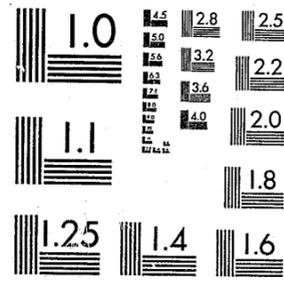


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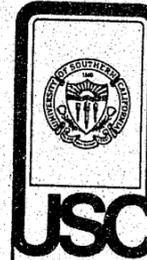
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Final Report

Exploring Guidelines for Specific Deterrence Theory:
Early Sanctions in the Juvenile Justice System

Malcolm W. Klein and Sarnoff A. Mednick
Principal Investigators

with
Lawrence Panciera
Terrie E. Moffitt
Kathleen Shields

Social Science Research Institute
University of Southern California

This research was supported under grant 80-IJ-CX-0055 from the National Institute of Justice. Points of view are those of its authors and do not necessarily reflect the position of the U.S. Department of Justice.

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ACQUISITIONS

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Foreword

This final report is divided into five somewhat discrete sections, mirroring the specification of products promised in the original proposal. Quoting from page 51 of that document, we proposed:

...formulation of an initial theoretical framework, distinguished from the paradigm (in the grant proposal) by specification of interrelationships among variables and by hypothecation of dominant causal relationships (which) will constitute the primary product of this completed grant. Useful by-products will include extensive, focused bibliographies, summaries of statutory and operational principles of police sanctioning, and an archive of data sets appropriate to one-time vs. multiple offender comparisons.

Section I of this report consists of the continuation proposal (unamended) submitted to the National Institute of Justice. It offers an integrated conceptual scheme for understanding and investigating the effects of early police sanctions on juvenile delinquency careers. For short-hand convenience, the scheme is referred to as Sanction Sensitivity Theory and is based upon our work during the grant period and upon materials included in Sections II through V of this report.

Included on pp. 46 to 49 is a preliminary listing of the appropriate data sets for studying sanction sensitivity issues. Further work on this topic has been done since the time of the proposal preparation. The interested reader should note the following comments in considering this part of Section I.

Given the additional review of available data sets, our choices for further study are rather clear. The variables of interest to us (left hand side of figure A-1) suggest three data sets are most useful. These are Shannon, Kobrin and Klein, and Mednick. The Mednick set, not listed in Section I, is the only one to include neurophysiological variables important to the inhibitory process. The Shannon and the Kobrin and Klein data sets are most inclusive of the post-arrest variables.

A second, or backup, group of data sets will be those of Polk and of Elliott and Voss. Their greatest weakness is in having limited, dichotomous measures of police dispositions; the first three are less limited in this regard.

Overall, our final choices have been made on the basis of number of relevant variables, cohort size, disposition alternatives, inhibitory measures, and commonness of measures. The numbers involved are Shannon, two cohorts with 889 interviewees; Kobrin and Klein, 4006 cases with 951 interviewees; Mednick, 129 cases; Polk, 1227 cases with 491 interviewees; Elliott and Voss, 2617 interviewees.

Commonality of specific measures across the five data sets is as follows:

1. SES: Mednick, Shannon (Duncan SEI Scale), Kobrin and Klein (NORC Occupational Classification), Elliott and Voss (Hollingshead), and Polk all employ occupational indices easily convertible to common categories.

2. Ethnicity: all but Mednick (no variation) can be

VARIABLES	Primary			Secondary		PBC	SC	CS	NS	FRP	DATA SETS
	RBC	DSO	DBC	SDC	OC						
SES ¹	X	X	X	X	X	X	X	X	X	X	RBC = Racine Birth Cohort (Shannon) DSO = Deinstitutionalization of Status Offenders Program Evaluation (Kobrin and Klein) DBC = Danish Birth Cohort (Mednick) SDC = San Diego Cohort (Elliott and Voss) OC = Oregon Cohort (Polk) PBC = Philadelphia Birth Cohort (Wolfgang) SC = Stockholm Cohort (Janson) CS = Cambridge Study (Farrington) NS = National Survey (Wadsworth) FRP = Family Research Project (Simcha-Fagan)
ETHNICITY	X	X	X	X	X	X	X	X	X	X	
PRIOR ARREST EXPOSURE	X			X	X			X			
IQ			X	X	X	X	X	X	X		
EEG			X								
ANS			X								
FAMILY STABILITY	X	X	X	X		X	X	X	X	X	
FAMILY DISCIPLINE	X		X				X	X		X	
PEER NORMS	X	X			X						
STAKE IN CONFORMITY	X	X	X	X	X	X	X	X	X		
DISPOSITION	X	X	X	X	X	X	X	X	X		
EMOTIONAL RESPONSE TO ARREST ²	X					X					
PERCEPTION OF FAIRNESS											
PERCEPTION OF PUNITIVENESS											
EXPECTATIONS OF PUNISHMENT											
IMPULSE CONTROL			X								
SELF-CONCEPT ³	X	X		X		X					
ATTITUDES TO LAW		X		X	X						
ATTITUDES TO AUTHORITY	X	X									
PERCEPTION OF ARREST RISK	X	X									
SELF-REPORT DELINQUENCY	X	X		X	X	X		X			
OFFICIAL ARREST RECORD	X	X	X	X	X	X	X	X	X	X	

Figure A1: THEORY RELEVANT VARIABLES IN SELECTED DATA SETS

1 = Sanction Sensitivity Variables
2 = Immediate Youth Response to Encounter Variables
3 = Subsequent Youth Response Variables

collapsed into White, Black, and Hispanic categories, with Elliott and Voss and Kobrin and Klein adding Asian.

3. Prior Arrest Exposure: Shannon and Elliott and Voss share two items, one on friends in trouble with the law and one on level of delinquency in the neighborhood.

4. I.Q.: well-correlated test scores are available in Mednick, Elliott and Voss, and Polk.

5. Family Stability: directly comparable categories of parental and alternative adult combinations are available in all five principal data sets.

6. Peer Norms: Kobrin and Klein, Shannon, and Polk include comparable items on friends in trouble at school and with the law. Kobrin and Klein deliberately employed the Polk approach.

7. Stake in Conformity: comparable items on importance of school activities and educational norms are found in Kobrin and Klein, Shannon, Elliott and Voss, and Polk. Mednick includes social worker judgments on these issues. Job valence is contained in all but Polk.

8. Dispositions: all include, at a minimum, release vs. system referral. Kobrin and Klein, Shannon, and Mednick contain at least four levels of sanction severity; Shannon and Kobrin and Klein include six.

9. Self-Concept: comparable measures of delinquent self-concept are contained in Kobrin and Klein, Shannon, and Elliott and Voss. Kobrin and Klein and Shannon have conformist self-concept measures, but they are quite

different in form.

10. Self-Report Measures: all but Mednick and Polk include a self-report measure. While each is different, a minimum of ten common offenses is contained in the other three data sets, Elliott and Voss having the fewest. Kobrin and Klein and Shannon, the most inclusive, have 29 and 19 items each.

11. Official Arrest: all data sets include police arrest measures, each set having numbers, date of arrest, and specific offense charges. In the Mednick set, official arrests commence at age 15, while other sets have no lower limit.

Section II takes up where our proposal stopped on the question of the relevance of learning theory principles and findings to police sanction processes. Principles of stimulus intensity, temporal proximity, availability of rewards (positive sanctions), schedule of sanction delivery, and alternative responses are applied to an analysis of the police/juvenile encounter, and suggestions made for bridging some of the gaps noted in the review.

Section III amplifies the findings and implications of both the specific deterrence theory and labeling theory of early sanctions. Specific limitations of currently available research are noted in some detail, especially as the research might relate to the potential effectiveness of police/juvenile encounters.

Section IV contains two parts. In the first, we report

on a search of selected state statutes which provide the ambiguous legal context within which police sanctioning of juveniles takes place. In the second, we report findings of the actual police practice and its organizational context within those selected states. Discrepancies between statute and practice are noted, as are the implications of both for application of sanctions deemed to be punishing.

Section V reports two studies, carried out on the Danish sets, of various social and physiological precursors of one-time and multiple juvenile offenders. These analyses were pointed toward the issue of sanction sensitivity, rather than delinquency etiology. The results clearly emphasize the relevance of these precursor variables to sanction sensitivity and raise suggestions for additional directions of research.

A CONCEPTUAL SCHEME FOR SPECIFIC DETERRENCE THEORY:
TESTING SANCTION SENSITIVITY TO EARLY SANCTIONS IN
THE JUVENILE JUSTICE SYSTEM

Malcolm W. Klein and Sarnoff Mednick

Section I of the Final Report
of Grant 80-IJ-CX-0055:*
Exploring Guidelines for Specific
Deterrence Theory: Early Sanctions
in the Juvenile Justice System

*This research was supported under this grant from the National Institute of Justice. Points of view are those of its authors and do not necessarily reflect the positions of the U.S. Department of Justice.

A Conceptual Scheme for Specific Deterrence Theory:
Testing Sanction Sensitivity to Early Sanctions in
the Juvenile Justice System

Abstract

This proposal is concerned with the control of delinquent careers through understanding the effects of the first sanctioning encounter between police and juvenile suspects. Its purpose is to test the validity of a developing specific deterrence theory in delinquency.

For the past year, the research team has employed bibliographic research, legal analyses, a survey of police practices, and pilot analyses of cohort data to develop a conceptual scheme for understanding levels of effectiveness of first arrest encounters with juveniles. The conceptual scheme, fully explicated in the proposal, stresses constructs having to do with (a) juveniles' sensitivity to police sanctions, (b) alternative police dispositions, (c) behavioral and cognitive intervening processes, and (d) the inhibition or generation of further arrests.

Research activities will include (a) structured observations of police/juvenile encounters, (b) alternative statistical approaches to establishing two hypothesized forms of sanction sensitivity, and (c) a path analytic approach to a causal model explicit in the conceptual scheme. The latter two sets of analyses will be carried out on a selection of longitudinal data sets being made available by a number of original investigators.

The products of this research should include a modified and more fully specified model of the specific deterrence process for

juveniles and a set of practical implications for delinquency control at the point of first arrest. Guidelines for a longitudinal test of the model and these practical implications should also emerge from the proposed research.

A Conceptual Scheme for Specific Deterrence Theory:
Testing Sensitivity to Early Sanctions in the
Juvenile Justice System

INTRODUCTION

This proposal constitutes the second step in a program of research designed to yield an empirically testable and generalizable crime control theory specifically related to early sanctioning (first arrest and disposition) of juvenile offenders. Such a theory will have direct application to police responses to first-time offenders. The first step is being concluded under a sixteen month NIJ grant of an expressly exploratory nature. It was the premise of the first grant proposal that a good deal of exploratory conceptualization, research, and literature review was needed prior to undertaking analyses of data directly related to early sanctioning questions.

This current proposal, based on the ongoing activities under the first grant, is the logical continuation of our research aims. Thanks to the first grant, we are now positioned to accomplish two goals. First, we can transform the earlier "Sensitizing Paradigm of Relevant Variables in Early Sanctioning" (Pg. 39, first proposal) into a more refined conceptual scheme in which paradigm variables are added and deleted and organized into a set of proposed causal relationships. In this proposal, we offer the first presentation of this conceptual scheme. It will serve as the first iteration of an early sanctioning theory, and will provide guidelines for the data analyses we propose to

undertake in the requested year of support.

The second goal is to undertake analyses of data relating directly to early sanctioning of juvenile offenders. These analyses will take several forms, all of them designed to illuminate variables differentiating between one-time-only and multiple offenders, i.e., those for whom an early sanction (first arrest) may have served as a deterrent or a contributor to further arrests.

One set of analyses will be carried out on existing longitudinal data sets located under the first grant and offered to us by the original investigators. Included here will be four analytic approaches to testing the efficacy of the concept of "Sanction Sensitivity". These will be followed by a path analytic approach to the several data sets with the goal of testing and modifying a causal model relating sanction sensitivity to recidivism.

Another analysis will derive from a proposed set of observations of in-station encounters between police and first-time and multiple juvenile offenders. These observations will help to fill in the most glaring gaps in studies related to our conceptual scheme, those specifically oriented to differential police discretion applied to first-time versus repeat juvenile offenders.

In the pages to follow, we will use our proposed conceptual scheme to organize the materials being presented. It is important to keep in mind that this scheme is now emerging from work under the first grant; not only is it subject to

modification, but modification is an explicit purpose of our proposed research. Also, it is important to keep one or two other points in mind.

First, because of our concentration on the crime control aspects of early official sanctioning, our conceptual scheme is not put forward as an etiological framework in the usual tradition of delinquency theories, (e.g. Elliott et al., 1979; Hirschi, 1969). Rather, we are concerned with understanding variables operational in the sanctioning and the post-sanctioning deterrence arena, i.e. at the point in the justice system where police may have their greatest impact on truncating developing careers of delinquency.

Additionally, the conceptual scheme is different from our analytic intentions. Under the proposed grant, we cannot attempt to test the scheme as a fully comprehensive theoretical structure. Rather we will use the scheme to guide us in selecting specific analyses for theory-building purposes. A number of variables specified in the conceptual scheme are included in the data sets available to us, but many others are not. The ultimate, comprehensive test of the emerging theory must eventually involve a prospectively designed, longitudinal experiment with random or matched assignment of first-time offenders to alternative police dispositions. We are building toward that ultimate ideal by undertaking the research proposed in the following pages, and by explicitly refining the early sanctioning conceptual scheme as it emerges from our work.

Alternative Paradigms of Response to Delinquency

It is useful to recognize three relatively independent paradigms of approaches to delinquency of the 1970-1980 period, the Paternalistic, the Liberationist, and the Neo-Classical paradigms. We will characterize these very briefly as to philosophy, youth populations of interest, and supportive data.

The Paternalistic paradigm assumes the vulnerability, dependence, and nonculpability of adolescents. Their lack of competence calls forth a protective adult response to misbehavior. The paternalists concern themselves most particularly with dependent and neglected youth and with some status offenders and unsophisticated delinquents. The paternalists are the prime movers behind the increased thrust for expanding the family court as opposed to juvenile court.

Paternalists have stressed primary prevention and early intervention to forestall delinquency. Available data do not provide support for the efficacy of their position and, in some instances, suggest deleterious effects through labeling processes. Family counseling and foster care have been among the preferred treatment approaches, and available data provide a very mixed level of support for these approaches, ranging from slightly deleterious to somewhat promising for narrow categories of offenders (see the reviews by Lipton et al.; 1975; Sechrest et al., 1979; Klein, 1979).

The Liberationalist paradigm is an outgrowth of the children's rights movement, in combination with an acknowledgment that today's adolescents are qualitatively different from those

of prior decades. The hallmarks of this paradigm are the provision of adultlike rights for adolescents and increased recognition of their physical and social competence. Targets of their concern tend to be runaways, some incorrigibles, and minor cases of delinquency in preference to serious cases of delinquency. Liberationists are the most vocal proponents for removal of juvenile court jurisdiction over status offenders and the provision of independent legal representation for juveniles (see Empey, 1978).

Recent treatment approaches favored by liberationists have included deinstitutionalization and diversion, but evidence for the utility of these approaches, beyond their mere advantages in humaneness, indicate failures in both program implementation and in salutary effects (Kobrin and Klein, 1981). A newer approach, restitution, is not yet well tested. Individual counseling has consistently failed to produce results, (Romig, 1978), while certain forms of residential treatment have shown a bit more promise (although the jury is still out on this approach; Teilmann and Peterson, 1981).

The Neo-Classical paradigm, sometimes in concert with a "just deserts" model of justice, stresses individual accountability for predatory acts and downplays the emphasis on age as an appropriate consideration. The focus is on the act and its consequences, not upon the actor. Neo-classicists focus on cases of serious offenses and repeat offenders. Their preference is to provide adult court proceedings and sentencing for adolescent criminals, emphasizing victims and protection of society in lieu

of rehabilitation. Treatment alternatives are down-played in favor of surveillance, incarceration, and personal accountability. The data on these approaches suggest mixed results, with more supportive evidence than most practitioners find comfortable (Empey and Lubeck, 1971; Murray and Cox, 1979).

These depictions of dominant paradigms serve to remind us that any approach to the handling or treatment of juvenile offenders is enmeshed in broader contexts of philosophy, politics, and views of life. The search for effective responses will be improved to the extent that we understand and account for these contexts. This point is particularly germane now because current thinking is moving away from Paternalism and into a bifurcation stressing Liberationist and Neo-Classical approaches. The former -- Liberationism -- has been poorly supported by data during its expansionist period. The failure of most diversion programs, in particular, is forcing us to look more carefully at the more punitive alternatives.

This, in turn, has led us to consider, as the epitome of the Neo-Classical approach at the juvenile level, the issue of early official sanctions for juvenile offenses, the so-called slap on the wrist in the form of initial juvenile arrests. Briefly, here is the quandary we may be in;

a. The review of relevant psychological literature under our first grant suggests that effectiveness of negative sanctioning depends heavily on such issues as temporal contiguity between act and sanction, on contingent punishment where the actor has some sense of the risk associated with the act, and on the substantive

identity of the act as committed and the act as defined for punishment.

b. The very nature of police response to delinquent acts conflicts with these principles. Temporal contiguity is usually absent, there is a poor relationship between acts and risk of detection and sanction, and act identity is often altered in the period between act and sanction. All this suggests that early police sanctions cannot be effective. The pivotal case is at the time of the first arrest.

c. Yet the common finding is that 50% of first arrests are not followed by further arrests. This 50% drop-off rate suggests the likelihood of significant characterological differences between one-time and multiple offenders related directly to being deterred by police-associated sanctions.

But our review of the criminological literature under the first grant suggests that an equally likely result of early sanctions is the initiation of the labeling process and the creation of even more delinquency. With both deterrence and generation of delinquency as likely outcomes of current arrest and disposition practices, it is difficult to suggest theoretically based guidelines for police activity with juveniles.

Deterrence and labeling seem to be opposite sides of the same coin. Our situation, as outlined above, yields a double paradox; the prerequisites of deterrence are defeated by the structure of the juvenile justice system, yet the results of early sanctioning

by that system indicate the the coin has landed with both sides face up!

There are some implications to be derived from such a message. The first, of course, is that we have a lot of thinking and research to do in order to understand what is going on and what might go on. Second, it may be that several academic and practitioner blind men have been handling different appendages of the delinquency elephant. Different perspectives, emphasizing different categories of delinquents, may have fostered the appearance of more conflict, of a greater paradox, than need be the case.

The First Proposal

In order for the reader to assess the status and aims of the current proposal, it may prove useful to review very briefly the overall content of its predecessor. The following comments do not constitute a report on work under the first grant; this proposal is being prepared prior to completion of that grant and therefore prior to the completion of its final report. But in describing movement from the original "Sensitizing Paradigm" to the current "Conceptual Scheme", we will refer to activities undertaken to date under the first grant.

The first proposal provided reviews of several areas of literature to suggest that (a) little is known about the effectiveness of early sanctions of juvenile offenders, (b) there is a disjuncture between what police can do by way of sanctioning and what learning theory suggests might be effective, and (c)

there are alternative conceptual approaches -- e.g., labeling, deterrence, genetic -- that suggest different outcomes from early sanctioning. The period of the first grant was designed to allow us to gather information which would position us favorably to undertake, with greater conceptual clarity, analyses of available data pertinent to these issues around early sanctioning.

Included in the activities of the first grant were the following:

- (a) highly focussed literature reviews in the areas of labeling/deterrence in juvenile delinquency and in the psychology of punishment, especially in relation to family discipline;
- (b) a review of extant state laws relating to police discretion in the handling of juveniles, especially first-time vs. repeat offenders;
- (c) a national survey of actual police practices in disposing of juvenile cases, again stressing first vs. repeat offenders;
- (d) an analysis of two sets of available Danish data relating perinatal and genetic variables to non-offending, one-time offending, and multiple offending juveniles;
- (e) location of available data sets which could be used under the follow-up grant to seek variables differentiating between one-time and multiple offenders (as exemplary of deterred and non-deterred offenders).

It is these sets of activities, along with some rather intensive staffing in a cross-disciplinary research team, which have brought us to the current proposal. The literature reviews are almost finished; the legal review has been completed; the

national police survey is underway, with substantial returns already in hand; the present analyses of the Danish data are close to completion; the determination of the best available data sets has been initiated; finally, the staff discussions resulting from all of this activity have led us from the sensitizing paradigm of the first proposal to the conceptual scheme of the present effort.

We present next the original sensitizing paradigm with a few explanatory comments because, quite frankly, it is important to us that readers understand where we started and what our general intentions were. The paradigm is no longer part of our conceptualization. It was an early attempt to express, for ourselves, some organization of the variables we felt to be critical to our interests in early sanctioning via police behavior. The variables were derived from our own research enterprises and our reading of the field. Both principal investigators have had extensive careers in criminological research, but this research, as a new and specific enterprise, resulted from papers delivered by each of the principal investigators at the invitation of the rehabilitation panel of the National Academy of Sciences, where it was recognized that a major need existed to develop theoretical and empirical guidelines pertinent to the early sanctioning of juvenile offenders.

The two horizontal sections of the paradigm represented the two contexts for selection of variables, one being the juvenile justice system and the other being the juvenile offender.

