description	Rescaled Mean	Standard Deviation	Std. Error of Mean	Rank	Crime Description	Rescaled Mean	Standard Deviation	Std. Error of Mean
1	A person impulsively kills a stranger.	2.593	1.517	.120	21	A person fires a gun at someone.	1.615	1.117	.088
2	A person shoots and kills someone who resists an armed robbery.	2.576	1.760	.139	22	A person practices medicine without a license.	1.567	1.340	.106
3	A person plants a bomb in a building.	2.478	1.220	.096	23	A person hijacks an airplane.	1.530	1.120	.088
4	A person plans to kill someone for a fee.	2.424	1.357	.107	24	A person forces another to engage in a homosexual act.	1.529	1.408	.111
5	A person sets fires to an occupied building.	2.338	1.150	.091	25	A parent of a young child neglects to care for it.	1.509	1.141	.090
6	A person intentionally injures someone who, as a result, dies.	2.273	1.190	.094	26	A person sells large quantities of illegal drugs.	1.498	1.549	.122
7	A person shoots someone with a gun.	2.215	1.179	.093	27	A manufacturer knowingly endangers lives by polluting the water supply.	1.375	1.200	.095
8	A person assassinates a public official.	2.184	1.674	.132	28	Without using a weapon, the parent of a young child beats it.	1.304	1.804	.142
9	Without using a weapon, a juvenile beats an elderly person.	2.023	1.190	.094	29	An employer orders an employee to commit a serious crime.	1.250	1.047	.083
10	A person sexually assaults a woman.	1.959	1.240	.098	30	A person, armed with a weapon, robs a bank.	1.240	.961	.071
11	A person forces a woman to submit to sexual intercourse.	1.928	1.278	.101	31	A person, armed with a weapon, robs a store.	1.197	.852	.067
12	A person forces a woman to submit to sexual intercourse, then flees with property belonging to her.	1.902	1.194	.094	32	A police officer knowingly makes a false arrest.	1.184	1.203	.095
13	A person kills someone during a serious argument.	1.899	1.090	.086	33	Without using a weapon, a person beats his wife.	1.103	1.292	.102
14	A person stabs someone with a knife.	1.803	1.061	.084	34	A person, armed with a weapon, robs someone.	1.077	.840	.066
15	A person kidnaps someone.	1.780	1.037	.082	35	A person attempts to prevent someone from attending a public school because of that person's race.	1.066	1.329	.105
16	A person sets fire to a building.	1.737	1.050	.083	36	A government official intentionally obstructs the investigation of a criminal offense	1.053	1.094	.086
17	A person tries to entice a minor into a car for sexual purposes.	1.698	1.324	.104	37	An employer refuses to hire a qualified person because of that person's race.	1.028	1.347	.106
18	A person kills someone during a barroom free-for-all.	1.677	1.267	.100					
19	A producer knowingly endangers lives by marketing contaminated products.	1.654	1.140	.090					
20	A person kills someone by recklessly driving an automobile.	1.650	1.137	.090					

Table 4 (Cont'd)

Rank	Crime Description	Rescaled Mean	Standard Deviation	Std. Error of Mean	Rank	Crime Description	Rescaled Mean	Standard Deviation	Std. Error of Mean
38	A public official takes public funds for personal use.	1.018	1.044	.082	56	A person, using force, robs someone.	.646	.833	.066
39	A person strikes someone with a blunt instrument.	1.004	.976	.077	57	A person signs someone else's name to a check and cashes it.	.637	1.062	.084
40	A person sells heroin.	1.000	1.436	.113	58	A person steals a car and abandons it damaged.	.622	.945	.075
41	A person pays a witness to give false testimony in a criminal trial.	.975	1.089	.086	59	A doctor cheats on claims made to a health insurance plan for patient services.	.605	1.161	.091
42	A real estate agent refuses to sell a house to a person because of that person's race.	.963	1.454	.115	60	A person bribes a public official to obtain favors.	.592	1.062	.084
43	A public official accepts bribes in return for favors.	.882	1.194	.094	61	A person, using force, robs a store.	.586	.806	.064
44	A person manufactures large quantities of illegal drugs.	.864	1.296	.102	62	A person willingly helps another commit a crime.	.562	.888	.070
45	A person threatens someone's life.	.860	1.085	.086	63	A person embezzles company money.	.531	.970	.076
46	A person pays someone to commit a crime.	.849	.972	.077	64	A person, using threats, robs someone.	.530	.876	.069
47	Without using a weapon, a person beats someone.	.845	1.226	.097	65	A person knowingly passes counterfeit money.	.500	1.051	.083
48	A person endangers the lives of others through negligent property maintenance.	.827	1.055	.083	66	A person prints counterfeit money.	.474	1.107	.087
49	A person drives a car while drunk.	.790	1.284	.101	67	A person breaks into a private residence and with no one else present, steals something.	.467	.897	.071
50	A person commits treason.	.782	1.218	.096	68	A person, using threats, robs a store.	.461	.859	.068
51	A person, involved in an automobile accident, leaves the scene.	.775	1.076	.085	69	A person impersonates a police officer.	.441	1.181	.093
52.5	A person blackmails someone.	.738	1.013	.080	70	A person possesses heroin.	.437	1.365	.108
52.5	A person commits incest.	.738	1.619	.128	71	A person intimidates a witness in a court case.	.429	1.077	.079
54	A person smuggles large quantities of illegal drugs.	.724	1.275	.100	72	A person breaks into and enters a private residence.	.402	.925	.073
55	A person knowingly cashes stolen payroll checks.	.663	1.018	.080	73	A person sells hallucinogenic drugs.	.380	1.403	.111

Table 4 (Cont'd)

Rank	Crime Description	Rescaled Mean	Standard Deviation	Std. Error of Mean	Rank	Crime Description	Rescaled Mean	Standard Deviation	Std. Error of Mean
74	A person illegally sells barbiturates ("downers") or amphetamines ("uppers").	.377	1.274	.100	92	A person picks someone's pocket.	.126	.932	.074
75	A person trespasses on private property and steals something.	.371	.877	.069	93	A person breaks into a building and with no one else present, steals something.	.120	.862	.070
76	A person illegally receives monthly welfare payments.	.361	1.226	.097	94	A person illegally possesses barbiturates ("downers") or amphetamines ("uppers").	.085	1.354	.107
77	A person uses a forged prescription to obtain drugs.	.351	1.190	.094	95	A person uses hallucinogenic drugs.	.081	1.451	.114
78	A person vandalizes private property.	.316	.902	.071	96	A person interferes with a police officer.	.067	.962	.076
79	A person snatches someone's handbag.	.301	.912	.072	97	A person knowingly writes worthless checks.	.046	1.081	.085
80	A person conceals the identity of someone known to have committed a serious crime.	.300	1.060	.084	98	A person willingly hides someone who has committed a crime.	.044	1.056	.083
81	A person uses heroin.	.263	1.486	.117	99	A person possesses hallucinogenic drugs.	.034	1.414	.111
82	A person steals money from a store while the owner is not looking.	.256	.906	.071	100	A person steals something from a parked car.	.023	.879	.069
83	A person lends money at illegal interest rates.	.216	1.133	.089	101	A person steals a car.	.022	.898	.071
84	A person willingly commits perjury.	.207	.965	.076	102	A person attempts to rob someone but leaves when a police car approaches.	.012	.940	.074
85	A person possesses an illegal weapon.	.205	1.119	.088	103	A person turns in a false fire alarm.	.003	1.210	.095
86	A person loots a store in a riot.	.187	1.046	.082	104	A person knowingly gives false information when advertising a product.	-.002	1.133	.087
87	A person vandalizes public property.	.168	.901	.071	105	A person illegally uses barbiturates ("downers") or amphetamines ("uppers").	-.004	1.368	.108
88	A person breaks into and enters a store.	.165	.835	.066	106	A juvenile is beyond parental control.	-.021	1.249	.098
89	A person threatens someone with bodily harm.	.136	1.102	.087	107	A person shows pornographic movies to a minor.	-.031	1.421	.112
90	A person trespasses on public property and steals something.	.135	.909	.072	108	A person sells liquor to minors.	-.038	1.184	.093
91	A person breaks into a store and with no one else present, steals something.	.133	.807	.070					

Table 4 (Cont'd)

Rank	Crime Description	Rescaled Mean	Standard Deviation	Std. Error of Mean	Rank	Crime Description	Rescaled Mean	Standard Deviation	Std. Error of Mean
109	A person attempts to break into a parked car, but runs away when a police car approaches.	-.040	1.005	.079	127	A person engages in homosexual acts for money.	-.290	1.696	.134
110	A juvenile takes a car for "joyriding".	-.046	1.011	.080	128	A person runs a house of prostitution.	-.307	1.451	.114
111	A person gives illegal drugs to an acquaintance.	-.055	1.361	.107	129	A person makes obscene phone calls.	-.317	1.230	.100
112	Without breaking into or entering a building and with no one else present, a person steals something.	-.060	.952	.075	130	A person resists arrest.	-.350	.944	.074
113	A person knowingly sells stolen goods.	-.072	.894	.070	131	A person possesses stolen property.	-.361	.889	.070
114	A person steals something from a public building.	-.073	.927	.073	132	A person runs an illegal gambling operation.	-.427	1.132	.089
115	A person exposes his genitals in public.	-.081	1.396	.110	133	A person refuses to pay alimony.	-.437	1.201	.095
116	A person breaks into and enters a building.	-.086	.851	.067	134	A person knowingly buys stolen property.	-.449	1.067	.084
117	A person attempts to break into a building, but runs away when a police car approaches.	-.090	.907	.072	135	A juvenile is repeatedly truant.	-.461	1.119	.088
118	A person fixes prices on a consumer product.	-.132	1.055	.083	136	A person sells liquor illegally.	-.464	1.085	.086
119	A person steals merchandise from a store while the owner is not looking.	-.148	.886	.070	137	A juvenile repeatedly runs away from home.	-.547	1.271	.100
120	A person steals a car and abandons it undamaged.	-.167	1.003	.079	138	A person solicits for prostitution.	-.554	1.427	.112
121	A person runs his hands over a woman's body, then runs away.	-.193	1.336	.105	139	A person uses someone else's driver's license.	-.580	1.281	.101
122	A person, upon arriving home, kills a suspected burglar.	-.195	1.497	.118	140	A juvenile illegally possesses liquor.	-.590	1.143	.090
123	A person uses false identification to obtain goods from a store.	-.197	.992	.078	141	A person joins a prohibited demonstration.	-.592	1.069	.084
124	A person joins a riot.	-.204	1.091	.086	142	A person operates a car with a suspended driver's license.	-.635	1.135	.089
125	A person smuggles goods to avoid paying import duties.	-.258	1.113	.088	143	A person operates a car without insurance coverage.	-.698	1.297	.102
126	A person gives liquor to a minor.	-.278	1.260	.099	144	A person has no residence and no visible means of support.	-.701	2.430	.192
					145	A person possesses burglary tools.	-.774	1.198	.094

Table 4 (Cont'd)

Rank	Crime Description	Rescaled Mean	Standard Deviation	Std. Error of Mean
146	A person sells marijuana.	-.812	1.485	.117
147	A person trespasses on private property.	-.834	1.122	.088
148	A person engages in sexual acts in return for money.	-.864	1.441	.114
149	A woman engages in sexual acts in return for money.	-.899	1.446	.114
150	A person buys liquor illegally.	-.920	1.086	.086
151	A person disturbs the neighborhood with loud, noisy behavior.	-.945	1.067	.084
152	A person intentionally shoves or pushes someone.	-.947	1.147	.090
153	A person participates in illegal gambling.	-.994	1.170	.092
154	A person commits adultery.	-1.016	1.750	.138
155	A person refuses to pay parking fines.	-1.251	1.076	.085
156	A juvenile breaks a curfew law.	-1.287	1.175	.093
157	A person is drunk in public.	-1.299	1.128	.089
158	A person possesses marijuana.	-1.338	1.543	.122
159	A person is a customer in a house of prostitution.	-1.447	1.698	.134
160	A person loiters in a public place.	-1.497	1.291	.102
161	A person uses marijuana.	-1.562	1.660	.131
162	Two people willingly engage in a homosexual act.	-2.038	2.326	.183