Figure 1: A Sensitizing Paradigm of Relevant Variable Categories in Early Sanctioning

	A	B	C	D	E	F
Context	Background	Structural Context	Learned Responses	Situational Context	Dispositions: Sanctioning Dimensions	Specific Deterrence, etc.
Juvenile Justice System	<p>Community Tolerance</p> <p>Community Treatment Potential: schools diversion agencies, etc.</p> <p>Police Training</p>	<p>Juvenile Statutes</p> <p>Police Juvenile Mechanism: bureau, relation to detectives</p> <p>Administrative Autonomy</p> <p>Coordination With Court</p>	<p>Fraternal vs. Professional Stance</p> <p>Police Perspectives on Causation</p> <p>Perceived Past Success with Disposition Options</p>	<p>Victim Pressure</p> <p>Perceived Danger</p> <p>Detention or Control Potential</p>	<p>Sanctioning Dispositions, from street warning to detention petitioning with or without public attention</p>	<p>Self-report delinquency</p> <p>Recidivism via re-arrest or more</p> <p>Self-concept change</p> <p>Altered attitudes toward law, authorities, peers</p>
Juvenile	<p>Prior Record; Number & Type of offenses</p> <p>Prior Dispositions</p>	<p>Autonomic Nervous System Sensitivity</p> <p>Genetic Factors</p> <p>Central Nervous System Reactiveness</p> <p>Intelligence</p> <p>Age</p> <p>Sex</p> <p>Race</p>	<p>Parenting Patterns: discipline, conformity, etc.</p> <p>Parental Attitudes</p> <p>Peer Norms</p> <p>Attitudes Toward Authority</p>	<p>Type of Instant Offense</p> <p>Contrition</p> <p>Perceived Fairness of police action</p> <p>Co-Subjects</p> <p>Expectations of Sanctions</p>	<p>Perceptions of Sanction severity, Fairness, relation to expectations</p>	

The emphasis on the juvenile justice system was not unique, but it was unusual when compared with most conceptions of offender deterrence. In our case, because we were concerned with early sanctioning in particular, it was the police variables which were selected out; i.e., we were interested in the earliest sanction, in the "front end" of the system.

Columns A and B, Background and Structural Context, listed variables thought likely to interrelate with normal police responses (Column C) and the context of any particular police/juvenile encounter (Column D) to yield the choice among available case disposition options. These latter were the practical operationalization of the early sanctions of direct concern.

In a like manner, the four columns, A through D, were designed to specify parallel variables in the juvenile's context that yielded reactions to the sanctions or dispositions resulting from the police encounter. We were, in truth, less certain of the logical and operational placement of some of these variables, but it was important that they be made explicit.

The end point of this paradigmatic exercise, of course, was in the suggestion that police sanctions and juvenile reactions to them (Column F) would be reflected in some crucial outcome variables, both behavioral and cognitive, as noted in Column F. This was as close to any causal attribution as we cared to venture in connection with the paradigm. It was, as we noted, designed merely to sensitize us to variables and relationships to be kept in mind as we pursued our preliminary activities in

information gathering.

From our point of view, the sensitizing paradigm has served its purpose well. It has been used to guide staff discussions of relevant literature, to suggest variables for inclusion in the review of statutory law and the survey of police practices, and to select variables in the Danish data to receive priority attention. However, we have now moved to a different conceptual level in which some variables are omitted, others added, and all are organized in terms of their functions and in terms of causal relationships. We will not specifically refer back to the paradigm.

The Early Sanctioning Conceptual Scheme

In the following pages, we present various facets of our emerging Conceptual Scheme. The scheme itself, and the exposition required, is quite complex. In order to deal with this complexity, we will present a series of five related arrow diagrams (Figures 2 through 6) as follows:

Figure 2: The constructs central to the conceptual scheme, without embellishment.

Figure 3: The full scheme, in which constructs are embellished by contributing variables and indicators.

Figure 4: The constructs limited to those for which measurable indicators are likely to be available and upon which analyses will be undertaken.

Figure 5: Contributing factors associated with selected measurable constructs in the scheme.

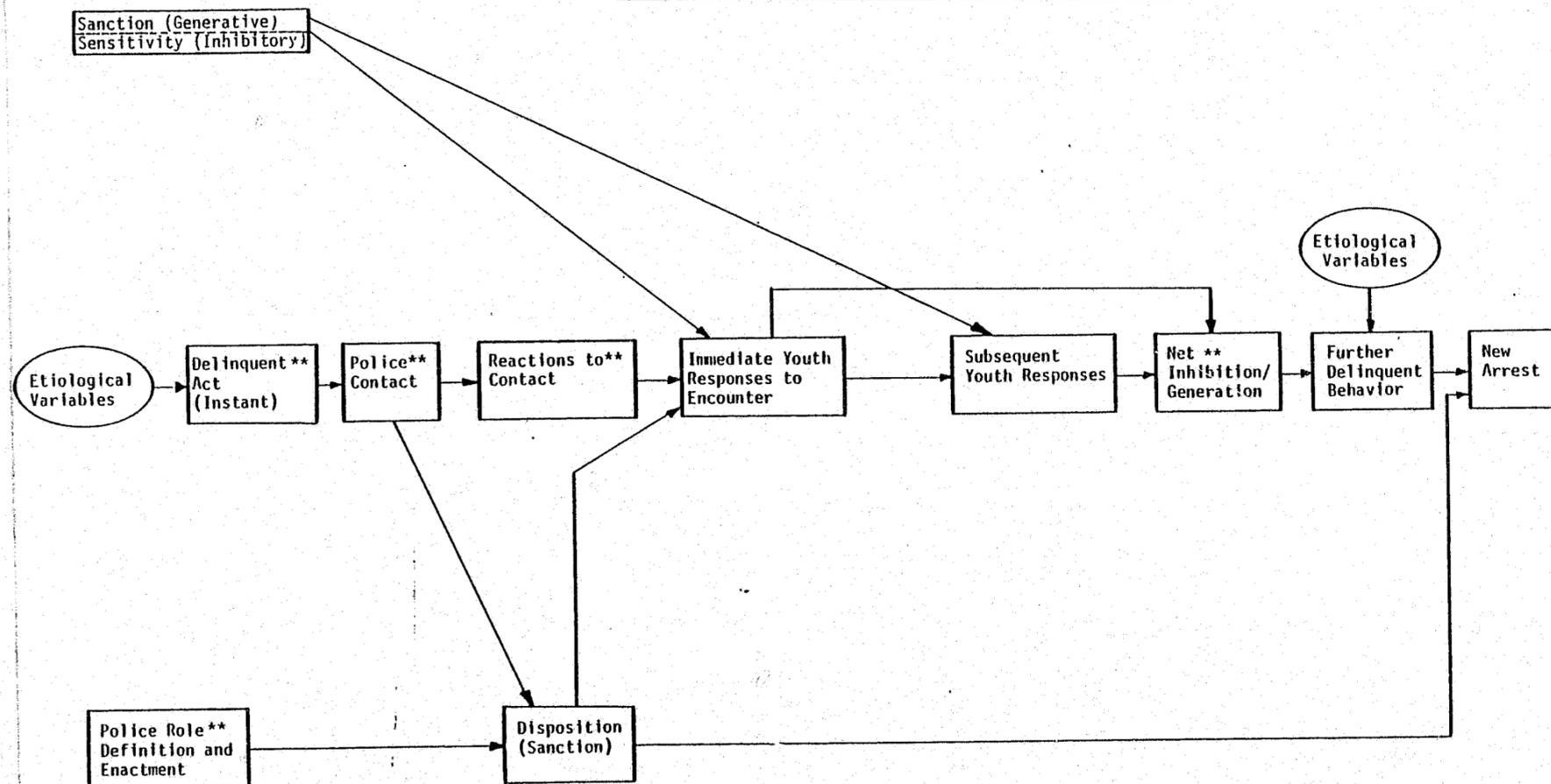
Figure 6: Expected indicators for selected measurable constructs in the scheme.

It is Figure 3 which contains all the elements of the scheme and all the components to be found in the other figures. However, Figure 3 is consequently quite complex, so we present Figure 2 first, containing the principal constructs, the conceptual framework for the ensuing discussion.

Figure 2 tells the following story:

1. The way a juvenile responds to the first police/juvenile encounter is a function of three streams of variables. These are (a) characteristics of the juvenile, which we call sanction sensitivity, that relate directly to police sanctions; (b) etiological factors and police contacts which help produce the first arrest encounters; and (c) variables affecting the arrest and disposition decision of the police. Our conceptual scheme concentrates operationally on (a) and (c), that is the sanction sensitivity and police sanction streams, with the more commonly studied etiological stream constituting, for now, a set of unmeasured exogenous variables.
2. We posit, with respect to sanction sensitivity, two forms of this construct which predict (as the arrows indicate) to two different intervening constructs. This conception will be fully explicated later in the proposal.
3. We are now willing to speculate on principal causal relationships, as indicated by the arrows. This is particularly important to our plans for analysis of the data sets from other investigators. Note that the model is recursive, which is

FIGURE 2: PRINCIPAL CONSTRUCTS OF THE
 JUVENILE EARLY SANCTIONING CONCEPTUAL SCHEME



KEY

- - No precursors specified; this is not an etiological scheme
- ★★ - Excluded from analytical aims
- - Causal directions
- - Major category of variables in conceptual scheme

appropriate to our current interest in developing causal models for the simple dichotomy between one-time-only and repeat offenders. In this case, juveniles with more than two arrests are treated like those with only two arrests. In the future, sanction sensitivity models designed to deal directly with multiple repeat offenders or "career" delinquents must be non-recursive; they must incorporate feedback loops from immediate and subsequent responses back to sanction sensitivity, from disposition back to police role enactment, and from new arrests (which then become priors) back to sanction sensitivity.

But for now, referring only to the issue of responses to first arrest, the sequence illustrated in Figure 2 indicates that two forms of sanction sensitivity interact with police sanctions to yield changes in a sequence of intervening variables of a behavioral and cognitive sort which in turn produce a cessation or continuation of arrests. The intervening processes, temporally ordered, are youth immediate and delayed responses to the sanctions in the police encounter, a net inhibitory or generative effect, and a level of further delinquent behavior. Other factors and causal paths are acknowledged in Figure 2, including exogenous etiological variables and professional organizational variables affecting police arrest and sanctioning practices.* As we move on to Figure 3, the full view of the conceptual scheme, it will be helpful to pay particular attention to the difference between boxes which are and are not marked by

 *The arrow leading directly from disposition to new arrest will be explained in the analysis section of this proposal.

asterisks. We will review Figure 3, the full conceptual scheme, item by item. Where appropriate, we will indicate points at which our current work directly impacts on the scheme. First, however, several points can be made.

1. We are distinguishing between the conceptual scheme and analytic intentions. The major variable categories are indicated in Figure 3 by rectangular boxes, but some of these are otherwise unspecified (Delinquent Act, Police Contact, Reaction to Contact, Net Inhibition/Generation). These categories, important to the scheme, are not of analytic concern to our research plans for reasons that vary from category to category, and we will explain each instance. For now, we merely wish to emphasize that our proposed research cannot involve each of the elements of the conceptual scheme. The boxes are there because we wish to explicate the major components of the scheme irrespective of their amenability to our current research opportunity.*

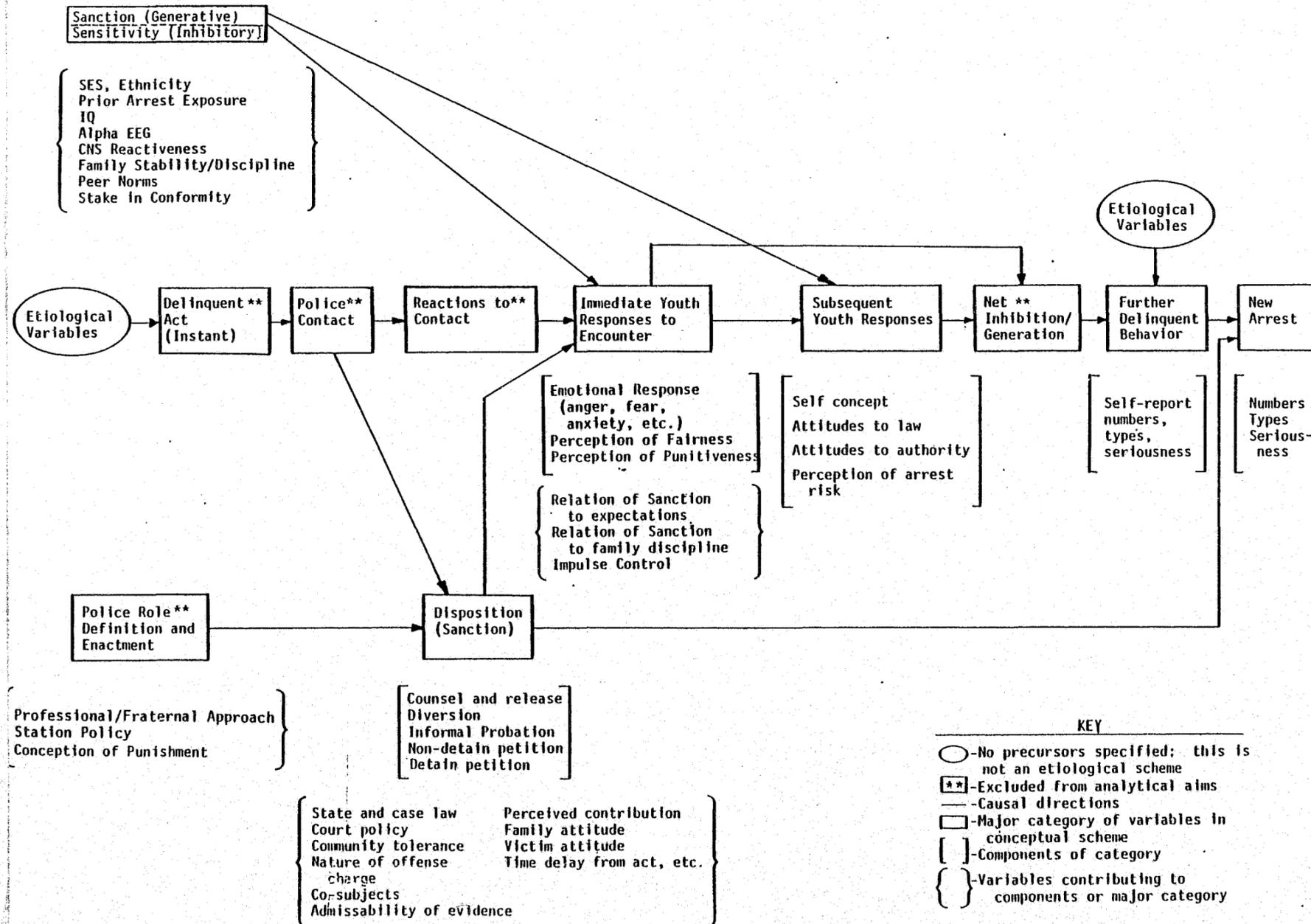
2. We distinguish with square vs. rounded brackets two sets of variables. The first are the essential components of the principal category, while the second are contributors to the variable category.

3. Note that the principal categories of variables relating to the juvenile justice system and to the juvenile,

 *As Asner (1976:8) notes, "certain assumptions may not be met or data may be unavailable...in such situations, a causal approach to the theorizing may be valuable as a heuristic device. Thinking causally about a problem and constructing an arrow diagram that reflects causal processes may often facilitate the clearer statement of hypotheses and the generation of additional insights into the topic at hand."

Figure 3: JUVENILE EARLY SANCTIONING CONCEPTUAL SCHEME:

Constructs, Contributing Variables, and Indicators



treated separately in the earlier paradigm, remain the two distinct foci of the conceptual scheme. They come together now, however, as joint contributors to the juveniles' responses to the police/juvenile encounter.

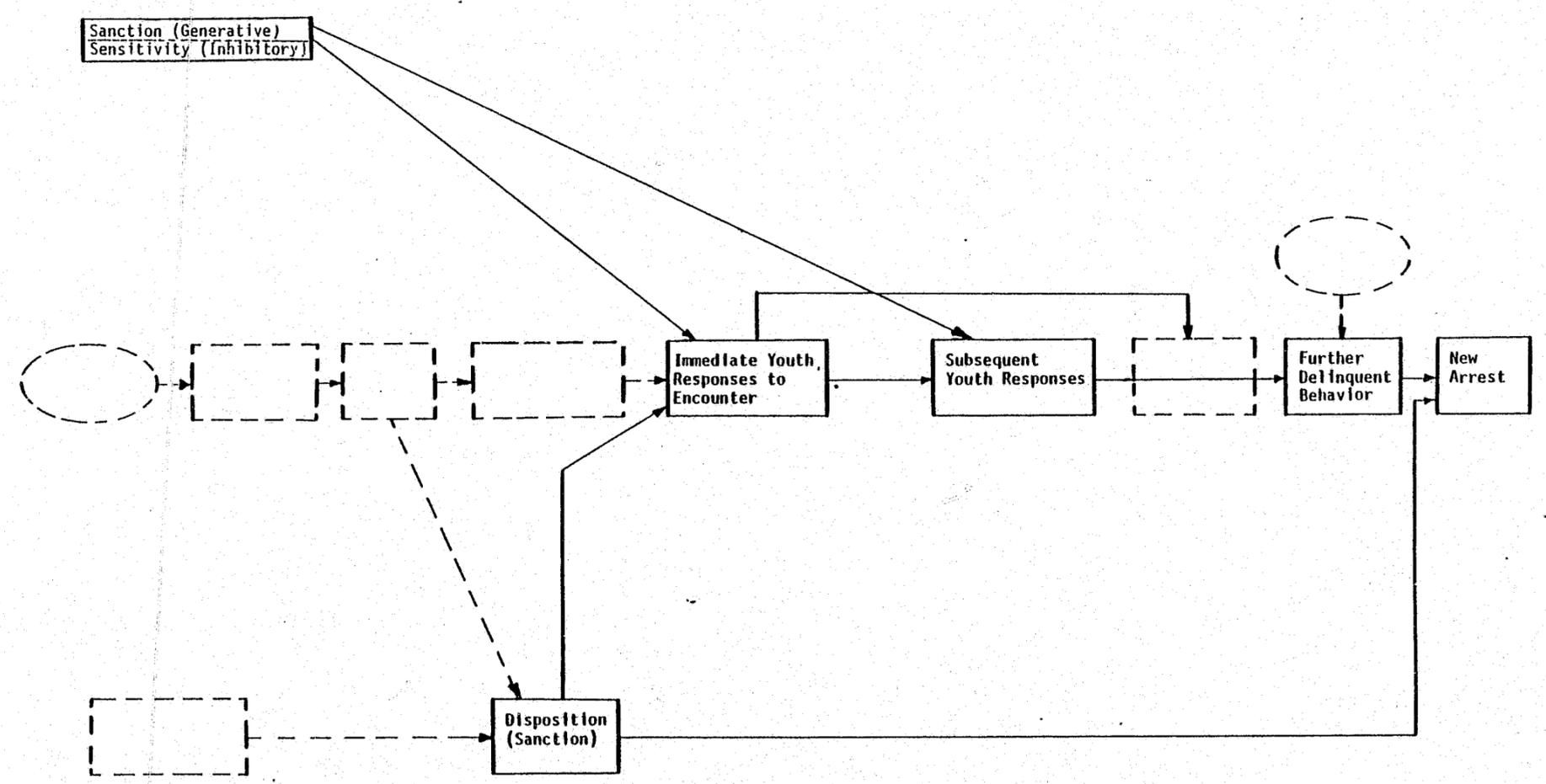
Partial Versions of the Conceptual Scheme

Figure 3, as it stands, is a bit complex because it attempts, in one place, to represent several aspects of our overall framework and intentions. Clarity may be achieved by breaking Figure 3 into three components parts. Taken together, the three would be identical to Figure 3. Seen separately, they express different components of our interests in the proposed research. Consider, for instance, Figure 4.

Figure 4 isolates those constructs in the Conceptual Scheme for which we expect to have measurable variables in the data sets made available to us. Our principal data analyses, therefore, will involve these. The other constructs, those important to the Conceptual Scheme but not subject to data analysis under the proposed grant, are omitted for the reasons specified below:

- 1, 7: The usual etiological variables not elsewhere included in the Conceptual Scheme are not of concern to this developing theory of early sanctioning of juveniles. A few are important as background variables directly affecting sanctioning sensitivity, but many are not pertinent to the police control issue as they might well be to the initiation of delinquent behavior. Excluded here might be such variables as alienation,

Figure 4: CONSTRUCTS TO BE INCLUDED IN DATA ANALYSIS



KEY

- - No precursors specified; this is not an etiological scheme
- ** - Excluded from analytical aims
- - Causal directions
- - Major category of variables in conceptual scheme

school performance, morphology, family structure, community disorganization, and birth order.

2: The delinquent act, i.e., the instant offense behavior for which the first arrest* is made, is an omitted component for several reasons. First, the behavior, unlike the official charge, will not have been a data element in many of the data sets available to us. Second, because our primary concern is with the arrest and sanction, the initiating behavior can be treated as given; most arrests are a response to an act or to the allegation of an act. There has been ample research (e.g. Piliavin and Briar, 1964; Black and Reiss, 1970; many others) on factors leading to a juvenile arrest, of which the characteristics of the act is one category. Our concentration is on the aftermath of the first recorded act.

3, 4: By Police Contact we mean the police/juvenile contact which often (but often not) precedes the in-station encounter. Such contacts may take place in the street, in a school in response to a call from school officials, in a store, at the youth's home, and so on. The components of this preliminary contact and the juvenile's responses to it are omitted in part for reasons identical to those for

*Throughout this proposal, the term "arrest" is used as it would be in adult instances. In many state codes, the word is avoided with reference to juveniles. Our usage, following the data reported in Klein et al. (1976), refers to the in-station custody, the most common operational usage which applies to official juvenile "arrest" statistics.

the instant offense (see # 2, above): data will often be absent, and the components come temporarily prior to the point of our immediate interest. But in addition, many police contacts are never reported, and may never lead to an arrest. Further, many arrests (in the sense of in-station encounters and dispositions) do not result from initial police contacts (cf. Black and Reiss, 1970). To include these contacts in our analysis procedure, even if the relevant data were available, would enter more "noise" than information into the analysis.

5: Police role definitions and enactments are components we do not expect to find included in the available data sets. This is, in fact, a relatively uncharted area in delinquency research (as opposed to non-juvenile police research). Our own work in the past (Klein et al., 1975; Klein and Little, 1980) and the questionnaire data coming from our current grant are exceptions and while highly informative to our Conceptual Scheme, do not provide data includable in the proposed analyses of other data sets. We will, however, have reference to these issues in the design section of this proposal which outlines plans for observations of police/juvenile encounters.

6: Net inhibitory/generative process (terminology taken from Gibbs, 1975) has, in our scheme, the status of a hypothetical construct. The effect of the inhibition or generation of further delinquency is measured by self report instruments. But the internal processes

intervening between youth responses to sanctioning and their behavior, i.e., the combination of deterrent and labeling processes, cannot as yet be measured independently of these effects. The hypothetical construct of net inhibition/generation is needed to help bridge the gap until such time as other research in deterrence more effectively pins down these internal processes.* Meantime, it is epistemologically inappropriate to define the construct by its predicted effect (further delinquency).

With these omissions clarified, we can look again at Figure 4 to see, very briefly, the components which are expected to be entered into our analyses of available data sets. The independent variables are Sanction Sensitivity and Police Disposition (Sanction). The components of the latter will be easily operationalized in the options available to the police. Sanction Sensitivity will consist of the juvenile's placement on selected variables already known or hypothesized to affect responses, behavioral or cognitive, to official arrests. These are of two sorts (to be further clarified later in the proposal), generative and inhibitory. As an example of the generative process, research by Jensen (1972), Elliott (1978), and Klein (1978), has shown that whites, girls, first offenders, and higher income youngsters are more likely to exhibit negative

*We have in mind here particularly the perceptual research of the sort undertaken by Erickson, Stafford, and Galliher (1980) and the knowledge-of-sanction approach recently proposed to N.I.J. by Charles Tittle.

self-concept changes following arrest and disposition than are blacks, boys, repeaters, and lower income youngsters. As an example of the inhibitory process, Mednick and his colleagues (Gabrielli, 1981) have shown greater impact on post-arrest deterrence among subjects with relatively high I.Q. and among those with relatively high levels of slow alpha EEGs. These and other variables to be noted later seem empirically to be associated with greater sensitivity to the imposition of official sanctions. The term Sanction Sensitivity is chosen here to emphasize our specific concern with background variables directly related to responses to sanctions, rather than background variables predictive of delinquency in the more usual delinquency theories.*

From Sanction Sensitivity and Disposition, Figure 4 takes us to a chain of intervening processes. Leaving aside the hypothetical construct of net inhibitory/generative processes, we include Immediate Youth Responses, Subsequent Youth Responses, and Further Delinquent Behavior. The first consist of the cognitive and emotional reactions to or evaluations of the arrest encounter itself as an important event. These responses are more relevant to inhibitory processes than to generative processes. This is not commonly included in research on specific deterrence,

*For instance, labeling theorists generally posit that societal stigmas are more likely to be attached to "underdog" groups -- minorities, the poor, etc. They are more likely, for example, to be selected out for arrest. But Sanction Sensitivity, referring to the reaction to arrest, posits that being an ethnic minority, or poor, is less likely to result in negative impact from arrest, at least among first-time offenders.

but elements of these responses are available in a few longitudinal data sets (including our own diversion evaluation data gathered on an NIMH grant from 1974 to 1977).

The second, Subsequent Youth Responses, are generally of two kinds, those pertinent to labeling processes and those pertinent to specific deterrence processes, but in contrast to immediate youth responses, these subsequent responses are more pertinent to generative than to inhibitory processes. Changes in self-concept, for instance, are absolutely critical to the explanatory system of labeling theory (the generative process) as generally explicated. Less critically, attitudes toward law and authority, along with perception of arrest risk, relate directly to individual level explanations of general deterrence propositions about the effect of negative sanctions (the inhibitory process).

Finally, we include Further Delinquent Behavior as an intervening process rather than as a measure of the dependent variable because our concern--given the crime control emphasis of the proposed research--is with repeated or non-repeated arrests. Further Delinquent Behavior is one, but not the only, contributor to further arrests, as our own prior data have shown. Understanding the distinction between one-time-only and repeat offenders, as officially recorded, is the raison d'etre of our research and of the theory we are striving to develop. Therefore our analysis will use official arrests as the sole measure of the dependent variable. Under these circumstances, other potential dependent variables commonly found in other research --variables

such as self-concept changes, perception of risk, and self-report delinquency--take on intervening variable status for us.

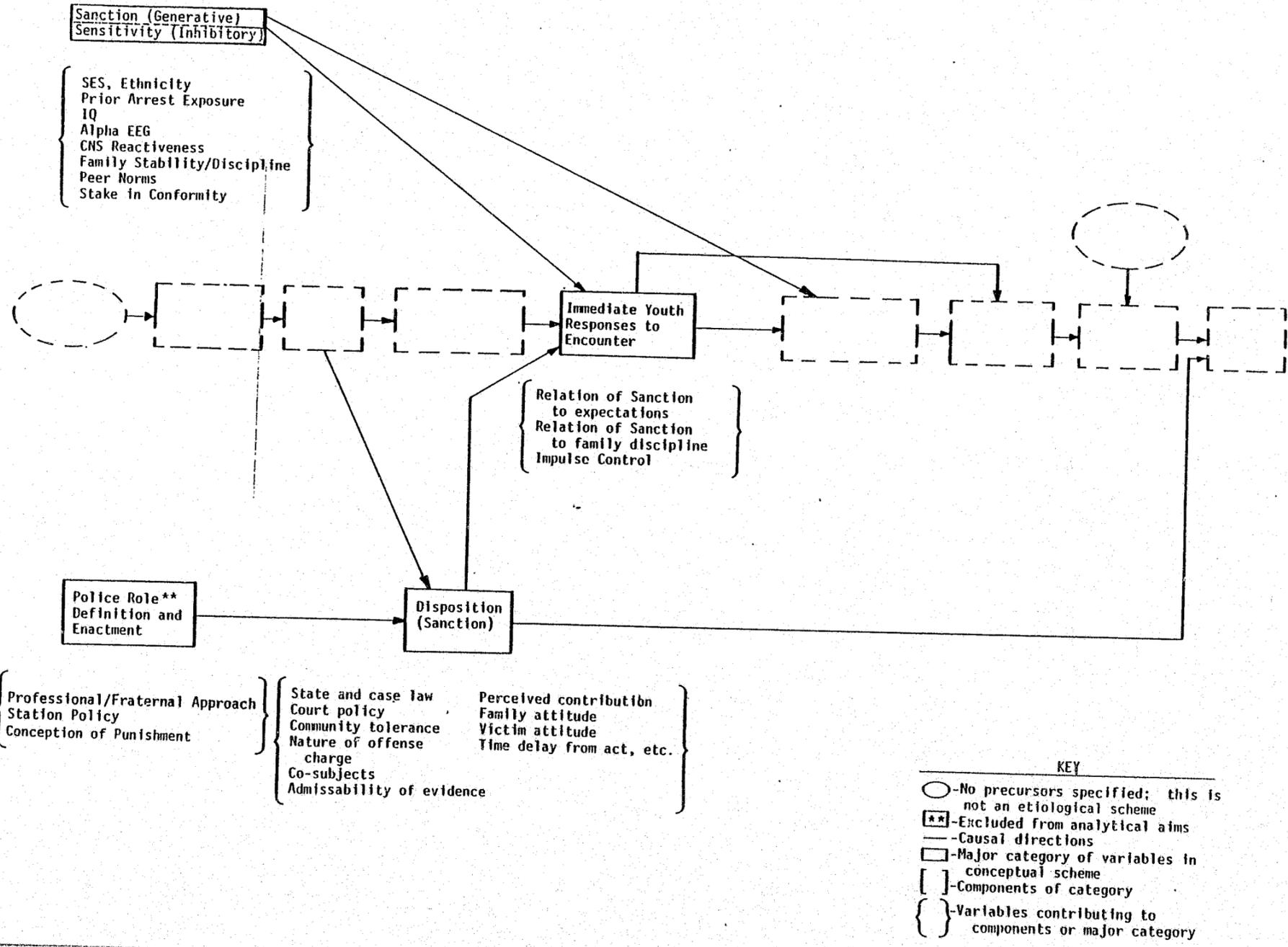
Stated a bit arbitrarily, the difference between Figure 3 and Figure 4 is that between our emerging Conceptual Scheme and a short-range plan of attack with limited available data. Our long-range goal is to fill out the entire Conceptual Scheme empirically, but that grandiose goal is not yet within our reach. Moving toward it, with delimited analyses of available data sets, is within our reach.

We turn briefly, now, to Figure 5. This figure highlights, for selected components of Figure 3, major variables which contribute to ("cause") the components specified.

We have isolated four components for which, both conceptually and empirically, we can justify the listing of causal or contributing variables exogenous to each of the constructs. The four lists are illustrative but, quite obviously, not exhaustive. Indeed, one of our proposed analyses will search specifically for other variables directly predictive of sanction sensitivity. As noted earlier, principal supportive work in this area is that of Elliott, Klein, and Mednick, but other summary works include Jensen on SES (1972), Datasman and Scarpitti (1975), Klein (1980), Feldman (1977), Robins (1966), and Hirschi (1969) on family discipline.

With respect to police role, especially juvenile policing, the relevant work is principally our own (Klein, 1974; Klein and Little, 1980; Klein, 1981; Little, 1981), although more general

Figure 5: VARIABLES CONTRIBUTING TO SELECTED SCHEME CONSTRUCTS



research is relevant to the juvenile area (c.f., Wilson, 1968; Rovner-Piecznick, 1978; Sundeen, 1974; McEachern and Bauzer, 1967).

In the area of police sanctioning decisions, a considerable literature has now evolved which designates important correlates and even suggests the relative contributions between some of these. Prominent among these studies are Piliavin and Briar on juvenile attitudes (1964), Black and Reiss on victim attitude (1970), McEachern and Bauzer on demographic variables (1967), a veritable host of studies on the nature of the offense, and Butcher on co-subjects (unpublished). Our current grant is yielding data on the impact of State and case law and of court policy.

Finally, the suggested list of contributors to Immediate Youth Responses to the Encounter includes items not well documented in the literature but which we hypothesize as highly pertinent. We will be searching for such variables in the available data sets, as well as in our proposed observations of the police/juvenile encounters.

Figure 5 can be viewed as one set of conclusions we have reached over the past year. That is, our analysis of the Danish cohort data so far, our bibliographic research, and our staff discussions have led us to some firm opinions that these variables, more than some others included in our original paradigm, should be given a prominent place as causal variables in the Conceptual Scheme. Figure 6, by way of contrast, is merely a depiction of the measurable components or indicators of

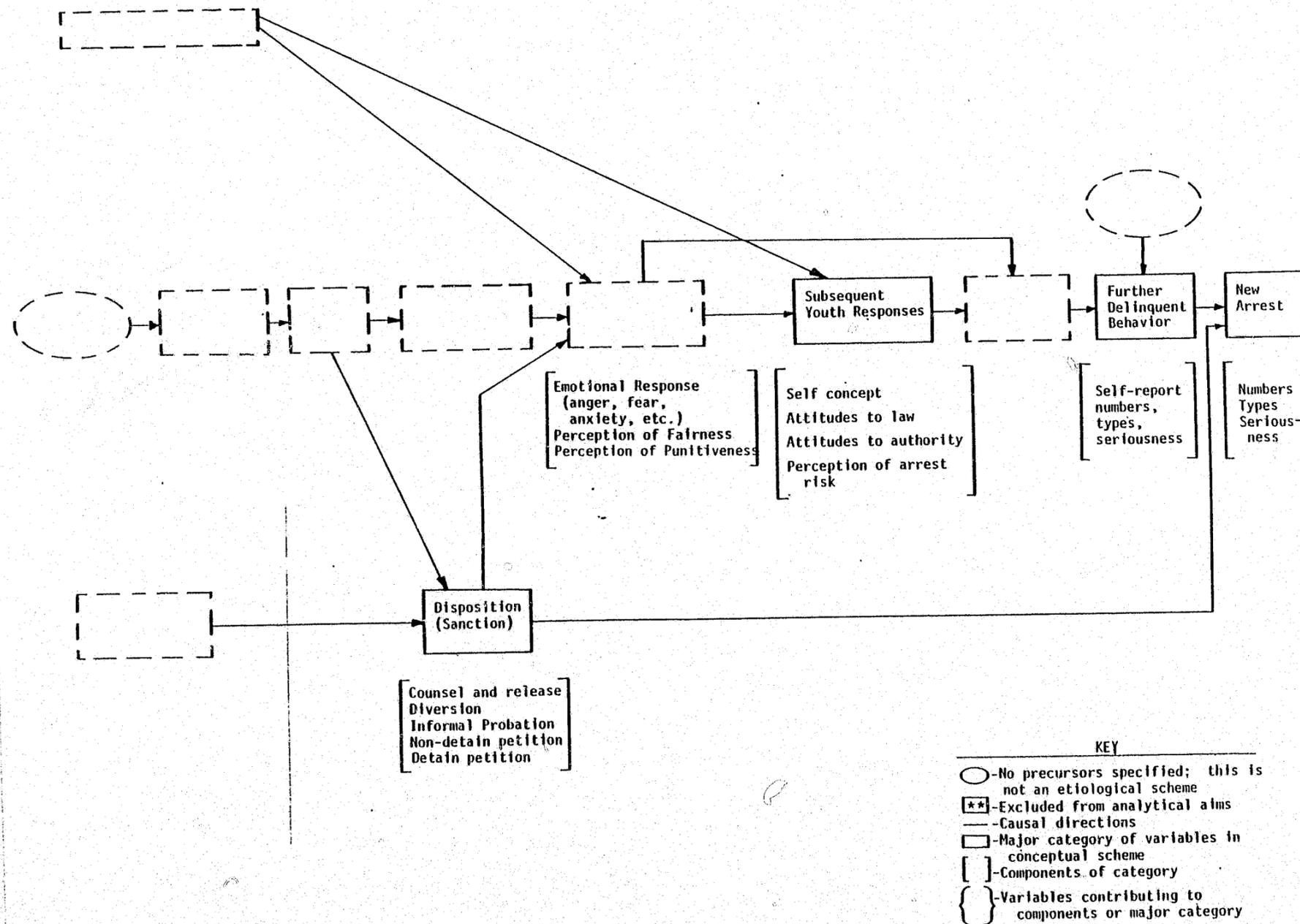
some of the major constructs in the scheme.

Under disposition we have listed five options for police sanctioning generally available across the country. Some are not available in certain jurisdictions, and for certain types of offenses. Jurisdictions with the widest variety of available dispositions (especially where these can be roughly graded as to presumed severity) are of the greatest value to our analytic purposes. Jurisdictions with a paucity of options, or data sets in which disposition data were not collected, are obviously of least value. It is not the arrest alone which is important to building a specific deterrence theory, but information on the severity of the concomitant sanctions as well.

Under Immediate Youth Responses we have offered three suggestions. The first--emotional response--is admittedly amorphous, but research to date has certainly not been clarifying. Our numerous personal observations of arrest encounters have revealed a variety of youth responses - anger, anxiety, fear, relief, even pride--but we hope to begin the process of systematizing these as they relate to delayed responses. Perception of fairness and perception of punitiveness are not only touched upon in prior research (e.g. Foster et al., 1975) but also may appear in one or more of the data sets to be employed in our analyses.

The components listed for Subsequent Youth Responses may be less obvious. They derive not from clear empirical demonstrations but from three relevant sets of theorizing. Self-concept (as developed and measured in our NIMH project, and

Figure 6: INDICATORS OF SELECTED CONSTRUCTS



validated by Elliott) is crucial to Lemert's conception of secondary deviance and most labeling theory constructions generally. Perception of arrest risk derives from deterrence theory, and particularly from the innumerable writings translating general deterrence correlations into specific deterrence processes (see e.g., Gibbs, 1975; Zimring and Hawkins, 1973; Tittle, 1980). Attitudes toward the law and toward authorities is a principal component of practicing police conceptualizations about the role of case dispositions.

Under Further Delinquency and New Arrests, we have listed some common components as number of instances, their types, and seriousness (most likely to be measured using the Rossi scale (1974) since it is the most comprehensive). Under New Arrests, two other components are possible but not included here.*

The first is number of charges in each arrest, a measure particularly sensitive to police attitudes (more charges listed relates to punitiveness and to a desire to build a prosecutable case). However, multiple charges are seldom collected by researchers (ourselves excluded), in preference to listing the most serious charge (an unfortunate biasing research practice which overlooks police contributions to recorded arrest charges).

The second is time delay between subsequent arrests. Again, this is not commonly included in data sets. Further, for career records completed up to the age of majority, where age of first

*As indicated elsewhere, the principle analyses will use the dichotomy of one vs. two or more arrests. However, we may also investigate continuous dimensions such as number and seriousness.

arrest is known, time delay is necessarily correlated with number of offenses.

The reader will have seen by now that Figures 4, 5, and 6 are indeed nothing more than breakdowns of the complex depiction of our Conceptual Scheme in Figure 3. Figure 3 is complex because it contains not only an idea system, but also some of our current thinking with regard to analysis, causal variables, and some measurement components. This is an evolving scheme, and we now fully anticipate that the proposed research to be elucidated below will see it both modified and more fully specified. What will not change, if we are to continue in the directions we have chosen, are (1) the double focus on juvenile characteristics and police propensities, (2) our concentration within the former on sanction sensitivity rather than delinquency potential, and (3) our focus on the arrest situation as the pivot around which we will investigate the issues of early sanctioning.

The Investigative Paradox

Before moving on to a description of the studies being proposed, it is important to reiterate the basic question that motivated this line of research, and the partial answer which has emerged thus far. The Rehabilitation Panel of the National Academy of Sciences asked what is known about the effectiveness of early sanctioning. Since the answer was patently clear --very little is known--the Panel's inquiry was altered to ask, what are the issues which must be covered in order to approach such a question?

Our original writing for the Panel and the thrust of our work

under the current grant had to do principally with attempting to specify issues. The Sensitizing Paradigm and the subsequent Conceptual Scheme should be seen as steps in the specification. Further, our work has now led us to a partial answer to whether or not early sanctioning is an effective deterrent; that answer is that the nature of police practice is so contrary to established principles of learning that deterrence through early sanctioning seems a most unlikely proposition.

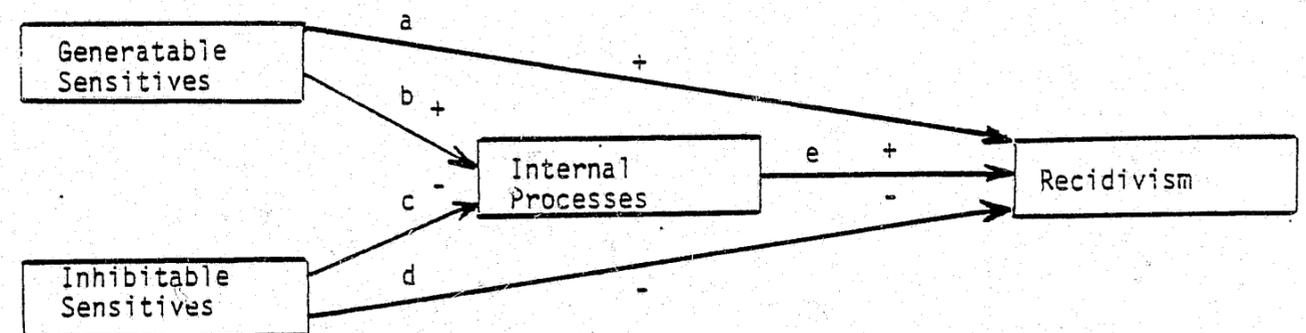
And yet, there is some evidence that deterrence of this sort may indeed take place. Further, there is also evidence that early sanctioning may actually generate further arrests. Thus in an intellectual context which argues for no effect, there is contrary evidence for opposite effects. As a result, we entertain a complex hypothesis which will receive several direct tests in the analyses we propose.

The hypothesis is that there are two directive streams of inhibitory and generative processes at work among those juveniles who are affected by early sanctioning. In Figure 2, 3, 4, 5, and 6, this is suggested by the dotted line through sanction sensitivity. These two streams correspond to deterrent and labeling effects, and, at the extreme, we suggest, to two different sets of youngsters. For one set, sanction sensitivity refers to the behavioral level rather directly: arrest and disposition deters the future behavior which might result in future arrests, although this may be mediated by immediate responses to the arrest situation. For the other set, sanction sensitivity leads to two types of labeling effects. The first is

a shift toward a negative self-concept which in turn results in future misconduct and therefore subsequent arrests. The second is a set of behaviors, not necessarily delinquent, which leads to greater visibility to the authorities who, in turn, react to the prior arrest and disposition with a propensity toward further arrest (Klein, 1978; Lincoln et al., forthcoming). In these two branches of the second set of youngsters, the reader will recognize the internal-change and the societal-reaction versions of labeling theory, a recognition that it takes two, suspect and officer, to make an arrest.

Essentially, then, we are suggesting two types of sanction-sensitive youngsters, those who learn to desist or reduce their arrestable behavior (or at least to hide it) and those who become more susceptible to further arrests. The theoretical perspectives suggesting this dichotomy are illustrated in Figure 7.

Figure 7: Alternative Paths to Recidivism



The labeling perspective posits a positive relation (+) from sanction sensitivity to recidivism, i.e., additional arrests, and that path b/e will be a better predictor than path a. The deterrent perspective posits a negative (-) relation from sanction sensitivity to recidivism, i.e., a cessation of arrests, and that path d will be a better predictor than path c/e. The seeming conflicting perspectives can both be entertained if indeed they correspond to different kinds of youngsters, juveniles for whom one might hypothesize orthogonal sets of operative variables.