ORIG. SCALE MEANS BY SUCC. INT. SCALE MEANS

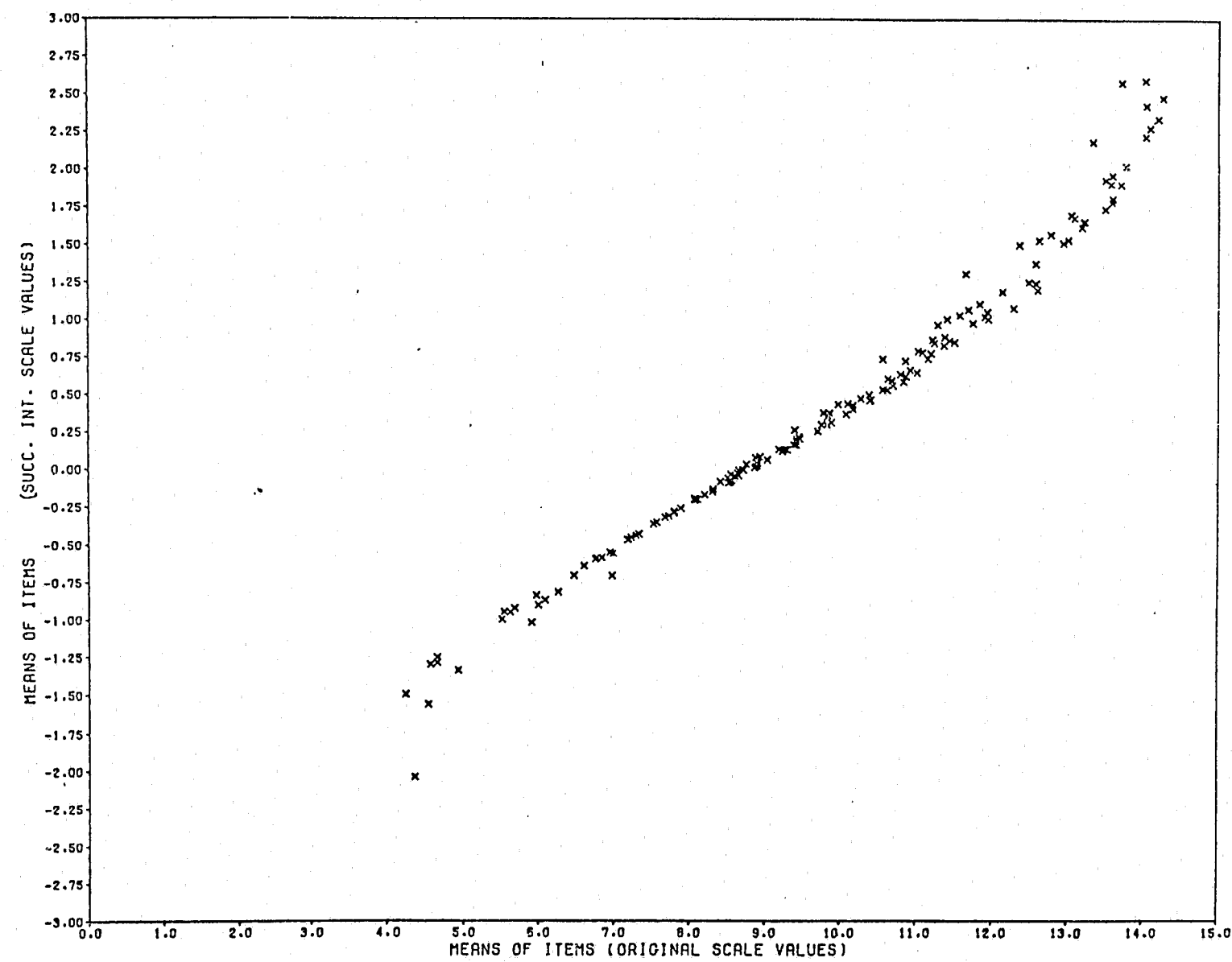
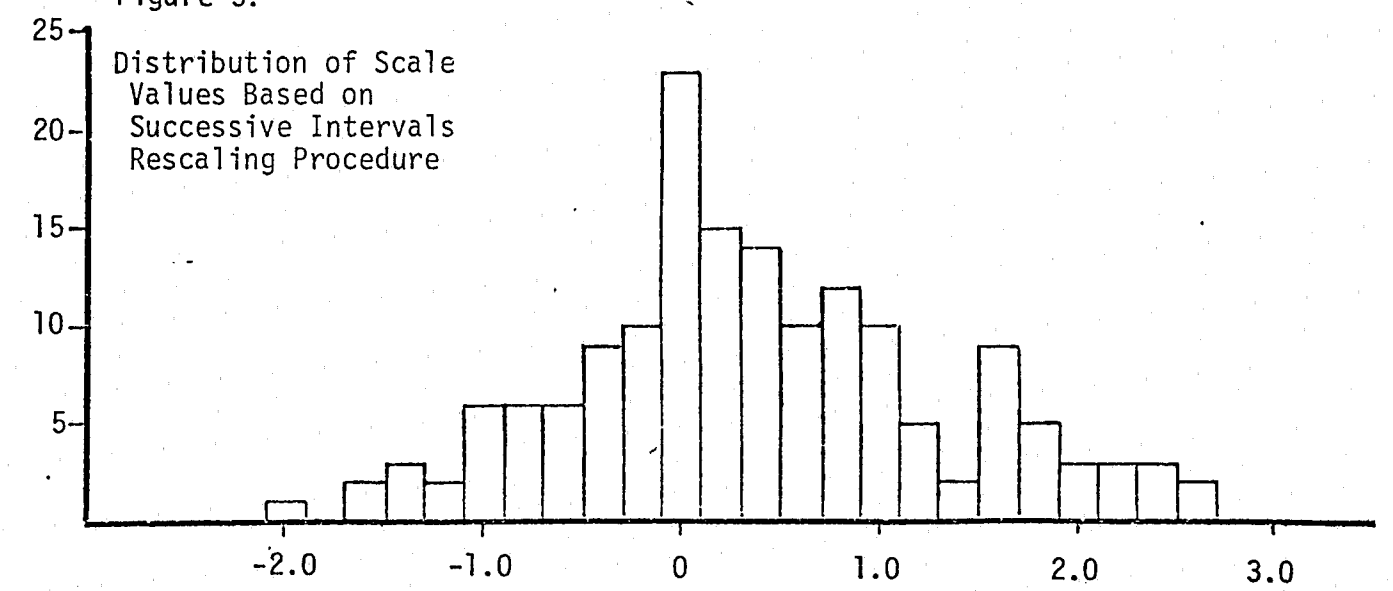


Figure 4: Joint distribution of item means (original scale values) and item means based on the successive intervals rescaling procedure.

Figure 5:



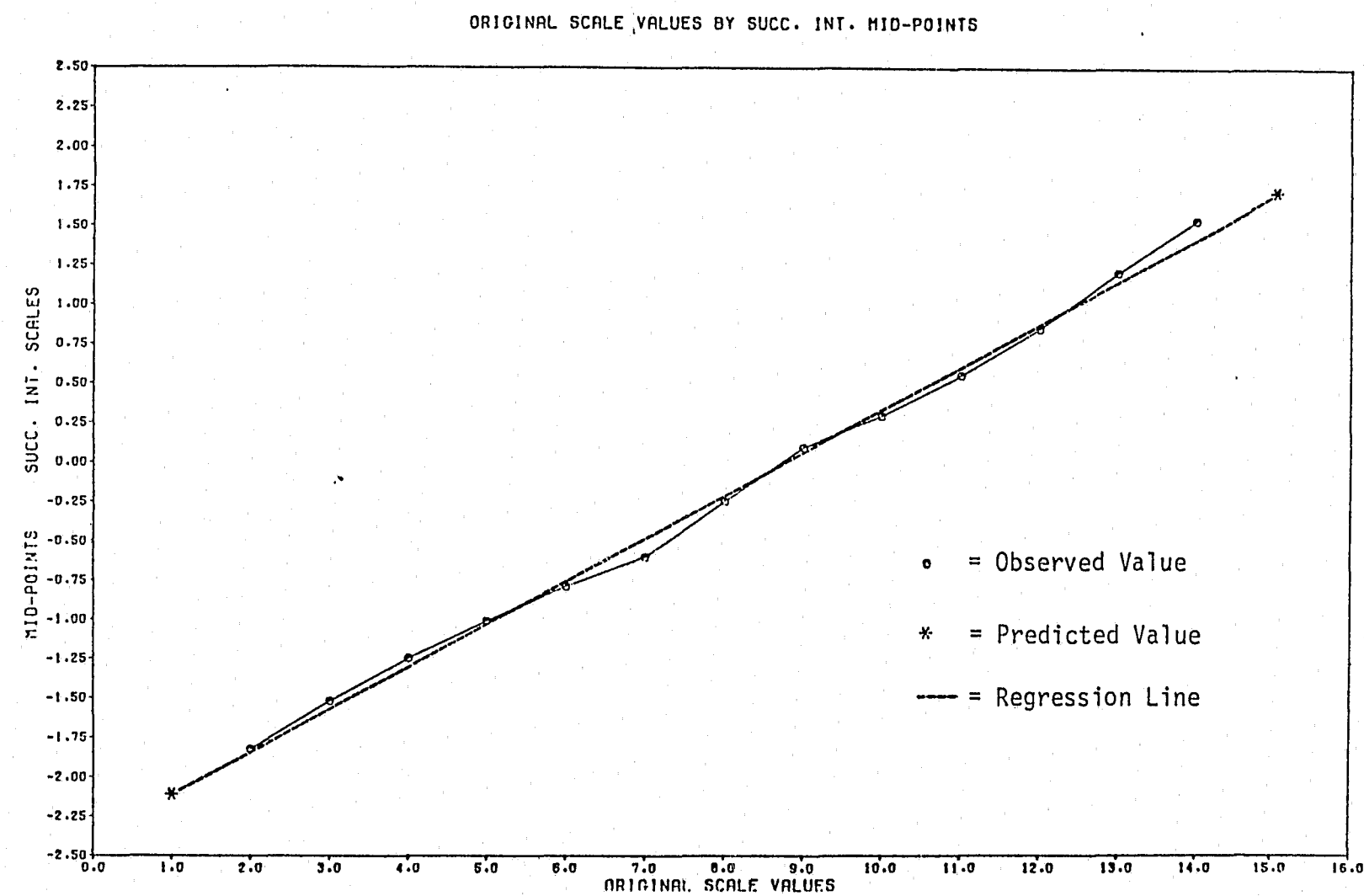


Figure 6: Regression of original score values to mid-points of the rescaled score values.

TABLE 5: Rank-order of 162 offense descriptions
based on rescaled means.
(Successive Intervals Approximation).

Rank	Crime Description	Rescaled Mean	Standard Deviation	Std. Error of Mean	Rank	Crime Description	Rescaled Mean	Standard Deviation	Std. Error of Mean
1	A person plants a bomb in a building.	1.514	.446	.014	20	A person kills someone during a barroom free-for-all.	1.186	.746	.024
2	A person sets fires to an occupied building.	1.499	.455	.014	21	A person tries to entice a minor into a car for sexual purposes.	1.174	.770	.024
3	A person intentionally injures someone who, as a result, dies.	1.469	.490	.015	22	A person hijacks an airplane.	1.166	.713	.022
4	A person shoots someone with a gun.	1.454	.504	.016	23	A parent of a young child neglects to care for it.	1.144	.727	.023
5	A person plans to kill someone for a fee.	1.451	.545	.017	24	A person forces another to engage in a homosexual act.	1.059	.871	.027
6	A person impulsively kills a stranger.	1.446	.583	.018	25	A person, armed with a weapon, robs a store.	1.055	.650	.020
7	Without using a weapon, a juvenile beats an elderly person.	1.380	.573	.018	26	A person, armed with a weapon, robs a bank.	1.046	.706	.023
8	A person shoots and kills someone who resists an armed robbery.	1.361	.720	.023	27	A manufacturer knowingly endangers lives by polluting the water supply.	1.044	.807	.025
9	A person kills someone during a serious argument.	1.359	.569	.018	28	An employer orders an employee to commit a serious crime.	1.017	.755	.024
10	A person kidnaps someone.	1.331	.577	.018	29	A person practices medicine without a license.	1.100	.822	.026
11	A person stabs someone with a knife.	1.330	.584	.019	30	A person sells large quantities of illegal drugs.	.984	.955	.030
12	A person sexually assaults a woman.	1.328	.637	.020	31	A person, armed with a weapon, robs someone.	.962	.681	.021
13	A person forces a woman to submit to sexual intercourse, then flees with property belonging to her.	1.321	.630	.020	32	A police officer knowingly makes a false arrest.	.921	.868	.028
14	A person forces a woman to submit to sexual intercourse.	1.304	.669	.021	33	A person strikes someone with a blunt instrument.	.868	.782	.024
15	A person sets fires to a building.	1.303	.603	.019	34	A government official intentionally obstructs the investigation of a criminal offense.	.861	.846	.027
16	A person assassinates a public official.	1.253	.804	.025	35	A public official takes public funds for personal use.	.851	.824	.026
17	A producer knowingly endangers lives by marketing contaminated products.	1.225	.680	.021	36	Without using a weapon, a person beats his wife.	.836	.937	.030
18	A person kills someone by recklessly driving an automobile.	1.223	.684	.021					
19	A person fires a gun at someone.	1.221	.676	.021					

Table 5 (Cont'd)

Rank	Crime Description	Rescaled Mean	Standard Deviation	Std. Error of Mean	Rank	Crime Description	Rescaled Mean	Standard Deviation	Std. Error of Mean
37	A person pays a witness to give false testimony in a criminal trial.	.810	.855	.027	56	A person steals a car and abandons it damaged.	.564	.839	.026
38	A person attempts to prevent someone from attending a public school because of that person's race.	.794	.972	.031	57	A person, using force, robs a store.	.548	.751	.024
39	Without using a weapon, the parent of a young child beats it.	.791	1.132	.035	58	A person signs someone else's name to a check and cashes it.	.543	.921	.029
40	An employer refuses to hire a qualified person because of that person's race.	.763	.990	.031	59	A person bribes a public official to obtain favors.	.513	.926	.030
41	A person pays someone to commit a crime.	.737	.820	.026	60	A person willingly helps another commit a crime.	.510	.818	.026
42	A person threatens someone's life.	.726	.881	.028	61	A doctor cheats on claims made to a health insurance plan for patient services.	.499	.981	.031
43	A person sells heroin.	.721	1.041	.034	62	A person, using threats, robs someone.	.489	.803	.026
44	A public official accepts bribes in return for favors.	.710	.943	.030	63	A person commits incest.	.487	1.183	.037
45	A person endangers the lives of others through negligent property maintenance.	.705	.877	.028	64	A person embezzles company money.	.478	.872	.028
46	A real estate agent refuses to sell a house to a person because of that person's race.	.684	1.063	.033	65	A person breaks into a private residence and with no one else present, steals something.	.433	.832	.026
47	Without using a weapon, a person beats someone.	.672	.970	.030	66	A person knowingly passes counterfeit money.	.428	.933	.069
48	A person manufactures large quantities of illegal drugs.	.669	1.003	.032	67	A person, using threats, robs a store.	.426	.805	.025
49	A person, involved in an automobile accident, leaves the scene.	.657	.897	.029	68	A person prints counterfeit money.	.401	.972	.031
50	A person blackmails someone.	.645	.861	.028	69	A person intimidates a witness in a court case.	.369	.958	.03
51	A person commits treason.	.628	.981	.031	70	A person breaks into and enters a private residence.	.367	.856	.027
52	A person drives a car while drunk.	.615	1.016	.033	71	A person impersonates a police officer.	.354	1.022	.032
53	A person, using force, robs someone.	.600	.759	.759	72	A person trespasses on private property and steals something.	.342	.829	.026
54	A person knowingly cashes stolen payroll checks.	.579	.883	.028	73	A person possesses heroin.	.324	1.123	.035
55	A person smuggles large quantities of illegal drugs.	.665	1.022	.033	74	A person illegally sells barbiturates ("downers") or amphetamines ("uppers").	.289	1.084	.035

Table 5 (Cont'd)

Rank	Crime Description	Rescaled Mean	Standard Deviation	Std. Error of Mean	Rank	Crime Description	Rescaled Mean	Standard Deviation	Std. Error of Mean
75	A person vandalizes private property.	.286	.854	.027	95	A person illegally possesses barbiturates ("downers") or amphetamines ("uppers").	.036	1.154	.036
76	A person illegally receives monthly welfare payments.	.283	1.060	.033	96.5	A person uses hallucinogenic drugs.	.022	1.201	.038
77	A person uses a forged prescription to obtain drugs.	.279	1.042	.033	96.5	A person willingly hides someone who has committed a crime.	.022	.984	.031
78	A person snatches someone's handbag.	.271	.863	.028	98	A person knowingly writes worthless checks.	.019	1.000	.031
79	A person sells hallucinogenic drugs.	.268	1.149	.037	99	A person steals something from a parked car.	.017	.854	.027
80	A person conceals the identity of someone known to have committed a serious crime.	.253	.253	.963	100	A person attempts to rob someone but leaves when a police car approaches.	.008	.902	.029
81	A person steals money from a store while the owner is not looking.	.238	.861	.027	101	A person steals a car.	.007	.868	.027
82	A person lends money at illegal interest rates.	.174	1.022	.033	102	A person possesses hallucinogenic drugs.	-.014	1.187	.038
83	A person willingly commits perjury.	.171	.914	.02	103	A person knowingly gives false information when advertising a product.	-.026	1.037	.033
84	A person uses heroin.	.167	1.202	.038	104	A person turns in a false fire alarm.	-.032	1.081	.034
85	A person possesses an illegal weapon.	.164	1.013	.032	105	A person illegally uses barbiturates ("downers") or amphetamines ("uppers").	-.039	1.167	.037
86	A person loots a store in a riot.	.162	.969	.031	106	A juvenile is beyond parental control.	-.048	1.106	.035
87	A person breaks into and enters a store.	.152	.811	.026	107	A person attempts to break into a parked car, but runs away when a police car approaches.	-.049	.950	.030
88	A person vandalizes public property.	.146	.862	.027	108	A juvenile takes a car for "joyriding".	-.058	.957	.030
89	A person breaks into a store and with no one else present steals something.	.122	.851	.027	109	A person sells liquor to minors.	-.062	1.072	.034
90	A person trespasses on public property and steals something.	.116	.871	.027	110	Without breaking into or entering a building and with no one else present, a person steals something.	-.068	.913	.029
91.5	A person picks someone's pocket.	.108	.886	.028					
91.5	A person breaks into a building and with no one else present, steals something.	.108	.850	.027					
93	A person threatens someone with bodily harm.	.102	1.010	.032					
94	A person interferes with a police officer.	.053	.915	.029					

Table 5 (Cont'd)

Rank	Crime Description	Rescaled Mean	Standard Deviation	Std. Error of Mean	Rank	Crime Description	Rescaled Mean	Standard Deviation	Std. Error of Mean
111	A person shows pornographic movies to a minor.	-.069	1.199	.037	128	A person runs a house of prostitution.	-.291	1.212	.038
112	A person knowingly sells stolen goods.	-.077	.867	.028	129	A person makes obscene phone calls.	-.304	1.102	.035
113	A person gives illegal drugs to an acquaintance.	-.080	1.168	.037	130	A person resists arrest.	-.342	.908	.028
114	A person steals something from a public building.	-.082	.890	.028	131	A person possesses stolen property.	-.356	.866	.027
115	A person breaks into and enters a building.	-.089	.833	.027	132	A person runs an illegal gambling operation.	-.405	1.043	.033
116	A person attempts to break into a building, but runs away when a police car approaches.	-.091	.882	.028	133	A person refuses to pay alimony.	-.412	1.079	.034
117	A person exposes his genitals in public.	-.106	1.105	.037	134	A person knowingly buys stolen property.	-.429	.993	.031
118	A person fixes prices on a consumer product.	-.140	.990	.031	135	A juvenile is repeatedly truant.	-.439	1.026	.032
119	A person steals merchandise from a store while the owner is not looking.	-.148	.864	.028	136	A person sells liquor illegally.	-.447	1.001	.031
120	A person steals a car and abandons it undamaged.	-.170	.951	.030	137	A person has no residence and no visible means of support.	-.486	1.473	.046
121	A person runs his hands over a woman's body, then runs away.	-.196	1.159	.036	138	A person solicits for prostitution.	-.490	1.190	.037
122.5	A person, upon arriving home, kills a suspected burglar.	-.197	1.234	.039	139	A juvenile repeatedly runs away from home.	-.503	1.107	.035
122.5	A person uses false identification to obtain goods from a store.	-.197	.947	.030	140	A person uses someone else's driver's license.	-.531	1.112	.035
124	A person joins a riot.	-.204	1.016	.032	141	A juvenile illegally possesses liquor.	-.550	1.031	.033
125	A person smuggles goods to avoid paying import duties.	-.254	1.031	.033	142	A person joins a prohibited demonstration.	-.560	.990	.032
126	A person engages in homosexual acts for money.	-.268	1.309	.042	143	A person operates a car with a suspended driver's license.	-.597	1.018	.032
127	A person gives liquor to a minor.	-.270	1.118	.036	144	A person operates a car without insurance coverage.	-.629	1.105	.035
					145	A person sells marijuana.	-.686	1.185	.037
					146	A person possesses burglary tools.	-.702	1.049	.034
					147	A person engages in sexual acts in return for money.	-.734	1.157	.036

Table 5 (Cont'd)

<u>Rank</u>	<u>Crime Description</u>	<u>Rescaled Mean</u>	<u>Standard Deviation</u>	<u>Std. Error of Mean</u>
140	A woman engages in sexual acts in return for money.	-.760	1.154	.036
149	A person trespasses on private property.	-.766	.998	.031
150	A person commits adultery.	-.781	1.259	.040
151	A person buys liquor illegally.	-.849	.961	.030
152	A person intentionally shoves or pushes someone.	-.860	.986	.031
153	A person disturbs the neighborhood with loud, noisy behavior.	-.881	.929	.029
154	A person participates in illegal gambling.	-.895	.999	.031
155	A person possesses marijuana.	-1.050	1.113	.035
156	A person is a customer in a house of prostitution.	-1.075	1.151	.037
157.5	A juvenile breaks a curfew law.	-1.123	.937	.030
157.5	A person refuses to pay parking fines.	-1.123	.891	.028
159	A person is drunk in public.	-1.148	.904	.029
160	A person uses marijuana.	-1.157	1.109	.035
161	Two people willingly engage in a homosexual act.	-1.204	1.234	.040
162	A person loiters in a public place.	-1.236	.948	.230

Figure 7
Distribution of Scale
Values Based on
Successive Intervals.
Approximation

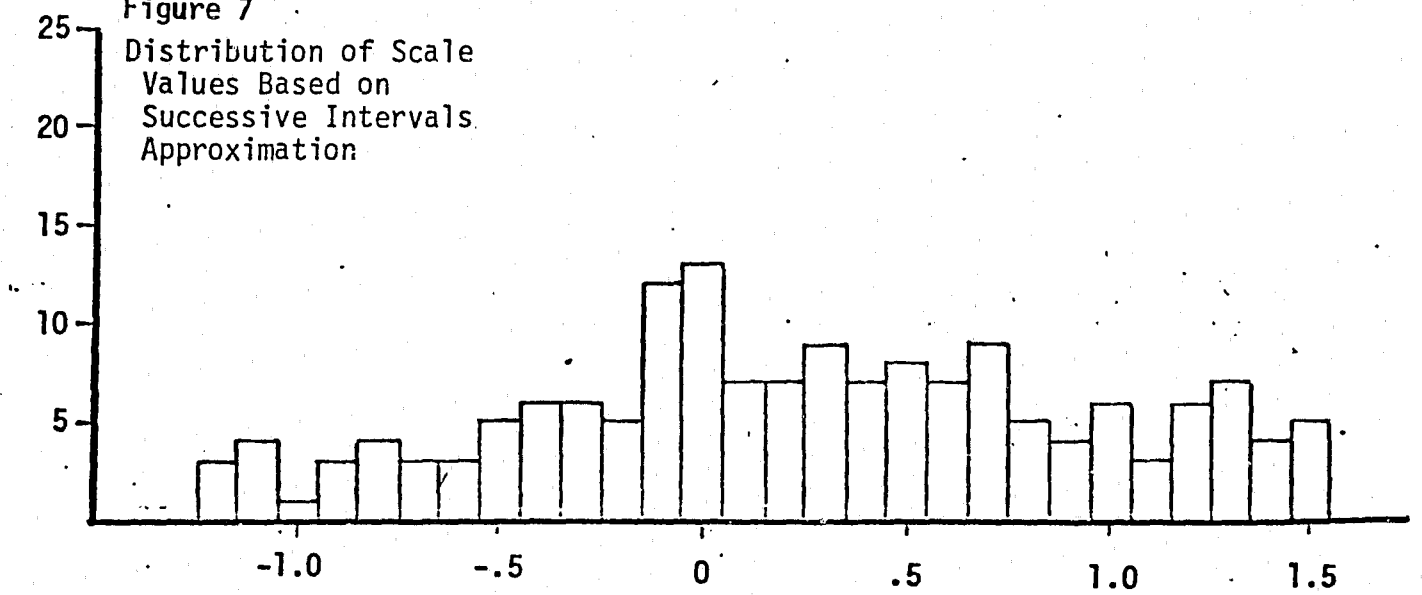


TABLE 6: Comparison of the rank-order of scale values based on five measures of central tendency.