Additionally (see Figure 3, 4), we can test whether any mediation of the recidivism effects is brought about by different intervening processes, subsequent youth responses in the case of labeling (generative) process and immediate youth responses in the case of the deterrent (inhibitory) process.

By way of illustration, let us assume arbitrarily that first-time arrestees will consist half of inhibitible and half of generatable recidivists. The former are unlikely to be re-arrested. The proportion of recidivists of the inhibitible type -- high IQ, slow alpha wave, older juveniles for example -- will be increasingly lower as the number of rearrests increases. But the proportion of generatable recidivists will increase (even as their absolute numbers go down via chance, reformation, incapacitation, etc.; see Gibbs, 1975, Chapter 3). That is, those whose sanction sensitivity is most directly related to self-concept changes and to behavioral visibility will increasingly constitute the cohorts of second, third, fourth, to

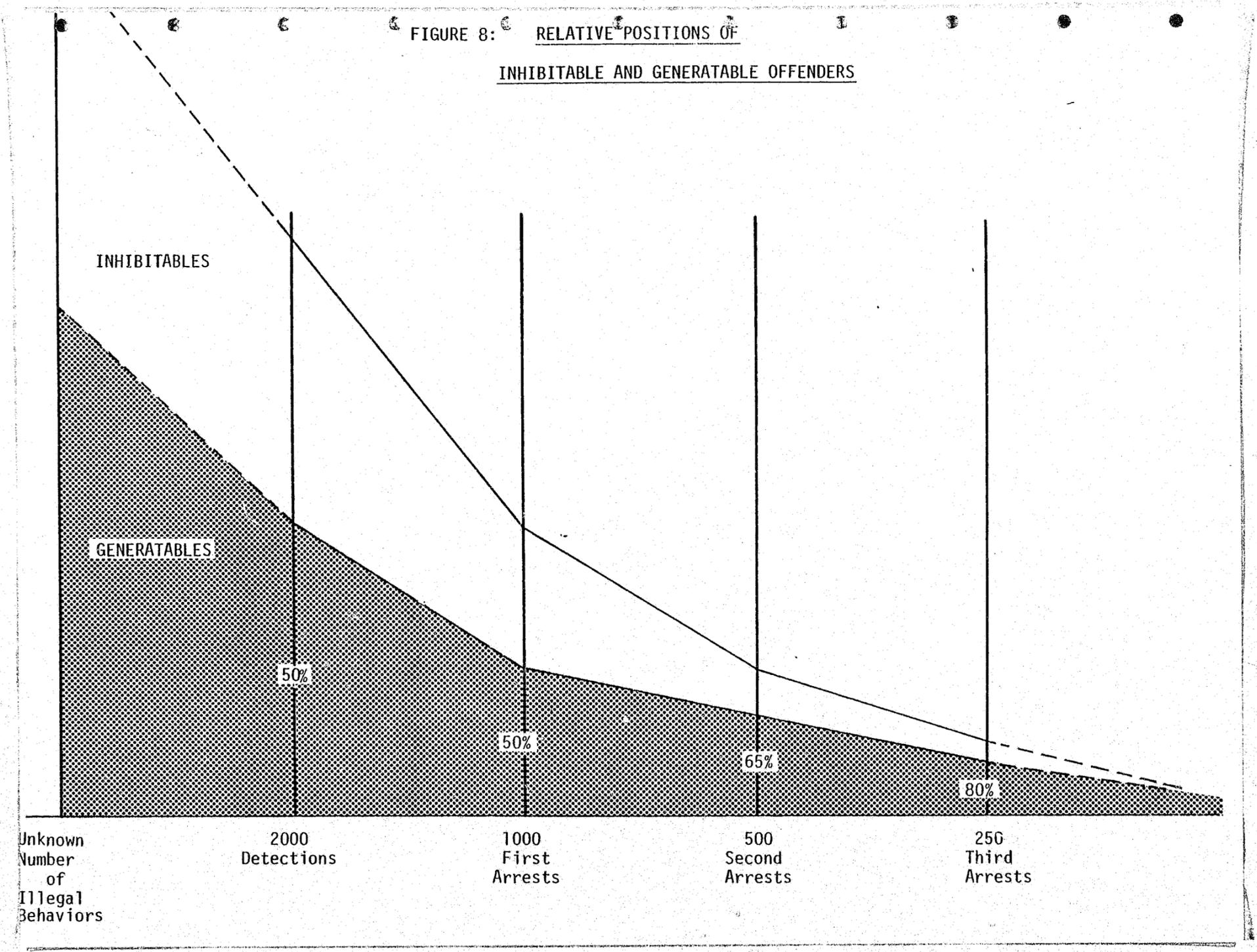
nth multiple recidivists. Figure 8 illustrates this progression.

As the absolute numbers of re-arrested juveniles decreases, the proportions of inhibitible and generatable arrestees will become more unequal. If data from our proposed research is generally supportive of the Conceptual Scheme, and if in particular our conceptions revolving around sanction sensitivity are confirmed, then we believe that important hypotheses such as that above will be both logically entertainable and empirically testable. Such tests would be important to continuing the process of developing specific deterrence theory. We call attention to these matters now because they illustrate a programmatic journey on which we feel we have embarked.

Proposed Studies

Our prior research on the generative processes in labeling, along with most other research on delinquency generally, suggests that gender is an important exogenous variable. Further, most of the data sets with which we will be working either omit girls entirely or include only small numbers of girls with arrests. Therefore all analyses to be discussed on the following pages will be done on boys, and separately on girls where the numbers involved make this possible. Otherwise, gender would be included as a sanction sensitivity variable, girls being more affected by labeling processes following arrest (Klein, 1978). At this juncture, reference is made to Figure 4 which depicts those constructs in the conceptual scheme for which we expect to have, or to gather, relevant data. Our analyses will be concerned with

FIGURE 8: RELATIVE POSITIONS OF
INHIBITABLE AND GENERATABLE OFFENDERS



the following questions.

1. Are there, as we expect, two general categories of sanction sensitivity?
2. Can the general flow of relationships in Figure 4 be demonstrated, thus supporting the conceptual scheme as outlined in Figure 2?
3. Can observations of police/juvenile encounters yield hypotheses regarding factors differentiating between police response to first-time and repeat offenders and regarding immediate youth responses to such encounters? This last question is specifically proposed because of the paucity of research directly concerned with the encounter situation.

The last question will be approached through collection of new data from observations in police stations. The first two are critical to our concept of sanction sensitivity as constituting something different from general delinquency etiology. They will be approached through analyses of Danish cohort data, and of our other data sets being made available to us by their originators. We will describe our intentions in the order of question 3, then questions 1 and 2.

A. Police/Juvenile Encounters

As noted earlier, a good deal of work has been done on variables relating to police arrest and disposition decisions. Most of this has been correlational, using officially recorded data. Observational studies have been rare, but include the oft-cited work of Piliavin and Briar (1964) and Black and Reiss (1970). The general conclusions from both sets of studies are

that police decisions are a function of two major categories of variables, the legal and the social. Principal among the former, and accounting for the greatest amount of variance, are the seriousness of the instant offense, the number of prior offenses, and the admissability of evidence. Our own research suggests that the importance of such variables derives from a combination of state and case law, court policy, and both formal and informal station or department policy.

Among social variables, the most prominent have been the demeanor of the subject, judgments of family attitude and resources, the presence of co-subjects in the offense incident, desires of the victim, and general community tolerance. In addition, the subject's age, gender, ethnicity, and SES have been related to the police decision, with the latter two more often yielding conflicting results across studies.

In almost none of this research has the distinction between first-time and repeat offenders been given prominence, and in none of it has there been careful, on-site observation of differential involvement with first-time versus repeat offenders. Our conceptual scheme calls for data on the encounter situation which can best be taken from direct observations.

For the observational phase of our research, we intend to conduct field studies in police jurisdictions where systems of differential dispositions exist for first-time and repeat juvenile offenders. From our review of Juvenile Codes during the current grant period, we determined that the states of Rhode Island, Florida, Texas, and Colorado specifically address the

issue of first-time and repeat offenders in their statutes.

The legal statute in Rhode Island differentiates between first-time and repeat offenders. Their juvenile code defined delinquent to include any child who has committed any offense which, if committed by an adult, would constitute a felony or who has on more than one occasion violated any of the other laws of the state or of the U.S. or any of the ordinances of cities and towns, other than ordinances relating to the operation of motor vehicles. (R.I. 14-1-2)

One of the criteria set forth in Florida's Juvenile Code for the transfer from juvenile court is prior history which emphasizes "that greater weight be given to an adjudicated felony or a two times adjudicated misdemeanor" (Fla. 39.09).

The Texas statute states that the court can order detention if it finds that a juvenile has previously been found to be a delinquent.....(Texas Fam. Code Ann, Title 3, 54.01).

Another example of this differential treatment is the Colorado juvenile statute which provides for commitment out of the home for not less than one year for a child who has been adjudicated a delinquent child twice or a child who has been adjudicated a delinquent child and whose probation has been revoked for an act which would constitute a crime if committed by an adult.....(Colorado Code 19-3-11).

These instances led us, during the current grant period, to survey police jurisdictions in states which specifically provide for differential treatment of first-time and multiple juvenile offenders in their juvenile statutes and in states which do not

make this distinction. We included, as well, states recently making significant differentiations between minor and serious offenders. The intent of this survey was to gain information about formal and informal police policies designed to deal with these two types of offenders. As a result of our research effort we have already located jurisdictions where such programs exist. For example, since the police in Miami Beach, Dallas, North Providence, and Keene, New Hampshire, have expressed an interest in our research, and are positively predisposed to the possibility of our conducting field investigations in their agencies, we have tentatively selected those locations to be included in the observational study. Each of these departments has a special first offender program. As responses to the survey continue to come in (over 300 are already in hand, and we anticipate another 50 or more returns), additional observational sites may be added.

The observations will seek patterns of police and offender behavior pertinent to inhibitory (deterrent) versus generative (labeling) processes. In each station, observations will include busy (Friday and Saturday nights) and non-busy periods (non-busy must be established onsite; there is no point in observing during periods with no encounters). An attempt will be made to observe more than one officer in each station. The observer will note any cues to variables relating to sanction sensitivity, to factors affecting police role definitions and police sanctions, and to the components of immediate youth responses, e.g. afraid vs. calm (see Figure 3). For instance, the suspect's age,

gender, and ethnicity along with cues about his family discipline patterns (the parents are often present in this encounter), his verbal ability and obvious neurological deficits will be noted.

With respect to police role definition, station policy about first offenders can be ascertained; and the officers' conception of their disposition options as punishment can be inferred.

Preliminary results from our police questionnaires indicate that many officers consider a number of their options to be non-punitive. Only petition with detention is uniformly seen as punishment. The relationship between perception of punitiveness and the options differentially proffered to first time offenders is rather direct; first-timers are more often given dispositions seen more often as non-punitive. This fact alone could well reduce the deterrent value of the first arrest. If it is accompanied by the officers' disparagement of the event as serious, or of the disposition as punitive, the reduction of deterrent value would be even greater. Yet this might have little effect on the labeling effects; the stigma of arrest is still available in the situation. This relates directly, of course, to our suggestion of two forms of sanction sensitivity, two sets of variables leading in one case to inhibition and in the other to generation of further delinquency.

Certain factors predictive of dispositions will also be obtainable. State and case laws will be known; local court policy can be ascertained. Offense seriousness, presence of co-subjects, and judgment of evidence admissibility can be ascertained from the officers. The disposition decision, of

course, will be noted. Behaviors in the encounter, in some instances, will permit the observer to judge the subjects' perception of disposition fairness and punitiveness, along with indications of fear and anger. In others, it may be possible to query some offenders on their responses. These should be related directly to the offender's status as a first or repeat offender, and to sanction sensitivity variables; analysis of these observational data will suggest whether indeed we are on the right track here.

Additionally, we are very interested in making inferences about the officers' attitudes toward the two types of offenders (first-timers and repeaters) and toward their own sanctioning behaviors. As noted earlier, we know from our current research that many officers see most of their options as non-punitive. Do they, in fact, communicate this attitude to the juveniles, thus decreasing their implicit sanctioning value? Does this depend on whether or not the juvenile is a repeater?

It is generally acknowledged that police handle first-time offenders differently from repeat offenders although some officers deny this by stating that "all suspects are treated the same". The extent of the difference and direct relationship with officers' views of what they consider a punishing sanction has not been widely demonstrated. Data from the first 314 returns from our national juvenile bureau survey under the current NIJ grant present a clear picture. Table 1 illustrates both the percentage from police respondents who do not consider the available dispositions as forms of punishment, and the percentage

of time these dispositions are applied to first-time and repeat juvenile offenders.

Table 1: Police Dispositions and Views of Punishments

<u>Dispositions</u>	<u>Views as NOT Punishment</u>	<u>Applied to First Offenders</u>	<u>Applied to Repeat Offenders</u>
Release only	91%	83%	<1%
Release with official report	70%	52%	10%
Referral to agency	50%	23%	30%
Petition to Court, no Detention	25%	19%	43%
Petition to Court, with Detention	7%	1%	80%

The response from the police officers in our survey indicates a dramatic difference in the sanctioning of first-time and repeat offenders. Further, first-time offenders in contrast to repeaters are sanctioned in direct line with what the officers themselves view as non-punitive dispositions. Police practice and police philosophy are in some conflict here. How this relates to police effectiveness should be clarified by our proposed research. We will be particularly interested in whether the officers' attitudes toward the two kinds of offenders can be judged by whether the offender is ignored or made to feel attended to; whether the station processing is explained or not; whether or not future behavior is discussed, and so on. Other officer attributes based on the pioneering study of Wattenberg

and Bufe (1965) will also be explored. The officers' attitudes toward the sanctions and toward the juveniles may well (from our viewpoint are expected to) interact with sanction sensitivity in predicting to the juvenile's later responses and to subsequent net inhibition/generation processes (see Figure 2).

In sum, then, the observational study will be of the hypothesis generation type, the purpose being to strengthen our understanding of the encounter portion of the conceptual scheme. Observations will be structured to yield inferences about the input of variables relating to sanction sensitivity, police role definitions, and police disposition. Patterns of outcome between these and youths' immediate responses to the encounter will be sought, all this in relation to the comparison between first-time and repeat offenders.

In the months between this writing and project start-up, we plan to undertake a series of pilot observations in order to develop as much structure for the observations as possible. In the absence of funding support, these will be undertaken in Los Angeles County where our contacts will make such observations very easy to arrange. However, we have also initiated a request for a small amount of private support. If this is forthcoming, we will expand the piloting to several other states and increase the number and variety of encounter situations. In either case, what will result is a structured observational form specifying variables to be observed and requiring short notes on the cues and data used to establish the existence of or position on those variables.

B. Sanction Sensitivity

As discussed earlier, we posit two general forms of sanction sensitivity. One of these is of the deterrent type, the other of the labeling type. Both are supported in the literature, but are seemingly in conflict with each other. But there is no conflict if there are concomitant types of youngsters; one type whose make-up leads to inhibition of further antisocial behavior as a function of an early sanction, the other whose make up leads from the sanction to stigmatization and labeling processes which in turn lead to further antisocial behavior and arrests. One needs, then, to seek two different sets of variables which best characterize the two types of youngsters.

We will attempt this differentiation by application of several forms of analysis to the data sets being made available to us. Depending on the data sets, the analyses will be performed on sanction sensitivity variables related to two groups; one-time only and repeat offenders. We must now describe briefly the situation with these data sets.

1. The data sets:

In preparation for the proposed analyses, we undertook an archival search under our current grant. Its purpose was to locate extant data sets which could be used for intensive investigation of the early sanctioning issue. Both published and unpublished sources were used, and over 100 initial possibilities noted. But when limiting criteria were applied to these, only the instances noted below remained as salient possibilities. The criteria applied to any data set were these:

1. The data must be available to us in machine readable form, preferably on tape;
2. The initial investigator must be willing to share his data;
3. There must be adequate documentation;
4. The data must be longitudinal so that there is a reasonable certainty that most of the one-time-only offenders would not later have become repeat offenders;
5. The data must include follow-up arrests and instant offense information, preferably including arrest disposition;
6. The data must include at least some of the antecedent variables relating to sanction sensitivity.
7. The subjects should preferably have been juveniles after 1950 so that modern juvenile police processing practices would have been applied to them.*

Not many data sets managed to survive the test of these criteria. For those that did, we have been in touch with each of the original investigators and a number of them have already agreed to provide the data, the codebooks, and the computer documentation. To each investigator, we have sent a listing of the variables of interest, based upon Figure 3, and these lists are being returned to us with an indication of which variables are in the set, as well as any suggestions for particularly pertinent additions. We will not have the resources to use each

 *For coverage of the development of police juvenile units and juvenile specialization, see Kobetz, 1971; Rovner-Pieczenik, 1978; Klein and Little, 1981.

set; the choice will be based on the specifics of the data available in each set and on a desire for some variety (e.g., urban and rural, U.S. and European). We hope to employ at least four of the available sets. In addition, we will probably do some pilot analyses on Klein's NIMH diversion data which include substantial data on several of the constructs less likely to appear in the other data sets.

The data set candidates are as follows:

1. Elliott and Voss: A school cohort of the entire ninth grade class of the academic year 1963-1964 from eight secondary schools in San Diego, minus those students with prior legal processing (n = 1913).
2. Polk: A school cohort of all male high school sophomores in Marion County, Oregon, enrolled in 1964 (n = 1226).
Follow-up interviews are available on selected sub-groups.
3. Shannon: Three birth cohorts from Racine, Wisconsin for the years 1942, 1949, and 1955 (ns = 1352; 2099; 2672).
4. Gold: A sample of youths between the ages of 13 and 16 drawn from the 1961 school district records of Flint, Michigan (n = 522).
5. Wolfgang: a) A birth cohort of all males born in 1945 who resided in the city of Philadelphia at least from their tenth until their eighteenth birthday (n = 9945).
b) A similarly defined birth cohort that included both males and females born in 1958 (n = 28,209).
c) Seven birth cohorts of all infants born at Pennsylvania Hospital between 1959 and 1966 (n = 9236).

6. Wadsworth: A sample of all births during one week of 1946 in Britain (n = 4231).
7. West and Farrington: A school cohort of all boys age 8 to 9 who were attending six local primary schools with an additional sample of 12 boys from a special school included to increase representativeness (n = 411).
8. Wolfe: A birth cohort of all males born in Copenhagen in 1953 (n = 12140).
9. Janson: A residence cohort of all males born in 1953 regardless of where born, if they lived in Stockholm on November 1, 1963 (n = 7,719).
10. Simcha-Fagan: A sample drawn in the early sixties of all families residing in an area of Manhattan that contained a child between the ages of 6 and 16 (n = 1034).
11. Kobrin and Klein: Samples gathered between 1976 and 1978 from eight cities across the United States participating in the National DSO evaluation of diverted status offenders and of comparison pre-program groups of institutionalized status offenders (ns range from 145 to 766).

As of this writing, we have had positive responses from Elliott, Polk, Shannon, Gold, Kobrin, and Simcha-Fagan. There have been no rejections, and we await word from the others.* The level of cooperation has been most rewarding. Even at this preliminary point, one investigator has offered to do the

*Verbal assurances have been received from Wolfgang, Farrington, and Janson, but specific responses to our first written inquiry are not yet physically in hand.

analyses himself in line with our desires; another would provide at his or her own expense, special tapes containing the specific data of interest to us. A third has offered to carry out preliminary analyses in order to help determine what might be most useful to us. We have not yet responded to these offers, but they certainly bode well for the level of collaboration we seek. Further, some of these data sets have been used by investigators other than the originators; i.e., their amenability to secondary analysis has already been demonstrated. For example, the Polk data have been used for a number of independent dissertations. Both Hirschi and Polk have used the Elliott and Voss data set. Lab and Allen (1981) are using the Shannon data. Simcha-Fagan's data are a second version of the original Mid-Town Manhattan Study data.

With respect to sanction sensitivity, the relevant variables in the chosen data sets will be related to one-time and repeat offenders, using several procedures to be described below. In cohorts including non-offenders, analyses using all three groups may be performed, for several reasons.

One reason is that there is a common hypothesis especially among labeling theorists that many first arrestees are selected out more or less by chance (Lemert's "primary deviance"). If so, they should not differ significantly on sensitivity variables from those not arrested (controls using self-report measures in the data sets can be included here).

Another reason is that current analyses of one of our Danish cohort data sets have yielded comparisons on selected variables

in which the one-time offender falls at the extreme rather than between the non-offending and the repeat offenders. For example, in autonomic nervous system sensitivity, the one-time offender shows more sensitivity than either the non-offender or the multiple offender. This finding is extremely interesting. Some individuals who commit an offense are punished by the juvenile justice system, and do not commit an offense again for an extended period; they have the highest level of sanction sensitivity as measured by autonomic reactivity. The comparisons in the Danish data sets are based on a small cohort of particularly high-risk youngsters, so we look forward to the opportunity for a fuller set of comparisons in other cohorts.

2. Sanction sensitivity analyses:

But leaving aside this non-offender issue, our principal interest is in determining the hypothesized existence of the inhibitory and generative forms of sanction sensitivity. There is no single, best way to go about this. The major requirement is to establish separation between the two groups independently of their relation to recidivism, and thus independently of etiological processes. We will "triangulate" on this issue by trying each of the following approaches:

1. Danish cohort, analysis based on primacy of inhibiting effect.

2. Selected cohorts, two factor solution of sensitivity variables.
3. Selected cohorts, sensitivity - youth response interactions.
4. Selected cohorts, crossed discriminant analyses.

The question we are asking of the data has not been addressed prior to this research, so we cannot be assured that the several approaches (listed above and described below) will yield fully consistent conclusions. For the sake of clarity, and because we are hypothesizing a considerable separation between inhibitable and generative juveniles, the discussion hereafter will assume a trend across the suggested analyses that will support the two-category hypothesis. Our later explication of the sequential analysis applied to Figure 4 will also be based on this assumption.