Crime Description	Rank Based On:					Crime Description	Rank Based On:				
	Arithmetic Mean	Median	Geometric Mean	Rescaled Mean 1	Rescaled Mean 2		Arithmetic Mean	Median	Geometric Mean	Rescaled Mean 1	Rescaled Mean 2
A person plants a bomb in a building.	1	1	1	3	1	A person tries to entice a minor into a car for sexual purposes.	21	17	22	17	21
A person sets fire to an occupied building.	2	4	2	5	2	A person hijacks an airplane.	22	23	20.5	23	22
A person intentionally injures someone who, as a result, dies.	3	6	3	6	3	A parent of a young child neglects to care for it.	23	24	23	25	23
A person plans to kill someone for a fee.	4	3	5	4	5	A person forces another to engage in a homosexual act.	24	25	30	24	24
A person shoots someone with a gun.	5	7	4	7	4	A person practices medicine without a license.	25	22	26	22	29
A person impulsively kills a stranger.	6	2	6	1	6	A person, armed with a weapon, robs a store.	26	31	24	31	25
Without using a weapon, a juvenile beats an elderly person.	7	10	8	9	7	A manufacturer knowingly endangers lives by polluting the water supply.	27	27	28	27	27
A person shoots and kills someone who resists an armed robbery.	8	5	14	2	8	A person, armed with a weapon, robs a bank.	28	29	25	30	26
A person kills someone during a serious argument.	9	11	7	13	9	An employer orders an employee to commit a serious crime.	29	30	27	29	28
A person sexually assaults a woman.	10.5	9	12	10	12	A person sells large quantities of illegal drugs.	30	26	33	26	30
A person stabs someone with a knife.	10.5	14	9	14	11	A person, armed with a weapon, robs someone.	31	34	29	34	31
A person kidnaps someone.	12	15	10	15	10	A police officer knowingly makes a false arrest.	32	32	31	32	32
A person forces a woman to submit to sexual intercourse, then flees with property belonging to her.	13	12	11	12	13	A person strikes someone with a blunt instrument.	33	37	32	39	33
A person forces a woman to submit to sexual intercourse.	14	13	15	11	14	A government official intentionally obstructs the investigation of a criminal offense.	34	35	34.5	36	34
A person sets fires to a building.	15	16	13	16	15	A public official takes public funds for personal use.	35	40	34.5	38	35
A person assassinates a public official.	16	8	19	8	16	Without using a weapon, a person beats his wife.	36	33	37.5	33	36
A producer knowingly endangers lives by marketing contaminated products.	17	20	17	19	17	A person pays a witness to give false testimony in a criminal trial.	37	42	37	41	37
A person kills someone by recklessly driving an automobile.	18	19	16	20	18						
A person fires a gun at someone.	19	21	18	21	19						
A person kills someone during a barroom free-for-all.	20	18	20.5	18	20						

Notes: ¹ Based on Successive Intervals Procedure

² Based on Successive Intervals Approximation.

Table 6 (Cont'd)

Crime Description	Rank Based On:					Crime Description	Rank Based On:				
	Arithmetic Mean	Median	Geometric Mean	Rescaled Mean 1	Rescaled Mean 2		Arithmetic Mean	Median	Geometric Mean	Rescaled Mean 1	Rescaled Mean 2
A person attempts to prevent someone from attending a public school because of that person's race.	38	36	39	35	38	A person smuggles large quantities of illegal drugs.	56	54	63	54	55
Without using a weapon, the parent of a young child beats it.	39	28	53	28	39	A person, using force, robs a store.	57	61	43	61	57
An employer refuses to hire a qualified person because of that person's race.	40	39	42	37	40	A person signs someone else's name to a check and cashes it.	58	58	58.5	57	58
A person pays someone to commit a crime.	41	50	37.5	46	41	A person willingly helps another commit a crime.	59	62	54.5	62	60
A person threatens someone's life.	42	45	40.5	45	42	A person bribes a public official to obtain favors.	60	60	60.5	60	59
A person sells heroin.	43	38	49	40	43	A doctor cheats on claims made to a health insurance plan for patient services.	61	59	65	59	61
A public official accepts bribes in return for favors.	44	44	44	43	44	A person, using threats, robs someone.	62	64	57	64	62
A person endangers the lives of others through negligent property maintenance.	45	49	40.5	48	45	A person commits incest.	63	53	74	52.5	63
A real estate agent refuses to sell a house to a person because of that person's race.	46	41	54.5	42	46	A person embezzles company money.	64	63	60.5	63	64
Without using a weapon, a person beats someone.	47	46	48	47	47	A person breaks into a private residence and with no one else present, steals something.	65	66	64	67	65
A person manufactures large quantities of illegal drugs.	48	43	50	44	48	A person, using threats, robs a store.	66	69	62	68	67
A person, involved in an automobile accident, leaves the scene.	49	51	46	51	49	A person knowingly passes counterfeit money.	67	68	66	65	66
A person blackmails someone.	50	52	45	55.5	50	A person prints counterfeit money.	68	67	69	66	68
A person commits treason.	51	47	56	50	51	A person breaks into and enters a private residence.	69	72	67.5	72	70
A person drives a car while drunk.	52	48	58.5	49	52	A person intimidates a witness in a court case.	70	70	71	71	69
A person, using force, robs someone.	53	56	43	56	53	A person impersonates a police officer.	71	74	73	69	71
A person knowingly cashes stolen payroll checks.	54	55	51.5	55	54	A person trespasses on private property and steals something.	72	76	67.5	75	72
A person steals a car and abandons it damaged.	55	57	51.5	58	56	A person possesses heroin.	73	65	83	70	73
						A person vandalizes private property.	74	80	70	78	75

Table 6 (Cont'd)

Crime Description	Rank Based On:					Crime Description	Rank Based On:				
	Arithmetic Mean	Median	Geometric Mean	Rescaled Mean 1	Rescaled Mean 2		Arithmetic Mean	Median	Geometric Mean	Rescaled Mean 1	Rescaled Mean 2
A person illegally sells barbiturates ("downers") or amphetamines ("uppers").	75	71	82	74	74	A person willingly hides someone who has committed a crime.	96	100	97	98	96.5
A person illegally receives monthly welfare payments.	76	75	81	76	76	A person steals something from a parked car.	97	97	92	100	99
A person uses a forged prescription to obtain drugs.	77	77	78	77	77	A person knowingly writes worthless checks.	98	102	98	97	98
A person snatches someone's handbag.	78	81	72	79	78	A person uses hallucinogenic drugs.	99	98	113	95	96.5
A person sells hallucinogenic drugs.	79	73	89	73	79	A person steals a car.	100	104	93.5	101	101
A person conceals the identity of someone known to have committed a serious crime.	80	79	76	80	80	A person attempts to rob someone but leaves when a police car approaches.	101	95	96	102	100
A person steals money from a store while the owner is not looking.	81	83	75	82	81	A person possesses hallucinogenic drugs.	102	99	115	99	102
A person willingly commits perjury.	82	94	79	84	83	A person knowingly gives false information when advertising a product.	103	109	107	104	103
A person lends money at illegal interest rates.	83	82	90	83	82	A person turns in a false fire alarm.	104	113	108	103	104
A person possesses an illegal weapon.	84	85	91	85	85	A person illegally uses barbiturates ("downers") or amphetamines ("uppers").	105	101	117	105	105
A person loots a store in a riot.	85.5	84	88	86	86	A person attempts to break into a parked car, but runs away when a police car approaches.	106	107	106	109	107
A person breaks into and enters a store.	85.5	86	77	88	87	A juvenile is beyond parental control.	107	105	112	106	106
A person uses heroin.	87	78	99	81	84	A juvenile takes a car for "joyriding."	108	112	104	110	108
A person vandalizes public property.	88	89	80	87	88	Without breaking into or entering a building and with no one else present, a person steals something.	109	108	102.5	112	110
A person breaks into a store and with no one else present, steals something.	89	87	84.5	91	89	A person sells liquor to minors.	110	114	111	108	109
A person trespasses on public property and steals something.	90	93	84.5	90	90	A person knowingly sells stolen goods.	111	111	101	113	112
A person breaks into a building and with no one else present, steals something.	91	92	86	93	91.5	A person shows pornographic movies to a minor.	112	116	119	107	111
A person picks someone's pocket.	92	90	87	92	91.5	A person steals something from a public building.	113	115	102.5	114	114
A person threatens someone with bodily harm.	93	91	93.5	89	93	A person breaks into and enters a building.	114	110	110	116	115
A person interferes with a police officer.	94	96	95	96	94	A person attempts to break into a building, but runs away when a police car approaches.	115	106	105	149	116
A person illegally possesses barbiturates ("downers") or amphetamines ("uppers").	95	88	110	94	95						

Table 6 (Cont'd)

Crime Description	Rank Based On:					Crime Description	Rank Based On:				
	Arithmetic Mean	Median	Geometric Mean	Rescaled Mean 1	Rescaled Mean 2		Arithmetic Mean	Median	Geometric Mean	Rescaled Mean 1	Rescaled Mean 2
A person gives illegal drugs to an acquaintance.	116	102	120	111	113	A person solicits for prostitution.	137	138	142	137	138
A person exposes his genitals in public.	117	117	122	115	117	A person has no residence and no visible means of support.	138	144	147	143	137
A person fixes prices on a consumer product.	118	120	114	117	118	A juvenile repeatedly runs away from home.	139	139	139	136	139
A person steals merchandise from a store while the owner is not looking.	119	118	109	118	119	A person uses someone else's driver's license.	140	137	140	138	140
A person steals a car and abandons it undamaged.	120	119	116	119	120	A juvenile illegally possesses liquor.	141	141	137	139	141
A person uses false identification to obtain goods from a store.	121	123	118	122	122.5	A person joins a prohibited demonstration.	142	140	138	140	142
A person runs his hands over a woman's body, then runs away.	122	124	126	120	121	A person operates a car with a suspended driver's license.	143	142	141	141	143
A person joins a riot.	123	122	121	123	124	A person operates a car without insurance coverage.	144	143	143	142	144
A person, upon arriving home, kills a suspected burglar.	124	121	129	121	122.5	A person sells marijuana.	145	146	146	145	145
A person smuggles goods to avoid paying import duties.	125	125	124	124	125	A person possesses burglary tools.	146	145	144	144	146
A person gives liquor to a minor.	126	129	127	125	127	A person engages in sexual acts in return for money.	147	147	149	147	147
A person engages in homosexual acts for money.	127	126	136	126	126	A woman engages in sexual acts in return for money.	148	150	152	148	148
A person runs a house of prostitution.	128	127	131	127	128	A person trespasses on private property.	149	148	145	146	149
A person makes obscene phone calls.	129	130	128	128	129	A person commits adultery.	150	154	154	154	150
A person resists arrest.	130	128	125	129	130	A person buys liquor illegally.	151	149	150	150	151
A person possesses stolen property.	131	131	123	130	131	A person intentionally shoves or pushes someone.	152	152	151	152	152
A person runs an illegal gambling operation.	132	132	132	131	132	A person disturbs the neighborhood with loud, noisy behavior.	153	153	148	151	153
A person refuses to pay alimony.	133	134	135	132	133	A person participates in illegal gambling.	154	151	153	153	154
A person knowingly buys stolen property.	134	133	130	133	134	A person possesses marijuana.	155	157	158	158	155
A juvenile is repeatedly truant.	135	135	134	134	135	A person is a customer in a house of prostitution.	156	159	159	159	156
A person sells liquor illegally.	136	136	133	135	136						

Table 6 (Cont'd)

Crime Description	Rank Based On:				
	Arithmetic Mean	Median	Geometric Mean	Rescaled Mean 1	Rescaled Mean 2
A person refuses to pay parking fees.	157	155	155	155	157.5
A juvenile breaks a curfew law.	158	158	156	156	157.5
A person is drunk in public.	159	156	157	157	159
A person uses marijuana.	160	161	161	161	160
Two people willingly engage in a homosexual act.	161	162	162	162	161
A person loiters in a public place.	162	160	160	160	162

Rank Based On:					
Rank Based On:	Arithmetic Mean	Median	Geometric Mean	Rescaled Mean (Succ. Intervals)	Rescaled Mean (approximation)
Arithmetic Mean	-	.997	.994	.996	.999
Median		-	.989	.987	.997
Geometric Mean			-	.987	.994
Rescaled Mean (successive interval)				-	.996
Rescaled Mean (approximation)					-

TABLE 7: Intercorrelations (Spearman's P) of rank-order scale values based on five measures of central tendency (N=162).

Rank Based On:					
Rank Based On:	Arithmetic Mean	Median	Geometric Mean	Rescaled Mean (Succ.Intervals)	Rescaled Mean (approximation)
Arithmetic Mean	-	.993	.995	.987	.999
Median		-	.984	.984	.993
Geometric Mean			-	.980	.995
Rescaled Mean (successive intervals)				-	.988
Rescaled Mean (approximation)					-

TABLE 8: Intercorrelations of scale values based on five measures of central tendency (N=162).

Appendix C: Replication of Factor Structures

The replicability of factor structures is an important, but often ignored, issue. In general, it has usually been observed that structures fail to replicate beyond the first few components -- which typically are large relative to the remainder. Since our sample of subjects is large, we were in a position to examine the replicability of our structures. Accordingly, the subject sample was randomly halved, resulting in two independent samples of sizes 505 and 519. (Since the samples were created using a probabilistically weighted random sample generator, samples are not of precisely the same size.)

Principal Components Solution. Analysis of the $n = 505$ subsample resulted in a readily interpretable six component solution. Table 1 gives the eigenvalues and proportions of variance explained for each component having an eigenvalue greater than 3, and Table 2 summarizes the structure after Varimax rotation. The components are well defined, and very few items load on more than one component.

The first component, which represents 12% of the variance after rotation, can be interpreted in a number of ways. Many of the offenses which load heavily on this component are "vice"-type crimes: prostitution, gambling, use and possession of marijuana, adultery, homosexual acts, exposures, etc. A second possible interpretation rests on the fact that many of these offenses would fall under the general rubric of "victimless crimes." Whether victimless crimes or vice-type crimes, an inspection of item means (the last column of figures in the table) shows that in general, people view crimes which loaded on this dimension as relatively non-serious.

The second component (11% of the variance after rotation) involves physical assault, personal harm, and interpersonal confrontation.

The third component (7% of the variance after rotation) represents theft, property damage or loss, and property crimes in general.

The fourth dimension, which also accounts for a substantial portion of the variance after rotation (7%), seems to represent crimes against the social order. In general, these are either crimes which are committed by an agent in power (an employer, a real estate agent, a police officer, a manufacturer, a producer, a doctor, a public official), or are social crimes (i.e., against groups) (racism the pollution of a water supply, the marketing of contaminated products, price-fixing, false advertising), or both. Interestingly, two offenses involving juveniles ("a juvenile repeatedly runs away from home, and "a juvenile is beyond parental control") load on this dimension. At first glance, they are anomalous, but their interpretation is clarified if one assumes that (in some sense, at least) subjects were in effect judging the actions of parents, rather than that of the juveniles. This interpretation is at least consistent with the overall pattern of this dimension.

The fifth and sixth dimensions, while relatively small (3% and 4%, respectively, of the variance after rotation) and defined by relatively few items, are nonetheless readily interpretable.¹ Items loading on the fifth dimension (with two exceptions) all involve serious drug offenses: the sale or manufacture of heroin, hallucinogens, or barbiturates and amphetamines. Items loading in the sixth (and final) dimension by-and-large involve fraud or deception.

Replication. A six-component solution of the remaining subsample ($n = 515$) was also computed. Table 3 gives the eigenvalues and proportions

of variance explained by each component before and after rotation, and Table 4 summarizes the rotated solution. While the ordering of dimensions is (trivially) different, it is clear from inspection alone that the structures are substantively the same.

In general, there are two empirical approaches to the question of the "fit" of factor (or other) matrices. One involves the rotation of matrices to maximal fit or similarity, and then assessing that similarity using a "congruence" coefficient. The other involves no further rotation, and compares specific dimensions, rather than the entire matrix. The latter is a more conservative approach, and was followed here.

Table 5 gives the coefficients of factorial similarity (Harmon, 1967) observed. Four dimensions (the "vice" or "victimless" dimension, the property dimension the personal harm dimension, and the "crimes against the social order" dimension) clearly replicate very well--coefficients are all above .95. The two smaller dimensions (serious drug offenses and the "fraud" dimension) also replicate well, but somewhat less powerfully--coefficients are both larger than .86.

Thus, our investigation of dimensionality has borne fruit. At least six clearly defined, readily interpretable, and replicable dimensions appear to underlie people's judgments of the seriousness of crime.

Table 1

Summary of Principal Components Solution

162 Items, N = 505

UNROTATED SOLUTION

Component:	I	II	III	IV	V	VI
Eigenvalue	43.59	11.00	5.81	5.16	3.61	3.12
Cum % Variance Explained	26.91	33.70	37.29	40.48	42.71	44.64

VARIMAX ROTATED SOLUTION

Component	I	II	III	IV	V	VI
Eigenvalue	19.98	18.15	11.76	11.05	5.41	5.94
Cum % Variance Explained	12.33	23.53	30.79	37.61	40.95	44.62

Table 2

PRINCIPAL COMPONENTS SOLUTION - 162 OFFENSE DESCRIPTIONS

(N = 505)

COMPONENT						h ²	X	OFFENSE DESCRIPTIONS
I	II	III	IV	V	VI			
<u>.817</u>	.119	.152	-.031	.041	.038	.709	-0.7200	A woman engages in sexual acts in return for money.
<u>.765</u>	.104	.140	.056	.114	.080	.638	-0.4385	A person solicits for prostitution.
<u>.763</u>	.088	.039	-.065	.037	.136	.615	-0.7048	A person engages in sexual acts in return for money.
<u>.739</u>	.063	.174	-.013	.095	-.080	.595	-1.0595	A person is a customer in a house of prostitution.
<u>.654</u>	.081	.154	.048	<u>.462</u>	.143	.694	-0.0217	A person illegally uses barbiturates ("downers") or amphetamines ("uppers").
<u>.653</u>	-.005	.160	.074	.206	-.121	.515	-0.2577	A person engages in homosexual acts for money.
<u>.647</u>	.060	.152	.135	-.013	.059	.467	-0.7455	A person commits adultery.
<u>.646</u>	-.060	.063	-.036	.004	.375	.567	-0.9204	A person participates in illegal gambling.
<u>.631</u>	.132	.001	-.046	.047	.168	.448	-0.2572	A person runs a house of prostitution.
<u>.624</u>	-.006	.263	.147	.145	.274	.576	-0.8453	A person buys liquor illegally.
<u>.624</u>	-.099	.240	.012	.378	.113	.613	-1.0321	A person possesses marijuana.
<u>.615</u>	.003	.193	.085	.147	.250	.507	-0.3872	A person runs an illegal gambling operation.
<u>.614</u>	-.066	.256	.010	.344	.120	.580	-1.1025	A person uses marijuana.
<u>.605</u>	.105	.136	.017	<u>.425</u>	.300	.667	0.0531	A person illegally possesses barbiturates ("downers") or amphetamines ("uppers").
<u>.588</u>	.107	.168	.139	<u>.562</u>	.053	.723	0.0013	A person possesses hallucinogenic drugs.
<u>.563</u>	-.112	.206	.058	.115	-.139	.408	-1.1604	Two people willingly engage in a homosexual act.
<u>.563</u>	.130	.082	.083	.388	.258	.565	0.0587	A person uses hallucinogenic drugs.
<u>.551</u>	.194	.117	-.080	.344	.319	.582	-0.1034	A person gives illegal drugs to an acquaintance.
<u>.539</u>	-.009	.292	.292	.263	.187	.566	-0.5600	A juvenile illegally possesses liquor.
<u>.523</u>	.175	.117	.045	<u>.509</u>	.036	.580	0.1957	A person uses heroin.
<u>.523</u>	.052	.306	.139	.151	.304	.504	-0.4542	A person sells liquor illegally.
<u>.517</u>	-.042	.207	.039	<u>.444</u>	.129	.527	-0.6552	A person sells marijuana.
<u>.493</u>	-.101	.374	.219	.049	-.029	.444	-1.1502	A person is drunk in public.
<u>.482</u>	.004	.201	<u>.402</u>	.384	.128	.604	-0.2654	A person gives liquor to a minor.
<u>.482</u>	-.067	.207	<u>.453</u>	.100	.101	.504	-0.4286	A juvenile is repeatedly truant.
<u>.476</u>	-.168	.347	.279	.130	.204	.511	-1.1179	A juvenile breaks a curfew law.
<u>.475</u>	.199	.206	.225	.105	.094	.378	-0.0266	A person exposes his genitals in public.
<u>.468</u>	-.164	.382	.152	.114	.247	.488	-1.1166	A person refuses to pay parking fines.