However, it may indeed happen that the sanction sensitivity analyses will fail to support the two-category hypothesis. This would suggest that inhibitables are really the obverse of generatables, that we are really dealing with opposite ends of one continuum. This outcome is certainly more in line with the literature on the etiology of delinquency, and would suggest that sanction sensitivity functions in much the same way as etiological processes. For the final sequential analysis applied to Figure 4, the adjustment would be some modification of the diagram to delete the separate arrows for the generatable and inhibitable youngsters, and the elimination of the proposed separate sequential analyses for inhibitables and generatables.

a. analysis assuming the primacy of the inhibitory effect

There are several reasons for assuming that the inhibitory effect predominates over the generative effect. In etiological discussions, it is generally accepted that deterrence is stronger than labeling. The effect is more direct, less mediated. The psychological (learning) literature supports the immediacy of the deterrent effect. Further, labeling theorists generally posit that the labeling effect is cumulative over time (see Lemert, 1951, 1967 for theory, and Klein, 1974, for confirmation) and applies to only a relatively small portion of potential victims of labeling (see both Schur and Kitsuse, 1975).

Under such an assumption, a simple syllogism can be suggested.

- a. High inhibitables, as compared to low inhibitables, will be non-recidivists regardless of their status on generative variables.
- b. But among low inhibitables, those high on generative variables are more likely to recidivate than those low on generative variables.

This is a simple statement of an interactive effect which can be tested using ANOVA with a dichotomous dependent variable. In this case, the dependent variable, one-time vs. repeat offenders, is generally distributed about equally (half of arrested juveniles are not re-arrested) and the effect of violation of the distribution assumption is minimized. The independent variables are the sanction sensitivity indicators, which in this analysis are selected a priori (see, for example, Figure 3).

This analysis will take advantage of a rather unusual subset of a birth cohort consisting of all 32,000 males born in Copenhagen between 1944 and 1947. The subset, chosen because it contains variables appropriate to our purposes here, consists of 4,558 men above 184 cm. in height, originally selected to investigate XYY chromosomal issues. Careful analyses were conducted on differences in delinquent behavior between these tall men and the others. Tall and short did not differ in their delinquent behavior, nor in the relationship to delinquency of such variables as age, SES, and I.Q. Of these 4,558 men 1,239 have juvenile arrest records and such potential sanction sensitivity measures as SES at birth, SES as young adults, marital status of parents at birth, IQ., school attainment, and others which yet need to be determined from arrest and court records.

Though necessarily somewhat limited in available variables and restricted to tall males, this cohort has sufficient promise to merit the exploratory analysis proposed.* A potential drawback, of course, is the use of recidivism as the criterion variable when we are clearly attempting to test the existence of the two forms of sanction sensitivity independent of arrest outcomes and thus independent of non-sanction-related etiological variables. However, we can achieve our purpose here because the results of this Danish cohort analysis will take their meaning from replications in the U.S. data sets. Only positive

*Since only 12 XYY cases were located among the cases, this potential bias is obviously of no concern.

replication will allow us to draw value from the Danish cohort analysis, because the replication will be of sanction sensitivity categories as related to intermediate responses, without reference to recidivism.

b. two-factor solution

In this analysis -- actually, a sequence of analyses -- we will first undertake a factor analysis of the sanction sensitivity variables in the U.S. data set with the largest potential collection of these.* The analysis will be limited to a two factor oblique solution. If the two factors do indeed resemble our hypothesized categories,** then replication will be carried out on each data set with a sufficiently rich set of sanction sensitivity variables.

If cross-validation is supportive,** we will move on to a direct test of our proposition that sanction sensitivity relates to recidivism through its interaction with the sanctions delivered at first arrest. Consider the two diagrams in Figure 9 as related to inhibitables.

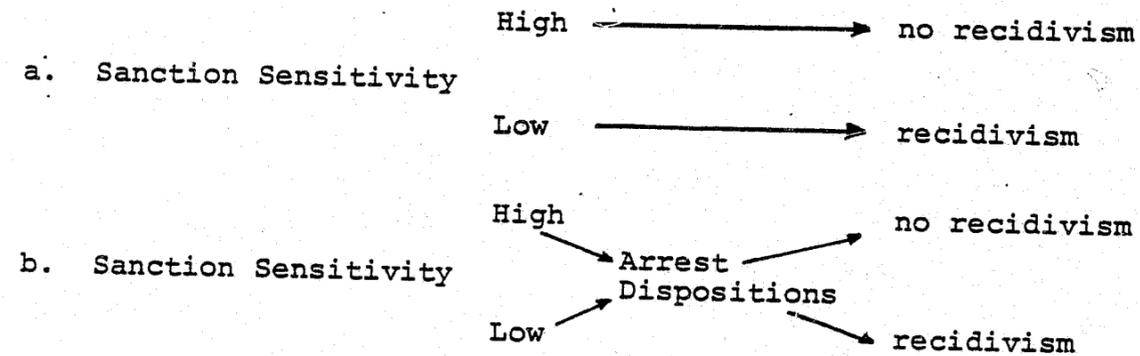
The simple proposition implicit in Figure 9 is that the prediction from analysis of (b) will be better than that from (a); i.e., sanction sensitivity is mediated by the severity of

*Preliminary materials from Polk, Gold, Elliott, Shannon, and Simcha-Fagan show a number of pertinent variables in each set, the most common of which are age, I.Q., family stability, SES, and delinquent associates. It is our understanding, however, that the Wolfgang materials may contain the most comprehensive set of sensitivity variables.

**if not, the analysis ceases at this point

the dispositions imposed (controls on offense severity must, of course, be included.) In terms of analysis, this is a simple regression problem, with the addition of the sanction measures to the sanction sensitivity measures. Precisely the same prediction will be made, and tested separately, for the generatables except that the relation of sanction sensitivity to recidivism is reversed, i.e., higher sensitivity predicts to recidivism.

Figure 9: Schematic Representation of
Sanction as Mediator: Inhibitables



Finally we should note that the availability of multiple data sets will permit several repetitions of the test. This opportunity to take advantage of multiple data sets is rather unusual, and applicable to several of the "blocks" of analysis being proposed in this application. It bears repeating that these replications, because of different measures in the various data sets, are replications of analyses of constructs, not necessarily of specific individual variables or measures. For

theory building purposes, we view this as a most appropriate form of replication.

c. establishing sensitivity through immediate and subsequent responses to sanctions.

Referring back to Figure 2, the reader will note our suggestion that inhibitables and generatables will follow different pathways with respect to responses to sanctions. The generatables, for instance, are expected to show significant delayed responses to sanctioning. The most common variable, in line with labeling theory, is the self-concept variable. Arrested and sanctioned juveniles are expected to develop more negative, delinquent identities. To establish sensitivity variables related to delayed responses to sanctioning we will reverse the investigative direction and compare scores on sensitivity variables between those higher and lower on delinquent self-concept (commonly available in the data sets which include interviews) and any other available delayed response variables. Once again, such a procedure requires cross-validation on the remaining data sets.

Precisely the same operation will be carried out for those higher and lower on immediate responses to sanctioning, but in line with our thinking these should relate backward to sensitivity variables pertinent to the inhibitables. This, too, will require replication.

Several outcomes are possible with respect to these two analyses. First, those higher and lower on the two kinds of

response variables may not differ in sensitivity scores; this would disconfirm our propositions. Second, they might differ in sensitivity scores, but the sensitivity variables reflecting these differences might be substantially the same for the inhibitables and the generatables. This, too, would require a modification, but not abandonment, of our conceptual scheme. Finally, both sets of differences might emerge, might differentiate between two sets of sensitivity variables, and might stand up under replication. This would fully confirm our proposition and substantially strengthen the case to be made for the overall conceptual scheme. We feel the test is severe, but logical.

d. crossed discriminant analyses.

This fourth exploratory approach was suggested to us by Dr. Robert W. Hodge who has given us some methodological consultation during the writing of this proposal. Several steps are involved. First, within any data set a discriminant analysis using the immediate sanction response score as the criterion variable will be run on the sensitivity variables thought to be pertinent to the inhibitory process.* Then an analogous discriminant analysis, using subsequent sanction responses, will be run on sensitivity variables thought to be pertinent to the generative process. Comparison of these two discriminant functions and their predictive efficiency will give us a handle

*Recidivism is a non-preferred criterion variable.

on the relative efficacy of the inhibitory and generative processes. With replication, consistent results over data sets with varying indicators will support the construct relationships suggested in the conceptual scheme.

With both discriminant functions in hand and suitably pruned so that the coefficients make substantive sense, we can establish the table in Figure 10.

Figure 10: Crossed Discriminant Functions

		Predisposed to Generative Processes	
		YES	NO
Predisposed to Inhibitory Processes	YES	IG	\overline{IG}
	NO	\overline{IG}	$\overline{\overline{IG}}$

The variables in the cells are formed simply by cutting the discriminant functions so that the numbers of generatables and inhibitables are equal, respectively, to the numbers who are high vs. low on sanction response scores. There is an SPSS procedure

that will accomplish this.

If our sensitivity variables have been properly classified and are separable, then the cross-tabulation illustrated in Figure 10 should exhibit the following properties:

- a. Cell IG should have relatively few cases in it
- b. Cell IG will contain a substantial number of cases of non-recidivists.
- c. Cell IG will contain a substantial number of cases of recidivists.
- d. Cell IG, ideally, will contain very few cases.

This would be true if we had effectively exhausted the universe of important sensitivity variables. Should this not be the case -- a reasonable expectation at this point in our explorations -- then there could be a number of cases in that cell, cases of juveniles deterred or labeled by factors not included in our analysis.

The principal outcomes of this suggested approach are two. First, it would reveal the relatively "pure types" of generatables and inhibitables. Second, it would give us some sense of the extent to which there is an overlap between the two sets of predisposing sensitivity variables.

The approaches detailed above are designed in the spirit of "informed exploration". We are sure enough of the value of our propositions to put them to the test, but at this stage we are certainly open to modifying our scheme. No single approach to establishing the parameters of sanction sensitivity seems patently most appropriate, and certainly not to the arbitrary

exclusion of the others. Our expectation, however, is that these analyses, in aggregate, will justify the final analysis of the broader conceptual scheme, to which we will turn next.

Should our expectation not be supported -- should inhibitables merely be revealed as the obverse of the generatables -- we will revise the conceptual scheme substantially as required, and continue with the final analysis but with altered goals. Different sanction sensitivity predictions will not be involved, but the scheme will still involve the interaction between individual predispositions and police dispositions. We will still be concerned with attempting to establish the effectiveness of police sanctions in the first arrest encounter, and with seeking suggestions about the application of sanctions as yielding deterrent or generative results with first offenders.

Sequential Analysis

Figure 4 represented the constructs for which we expect to find measures in the several data sets being provided to us. No single data set will provide us with an extensive set of measures of each construct, and each data set is sufficiently different in several respects that it would not be reasonable to aggregate them. We propose, then, to carry out a sequential analysis, testing causal relations in an admittedly incomplete causal model, and to tailor the analysis as necessary to each available data set. Asher (1976: 67-68) notes that "The best applications

of causal modeling will involve an interplay between theory, research design, and data. This means that the secondary analyst may be at some disadvantage since the data are givens for him. But even for the secondary analyst, theoretical and substantive considerations must play a major role in the construction and testing of models."

If the exploratory analyses described above yield sufficient discrimination between inhibitables and generatables, the sequential analysis will be undertaken separately for the two categories. If not, one analysis per data set will suffice. The pertinent components of Figure 4 are repeated below in Figure 11 for the reader's convenience.

Figure 11: Applicable Components of Figure 2a

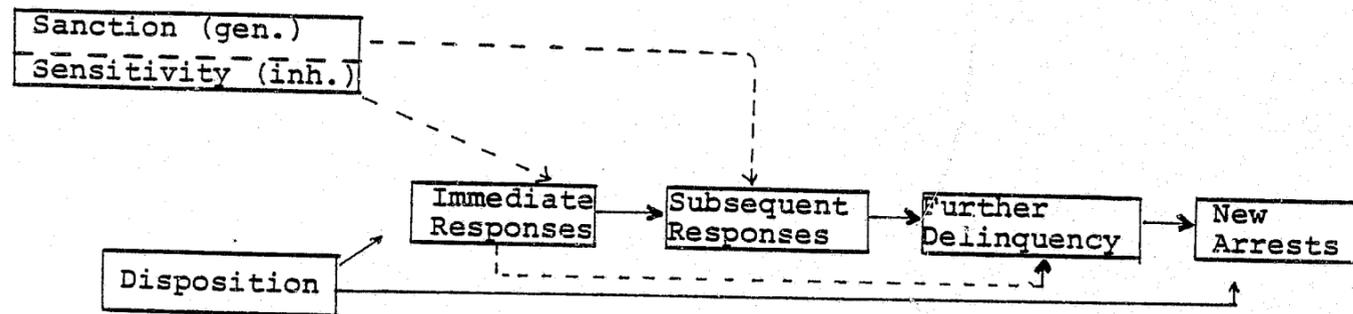


Figure 11 represents a developmental model (see Asher, 1976) as it would appear if generatables and inhibitables were separable. It will serve for illustrative purposes. The

broken-line arrows are used to remind the reader that modification will be required if the two categories of juveniles do not emerge from prior analyses.

Right now, for exploratory purposes, we are handling the conceptual scheme, as identified in Figure 11, as if there were only cases of uncorrelated residuals -- as if sanctioning processes were fully independent of etiological processes (see Figure 2). This is not a fully supportable assumption and future work must involve a longitudinal study in which are included some variables which are principally etiological and others which are principally pertinent to sanctioning as well as those contributing to both etiological and sanctioning processes. The ultimate complexity will arise in connection with the question of how the weights of these variables shift as a function of re-arrests.

Further, we are assuming the relative absence of specification errors. However, successive iterations through the several data sets should, in fact, allow us to further specify the model as additional pertinent variables emerge from the data sets. That is, one of our explicit concerns is to reduce the problem of specification errors. Certainly it would be naive of us at this point to take seriously the assumption of no specification errors.

Let us look at one example of these issues that we can deal with in our analysis. The reader is by now familiar with the constructs and the expected relations between them, except that the causal arrow leading from disposition to new arrest has not

been fully explicated. This could prove a critical relationship in our analysis because it can "drain off" a considerable amount of variance; i.e., this is a suggestion that there may be spurious relationships in the causal model. We have data from a prior project which show this relationship clearly in an experimentally controlled study. If the relationship exists in other settings, then it must be accounted for, since it acts in opposition to deterrence and its presence could also result in misattribution of labeling effects to self-concept changes.

Briefly, the situation is this. In a study of juvenile diversion in nine police stations, juvenile arrestees were randomly assigned to one of four disposition conditions; outright release, normal community referral, community referral with purchase of service arrangements (and thereby more intensive treatment), and petition to court. Both self-report and arrest data were collected for a follow-up period of 27 months. Figure 12 (reproduced from Lincoln et al., forthcoming) reports the results graphically.

Severity of police disposition had some effect on self-report delinquency, in line with expectations from labeling theory (i.e., the generative process, in our terms). But of particular importance here is the fact that, when controlling for self-report differences, there remained a highly significant effect of disposition on re-arrest. Juveniles given outright release were least likely to be re-arrested; juveniles petitioned to court were most likely to be re-arrested. Randomization to disposition prevented explanation via differences in prior

record, offense severity, and so on. The differentiating variable was the sanction itself, and (as we confirmed in police interviews) the operating process was that of the police re-arresting youngsters as a function of their knowledge of the prior disposition. It is, of course, with first offenders that factors other than offense seriousness and prior record are most likely to be involved, and 50% of the offenders in the Lincoln et al. report were first offenders. From our viewpoint, the disposition/re-arrest relationship is more than a factor to be controlled; in a conceptual scheme which assigns considerable weight to the sanctioning process, it becomes an integral component of that scheme. Police actions must be considered a major component of a delinquency control theory.

A path analytic approach

Given the time-sequenced nature of our theoretical conceptions as depicted in Figure 11, the data organize themselves into temporal waves. That is, we will have pre-delinquent measures on our subjects in the various cohorts to be examined. We will have information on the nature of the juvenile justice system reaction. We will have information on intervening youth responses. Finally, we will have information on subsequent recidivism. Examining the nature of the correlations longitudinally across these temporal points constitutes a major goal in our analyses. At this point in our thinking, and prior to definitive knowledge of the variables and measures to be found in each data set, we believe path analysis

to be a most appropriate general approach for our purposes.

Based on our developing theory and the results of the previous stages of analysis, path analysis procedures will be used for confirmation of the causal model hypothesized to "explain" the influence of sanction sensitivity, police action, and attitudinal changes on recidivism.

Path analysis (causal modeling, simultaneous equations models) is a multivariate correlational procedure originally identified with biometrics. It is a technique for stating a hypothesized causal model in mathematical form and testing its agreement with observed co-variances. In recent years there has been increased interest in such procedure applied to the social sciences, which Bentler (1980) attributes to a merging of several traditions: application of traditional biometric path analysis techniques to social science problems, a concern among social scientists for factor analysis and reliability theory, and the application of simultaneous equation models derived from econometrics to other social sciences. While Bentler does acknowledge that "important psychometric and statistical issues in causal modeling remain to be solved" he also notes that "the field has progressed to the point where quite general causal structures can be dealt with on a routine basis..." (Bentler, 1980, p.433).

Depending on the distributional properties of the measures, there are several techniques available to us that will arrive at path analytic solutions. As a research group, we have extensive experience using LISREL programs developed by Joreskog and Sorbom

(1978). LISREL is capable of handling both measured and unmeasured (latent) variables and is sufficiently versatile to permit some degree of model manipulation to improve the fit of a model to the data. This capability allows a model building strategy to be superimposed upon what is essentially a confirmatory analytic procedure. When given certain structural equations, the LISREL program provides a solution with the following properties:

a. All parameters (path coefficients, residual variances and covariances) are estimated simultaneously. That is, information from the total model is used in estimating any one parameter; thus all available information is used.

b. There is an estimated causal effect of one variable on another.

c. An overall test of how well the hypothetical model fits the obtained data can be made.

d. Where there are multiple observed indicators of a construct such as SES, e.g. father's occupation, education, and family income, one can construct, using Joreskog's maximum likelihood co-variance model, a pure or "error-free" estimate of the construct's effect on other constructs in the causal model.

It is our intention to use LISREL V. Providing both least-squares and maximum likelihood estimation, a robust analysis with respect to minor violations of assumptions can be made with LISREL V. We have extensive experience with LISREL from its beginning in Scandinavia. We (Mednick and colleagues) have worked with Joreskog and Sorbom in applying the method. In

addition to some controlled enthusiasm for the possibilities of the method, our past mistakes during an initial period of over-enthusiasm have given us an awareness of some of the pitfalls (see Bentler, 1980; Maruyama and McGarvey, 1980). We are also aware of criticisms which have been made of this form of path analysis (Asher, 1976; Blalock, 1971) and will take account of these comments in our applications

In addition, we have established a working relation with Bengt Muthen, a student of Joreskog and a research statistician and visiting scholar at the University of California at Los Angeles. Muthen has designed and made available to us a program similar in function to LISREL, but which is appropriate to use with categorical or qualitative data. In addition, he has nearly completed work on a second program that can effectively handle any type of mix of categorical and continuous measures. Although not yet available to the professional public, a form of this program is available to us through a special arrangement with Muthen. With his aid and our related experience using LISREL, we feel confident that these new developments will serve as useful tools in our research. In summary, although we are not yet thoroughly familiar with the data sets that have been offered to us, we are prepared to pursue the path analysis in whatever form the data take. We are extremely fortunate that we will have several independent data sets so that the stability of the findings can be assessed by cross cohort tests. The advantages of such cross cohort testing have been explicated by Nesselrode and Baltes (1979).

conceptual scheme.

The second question is similar, but refers instead to the discrepancy between the act, the initial charge, and the charge upon which the disposition is based. It is no secret, certainly, that charges often are changed from the time they are originally recorded. Thus the "act" for which a disposition is given may differ from the "act" originally committed or understood by the juvenile. Laboratory learning studies support the supposition that a sanction must be substantively connected to the act to be sanctioned.

Our own diversion data set, as well as the national DSO evaluation data set (Kobrin and Klein, 1981) and our Danish data, would allow us to compare instances where the recorded act and the charges later applied to it are substantively equivalent and where they differ. As with the time delay, it would be interesting to determine whether such differences in act-charge equivalence relate to subsequent responses and recidivism.

Both the DSO data set and another one we developed in connection with an NIJJDP project on police responses to altered legislation will also permit us to investigate this question with respect to initial vs. final police charges. This comparison is more complex, however. There are probably instances in which the final charge is substantively closer to the behavioral act than the initial charge. This could take place as a result of police supervision of investigation of initial arrest reports, or investigation of witness accounts, and so on. More of the instances, however, will probably consist of charge escalation --

E. Possible Additional Analyses

Apart from the sanction sensitivity analyses and the path analysis outlined above, the available data sets may permit us to pursue other points directly relevant to early sanctioning processes. At this point, we cannot project well enough whether the limited time available under the proposal will suffice. Two particular questions can be suggested, both of them deriving from the disjuncture between police practice and the tenets of learning theory with respect to the use of negative sanctions.

The first relates to the time element. Learning studies consistently support the effectiveness of negative sanctions when they follow the undesired act with a minimum of delay. Time delays, even of minutes, drastically weaken the effectiveness of sanctioning. Police arrests and, even more so, police dispositions normally take place hours, days, or even longer after the act to which they are a response. Within our own data set from the diversion evaluation project discussed earlier, we have the dates of the purported delinquent acts, the dates of arrest, and the dates of the disposition (where the latter are different). Other data sets may also contain this information. It should not be difficult, then, to investigate the relationship between sanction delay and recidivism (either self-report or official). Missing, of course, would be any truly short sanction delays of the sort studied in the psychological laboratories. But if sanction delays are bridged by symbolic representation in the human condition, we might be able to derive support for sanction delay as a variable to be included in the crime control

at least, this has been our experience with California police data.