Table 2 (Cont'd)

COMPONENT							h ²	X	OFFENSE DESCRIPTIONS
I	II	III	IV	V	VI				
<u>.459</u>	-.179	.275	.224	.049	.158	.396	-1.2162	A person loiters in a public place.	
<u>.450</u>	.015	<u>.415</u>	.213	.224	.142	.491	-0.5424	A person joins a prohibited demonstration.	
<u>.431</u>	-.006	.353	.190	.000	.161	.372	-0.7450	A person trespasses on private property.	
<u>.410</u>	-.040	.004	.319	-.050	.158	.299	-0.4663	A person has no residence and no visible means of support.	
.392	.293	-.023	.264	.168	.077	.344	0.4970	A person commits incest.	
.392	.079	.284	.170	.305	.355	.488	0.0684	A person willingly hides someone who has committed a serious crime.	
.371	.066	.337	.172	.325	.188	.426	-0.2720	A person smuggles goods to avoid paying import duties.	
.365	.088	.063	.292	.184	.390	.417	-0.0236	A person sells liquor to minors.	
.352	.186	.046	.040	-.112	.117	.189	-0.1866	A person, upon arriving home, kills a suspected burglar.	
-.005	<u>.585</u>	.092	.195	.161	.088	.423	1.4691	A person intentionally injures someone who, as a result, dies.	
-.053	<u>.584</u>	.249	.089	.121	-.120	.443	1.3351	A person stabs someone with a knife.	
.170	<u>.561</u>	.155	.206	.080	.007	.417	1.3232	A person forces a woman to submit to sexual intercourse.	
.099	<u>.524</u>	.004	-.051	-.018	.183	.321	1.3526	A person kills someone during a serious argument.	
.029	<u>.524</u>	.137	.133	.137	-.033	.332	1.1933	A person kills someone during a barroom free-for-all.	
-.013	<u>.522</u>	.127	.073	.236	.095	.359	1.4583	A person plans to kill someone for a fee.	
.131	<u>.519</u>	.196	.206	-.004	-.010	.367	1.3298	A person sexually assaults a woman.	
.080	<u>.502</u>	.219	.003	.164	-.116	.346	1.4607	A person shoots someone with a gun.	
.027	<u>.491</u>	.115	.207	-.027	-.023	.300	1.3826	Without using a weapon, a juvenile beats an elderly person.	
-.028	<u>.481</u>	.227	.276	.175	-.111	.402	1.3344	A person forces a woman to submit to sexual intercourse, then flees with property belonging to her.	
.067	<u>.470</u>	.285	-.095	-.143	.195	.375	0.6450	Without using a weapon, a person beats someone.	
.112	<u>.466</u>	.170	-.108	-.053	-.047	.275	0.7690	Without using a weapon, the parent of a young child beats it.	
.101	<u>.460</u>	.284	.209	.028	-.054	.349	0.8502	Without using a weapon, a person beats his wife.	
.069	<u>.454</u>	.320	.175	-.030	.067	.350	0.8585	A person strikes someone with a blunt instrument.	
.012	<u>.454</u>	.050	-.073	-.102	.101	.235	1.4585	A person impulsively kills a stranger.	
-.006	<u>.446</u>	.228	.197	.240	.163	.374	1.3058	A person sets fire to a building.	
.033	<u>.441</u>	.146	.173	.095	.186	.290	1.2293	A person kills someone by recklessly driving an automobile.	

Table 2 (Cont'd).

COMPONENT							X	OFFENSE DESCRIPTIONS
I	II	III	IV	V	VI	h^2		
-.013	<u>.439</u>	.293	.065	.197	.119	.336	1.2270	A person interferes with a police officer.
-.077	<u>.437</u>	.025	.198	.079	.144	.264	1.4912	A person sets fire to an occupied building.
-.162	<u>.434</u>	.310	.146	.265	.178	.434	1.3150	A person kidnaps someone.
.143	<u>.408</u>	.134	.359	.176	.103	.376	1.1791	A person tries to entice a minor into a car for sexual purposes.
-.071	<u>.388</u>	.097	.149	.073	-.070	.197	1.4101	A person shoots and kills someone who resists an armed robbery.
.129	<u>.162</u>	<u>.777</u>	.228	.072	.005	.704	0.0552	A person steals something from a parked car.
.147	.206	<u>.749</u>	.043	.165	.160	.680	0.1502	A person breaks into a store and with no one else present, steals something.
.175	.098	<u>.748</u>	.176	.206	.056	.676	-0.0414	A person breaks into and enters a building.
.151	.187	<u>.732</u>	.079	.116	.067	.618	-0.0758	A person attempts to break into a building, but runs away when a police car approaches.
.168	.160	<u>.719</u>	.126	.221	.063	.639	0.1644	A person breaks into and enters a store.
.238	.209	<u>.693</u>	.068	.096	.116	.608	-0.1257	A person steals merchandise from a store while the owner is not looking.
.143	.180	<u>.674</u>	.225	.033	.089	.566	0.3669	A person trespasses on private property and steals something.
.097	.224	<u>.668</u>	.156	.122	.067	.549	0.0266	A person attempts to rob someone but leaves when a police car approaches.
.080	.105	<u>.640</u>	.056	.053	.122	.448	0.0055	A person steals a car.
.133	.108	<u>.640</u>	.328	.063	-.047	.553	0.1281	A person picks someone's pocket.
.264	.149	<u>.638</u>	-.027	-.017	.124	.515	-0.0786	Without breaking into or entering a building and with no one else present, a person steals something.
.134	.084	<u>.623</u>	.329	.109	-.039	.536	0.2917	A person snatches someone's handbag.
.067	.222	<u>.619</u>	.225	.231	-.099	.551	0.5200	A person, using threats, robs someone.
.161	.194	<u>.618</u>	.097	.008	.277	.532	0.2464	A person steals money from a store while the owner is not looking.
.158	.273	<u>.614</u>	.098	-.022	.208	.529	0.4799	A person breaks into a private residence and with no one else present, steals something.
.109	.170	<u>.608</u>	.292	.145	-.032	.517	0.3742	A person breaks into and enters a private residence.
.208	.293	<u>.606</u>	-.060	-.051	.328	.609	0.0955	A person breaks into a building and with no one else present, steals something.
.149	.217	<u>.585</u>	.114	-.032	.223	.476	0.3206	A person vandalizes private property.
.023	.252	<u>.578</u>	.219	.250	-.034	.510	0.6094	A person, using force, robs someone.
.050	.167	<u>.575</u>	.178	.301	.077	.489	0.5593	A person, using force, robs a store.

Table 2 (Cont'd)

COMPONENT							X	OFFENSE DESCRIPTIONS
I	II	III	IV	V	VI	h ²		
.281	.243	<u>.543</u>	.064	-.143	.303	.549	0.0958	A person trespasses on public property and steals something.
.197	.144	<u>.543</u>	.159	-.024	.263	.449	-0.0119	A person attempts to break into a parked car, but runs away when a police car approaches.
.225	.219	<u>.540</u>	-.022	.002	.138	.410	-0.1504	A person steals a car and abandons it undamaged.
.154	.222	<u>.536</u>	.126	.256	.130	.459	0.4665	A person, using threats, robs a store.
.194	.154	<u>.533</u>	-.043	.293	.119	.447	0.1795	A person loots a store in a riot.
.230	.030	<u>.520</u>	.102	.240	.311	.489	-0.0794	A person knowingly sells stolen goods.
.345	.094	<u>.499</u>	.125	.163	.220	.467	-0.3357	A person possesses stolen property.
.214	.197	<u>.495</u>	.172	-.092	.302	.458	0.1669	A person vandalizes public property.
.211	-.008	<u>.483</u>	.306	.155	.152	.419	-0.0386	A juvenile takes a car for "joyriding."
.205	.206	<u>.475</u>	-.274	.066	.137	.408	0.5873	A person steals a car and abandons it damaged.
-.018	.199	<u>.455</u>	.293	.302	.075	.429	0.6913	A person blackmails someone.
.100	.331	<u>.447</u>	.201	.261	.042	.429	0.9885	A person, armed with a weapon, robs someone.
.268	.186	<u>.436</u>	-.096	-.051	.389	.459	-0.1019	A person steals something from a public building.
.199	.156	<u>.430</u>	.155	.254	.262	.406	0.0512	A person interferes with a police officer.
.032	.241	<u>.425</u>	.154	<u>.414</u>	.080	.442	1.0535	A person, armed with a weapon, robs a bank.
.372	-.035	<u>.423</u>	.124	.275	.015	.410	-0.6697	A person possesses burglary tools.
.216	-.169	<u>.410</u>	.351	-.011	.110	.378	-0.8441	A person intentionally shoves or pushes someone.
.380	.099	<u>.407</u>	-.013	-.036	.348	.443	-0.3444	A person resists arrest.
.272	.184	<u>.386</u>	.136	.162	.382	.447	0.5347	A person willingly helps another commit a crime.
.009	.377	<u>.386</u>	.210	.270	.131	.426	1.0610	A person, armed with a weapon, robs a store.
.211	.125	<u>.386</u>	.135	.312	.139	.344	-0.1809	A person joins a riot.
.128	.223	<u>.381</u>	.209	.378	.245	.458	0.7797	A person pays someone to commit a crime.
.203	.111	<u>.357</u>	.165	.206	.234	.305	0.3169	A person illegally receives monthly welfare checks.
.189	.282	<u>.114</u>	<u>.689</u>	-.034	.022	.604	0.8145	A person attempts to prevent someone from attending a public school because of that person's race.
.233	.252	.116	<u>.673</u>	-.109	.042	.598	0.7926	An employer refuses to hire a qualified person because of that person's race.
.222	.228	.073	<u>.627</u>	-.170	.047	.531	0.6997	A real estate agent refuses to sell a house to a person because of that person's race.

Table 2 (Cont'd).

COMPONENT						h ²	λ	OFFENSE DESCRIPTIONS
I	II	III	IV	V	VI			
-.071	.174	.200	<u>.554</u>	.232	.052	.438	0.9522	A police officer knowingly makes a false arrest.
-.114	.194	.134	<u>.528</u>	.084	.153	.378	1.0642	A manufacturer knowingly endangers lives by polluting the water supply.
.149	.248	.242	<u>.514</u>	.151	-.034	.431	0.6662	A person endangers the lives of others through negligent property maintenance.
.085	.332	.110	<u>.494</u>	.170	.039	.404	1.1471	A parent of a young child neglects to care for it.
<u>.404</u>	-.051	.155	<u>.481</u>	.058	.136	.443	-0.4510	A juvenile repeatedly runs away from home.
.183	.078	.238	<u>.470</u>	.207	.124	.376	0.2275	A person lends money at illegal interest rates.
-.027	.188	.277	<u>.460</u>	.223	.209	.417	0.8836	A public official takes public funds for personal use.
.124	.035	.285	<u>.447</u>	-.111	.149	.332	-0.0205	A person knowingly gives false information when advertising a product.
.103	.131	.351	<u>.443</u>	.306	.202	.482	0.5158	A doctor cheats on claims made to a health insurance plan for patient services.
.082	.320	.212	<u>.438</u>	.167	.165	.401	1.0541	An employer orders an employee to commit a serious crime.
.320	.056	.367	<u>.425</u>	.139	.018	.440	-0.3038	A person makes obscene phone calls.
-.164	.348	.087	<u>.424</u>	.253	.096	.408	1.2458	A producer knowingly endangers lives by marketing contaminated products.
-.046	.222	.238	<u>.424</u>	.226	.218	.387	0.7344	A public official accepts bribes in return for favors.
.055	.031	.313	<u>.418</u>	-.022	.201	.317	-0.1431	A person fixes prices on a consumer product.
.316	-.055	.246	<u>.418</u>	.303	.058	.434	-0.0703	A juvenile is beyond parental control.
.100	.226	.356	<u>.407</u>	.265	.179	.455	0.5289	A person bribes a public official to obtain favors.
.089	.255	.350	.369	.203	.217	.420	0.6545	A person, involved in an automobile accident, leaves the scene.
.329	.127	.089	.081	<u>.707</u>	.171	.667	0.6383	A person manufactures large quantities of illegal drugs.
.374	.175	.145	.110	<u>.705</u>	.147	.722	0.5665	A person smuggles large quantities of illegal drugs.
.294	.195	.118	.146	<u>.674</u>	.048	.616	0.6835	A person sells heroin.
<u>.426</u>	.232	.128	.120	<u>.658</u>	.076	.705	0.2641	A person sells hallucinogenic drugs.
<u>.477</u>	.098	.189	.094	<u>.655</u>	.121	.725	0.2990	A person illegally sells barbiturates ("downers") or amphetamines ("uppers").
<u>.483</u>	.201	.110	.058	<u>.512</u>	.126	.568	0.3650	A person possesses heroin.
.359	.207	.024	-.074	<u>.493</u>	.343	.538	0.9606	A person sells large quantities of illegal drugs.
.184	.125	.312	.240	<u>.421</u>	.327	.489	0.4723	A person prints counterfeit money.
.226	.161	.314	.160	<u>.405</u>	.304	.458	0.2771	A person conceals the identity of someone known to have committed a serious crime.
-.074	.286	.304	.210	.384	.216	.418	-1.6193	A person hijacks an airplane.
.114	.189	.355	.335	.384	.299	.524	0.6157	A person knowingly cashes stolen payroll checks.
.125	.026	.103	.150	.208	<u>.609</u>	.464	0.3871	A person impersonates a police officer.
.357	-.085	.147	.065	.082	<u>.568</u>	.490	-0.5744	A person operates a car with a suspended driver's license.

Table 2 (Cont'd)

COMPONENT						h ²	\bar{x}	OFFENSE DESCRIPTIONS
I	II	III	IV	V	VI			
.246	.163	.317	.084	.224	<u>.471</u>	.466	0.4632	A person knowingly passes counterfeit money.
.089	.092	.110	.108	.115	<u>.461</u>	.266	0.1772	A person willingly commits perjury.
.246	.230	.269	.211	.114	<u>.436</u>	.433	0.5398	A person signs someone else's name to a check and cashes it.
.291	.077	.329	.153	.092	<u>.435</u>	.420	0.0218	A person knowingly writes worthless checks.
.189	-.083	.127	.086	.142	<u>.424</u>	.267	-0.6277	A person operates a car without insurance coverage.
-.108	.129	-.012	.365	.069	<u>.411</u>	.335	0.8893	A government official intentionally obstructs the investigation of a criminal offense.
.070	.275	.333	.331	.262	.390	.522	0.8380	A person pays a witness to give false testimony in a criminal trial.
.342	.045	.349	.248	.091	.370	.448	-0.1671	A person uses false identification to obtain goods from a store.
.057	.145	.247	.327	.002	.356	.318	0.3373	A person intimidates a witness in a court case.
.021	.048	.180	.172	.054	.261	.136	-0.0631	A person turns in a false alarm.
.301	.106	-.022	.279	.154	.212	.246	-0.0722	A person shows pornographic movies to a minor.
.016	.297	.049	-.195	.111	.106	.153	1.2752	A person assassinates a public official.
.249	-.108	.260	.261	-.008	.267	.281	-0.8563	A person disturbs the neighborhood with loud, noisy behavior.
.000	.320	-.027	.096	.209	.173	.186	1.4960	A person plants a bomb in a building.
.083	.103	.178	-.033	.334	.252	.225	0.6141	A person commits treason.
.233	.189	.224	-.053	.095	.336	.235	0.1418	A person possesses an illegal weapon.
.299	.277	.255	.064	-.071	.204	.282	0.0930	A person threatens someone with bodily harm.
.343	.280	.289	.211	-.183	.054	.360	-0.1346	A person runs his hands over a woman's body, then runs away.
.052	.311	.196	.209	.158	-.081	.213	1.0690	A person forces another to engage in a homosexual act.
.122	.274	.047	.294	.284	.240	.317	1.1234	A person practices medicine without a license.
.342	.077	.243	.291	-.034	.218	.315	-0.3871	A person refuses to pay alimony.
.141	.300	.339	.046	.116	.071	.246	0.7081	A person threatens someone's life.
.245	.222	.280	.219	.264	.316	.406	0.5183	A person embezzles company money.
.154	.140	.292	.324	.297	.112	.334	0.6030	A person drives a car while drunk.
.356	-.088	.081	.224	.105	<u>.543</u>	.498	-0.5258	A person uses someone else's driver's license.
.365	.113	.067	.130	.355	<u>.516</u>	.559	0.3112	A person uses a forged prescription to obtain drugs.
.327	.067	.323	-.016	.107	<u>.478</u>	.456	-0.4333	A person knowingly buys stolen property.

Note: Loadings $\geq .40$ underlined.

Table 3

Summary of Principal Components Solution

162 Items, N = 519

UNROTATED SOLUTION

Component:	I	II	III	IV	V	VI
Eigenvalue	44.51	10.27	5.88	5.65	3.80	3.73
Cum % of Variance Explained	27.48	33.82	37.45	40.32	42.67	44.97

VARIMAX ROTATED SOLUTION

Component	I	II	III	IV	V	VI
Eigenvalue	16.81	9.52	19.38	9.71	9.52	7.90
Cum % of Variance Explained	10.38	16.26	28.22	34.21	40.09	44.97

Table 4

PRINCIPAL COMPONENTS SOLUTION - 162 OFFENSE DESCRIPTIONS

(N = 519)

COMPONENT							R ²	X	OFFENSE DESCRIPTIONS
I	II	III	IV	V	VI				
<u>.782</u>	.126	.179	.171	.028	-.021	.689	-.0231		A person steals something from a parked car.
<u>.773</u>	.150	.164	.116	.075	.082	.673	0.0937		A person breaks into a store and with no one else present, steals something.
<u>.759</u>	.197	.123	.105	-.010	-.045	.644	-0.1706		A person steals merchandise from a store while the owner is not looking.
<u>.740</u>	.149	.172	.222	.085	.059	.660	0.1401		A person breaks into and enters a store.
<u>.732</u>	.240	.155	.156	.120	.047	.659	-0.1391		A person breaks into and enters a building.
<u>.715</u>	.108	.283	.189	.031	.084	.647	0.3169		A person trespasses on private property and steals something.
<u>.714</u>	.156	.173	.148	.002	.058	.590	-0.1071		A person attempts to break into a building, but runs away when a police car approaches.
<u>.703</u>	.127	.219	.083	.032	.092	.575	0.2294		A person steals money from a store while the owner is not looking.
<u>.701</u>	.105	.190	.128	.083	.204	.604	0.3857		A person breaks into a private residence and with no one else present, steals something.
<u>.699</u>	.136	.215	-.017	.097	.248	.625	0.1207		A person breaks into a building and with no one else present, steals something.
<u>.692</u>	.219	.213	.073	-.023	.063	.582	-0.0573		Without breaking into or entering a building and with no one else present, a person steals something.
<u>.661</u>	.170	.199	.013	-.004	.062	.510	0.0082		A person steals a car.
<u>.625</u>	.121	.300	.261	.041	.090	.573	0.3586		A person breaks into and enters a private residence.
<u>.614</u>	.144	.207	.276	-.014	.024	.517	0.0865		A person picks someone's pocket.
<u>.610</u>	.369	.138	.099	.130	.071	.558	-0.0753		A person knowingly sells stolen goods.
<u>.597</u>	.071	.285	.102	.127	.277	.546	0.2498		A person vandalizes private property.
<u>.589</u>	.149	.330	.156	.068	.061	.511	0.3846		A person, using threats, robs a store.
<u>.588</u>	.126	.243	.181	-.069	.105	.469	-0.0123		A person attempts to rob someone but leaves when a police car approaches.
<u>.585</u>	<u>.400</u>	.085	.050	.071	.070	.521	-0.3760		A person possesses stolen property.
<u>.579</u>	.313	.195	-.003	.181	.073	.509	0.1439		A person loots a store in a riot.
<u>.570</u>	.140	<u>.403</u>	.131	.092	.043	.534	0.5366		A person, using force, robs a store.
<u>.568</u>	.144	.226	.386	.011	-.026	.544	0.2496		A person snatches someone's handbag.
<u>.568</u>	.114	.354	.187	.063	-.061	.504	0.4560		A person, using threats, robs someone.
<u>.535</u>	.245	.148	.229	.000	.154	.444	-0.0770		A juvenile takes a car for "joyriding."
<u>.524</u>	.177	.197	.011	.010	.333	.456	-0.1904		A person steals a car and abandons it undamaged.
<u>.519</u>	.224	.174	.166	-.028	.322	.481	0.1372		A person trespasses on public property and steals something.

Table 4 (Cont'd)

COMPONENT							X	OFFENSE DESCRIPTIONS
I	II	III	IV	V	VI	² h		
<u>.513</u>	.042	<u>.466</u>	.213	.068	.033	.533	0.5899	A person, using force, robs someone.
<u>.503</u>	.154	.263	.213	-.006	.292	.476	0.1245	A person vandalizes public property.
<u>.503</u>	.278	.175	-.041	.020	.344	.482	-0.0611	A person steals something from a public building.
<u>.497</u>	.162	.147	.091	-.053	.333	.416	-0.0881	A person attempts to break into a parked car, but runs away when a police car approaches.
<u>.475</u>	.095	.207	.284	.036	.149	.382	0.5395	A person steals a car and abandons it undamaged.
<u>.467</u>	.251	.261	.153	.296	.283	.540	0.4850	A person willingly helps another commit a crime.
<u>.459</u>	<u>.401</u>	-.056	.184	.191	.127	.461	-0.2344	A person smuggles goods to avoid paying import duties.
<u>.454</u>	.286	.078	.303	.121	.248	.462	-0.2287	A person uses false identification to obtain goods from a store.
<u>.442</u>	.230	.161	.356	.397	.221	.607	0.5396	A person knowingly cashes stolen payroll checks.
<u>.423</u>	.324	-.013	.167	.353	.267	.508	0.3249	A person prints counterfeit money.
<u>.418</u>	.322	.074	.252	-.013	.159	.373	-0.7877	A person trespasses on private property.
<u>.417</u>	.223	.168	.188	.317	.149	.409	0.4361	A person embezzles company money.
<u>.402</u>	.091	.097	.180	.229	.305	.357	0.2480	A person illegally receives monthly welfare payments.
.387	.267	.249	.290	.278	.212	.489	0.6927	A person pays someone to commit a crime.
.387	.223	.056	.256	.178	.288	.383	0.0160	A person knowingly writes worthless checks.
.381	.163	.308	.322	.209	-.039	.416	0.5952	A person blackmails someone.
.373	.328	.184	.071	.134	.048	.306	-0.2272	A person joins a riot.
.371	.316	.158	.142	.296	.237	.427	0.2285	A person conceals the identity of someone known to have committed a serious crime.
.369	.272	.173	.278	-.242	-.012	.376	-0.6770	A person intentionally shoves or pushes someone.
.170	<u>.728</u>	.024	.010	.130	-.053	.579	-1.0690	A person possesses marijuana.
.134	<u>.721</u>	.041	.002	-.096	.156	.573	-0.8007	A woman engages in sexual acts in return for money.
.095	<u>.713</u>	.044	.092	.178	-.010	.560	-0.7184	A person sells marijuana.
.126	<u>.710</u>	.086	.150	.393	.070	.710	-0.0302	A person possesses hallucinogenic drugs.
.056	<u>.710</u>	.107	.121	.340	.112	.661	-0.0576	A person illegally uses barbiturates ("downers") or amphetamines ("uppers").
.192	<u>.709</u>	.035	.001	.095	-.068	.555	-1.2127	A person uses marijuana.
.182	<u>.707</u>	.049	.107	-.040	.158	.573	-0.5423	A person solicits for prostitution.
.101	<u>.689</u>	.157	.099	.350	.143	.662	0.0192	A person illegally possesses barbiturates ("downers") or amphetamines ("uppers").