Time Schedule

In the period between completion of the current grant and initiation of the proposed new activity, the Social Science Research Institute will provide staff support, at a reduced level, which will permit some preliminary steps to be undertaken. One of these will be pilot observations of police/juvenile encounters aimed at developing a structured observational recording form. Another will be the completion of the acquisition of the data set descriptions and some decision-making about the several best sets for our purposes. Compatibility of formats with that of the extensive USC computer system will also be determined.

Thus our time schedule of project related activities actually begins prior to project onset, and can be anticipated as follows:

March 1, 1982: Initiation of pilot observations, Los Angeles County

March 1: Initiation of data set reviews for variables fitting each construct, or theoretically applicable to each construct.

May 1: First draft, observational recording form

May 1: Tentative final decisions on choice of data sets

June 1: Beginning of funding period. Initial analysis of sanction sensitivity.

Sept. 1: Final observational recording form.

Oct. 1: First attempt to replicate sanction sensitivity analyses.

Oct. 1: Initiation of encounter observations in the East -- New Hampshire, Rhode Island, Florida.

Following December 1, at a pace not so easily predicatable, we should be able to complete the police encounter observations and begin the first pass at the major path analysis. At this point, Bengt Muthen will be in a position to work directly with us in setting up the LISREL V package and his variation for mixed categorical and continuous variables.

April 1, 1983: Completion of all principal analyses.

April 1, 1983 to May 30: Revision of conceptual scheme and Preparation of final report.

We anticipate both a full final report and a brief, article-length statement about the revised conceptual scheme. This latter, if all goes well, will be submitted for journal publication. Finally, we anticipate developing a statement concerning further research required to flesh out the conceptual scheme and procedures for testing it in the field with police cooperation. This statement may be in the form of a "concept paper" or a full proposal for research, depending upon the outcome of our analyses and the time available to us for writing.

REFERENCES

- Asher, H.B.
1976 Causal Modeling. Beverly Hills: Sage Publications.
- Bentler, P.M.
1980 Multivariate analysis with latent variables; causal modeling. Annual Review of Psychology 31.
- Black, D.J. and A.J. Reiss, Jr.
1970 Police control of juveniles. American Sociological Review 35:63-77.
- Blalock, H.M. (Ed)
1971 Causal Models in the Social Sciences. Chicago: Aldine-Atherton.
- Butcher, B.A.
1974 Companionship as a Factor in the Post-Arrest Dispositioning of Juvenile Suspects. Los Angeles: University of Southern California (mimeo).
- Datesman, S.K. and F.R. Scarpitti
1975 Female delinquency and broken homes. Criminology 13: 33-55.
- Elliott, D.S.
1978 Diversion-A Study of Alternative Processing Practices. Boulder, Co.: Behavioral Research Institute.
- Elliott, D.S., S.S. Ageton, and R.J. Canter
1979 An integrated theoretical perspective on delinquent behavior. Journal of Research in Crime and Delinquency 16:3-27.
- Empey, L.T.
1978 American Delinquency: Its Meaning and Construction. Homewood, Illinois: Dorsey.
- Empey, L.T. and S.G. Lubeck
1971 The Silverlake Experiment. Chicago: Aldine.
- Feldman, M.P.
1977 Criminal Behavior: A Psychological Analysis. Chicago: Wiley.
- Foster, J., S. Dinitz, and W.C. Reckless
1973 Perceptions of stigma following public intervention for delinquent behavior. Social Problems 20: 202-209.
- Gabrielli, W.F. Jr.
1981 The Interaction of Family and Biological Factors in Learning Law-Abiding Behavior. Los Angeles; University of Southern California, doctoral dissertation.
- Gibbs, J.P.
1975 Crime, Punishment, and Deterrence. New York: Elsevier.

CONTINUED

1 OF 5

- Hirschi, T.
1969 Causes of Delinquency. Berkeley: University of California Press.
- Jensen, G.F.
1972 Delinquency and adolescent self-conceptions: a study of the personal relevance of infractions. Social Problems 20:84-103.
- Joreskog, K.G. and D. Sorbom
1978 LISREL: Analysis of Linear Structural Relationships by the Method of Maximum Likelihood; User's Guide. Chicago: National Educational Resources.
- Kitsuse, J.I.
1975 The "new conception of deviance" and its critics, in W.R. Gove (Ed), The Labelling of Deviance: Evaluating a Perspective. New York: John Wiley and Sons.
- Klein, M.W.
1980 A judicious slap on the wrist: thoughts on early sanctions for juvenile offenders. Washington, D.C.: National Academy of Sciences. In press.
- Klein, M.W.
1978 Diversion as Operationalization of Labeling Theory. Los Angeles: University of Southern California.
- Klein, M.W.
1979 Juvenile Justice: Trends, Assumptions and Data. Los Angeles: Regional Institutes in Law and Mental Health.
- Klein, M.W.
1974 Labeling, deterrence, and recidivism: a study of police dispositions of juvenile offenders. Social Problems 22:292-303.
- Klein, M.W.
1981 Police Juvenile Units Under New Juvenile Justice Legislation. Volume 7 in K.S. Teilmann and M.W. Klein (Eds), Implications of California's 1977 Juvenile Justice Reform Law. Washington, D.C.: National Institute of Juvenile Justice and Delinquency Prevention, U.S. Dept. of Justice.
- Klein, M.W. and M.A. Little
1981 Changing functions of police juvenile bureaus, in R.G. Rubel (Ed). Juvenile Delinquency Prevention: Emerging Perspectives for the 1980s. San Marcos, Texas: Southwest Texas State University.
- Klein, M.W., S.L. Rosensweig, and R. Bates
1975 The ambiguous juvenile arrest. Criminology 13:78-89
- Kobetz, R.W.
1971 The Police Role and Juvenile Delinquency. Gaithersburg, MD: International Association of Chiefs of Police.
- Kobrin, S. and M.W. Klein
1981 Final Report: National Evaluation of the Program for the Deinstitutionalization of Status Offenders. Washington, D.C.: National Institute of Juvenile Justice and Delinquency Prevention, U.S. Dept of Justice.
- Lab, S.P. and R.B. Allen
1981 Methodological considerations in the joint use of official and self-report statistics. Tallahassee, Florida State University, (mimeo).
- Lemert, E.M.
1967 Human Deviance, Social Problems, and Social Control. Englewood Cliffs, N.J.: Prentice-Hall.
- Lemert, E.M.
1961 Social Pathology. New York: McGraw-Hill.
- Lincoln, S.B., M.W. Klein, K.S. Teilmann, and S. Labin
Forthcoming Control Organizations and Labeling Theory: Official versus Self-Reported Delinquency. Bloomington, University of Indiana.
- Lipton, D., R. Martinson, and J. Wilks
1975 The Effectiveness of Correctional Treatment: A Survey of Treatment Evaluation Studies. New York: Praeger.
- Little, M.A.
1981 Police and Runaway Perceptions of the Runaway Act. Los Angeles: University of Southern California, doctoral dissertation.
- Maruyama, G. and W. McGarvey
1980 Evaluating causal models: an application of maximum likelihood analysis of structural equations. Psychological Bulletin 87:502-512.
- McEachern, A.W. and R. Bauzer
1967 Factors related to disposition in juvenile police contacts. In M.W. Klein (Ed), Juvenile Gangs in Context: Theory, Research, and Action. Englewood Cliffs, N.J.: Prentice-Hall.
- Mednick, S.A., and K. O. Christiansen (Eds)
1977 Biosocial Bases of Criminal Behavior. New York: Gardner Press.
- Murray, C.A. and L.A. Cox, Jr.
1979 Beyond Probation: Juvenile Corrections and the Chronic Delinquent. Beverly Hills: Sage Publications.
- Nesselroade, J.R. and P.B. Baltes
1979 Longitudinal Research in the Study of Behavior and Development. New York: Academic Press.
- Piliavin, I. and S. Briar
1970 Police encounters with juveniles. American Journal of Sociology 70:206-214.

- Robins, L.N.
1966 Deviant Children Grow Up: A Sociological and Psychiatric Study of Sociopathic Personality. Baltimore: Williams and Williams.
- Romig, D.A.
1978 Justice for Our Children: An Examination of Juvenile Delinquent Rehabilitation Programs. Lexington, MD: Lexington Books, D.C. Heath.
- Rossi, P.H., E. Waite, C.E. Bose, and R.A. Berk
1974 The seriousness of crimes: normative structure and individual differences. American Sociological Review 39:224-237.
- Rovner-Pieczenik, R.
1978 Police Juvenile Units Study: Final Report. Washington, D.C.: The Police Foundation.
- Schur, E.M.
1975 Comments, in W.R. Gove (Ed), The Labelling of Deviance: Evaluating a Perspective. New York: John Wiley and Sons.
- Sechrest, L., S.O. White, and E.D. Brown (Eds).
1979 The Rehabilitation of Criminal Offenders: Problems and Prospects. Washington, D.C.: National Academy of Science (cited with permission).
- Sundeen, R.A., Jr.
1974 Police professionalization and community attachments and diversion of juveniles. Criminology 11:570-580.
- Teilmann, K., and J. Peterson
1981 What works for whom: the uses of deinstitutionalization. Chapter XVI in S. Kobrin and M.W. Klein (Eds), National Evaluation of the Deinstitutionalization of Status Offender Programs I. Washington, D.C.: National Institute for Juvenile Justice and Delinquency Prevention, U.S. Dept of Justice.
- Tittle, C.R.
1980 Evaluating the deterrent effects of criminal sanctions, in M.W. Klein and K.S. Teilmann (Eds), Handbook of Criminal Justice Evaluation. Beverly Hills: Sage Publications.
- Wattenberg, W.W. and N. Bufe
1963 The effectiveness of police youth bureau officers. Journal of Criminal Law, Criminology, and Police Science 54:470-475.
- Wilson, J.Q.
1968 The police and the delinquent in two cities, in S. Wheeler (Ed), Controlling Delinquents. New York: John Wiley and Sons.
- Zimring, F.E. and G. Hawkins
1973 Deterrence: The Legal Threat in Crime Control. Chicago: University of Chicago Press.

Relevance to Delinquency/Deterrence
of the Learning Theory
Model of Punishment

by
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Section II of the Final Report
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Exploring Guidelines for Specific
Deterrence Theory: Early Sanctions
in the Juvenile Justice System

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Abstract

Both the experimental laboratory model of punishment and the juvenile justice system's negative sanctioning process have a common goal of suppressing undesired behavior. The psychological literature on the experimental model of punishment contains a number of principles which have been demonstrated to improve the effectiveness of punishment in suppressing behaviors under controlled study. This paper presents five of these principles which yield predictions about deterrence of illegal acts by the use of negative sanctions in the form of testable hypotheses.

The paper begins with a discussion of the objections voiced by some authors to the practice of extrapolating from an experimental model to the actions of the juvenile justice system. Objections have been made on two grounds: that the paradigms used in laboratory studies of punishment are too dissimilar from the process of justice system sanctioning, and that the subjects used in experimental studies of punishment are not representative of the human adolescents sanctioned by the juvenile justice system. Although these objections are serious, it is proposed that research is needed which addresses the questions of generalizability of the experimental findings to the juvenile justice system, before the possible benefits of such an extrapolation approach are forgone.

The first principle discussed is the principle of intensity of aversive stimulus. When shock is used, more severe punishment suppresses behavior more thoroughly. Some problems in application of this finding to juvenile sanctioning are

considered, and studies are reviewed in which the effects of severity of sanctions on juvenile's reoffending were examined.

The second principle, temporal proximity of the punishment to the behavior, asserts that punishment is more effective when less time is allowed to pass between act and sanction. Several reasons for this delay effect are noted. The possibility is presented that the juvenile's special human cognitive and language capacities may be used to help overcome the effects of delay of punishment.

The third principle, availability of reward for the behavior, explains how past rewards strengthen behaviors, and rewards concurrent with punishment serve to maintain the behavior, yielding only a temporary suppressive punishment effect. These points are treated as suggesting a need for detection of delinquency early in a juvenile's career and reducing the opportunities available for reward from illegal acts.

The schedule of delivery of punishment is the fourth principle. Punishment of every instance of a behavior is more effective than intermittent punishment delivery. Indeed, some studies show that intermittent punishment may actually serve to strengthen behavior. These results are interpreted in the context of perceived uncertainty of punishment, which may increase juveniles' willingness to commit illegal acts.

The final principle considered is the need for available alternatives to the punished response. This principle seems to imply the rehabilitation efforts must be combined with punishment. However, several problems exist in extrapolating

form the laboratory paradigm used to develop this principle to the real-life world of the juvenile offender.

Following discussion of these five principles of punishment and then implications for juvenile sanctioning, two cautionary comments are made. It is noted that the interprinciple relationships have not been systematically explored, and it is possible that less than optimal application of one principle may be compensated for by maximizing of another. This aspect of the approach will be important in overcoming practical, legal, and ethical constraints in the application of negative sanctions. It is also pointed out that there are individual differences in responsiveness to punishment caused by the social, psychological, and physiological background and status of each juvenile. Application of any of the principles of punishment cannot be expected to have uniform results across all juveniles.

The paper concludes with the reminder that application of any of the principles of punishment would be premature without extensive research aimed at exploration of the numerous issues brought up in the course of this exploratory paper.

Cautions Concerning the Appropriateness for Juvenile Deterrence of the Learning Theory Model of Punishment.*

A number of authors have espoused the relevance of a learning theory model of punishment for application in official negative sanctioning of illegal behaviors. Chopra (1969, p. 150) has asserted that we have "now probably reached the stage where extrapolations of findings to the human condition could have some meaning" and presents suggestions for ways in which findings from laboratory studies of punishment "may be applied to the actual problem of controlling illegal behavior." Because of its exclusive concern with suppressing behavior, Singer (1970) proposed that the experimental model of punishment is even more relevant to deterrence of criminal behavior than to animal training and child rearing, two areas in which laboratory-derived punishment principals are frequently applied. Jeffrey (1965) inferred from learning experiments that it is the certainty of punishment, not the severity, that deters persons from committing illegal behaviors.

Assertions of the pertinence of principles derived from an experimental model of punishment for the effective application of negative sanctions to illegal behaviors have not gone unchallenged by writers in deterrence theory. Objections have been made on two grounds: that the procedural paradigms used in

*Although the authors cited in this section have discussed primarily the adult criminal justice system, the present paper focuses on the juvenile justice system and will refer specifically to the juvenile system hereafter.

laboratory studies of punishment effectiveness are too dissimilar from the process of negative sanctioning as it occurs in the juvenile justice system, and that the subjects used in experimental studies of punishment are not representative of the human adolescents who are the recipients of negative sanctions from the juvenile justice system.

Questions about laboratory paradigms. In regard to the first objection, a brief description of a typical laboratory punishment procedure is in order. The experimenter uses a reward, such as food, to train a food-deprived animal to perform a single, well-defined behavior, such as pressing a bar. When the behavior is being performed at a stable rate, the experimenter begins to deliver an aversive stimulus instead of the reward contingent on performance of the animal's behavior. He measures the frequency of performance of the behavior, and if it decreases he infers that punishment has occurred. Zimring and Hawkins (1973) have discussed some of the important ways in which this sort of laboratory procedure differs from the judicial process of negative sanctioning.

One of the major criticisms made by experimental psychologists of "the punishment of crime" is that it is deficient as a form of aversive conditioning. It is, as Professor Eysenck says, "a very haphazard affair." Both Mr. Chopra and Professor Singer speak of the necessity for increasing the certainty and diminishing the delay involved in institutional punishment...but it is clear that the basic difference is not merely quantitative but qualitative.

Another critical aspect of the experimental studies of punishment which does not apply to the penal system is that aversive conditioning is based on repeatedly punishing repeated behaviors in a relatively short period of time. We know of no

research in punishment that demonstrates a habitual act being punished only once and the habit being thus extinguished (p. 240).

And finally, almost the entire literature on punishment is based on the electric shock. These considerations place a substantial barrier in the way of deriving penological principles from what are called "the basic laws of punishment" (p. 240).

Singer (1970) has provided a response to concerns about the dissimilarity of shock to judicial sanctions.

We do know that different types of punishment generally do not alter the laboratory laws of punishment: Punishing stimuli such as slaps, buzzers, confinement in a box, shocks of different durations and intensities, and removal from the vicinity of reward, which include some fair analogues of incarceration, all produce the same experimental results even when more than one punishment is used for the same organism in the same experiment (p. 411).

Despite Singer's assurances about electric shock, Zimring and Hawkins' other concerns remain unanswered, and it is important to keep them in mind when discussing the relationship of learning theory and deterrence.

Another point of dissimilarity which may be important is suggested by Zimring and Hawkins' use of the term "habitual act." In the paradigmatic laboratory procedure, the same behavior is punished a number of times and the punishment effects are assessed by measuring the decreasing frequency of performance of that same behavior. The practical situation of juvenile sanctioning deviates from this laboratory procedure, because, as Zimring and Hawkins point out, the juvenile justice system usually has only one opportunity to punish an illegal behavior, and if the behavior is detected a second or third time, the occasions for punishment may be separated by long periods of

time. It is well known that there are no successful demonstrations of behavioral suppression after a single punishment with animals (except in the special case of consummatory behaviors (Garcia, 1974)). However, a single application of punishment may be expected to have a more rapid suppressive effect with humans than with animals because animal subjects require several trials to learn the nature of the contingency between their behavior and the punishment. The special cognitive capabilities of human adolescents allows them to develop an understanding of the 'rules' for punishment even before punishment is applied, perhaps thus preparing them to be especially receptive to learning in a single trial (Grings, 1965). These cognitive capabilities will be discussed in greater detail in a later section.

There is a second point of deviation from the model: the behavior which is used as a measure of punishment effects. To reiterate, the laboratory research assesses the suppressive effects of punishment by measuring a decreasing frequency of performance of the same behavior that was punished. If other similar behaviors also are observed to decrease in frequency, 'generalization' of punishment effects across a class of behaviors is said to have occurred. Instead of measuring the frequency of recurrence of behavior identical to the punished behavior, studies of deterrence effects predominantly assess for simple rearrest or further self-reported delinquency. If we view the recidivism situation from the perspective of a laboratory model of punishment effects, theft is not recidivism for a

juvenile who has been punished for public consumption of alcohol. The appearance of theft behavior cannot be taken as evidence that punishment did not effectively suppress alcohol consumption. It can however, be taken as evidence that 'delinquent behavior' was not suppressed, that is, that punishment effects did not generalize across responses in the class of illegal behaviors. Clearly, it is generalization of punishment effects that the juvenile justice system desires as a result of its interventions. This generalization becomes even more crucial when we understand that the popular assumption that delinquents tend to specialize in one career offense type is unsupported. In a review of the literature Klein (1980) concludes "The clear direction....is predominantly toward randomness, versatility, or cafeteria-style delinquency. The evidence is extremely weak for offense specialization as well as for seriousness progression" (p. 5). Given this lack of specialization, the use of any further delinquency as a global measure of the outcome of punishment of a single specific offense seems justified as well as necessary. Unfortunately, this author discovered no studies, using animals or humans, of punishment generalization. The question of the effectiveness of punishment in suppressing a large class of behaviors as a "habitual act" thus remains unanswered.

Questions about experimental subjects. The second area of objection to the application of an experimental punishment model to negative sanctioning is the dissimilarity of research subjects to juvenile offenders. It is possible that the laws of learning

may not predict the behaviors of humans as accurately as the behaviors of the animal subjects upon which the laws were developed. Zimring and Hawkins (1973) noted, "... the vast majority of the experimental subjects are rats, cats, dogs, monkeys, goldfish, and pigeons rather than human beings" (p. 239). Aronfreed, who has conducted a number of studies of punishment with human children, cautioned, "...this extrapolation from animals to humans is a limited one. The socialization of the child takes place through stimulus channels and cognitive processes which are inherently socially oriented. The effects of this social transmission may not be entirely predictable from the effects of the nonsocial medium that is generally used to study learning in animals" (1968, p. 21).

Andenaes (1974) explained one implication of this human social transmission (or language) for an animal-derived model of punishment; pre-punishment awareness of the behavioral contingencies.

The application of legal punishment is the result of the violation of a general norm which prescribes punishment and which the offender normally will know in advance. The whole experience derives its meaning from this relationship between the general norm and the application of punishment in the individual case. The situation is very different from the situation of a confused rat or pigeon who is desperately trying to adapt its behavior to the incomprehensible manipulations of the psychologist (1974, p. 185). How does the experience of actual punishment influence the deterrent effect of the threat--a deterrent effect which has proved, in this case, insufficient to prevent the offense? (1968, p. 88).

Thus, Andenaes' general concern is that punishment will not eliminate the behavior of humans as effectively as it eliminates

the behavior of animals, and he suggests specifically that pre-punishment awareness of the threat of punishment may influence the responses of humans to punishment.

In answer to these concerns, a number of studies of the effects of punishment on human subjects have demonstrated that the principles derived with animal subjects are very effective with humans (see Aronfreed, 1968; Johnston, 1972; Rimm and Masters, 1979; for reviews). In addition, awareness of the contingency between behavior and punishment has been shown to facilitate human subjects' learning to suppress behavior (Aronfreed, 1968; Grings, 1965; Spielberger, Southard, and Hodges, 1966). However, very few of the human studies used normal adolescents or juvenile offenders specifically, and most studied very young children, college students, institutionalized psychotics, and mentally retarded individuals (Johnston, 1972). Also, Aronfreed cautions, "most of the experiments which have shown punishment can make a contribution to normal children's learning employ discrimination paradigms (e.g. choice between a 'correct' toy and a 'forbidden' toy) or other tasks of a type which are not well suited to a demonstration of behavioral suppression... there has been little empirical work on the use of punishment to suppress the overt manifestations of a motivated behavioral disposition in children" (1968, p. 163).

Conclusions about extrapolations from the learning theory model of punishment to juvenile deterrence. In summary, although some authors have advocated the application of principles derived

from an experimental model of punishment to improve the deterrent effects of negatively sanctioning juvenile offenders, others have raised objections concerning the relevance of the experimentally-derived model to juvenile justice procedure.

Concerns are that laboratory procedures and research subjects are so dissimilar to sanctioning procedures and human adolescents that any principles derived from the experimental study of punishment by psychologists are of doubtful predictive value for the deterrent effects of sanctions applied by the juvenile justice system. These objections have not been satisfactorily addressed to date, so it is advisable to proceed with caution when extrapolating from the experimental punishment model to the juvenile justice system sanctioning procedures.

Nevertheless, awareness of the principles of punishment may be useful to the deterrence theoretician. There are some important similarities in the experimental model of punishment and juvenile justice sanctioning. The goal of each is to suppress undesired behavior, and each attempts to reach the goal by providing unpleasant consequences for such behavior (although the juvenile justice system also employs other means such as incapacitation and diversion). The literature on the experimental model of punishment contains a list of principles which have been demonstrated to improve the effectiveness of punishment in suppressing behaviors under controlled study. It is not known to what extent any of these principles might also improve the effectiveness of 'punishment' as meted out by the juvenile justice system, but it is possible that application of

some of the principles might be advantageous in improving specific deterrence effects. All of the principles yield predictions about deterrence of illegal acts by the use of negative sanctions in the form of hypotheses which may be tested. Before the offerings of the experimental model of punishment are dismissed, research is needed to evaluate the possible usefulness of application of the principles on a system scale.

This review will define each of the principles which have been demonstrated to maximize the effects of punishment in suppressing the behavior of animals in the laboratory, with reference to hallmark studies from the animal learning literature. These principles are, (1) the intensity of an aversive stimulus, (2) the temporal proximity of the aversive stimulus to behavior, (3) the availability of reward for the behavior, (4) the schedule of delivery of the aversive stimulus, and (5) the availability of alternate rewarded behaviors. Studies demonstrating the use of each principle with human subjects will be cited, when available. Also, deterrence studies from the criminological literature which may be relevant will be discussed.

1. The Intensity of the Aversive Stimulus.

In a thorough review of the animal literature, Azrin and Holz (1966) stated, "the intensity of punishment has been found to be a major determinant of the degree of response reduction by punishment. All studies of the intensity of punishment have found that the greater the intensity of the punishing stimulus,

the greater is the reduction of the punished responses. When electric shock has been used, suppression has been virtually complete at high intensities" (p. 396). Johnston (1972) noted that although there are no studies of punishment intensity using human subjects, "laboratory studies have shown reliably that introduction of the punishing stimulus at lower intensities resulted in less response reduction than if higher initial intensities were used." (p. 1041). It is not known whether this effect is due to the absolute greater intensity of the initial punisher, or to the contrast between the initial and later punishers. Clearly, the implication is that deterrence might be increased if first offenders were punished severely*, rather than leniently.

There are problems in applying the principle of severity to juvenile sanctioning. It is difficult to extend the model of electric shock to the application of negative sanctions. The controllable strength and clear, rapid onset and offset of the shock have been found to contribute significantly to response suppression (Fromer and Berkowitz, 1964; Mowrer, 1960) and it is not at all clear at what point in apprehending and processing a juvenile the 'punishment' begins, or ends. In fact 'punishment' is not officially meted out at all to a large number of first offenders or minor offenders.

 *The term 'intensity' seems more descriptive of electric shock. 'Severity' will be used to describe the intensity concept in relation to juvenile sanctioning.

Perception of intensity. We are often reminded in the punishment literature (Azrin and Holz, 1966; Johnston, 1972) that an aversive stimulus is not defined as a punisher unless it suppresses behavior, and that it suppresses behavior only if it is perceived as aversive by the subject. Thus, increasing the intensities of punishment in the juvenile justice system must be defined as increasingly effective in deterring recidivism. This author found no studies of juveniles' perceptions of sanction severity. However, Rydelius (1980) found that boys who reported feeling afraid when they were apprehended were less likely to reoffend than were boys who reported no fear.

Studies of severity with juvenile offenders. Results are contradictory among studies which have attempted to examine recidivism rates for treatment of varying severity applied to juvenile offenders. Labelling theorists have proposed that "apprehension itself encourages rather than deters further delinquency" (Gold and Williams, 1969, p. 11). In addition to the Gold and Williams study, Klein, Teilmann, Lincoln, and Labin (1982, forthcoming) reported that, after a 27 month followup, the further a juvenile had been processed within the juvenile justice system, the greater the chance for rearrest, with juveniles who had been counseled and released rearrested 25% less often than juveniles who had been petitioned. In the Klein et al. study, juveniles were randomly assigned to treatment groups. In direct contrast, McCord (1980) has recently reported that among apprehended juvenile first offenders "those who had been released without official processing for their first arrests were more

likely to commit subsequent crimes, to commit index crimes, and to commit crimes against persons" (p. 1). The small number of boys who were fined, put on probation, or discharged after a court hearing committed significantly fewer subsequent crimes. Murray (1980) has results similar to those of McCord. In his study, increasing severity of sanction was related to longer time until next arrest. It is possible that conflicting results in these studies are the effects of differential attention paid to factors (such as local law enforcement policies, seriousness of offense, number of prior offenses, and age of the juvenile) which may influence decisions concerning the disposition of sanction severity in individual cases.

Research is needed on juveniles' perceptions of the severity of the various sanctions available to the juvenile justice system, and the differential deterrent effectiveness of these sanctioning options, before it will be known whether the principle of punishment intensity can be useful within the juvenile justice system.

The Temporal Proximity of the Punishment to the Behavior. 2.

J. B. Watson, who has been called the father of behaviorism, once wrote "The idea that a child's future bad behavior will be prevented by giving him a licking in the evening for something he did in the morning is ridiculous" (1924, p. 183). A multitude of animal studies have proven Watson's common sense adage correct. Church (1969) reviewed a number of animal studies that discovered that the effectiveness of punishment administration diminishes

rapidly from zero to five seconds following a behavior. Azrin (1966) reviewed animal studies of longer delays and concluded, "immediate punishment was no more effective than non-immediate punishment during the first hour. After that time, however, the responses recovered substantially and often completely with non-immediate punishment, whereas the responses were reduced indefinitely and often completely during immediate punishment. For enduring effectiveness, the punishing stimulus should be delivered immediately" (p. 394). Delays of punishment have also been shown to reduce the effectiveness of behavior-contingent learning in human children (Penny and Lupton, 1961; Walters, 1964).

The discrepancy between application of negative sanctions and the experimental principle of immediacy of punishment is not difficult to discern. It is difficult to arrange to inflict official penalties within five seconds of an illegal act. Zimring and Hawkins (1973) have pointed out that the only experience in the sanctioning process that might fit the immediacy requirements of the experimental model of punishment is apprehension. Gold and Williams (1969), in their national study of apprehension of juveniles, concluded that apprehension itself encourages rather than deters further delinquency. Research is needed to determine if juveniles perceive apprehension by an officer as aversive, and to illuminate any differential deterrent effects of different modes of apprehension and police contact. Some clinical researchers have found that, in the case of the complex response chains composed of numerous discrete behaviors

which characterize many undesirable human behaviors (e.g. stealing), delivery of punishment as early as possible in the sequence is much more effective than punishing after the act is completed (Aronfreed and Reber, 1965; Berecz, 1976; Birnbrauer, 1968). This effect is probably important in sanctioning illegal behavior, because the material rewards for illegal behavior often have immediate effects which will be more influential than the effects of punishment delivered much later (Eysenck, 1964). This author found no studies of the likelihood of recidivism among juveniles caught in the act, as opposed to juveniles apprehended later. A study designed to elucidate the effects of immediate apprehension should, of course, control for the possibility that juveniles who are caught in their acts may be different from juveniles who evade apprehension for a longer time, especially on such characteristics as social class, intelligence, or physical clumsiness; characteristics which may also influence juveniles' susceptibility to punishment effects.

The act-punishment interval. In addition to the problem of immediate rewards, another problem is likely to arise when delayed punishment is used in an applied setting: the occurrence of behaviors in the interval between the undesirable behavior and the punishment. This may result in the punishment's suppressive effects being applied to behavior other than the illegal act. Between the illegal act and receipt of an official sanction a juvenile may perform the behaviors that facilitated his apprehension, or perhaps cooperative behaviors with the juvenile officer, both of which are closer temporally to the official

sanction than is the delinquent behavior. For example, a boy steals a car, has a good deal of fun with it, drives on a busy street with high police surveillance, is apprehended but cooperates with the officer, and then is fined. The act of theft is closely followed by a reward (fun), while the later behaviors of driving in a policed area and cooperating are followed by punishment. The principle of immediacy of punishment predicts that the boy will be less likely to cooperate with police, and less likely to drive on a busy street, when he steals another car.

Cognitive mediation of delay effects. The principle of immediacy of punishment seems, at this point, to predict a pessimistic outcome for juvenile deterrence. However, it is advisable to remember Aronfreed's caution that human social communication abilities may mitigate relationships demonstrated in laboratory research. He stated, "it may be that the most crucial function of cognitive representation in the socialization process is the mediation of the temporal gap between the child's behavior and its rewarding or punitive consequences" (1968, p. 72). Aronfreed suggests that delay of punishment can be compensated for if, at the time of punishment delivery, the child's "cognitive representation" of the act is elicited. The affective value of the punishment may become attached to the cognitive representation, or verbal description, of the act, rather than only to the act itself. Aronfreed maintains that this process is one of the means by which internalized control over behavior is developed in humans.

An inverse technique useful in compensating for delay would consist of creating a cognitive representation for the child of the punishment to come, at the time of the act. Aronfreed (1966), Fagan and Witryol (1966) and Maher (1956) have demonstrated that the suppressive effects of a delayed punishment can be increased by verbally administered instructions that increase the salience and certainty of delivery of the punishment. There is some suggestion that verbal and cognitive factors may be playing a role in juvenile deterrence. Moffitt, Gabrielli, Mednick and Schulsinger (1981) found that recidivistic juvenile offenders had lower scores on verbal intelligence tests than did one time offenders. One explanation could be that the one time offenders formed cognitive representations of their acts and punishments more easily, and thus benefitted more from their negative sanctions, despite any delays which occurred between the sanctions and their acts. The implication of Aronfreed's suggestions is clear: the sanctioning process might profit from having the juvenile, or the police officer or judge, verbally describe the juvenile's transgression and the contingency between the act and its punishment, at the time the sanction is delivered. It is not unreasonable to doubt whether a child's cognitive representation of a punishment which has followed his delinquent act can actually be effective in suppressing further commissions of the delinquent act. After all, cognitive representation is simply "imagining" the punishment taking place. There are some data which suggest that imaginary (covert) punishment can suppress behavior. Epstein and Peterson (1973)

reported a laboratory study in which imagined aversive stimuli served as well as tangible punishers in a typical operant conditioning paradigm. Two clinical case reports provide instances where covert punishment has been used in the suppression of delinquent-type behaviors specifically. Davison (1969) induced a child to vividly imagine his father's angry mood each time he contemplated a forbidden act. Guidry (1975) utilized covert punishment in treating a case of compulsive stealing. When the client felt an urge to steal, he was to imagine being caught and disgraced. The client's thefts were reduced by 90 per cent during a ten month follow-up period. It seems that, when individuals are aided in establishing a robust cognitive representation of the contingency between act and punishment, the representation can have suppressive effects on behaviors.

In summary, the importance of immediacy of delivery of punishment is well established. While practical (and constitutional) constraints prevent the juvenile justice system from delivering immediate punishment, avenues are available for overcoming delay effects. One such avenue is investigation of apprehension as a punishment experience, since it is the component of the sanctioning procedure which is temporally closest to a juvenile's act. Another is examining the possible ways in which the cognitive and language abilities of a juvenile could be used to strengthen the connection between his act and the delayed punishment. The explicit use of verbal instructions during the sanctioning may also be found to diminish the problem of punishing the wrong behavior, which often occurs with long

punishment delays in applied settings.

3. The Availability of Reward for Behavior.

Recall the laboratory procedure above for studying punishment effects with animals. The animal is first taught to emit the behavior of interest by being rewarded for performing it, before the punishment phase begins. Johnston (1972, p. 1044) has pointed out that the need for the use of punishment in applied settings "unavoidably means that there have been and probably still are reinforcement procedures concurrently in progress with respect to the punished response." In this situation two factors are operating which can serve to decrease the effectiveness of a punisher: the strength of the response, which is a function of past reward, and the maintenance of the response by rewards occurring concurrently with punishment.

Response strength. In regard to the first factor, a number of animal studies have demonstrated that the effectiveness of punishment is inversely related to the magnitude, frequency, and immediacy of reward delivered prior to the onset of punishment (Church and Raymond, 1967; Evans, 1970; Ferraro, 1966; and Martin, 1963). Although studies of response strength in humans are not available, this principle implies that if an apprehended juvenile has committed illegal acts previously with success and payoff, negative sanctioning will probably be less successful in deterring him from further illegal behavior than if he had been apprehended following his first illegal act. A study of this implication might be executed by comparing recidivism rates among

juveniles who self-report many delinquent acts prior to their first apprehension, with those who self-report relatively few delinquent acts prior to apprehension.

Response maintenance. In regard to the second factor, Johnston (1972, p. 1045) has suggested that "to obtain the maximum effect from a punishing stimulus, the frequency of reinforcement for the response should be minimized." The condition under which no reinforcement is available for a behavior is called extinction. The frequency of performance of a behavior during extinction decreases as in punishment; indeed, if extinction is maintained long enough, punishment is not needed. Animal studies show that when both punishment and extinction are used simultaneously, the elimination of a behavior is more rapid than when either procedure is used alone (Azrin, 1960; Estes, 1944), but that if punishment is attempted while reinforcement is still available, and is maintaining the response, suppression of behavior is incomplete and transitory (Azrin and Holz, 1966; Boe, 1964). Singer (1970, p. 415) has commented, "since criminal behavior is almost always rewarded, this suggests that we give some attention to extinguishing criminal behavior as well as punishing it, by withdrawing the rewards or making them inaccessible." Shah (1966, p. 32) writes, "...the form and frequency of certain criminal acts bears some connection to the environmental structure and opportunities provided... The relative ease with which cars may be broken into and be started without use of ignition keys, clearly affects the frequency of offenses involving joy-riding and automobile theft." If

opportunities for engaging in illegal acts were reduced, the expectations for reward for such acts might diminish, and relative deterrent effects of negative sanctions should increase.

In summary, both the strength of a behavior and the maintenance of a behavior by reinforcers concurrent with punishment serve to mitigate the suppressive effects of punishment. Juveniles who are apprehended at their first illegal act may be better candidates for deterrence, and measures such as defensive environmental design and victim awareness programs may help decrease the amount of reward expected for illegal behavior.

4. The Schedule of Delivery of the Punisher.

Animal studies have demonstrated that behaviors are much more effectively suppressed when every instance of the act is punished, than when the act is only intermittently punished, allowing some performances of the act to be rewarded (Azrin, Holz, and Hake, 1963; Zimmerman and Ferster, 1963). The discrepancies found between self-report and official records of juvenile offending (Gold, 1966; Short and Nye, 1958) indicate that many of the offenses committed by juveniles go unpunished, and we may assume that most of these unpunished acts are rewarded. Indeed, even many detected and apprehended offenders remain officially unpunished. Thus, the existing situation in juvenile sanctioning parallels most closely an intermittent schedule of punishment delivery. There are no reported studies of schedules of punishment with humans and even few studies which

investigate the effects of intermittent punishment on the behavior of animals. However, some animal studies which are reported have unpleasant implications for an applied system using intermittent punishment. For example, sporadic punishment of an animal's intermittently rewarded behavior will strengthen the subsequent resistance to extinction of the behavior when rewards are withdrawn (Lawrence and Festinger, 1962; Logan and Wagner, 1965; Martin, 1963). Behavior that continues to be rewarded is also made resistant to the effects of frequent punishment if the punishment is introduced gradually on an intermittent schedule (Banks, 1966; 1967). Effects such as these on the behaviors of animals may suggest that juveniles who experience punishment for only a few of their offenses may be likely to develop adult criminal careers as well, and may be especially resistant to deterrent effect of future punishments.

Expected punishment. Two studies of the social control of children's behavior have shown that if children are led to expect that punishment will follow a behavior, but that actual performance of the behavior results in no consequence, then the absence of punishment has the effect of a reward; the rate of behavior is increased (Crandall, Good, and Crandall, 1964; Offenbach, 1966). Thus, it is probable that every failure to negatively sanction apprehended offenders by the juvenile justice system has anti-deterrent effects. There are data which support this notion. Gabrielli and Mednick (in preparation) compared adult offenders who received punishments less severe than the mean punishment meted for their offense with offenders who

received punishments more severe than the mean. The latter group reoffended significantly less often than did the former. If we can assume that the offenders expected to receive the average amount of punishment, then it is possible to infer that the extent to which their actual punishments deviated from this expected amount impacted their rates of reoffending considerably. Results of a study of 1,457 Chicago boys lend support to the idea that punishment delivered at less than the expected level may actually reinforce behavior. Murray (1980) found that failure to take delinquents who were already on probation back to court after an arrest was followed by faster rearrests.

Certainty of punishment. Although data are not available from studies of human subjects to clarify the cognitive impact of differential schedules of punishment, it is probable that differences in suppression effects between continuous and intermittent punishment are attributable to perceptions about the certainty of punishment, not merely the frequency. The classical school of criminology has long maintained that it is the certainty of punishment, not the severity, that deters persons from criminal behavior (Jeffery, 1965). Parker and Grasmick (1979) have demonstrated that persons' personal experiences with crimes and the personal experience of their acquaintances are more important in influencing their estimates of the certainty of arrest than are media reports of official arrest rates. They noted that Walker (1969) reported that criminals had more accurate knowledge of arrest rates than did the general public, and concluded that offenders themselves develop an accurate

assessment of the low probability of their apprehension based on personal experience. Offenders are aware that they are on an intermittent punishment schedule.

What are the implications of such awareness? Erickson, Stafford, and Galliher (1980) surveyed juveniles in two Arizona counties to assess the effects of rates of punishment for specific offenses on the juveniles' evaluation of norms concerning the wrongness of engaging in those offenses. Although results depended to some extent on the seriousness of the acts, in general juveniles were more willing to engage in offenses with the lowest probability of punishment. In addition, juveniles who had been personally apprehended for an offense, but treated leniently, perceived the offenses as less serious than even the juveniles who had not been apprehended. This group is similar in some ways to the children in Offenbach's (1966) study who experienced as a reward an expected punishment which was not delivered.

Uncertain punishments. Siegel (1978) compared the performance of sociopathic prisoners, nonsociopathic prisoners, and college students on a card game in which the probability of punishment (losing poker chips which could be redeemed for money) was manipulated by the experimenter. When the probability of punishment was in the midrange (40 - 70 per cent) sociopaths were more willing to risk the loss of poker chips than were members of the two control groups. When questioned following the card games about their perceptions of the probability of punishment, the sociopaths underestimated the likelihood of losing poker chips

chips when the probability of loss was in the midrange, but did not underestimate the probability of loss when loss was actually quite certain.

In summary, animal studies have proven that continuous punishment is more effective than intermittent punishment in suppressing behavior. Indeed, it is possible that sporadic punishment of a rewarded behavior, or failure to deliver an expected punishment, can actually serve to increase the strength of a behavior. These laboratory findings about punishment schedules are interpreted in terms of juveniles' perceptions about the certainty of punishment for illegal behaviors. Criminological studies exist which demonstrate that perceived certainty of punishment is determined by personal experience and that it affects juveniles' willingness to engage in illegal acts. A subgroup of serious multiple offenders may be especially likely to underestimate the likelihood of punishment when punishment is uncertain. Singer (1970, p. 417) wrote, "the moral derived from the basic experimental results concerning certainty is nevertheless straightforward: Catch more criminals more of the time..." Unfortunately, the moral is not as straightforward to implement as it is to understand. However, the data indicate that policy which mandates that punishment must be administered to all first offenders who are apprehended might prove useful in reducing the rewarding effects of lenient treatment of apprehended first offenders. Recall the McCord (1980) study in which first offenders who were released without official processing were more likely to commit subsequent crimes than boys

who received full processing and sentencing. Evaluation research of such a policy mandating punishment of all apprehended offenders is in order.

5. Availability of Alternate Rewarded Responses

Several studies have reported that complete suppression of a behavior can be rapidly achieved using punishment, if animals are offered an opportunity to perform an alternate unpunished behavior which results in delivery of the reward previously provided by the punished behavior (Boe, 1964; Solomon, 1964; Whiting and Mowrer, 1943). In addition, Rachlin (1967) found that manipulation of the severity of punishment has a greater suppressive effect when a rewarded alternate behavior is available. Solomon, Turner, and Lessac (1968) demonstrated that even delayed punishment will suppress behavior when an alternate behavior is available. Karsh and Williams (1964) reported an experiment with children in which no behavioral alternate was available for the punished behavior. They found punishment to be ineffective in suppressing the children's behaviors. In a study in which mental patients were offered both an unpunished and an intermittently punished lever to pull in order to earn cigarettes, the behavior of pulling the intermittently punished lever was totally suppressed as soon as the nonpunished lever was made available (Holz, Azrin and Allyn, 1963). Azrin and Holz (1966) explained that punishment of a behavior for which there is no alternate behavior may be expected to suppress responding by only 30 per cent.