Table 4 (Cont'd)

COMPONENT						²		OFFENSE DESCRIPTIONS	
I	II	III	IV	V	VI	h	\bar{x}		
.154	<u>.674</u>	-.034	.025	-.054	.043	.484	-1.0915	A person is a customer in a house of prostitution.	
.090	<u>.672</u>	.013	-.056	-.092	.322	.575	-0.7642	A person engages in sexual acts in return for money.	
.315	<u>.651</u>	.016	.267	.005	.062	.598	-0.8534	A person buys liquor illegally.	
.107	<u>.631</u>	.133	.202	<u>.471</u>	.024	.689	0.2791	A person illegally sells barbiturates ("downers") or amphetamines ("uppers").	
.191	<u>.622</u>	.065	.005	.011	.056	.431	-0.2839	A person engages in homosexual acts in return for money.	
.128	<u>.621</u>	.098	.131	.342	.044	.547	0.1365	A person uses heroin.	
.289	<u>.612</u>	-.032	.165	.125	.161	.528	-0.4224	A person runs an illegal gambling operation.	
.097	<u>.594</u>	.061	.146	.294	.216	.520	-0.0163	A person uses hallucinogenic drugs.	
.057	<u>.587</u>	.101	.156	<u>.541</u>	.044	.676	0.2723	A person sells hallucinogenic drugs.	
.175	<u>.574</u>	.046	<u>.435</u>	.127	.048	.570	-0.2758	A person gives liquor to a minor.	
.047	<u>.569</u>	.132	-.004	.218	.312	.488	-0.0552	A person gives illegal drugs to an acquaintance.	
.270	<u>.566</u>	.039	<u>.428</u>	.057	.070	.586	-0.5391	A juvenile illegally possesses liquor.	
.283	<u>.566</u>	.096	.271	.050	.185	.520	-0.4393	A person sells liquor illegally.	
.049	<u>.554</u>	-.000	-.016	-.032	.365	.444	-0.3258	A person runs a house of prostitution.	
.141	<u>.552</u>	-.077	-.087	-.084	-.060	.349	-1.2507	Two people willingly engage in a homosexual act.	
.164	<u>.544</u>	.154	.121	<u>.434</u>	.168	.578	0.2818	A person possesses heroin.	
.205	<u>.533</u>	-.054	-.013	-.018	.376	.470	-0.8682	A person participates in illegal gambling.	
.390	<u>.518</u>	-.012	.213	-.146	-.135	.505	-1.1458	A person is drunk in public.	
.122	<u>.516</u>	.111	.236	.250	<u>.400</u>	.572	0.2449	A person uses a forged prescription to obtain drugs.	
.092	<u>.508</u>	.049	.171	-.150	-.003	.321	-0.8184	A person commits adultery.	
.426	<u>.501</u>	-.062	.158	.041	.012	.463	-0.7369	A person possesses burglary tools.	
.365	<u>.484</u>	-.118	.348	-.084	.015	.510	-1.1282	A juvenile breaks a curfew law.	
.368	<u>.482</u>	-.087	.156	.078	.094	.415	-0.5786	A person joins a prohibited demonstration.	
.171	<u>.453</u>	.011	.385	.014	.257	.449	-0.1008	A person sells liquor to minors.	
.238	<u>.450</u>	-.123	.276	-.162	.145	.398	-1.2570	A person loiters in a public place.	
.127	<u>.444</u>	.124	.330	-.062	.151	.364	-0.1878	A person exposes his genitals in public.	
.348	<u>.443</u>	-.098	.232	-.039	.108	.394	-1.1288	A person refuses to pay parking fines.	
.002	<u>.418</u>	.221	-.088	.375	.196	.410	1.0073	A person sells large quantities of illegal drugs.	
.314	<u>.401</u>	.087	.136	.203	.283	.406	-0.0260	A person willingly hides someone who has committed a crime.	
.294	.392	.083	.104	.082	.213	.311	-0.4251	A person knowingly buys stolen property.	

CONTINUED

2 OF 3

Table 4 (Cont'd)

I	II	III	COMPONENT			h^2	\bar{x}	OFFENSE DESCRIPTIONS
			IV	V	VI			
.106	.351	.177	.058	-.081	-.053	.178	-0.2083	A person, upon arriving home, kills a suspected burglar.
.201	.022	<u>.678</u>	.021	.013	-.060	.505	1.3256	A person stabs someone with a knife.
.217	-.010	<u>.637</u>	.266	.057	-.114	.539	1.3072	A person forces a woman to submit to sexual intercourse, then flees with property belonging to her.
.161	.015	<u>.625</u>	.255	.035	-.100	.493	1.2840	A person forces a woman to submit to sexual intercourse.
.201	.056	<u>.595</u>	-.111	.055	-.048	.416	1.3655	A person kills someone during a serious argument.
.102	-.089	<u>.596</u>	.169	.121	.013	.417	1.4681	A person intentionally injures someone who, as a result, dies.
.182	.078	<u>.577</u>	-.033	-.211	.139	.437	0.6990	Without using a weapon, a person beats someone.
.093	.002	<u>.575</u>	.278	.054	.064	.423	1.3264	A person sexually assaults a woman.
.150	.069	<u>.562</u>	.022	.090	-.012	.352	1.4460	A person shoots someone with a gun.
.225	.107	<u>.556</u>	.133	-.028	.250	.452	0.8778	A person strikes someone with a blunt instrument.
.195	-.001	<u>.553</u>	.100	.256	-.077	.426	1.3476	A person kidnaps someone.
.270	.068	<u>.548</u>	.161	-.041	.089	.413	1.2141	A person fires a gun at someone.
.059	-.001	<u>.546</u>	.099	-.104	.254	.387	1.3782	Without using a weapon, a juvenile beats someone.
.167	.095	<u>.544</u>	-.018	.050	-.076	.342	1.1791	A person kills someone during a barroom free-for-all.
.183	.006	<u>.519</u>	.033	.158	.017	.329	1.4427	A person plans to kill someone for a fee.
.143	.019	<u>.509</u>	.256	-.115	-.089	.367	0.8205	Without using a weapon, a person beats his wife.
.243	.025	<u>.495</u>	.118	.201	.056	.362	1.2993	A person sets fires to a building.
.160	.046	<u>.487</u>	.187	.065	-.004	.304	1.0493	A person forces another to engage in a homosexual act.
.068	.065	<u>.470</u>	.214	-.061	.135	.297	1.2170	A person kills someone by recklessly driving an automobile.
<u>.446</u>	.049	<u>.462</u>	.217	.167	.169	.519	1.0491	A person, armed with a weapon, robs a store.
.171	.316	<u>.458</u>	.101	-.227	.202	.441	0.1120	A person threatens someone with bodily harm.
<u>.431</u>	.051	<u>.450</u>	.202	.159	.098	.466	0.9340	A person, armed with a weapon, robs someone.
.313	.238	<u>.446</u>	.090	-.003	-.026	.362	0.7445	A person threatens someone's life.
<u>.408</u>	.134	<u>.443</u>	.094	.311	.052	.489	1.0376	A person, armed with a weapon, robs a bank.
.027	.069	<u>.415</u>	-.046	-.030	.138	.200	0.8143	Without using a weapon, the parent of a young child beats it.
.187	-.048	<u>.400</u>	-.004	.217	.235	.299	1.5323	A person plants a bomb in a building.
.150	-.033	.399	.129	.168	.129	.245	1.5069	A person sets fire to an occupied building.
.054	.151	.395	.283	.107	.108	.285	1.1683	A person tries to entice a minor into a car for sexual purposes.

Table 4 (Cont'd)

COMPONENT							X	OFFENSE DESCRIPTIONS
I	II	III	IV	V	VI	² h		
-.025	-.087	.369	-.117	.060	.140	.181	1.4330	A person impulsively kills a stranger.
.300	.015	.352	-.004	.261	.072	.287	1.1618	A person hijacks an airplane.
.060	.117	.054	<u>.718</u>	-.027	.102	.547	0.6669	A real estate refuses to sell a house to a person because of that person's race.
.087	.106	.120	<u>.694</u>	-.024	.140	.535	0.7335	An employer refuses to hire a qualified person because of that person's race.
.121	.094	.200	<u>.694</u>	-.058	.091	.556	0.7726	A person attempts to prevent someone from attending a public school because of that person's race.
.221	.256	.063	<u>.555</u>	.034	-.032	.428	-0.0244	A juvenile is beyond parental control.
.264	.066	.027	<u>.545</u>	.065	.094	.386	-0.0324	A person knowingly gives false information when advertising a product.
.172	.019	.235	<u>.530</u>	.088	.109	.394	0.8876	A police officer knowingly makes a false arrest.
.141	.379	.010	<u>.507</u>	-.052	<u>.083</u>	.431	-0.5563	A juvenile repeatedly runs away from home.
.320	-.050	.110	<u>.503</u>	.192	.163	.439	0.8163	A public official takes public funds for personal use.
.210	.438	-.061	<u>.501</u>	.019	.064	.495	-0.4494	A juvenile is repeatedly truant.
.202	.145	.267	<u>.497</u>	.106	.056	.395	0.7449	A person endangers the lives of others through negligent property maintenance.
.131	-.020	.263	<u>.472</u>	.088	.053	.320	1.0225	A manufacturer knowingly endangers lives by polluting the water supply.
.024	.101	.345	<u>.466</u>	.071	-.001	.352	1.1415	A parent of a young child neglects to care for it.
.303	.113	.118	<u>.461</u>	-.013	.008	.331	-0.1368	A person fixes prices on a consumer product.
.189	.049	.135	<u>.455</u>	.292	.145	.369	0.6839	A public official accepts bribes in return for favors.
.330	.076	.236	<u>.455</u>	.032	.184	.412	0.6596	A person, involved in an automobile accident, leaves the scene.
.321	.173	.056	<u>.438</u>	.290	.163	.438	0.4808	A doctor cheats on claims made to a health insurance plan for patient services.
.185	.144	.321	<u>.434</u>	.208	.131	.407	0.9791	An employer orders an employee to commit a serious crime.
.165	.238	.249	<u>.418</u>	-.033	-.007	.321	0.6269	A person drives a car while drunk.
.371	.165	.095	<u>.409</u>	.251	.179	.436	0.4659	A person bribes a public official to obtain favors.
.140	-.049	.394	.395	.210	.081	.384	1.2043	A producer knowingly endangers lives by marketing contaminated products.
.320	.336	.137	.392	-.034	.053	.392	-0.3046	A person makes obscene phone calls.
.340	.311	.124	.391	.220	.055	.432	0.1181	A person lends money at illegal interest rates.
.319	.104	.205	.368	.321	.302	.484	0.7806	A person pays a witness to give false testimony in a criminal trial.
.062	.253	-.060	.353	-.067	.261	.269	-0.5059	A person has no residence and no visible means of support.

Table 4 (Cont'd)

COMPONENT							X	OFFENSE DESCRIPTIONS
I	II	III	IV	V	VI	² h		
.095	<u>.473</u>	.135	.225	<u>.611</u>	.004	.689	0.7013	A person manufactures large quantities of illegal drugs.
.112	<u>.535</u>	.082	.190	<u>.575</u>	.076	.678	0.5637	A person smuggles large quantities of illegal drugs.
.062	<u>.489</u>	.188	.166	<u>.512</u>	.033	.570	0.7598	A person sells heroin.
.167	.329	-.085	.221	.054	<u>.531</u>	.476	-0.5367	A person uses someone else's driver's license.
.247	.331	-.057	.206	.013	<u>.530</u>	.497	-0.6211	A person operates a car with a suspended driver's license.
.241	.105	.090	.152	.107	<u>.503</u>	.365	0.3198	A person impersonates a police officer.
.254	.158	.159	.299	.144	<u>.413</u>	.396	0.5956	A person signs someone else's name to a check and cashes it.
.374	.222	.137	.197	.251	<u>.405</u>	.474	0.3923	A person knowingly passes counterfeit money.
.084	.151	-.014	.118	-.001	<u>.404</u>	.207	-0.6306	A person operates a car without insurance coverage.
.346	.276	.167	.052	.024	.373	.367	-0.3395	A person resists arrest.
.189	.293	-.020	.222	-.215	.355	.343	-0.9074	A person disturbs the neighborhood with loud, noisy behavior.
.173	.044	.068	.109	.148	.350	.193	0.1640	A person willingly commits perjury.
.037	.051	.030	.258	.104	.244	.142	0.0003	A person turns in a false fire alarm.
-.051	.340	.115	.301	.021	.336	.335	-0.0659	A person shows pornographic movies to a minor.
.130	-.022	.272	-.323	.160	.087	.228	1.2300	A person assassinates a public official.
.105	-.064	.181	.261	.153	.296	.227	0.8308	A government official intentionally obstructs the investigation of a criminal offense.
.102	-.012	.091	-.068	.244	.170	.116	0.6418	A person commits treason.
.247	.276	.217	-.082	-.022	.261	.260	0.1876	A person possesses an illegal weapon.
.237	.234	.306	.297	-.203	.214	.380	-0.2595	A person runs his hands over a woman's body, then runs away.
.216	.032	.257	.316	.095	.318	.324	0.3610	A person intimidates a witness in a court case.
-.083	.269	.195	.273	.186	.180	.259	0.4772	A person commits incest.
.058	.148	.314	.336	.161	.161	.289	1.0759	A person practices medicine without a license.
.340	.258	.234	.161	.111	.334	.387	0.0555	A person interferes with a police officer.
.215	.329	.011	.337	.031	.069	.274	-0.4380	A person refuses to pay alimony.
.113	-.042	.339	.060	-.059	-.209	.180	1.3092	A person shoots and kills someone who resists an armed robbery.

Note: Loadings $\geq .40$ underlined

END