Problems in application of the principle of alternate response. On the basis of studies such as the ones cited here Singer (1970, p. 429) concluded, "this cumulative evidence points directly and overwhelmingly to the importance of combining rehabilitation with punishment. Our correctional system must provide offenders alternative routes and skills to obtain the rewards they formerly obtained only, or much more easily, through crime." There are however, several important dissimilarities between the experimental procedures which produced the principle of alternate responses and the practical situation of the juvenile justice system. In laboratory studies of punishment, the subjects are first deprived of the reward which the experimenter intends to use so as to insure the subjects' motivation to behave. For example rats are starved to 70 per cent of body weight, or children are deprived of social contact for a time (Lovaas and Simons, 1969). Thus, the alternate behavior is necessary for elimination of the punished behavior because the subjects experience strong motivation to obtain the reward (food pellets or encouraging hugs). Although large numbers of juvenile offenders are from low income families, and may be 'property deprived', the nature of the motivation behind many delinquent acts is not clear. Acts not motivated by biological survival needs may not require alternate responses when they are punished.

Johnston (1972) pointed out that all available studies have had the alternate response produce the same kind and amount of reward as the punished response. Programs might be suggested to

offer athletic contests as alternates to gang fighting, each of which produce the reward of defeating rival juveniles*. However, it is difficult to imagine an alternate behavior to theft which might also provide a fourteen year old with a color television set in less than fifteen minutes, or an alternate acceptable behavior to drug use which will provide the same high. For many illegal behaviors, it is the unacceptable nature of the reward which makes the behavior a crime. Studies are needed which clarify the effects of rewarding the alternative response with a different class of reinforcers.

Another problem with extrapolation from the experimental studies is that in laboratory procedure the punished and alternate responses are very similar in topography, (for example, pressing a red bar versus pressing a green bar) while in the case of juvenile offenses, the punished and alternate behaviors must be dissimilar. For example, one can offer a juvenile thief a job as an alternate means to obtain a television set, but it will probably require months of effort rather than minutes. Even rats will always choose the behavior requiring the least effort to obtain a reward (Mitchell, Scott and Williams, 1973). Johnston (1972) has also cautioned that it must be anticipated that the schedule of reinforcement for the alternate behavior would affect the proportion of responding with the alternate, as opposed to the punished behavior. If working at a job is reinforced every

*It is well to remember that a reward must be defined as rewarding in the perception of the juvenile; an athletic victory may not mean the same as a violent victory to the subjects of the program.

two weeks, and studying for a college degree is reinforced once every four years, many persons with experience in illegally obtaining a less delayed and more frequent reinforcement schedule would prefer the punished behavior to these alternate behaviors, especially if the probability of punishment is low. Juvenile offenders may be especially susceptible to this preference. Mischel (1961) found that children who were identified as delinquent more frequently chose an immediate smaller reward, rather than a delayed larger reward, than did children who had not been identified as delinquent.

Nevertheless, despite the practical difficulties in providing rewarding alternatives to punished behaviors, it is probable that many juveniles who do not engage in delinquent acts refrain from doing so because they prefer alternate behaviors. Some illegal behaviors may be more susceptible to replacement with alternate behaviors and rewards than are others. Programs could be attempted which take advantage of the cognitive abilities of human adolescents by increasing the saliency of longer term rewards and providing instructions for how they are attained with the least effort. Research is also needed to determine whether any tendency to be less able to tolerate delayed rewards is related to delinquent recidivism.

Two Final Comments

Five principles of punishment derived from laboratory research have been discussed in terms of their implications for juvenile deterrence. As is often the case with efforts to

develop principles about human behavior in a social context, the individual principles considered alone do not capture the complexity of what really happens when punishment is used in applied settings; simplistic approaches to sanctioning based on the predictions of these principles may be doomed to less than spectacular deterrence effects. It is important to consider the possibility of mitigating interrelationships, both between the principles themselves and between the principles and the individual psychological characteristics of juvenile offenders to whom they may be applied.

Interprinciple relationships. A good example of ways in which the effects of various principles may be dependent upon their interrelationships is provided by Cohen (1967; cited in Singer 1970, p. 420).

Criminologists have known for some time that increased severity of punishments has little effect on incidence of crimes. Why does severity have little effect, in view of both common sense and the previously mentioned experimental indications that it ought to? Because the punishments are so uncertain and delayed. The effect of delay is to lessen severity and manipulations of severity have little effect at long delays (Cohen, 1967).

Although it is easy to imagine how relationships between principles may act to decrease the overall effectiveness of punishment, it is equally probable that less than optimal application of one principle may be compensated for by maximization of another. For example, given the humane limitations on severity of punishment for juveniles, the principle of continuous schedule of punishment could be utilized

to assure that each offender at least receives what punishments are available. Or, a combination of high certainty of punishment and shortened delays may preclude the need for increasing severity. No experimental studies of relationships between different principles of punishment are available. Research in this area would be invaluable to designers of juvenile justice sanctioning policy.

Individual differences in response to punishment . References have already been made in this paper to characteristics of individual juveniles which may mitigate the effectiveness of punishment in some ways. Differences in the experiencing of fear (Rydelius, 1981), verbal intelligence (Moffitt, et. al, 1980) and ability to tolerate delay of reward (Mischel, 1961) were mentioned. Additional factors have been posited which may determine the magnitude and direction of the reactions of different individuals to the same experience of being punished; for example, autonomic nervous system responsiveness (Mednick, 1977), cortical arousal (EEG) (Eysenck, 1967), and previous experience with punishment in the family (Becker, 1964). The literature about these individual characteristics will be reviewed in a subsequent paper, but it is important to point out that there is some evidence that we cannot expect all juveniles to respond uniformly to any manipulation of the various principles of punishment discussed in this paper.

Conclusions

Despite cautions about the appropriateness of applying the

experimental model of punishment to the process of negative sanctioning of juvenile offenders, I have asserted that awareness of the principles of punishment may be of use to the deterrence theoretician. Principles of punishment exist which have been shown to augment the suppressive effects of punishment in research settings, and the implications of the principles for improving juvenile deterrence merit careful investigation. However, it has become evident during the course of this review that, while consideration of the punishment principles yields a number of testable implications for deterrence, there are also large gaps in the punishment literature itself which call for research efforts before such implications can be confidently evaluated. Examples of such unexplored gaps are: the role of human cognitive and verbal abilities in attenuating delay of punishment, and the possibility of interrelationships between the various principles. Therefore, it is not suggested that policies or programs designed to implement any of the learning theory principles of punishment be adopted immediately, but a call for research is extended.

References

- Andenaes, J. Does punishment deter crime? Criminal Law Quarterly, 1968, 11, 78.
- Andenaes, J. Punishment and deterrence. Ann Arbor, Mich.: U. of Michigan Press, 1974.
- Aronfreed, J. The internalization of social control through punishment. Proceedings of the Eighteenth International Congress of Psychology, Moscow. 1966.
- Aronfreed, J. Conduct and conscience. N.Y.: Academic Press, 1968.
- Aronfreed, J. and Reber, A. Internalized behavior suppression and the timing of social punishment. J. of Personality and Social Psychology. 1965, 1, 3-16.
- Azrin, N. H. Effects of punishment intensity during variable-interval reinforcement. J. of Experimental Analysis of Behavior. 1960, 3, 123-142.
- Azrin, N. H. and Holz, W. C. Punishment. In W. K. Honig (ed.) Operant behavior. N.Y.: Appleton-Century-Crofts, 1966.
- Azrin, N. H., Holz, W. C. and Hake, D. Fixed-ratio punishment. J. of Experimental Analysis of Behavior, 1963, 6, 141-148.
- Banks, R. K. Persistence to continuous punishment following intermittent punishment training. J. of Experimental Psychology, 1966, 71, 373-377.
- Banks, R. K. Intermittent punishment effect (IPE) sustained through changed stimulus conditions and through blocks of non-punished trials. J. of Experimental Psychology, 1967, 73, 456-460.
- Becker, W. C. Consequences of different kinds of parental discipline. In M. L. Hoffman and L. W. Hoffman (eds.) Review of Child Development Research. Vol. 1 New York: Rusell Sage Foundation, 1964.
- Berecz, J. Treatment of smoking with cognitive conditioning therapy: A self-administered aversion technique. Behavior Therapy, 1976, 7, 641-648.
- Birnbrauer, J. S. Generalization of punishment effects - a case study. J. of Applied Behavior Analysis, 1968, 1, 201-211.
- Boe, E. E. Extinction as a function of intensity of punishment, amount of training, and reinforcement of a competing response. Canadian J. of Psychology, 1964, 18, 328-342.
- Chopra, P. Punishment and the control of human behavior. Australian and New Zealand Journal of Criminology, 1969, 2, 150.
- Church, R. M. in B. Campbell and R. Church (eds.) Punishment and aversive behavior. App. I, 1969.
- Church, R. M. and Raymond, G. A. Influence of schedule of reinforcement on punished behavior. Journal of Comparative and Physiological Psychology, 1956, 49, 301-308.
- Cohen, I. Response suppression as a function of delay and intensity of punishment. Dissertation Abstracts International, 1967, 28, 1704.
- Crandall, V., Good, S. and Crandall, V. J. Reinforcement effects of adult reactions and nonreactions on children's achievement expectations: A replication study. Child Development, 1964, 35, 485-497.

- Davison, G. C. Self-control through "in. aginal aversive contingency" and "one downmanship". In J. Krumboltz and C. Thoresen (Eds.) Behavioral Counseling: Cases and Techniques. New York: Holt, 1969.
- Epstein, L. H. and Peterson, G. L. Differential conditioning using covert stimuli. Behavior Therapy, 1973, 4, 96-99.
- Erickson, M. L., Stafford, M. C., and Galliher, J. M. Differences in perceived seriousness of crimes and delinquencies: The normative erosion hypothesis. Unpublished manuscript, 1980.
- Estes, W. K. An experimental study of punishment. Psychological Monographs. 1944, 57, number 263.
- Evans, D. R. Subjective variables and treatment effects in aversion therapy. Behavior Research and Therapy. 1970, 8, 147-152.
- Eysenck, H. J. Crime and personality. London: Routledge, 1964.
- Eysenck, H. J. The biological basis of personality. Springfield, Ill.: Thomas, 1967.
- Fagan, J. F. III, and Witryol, S. L. The effects of instructional set and delay of reward on children's learning in a simultaneous discrimination task. Child Development, 1966, 37, 433-438.
- Ferraro, D. P. Persistence to continuous punishment as a function of amount of reinforcement. Psychonomic Science, 1966, 6, 233-234.

- Garcia, J., Hawkins, W. G. and Rusiniak, K. W. Behavioral regulation of milieu interne in man and rat. Science, 1974, 185, 824-831.
- Gold, M. Undetected delinquent behavior. J. of Research in Crime and Delinquency. 1966, 3, 27-46.
- Gold, M. and Williams, J. R. National study of the aftermath of apprehension. Prospectus, 1969, 3, 11.
- Grings, W. W. Verbal-perceptual factors in the conditioning of autonomic responses. In W. F. Prokasy (ed.) Classical conditioning: A symposium. N.Y.: Appleton-Century-Crofts, 1965.
- Holz, W. C., Azrin, N. H., and Allyn, T. Elimination of behavior of mental patients by response-produced extinction. J. of Experimental Analysis of Behavior, 1963, 6, 399-406.
- Jeffrey, C. R. Criminal behavior and learning theory. J. of Crim. L. C. & P. S. 1965, 56, 294.
- Johnston, J. M. Punishment of human behavior. American Psychologist, 1972, 1033-1054.
- Karsh, E. B. and Williams, J. P. Punishment and reward in children's instrumental learning. Psychonomic Science, 1964, 1, 359-360.
- Klein, M. Cafeteria style delinquency: Evidence and implications.
- Klein, M. W., Teilmann, K. S., Lincoln, S. B., and Labin, S. Diversion as operationalization of labelling theory. Unpublished manuscript (forthcoming, 1982).

- Lawrence, D. H. and Festinger, L. Deterrents and reinforcements: The psychology of insufficient reward. Stanford, CA: Stanford U. Press, 1962.
- Logan, F. A. and Wagner, A. R. Reward and punishment. Boston: Allyn and Bacon, 1965.
- Lovaas, O. I. and Simmons, J. Q. Manipulation of self-destruction in three retarded children. J. of Applied Behavior Analysis, 1969, 2, 143-157.
- McCord, J. Myths and realities about criminal sanctions. Paper presented at the American Society of Criminology Annual Meetings, San Francisco, CA, 1980.
- Maher, A. R. The role of expectancy in delayed reinforcement. J. of Experimental Psychology, 1956, 52, 101-106.
- Martin, B. Reward and punishment associated with the same goal response: A factor in the learning of motives. Psychological Bulletin. 1963, 66, 91-94.
- Mednick, S. A. A bio-social theory of the learning of law-abiding behavior. In S. A. Mednick and K. O. Christiansen, Biosocial bases of criminal behavior, N.Y.: Gardner Press, 1977.
- Mischel, W. Preference for delayed reinforcement and social responsibility. J. of Abnormal and Social Psychology, 1961, 62, 1-7.
- Mitchell, D., Scott, D. and Williams, K. D. Container neophobia and the rat's preference for earned food. Behavioral Biology, 1973, 9, 613-624.

- Moffitt, T. E., Gabrielli, W. F., Mednick, S. A., and Schulsinger, F. Socioeconomic status, I.Q., and delinquency. Journal of Abnormal Psychology, 1981, 90, 152-156.
- Murray, C. A. Days in Court. Washington, D. C.: American Institute for Research, 1980.
- Offenbach, S. I. Reinforcer acquisition in discrimination learning. Psychological Reports, 1966, 19, 843-849.
- Parker, J. and Grasmick, H. G. Linking actual and perceived certainty of punishment. Criminology, 1979, 17, 366-379.
- Penny, R. K. and Lupton, A. A. Children's discrimination learning as a function of reward and punishment. J. of Comparative and Physiological Psychology, 1961, 54, 449-451.
- Rachlin, H. The effect of shock intensity on concurrent and single-key responding in concurrent-chain schedules. J. of Experimental Analysis of Behavior, 1967, 10, 87-95.
- Rimm, D. C. and Masters, J. C. Behavior Therapy, N.Y.: Academic Press, 1979.
- Rydelius, P. from S. A. Mednick and J. Volavka, Biology and crime. In N. Morris and M. Tonry (eds.) Crime and justice: An annual review of research. Vol II. Chicago: U. of Chicago Press, 1980.
- Shah, S. Treatment of offenders: Some behavioral concepts, principles, and approaches. Federal Probation, 1966, 30, 29.
- Short, J. F. and Nye, F. I. Extent of unrecorded delinquency, tentative conclusions. J. of Criminal Law, Criminology and Police Science, 1958, 49, 296-302.

- Singer, B. F. Psychological studies of punishment. California Law Review, 1970, 58, 405-443.
- Solomon, R. L. Punishment. American Psychologist, 1964, 19, 239-253.
- Solomon, R. L. Turner, L. H., and Lessac, M. S. Some effects of delay of punishment on resistance to temptation in dogs. J. of Personality and Social Psychology, 1968, 8, 233-238.
- Spielberger, C. D., Southard, L. D., and Hodges, W. F. Effects of awareness and threat of shock on verbal conditioning. J. of Experimental Psychology, 1966, 72, 434-438.
- Walker, N. Sentencing in a rational society. Harmondsworth, England: Penguin Press, 1969.
- Walters, R. H. Delay of reinforcement gradients in children's learning. Psychonomic Science, 1964, 1, 307-308.
- Watson, J. B. Behaviorism. N.Y.: Norton, 1924.
- Whiting, J. W. M., and Mowrer, O. H. Habit progression and regression: A laboratory study of some factors relevant to human socialization. J. of Comparative Psychology, 1943, 36, 229-253.
- Zimring, F. and Hawkins, G. Deterrence: The legal threat in crime control. Chicago: U. of Chicago Press, 1973.
- Zimmerman, J. and Ferster, C. B. Intermittent punishment of S responding in matching-to-sample. J. of Experimental Analysis of Behavior, 1963, 6, 349-356.

The Implications of Deterrence and Labeling for
Police/Juvenile Encounters

by
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Deterrence Theory: Early Sanctions
in the Juvenile Justice System

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Abstract

If the juvenile officer turns to social science for guidance on the handling of juveniles, the officer is faced with a contradiction. Deterrence theory implies that a strong response on the part of the officer will reduce the probability of future delinquent behavior. Yet Labeling theory implies that a strong response will increase the probability of future delinquency. Influenced by labeling theory, current police practice often attempts to minimize the possible stigmatizing effect of custody. Recently some researchers have speculated that this concern may result in an erosion of the juvenile's perception of the seriousness of his misbehavior.

A review of the research on the deterrent and the labeling effects of juvenile-police encounters reveals that there is little empirical basis for evaluating how much of either effect takes place and under what conditions. The review does reveal two major limitations of the prior research. It has failed to adequately consider the psychological processes that underly the deterrence and labeling phenomena, and it has failed to control for variables that could mask deterrence and labeling effects. Future research must combine a much more sophisticated theoretical framework and maintain much tighter controls of system and individual difference variables. Given the importance of a correct understanding of deterrence and labeling effects of juvenile police work, there is a great need for new and better research.

The Implications of Deterrence and Labeling for Police/Juvenile Encounters

Introduction

The two major theories that address the impact that the juvenile justice system can have on juveniles who have entered it lead to conclusions that are disturbingly contradictory. The first, deterrence theory, roughly stated, declares that the effectiveness of a juvenile justice intervention increases with the strength or seriousness of the responses to the juvenile. The second, labeling theory, roughly stated, declares that as the strength or seriousness of the system's response to the juvenile increases, there is a decrease in effectiveness. The juvenile justice system and social scientists who study it are posed a difficult problem by this contradiction. Because of the presumed importance of juvenile justice systems actions in the lives of the individual juveniles contacted and for the general welfare of society, a correct choice between the two theories or a proper reconciliation as a guide for police-court action seems vitally important.

Despite the apparent briefness of the police-juvenile interaction (in some cases a matter of a few minutes) there are a number of reasons why arriving at an understanding of how deterrence, labeling and other processes may operate in the police encounter is critically important. For the majority of first-time offenders, police encounters comprise the total experience the youth has with the juvenile justice system. In

addition, it is during these first encounters with the police that juveniles may be most impressionable. Finally, given the nature of juvenile law, there is at least the potential, if not the actuality, of a great deal of discretion on the part of the police. The police, then, have a significant opportunity through the choice of their action to maximize their impact on the youth's future behavior.

The purpose of this paper is to review, in turn, the two theoretical perspectives of deterrence and labeling as well as the empirical literature pertinent to either with respect to the police handling of juveniles. On the bases of the review, the early interactions of police with juveniles will be analyzed to see in what ways police effectiveness can be increased and how these suggestions might be tested.

DETERRENCE

Definitions

Two exhaustive discussions of the concept of deterrence (Zimring and Hawkins, 1973; Gibbs, 1975) have recognized that the term deterrence has been employed in a variety of ways and that the diversity of uses has led to confusion. Therefore an attempt will be made to make explicit the sense of deterrence employed throughout this paper. Deterrence concerns the impact of the threat of negative consequences of actions on the likelihood that a person will perform the action. More particularly, it concerns threats by the legal system on behavior that is considered criminal. Referring to terms employed by Zimring and Hawkins(1973), deterrence can be defined more precisely as the

inhibition of criminal behavior (threatened behavior) by a certain group (audience) in order to avoid certain direct consequences (threatened consequences) threatened by the legal system (threatening agency). The inhibition occurs because an individual fears and wishes to avoid the threatened consequences.

From this definition, it can be seen that deterrence and punishment are related concepts. The term punishment is defined as the infliction of an aversive stimulus by an agent on a person following certain behaviors in order to a)suppress or b)recompense the target behaviors. Deterrence, then, is one type of an effective threat of punishment. It is a type in that it refers only to the effects on delinquent or criminal behavior of the threats and it focuses on the sorts of punishment used by the legal system. It must be an effective use of punishment because the term deterrence refers to an inhibition in behavior whereas punishment need only be an event experienced as aversive and as a consequence of behavior ,it does not necessarily inhibit behavior. Finally, in order for the threat of punishment to be recognized, a threatened person must have experience with direct or vicarious punishment.

Deterrence in the general sense discussed above has been contrasted in the literature with specific or special deterrence. Specific deterrence refers to a)the impact of legal sanctions administered to an individual following criminal behavior on that individual's future criminal behavior and b) the corresponding impact of threats of punishment directed at a particular individual. The first type of specific deterrence occurs when a

legal punishment successfully reduces the disposition to commit a criminal offense in the person punished and the second occurs when a threatened legal punishment reduces the disposition to commit a criminal offense in the person threatened. Zimring and Hawkins have questioned the usefulness of the distinction. "But insofar as this process works by making or attempting to make, individuals more sensitive to future threats because of present punishment, it is really not so much special or individual deterrence as it is a special effort to make individuals more sensitive to general deterrence"(p.73). While they are essentially correct in their relating of the concepts of special and general deterrence, they underestimate the usefulness of having a term referring to the subset of deterrence phenomena that pertain to what the police and courts can do with individual offenders or potential offenders to increase the effect of society's threats on future contemplated criminal behavior. These are the very issues that are most relevant to the concerns of this paper, how the actions of police toward specific juveniles influence those juveniles' dispositions toward future delinquent behavior. The review will consequently emphasize the literature on specific or special deterrence.

The definitional approach taken in this paper underlines the psychological component inherent in the conceptualization of deterrence. The occurrence of deterrence implies that two psychological processes have taken place within the individuals deterred. First of all, in order for deterrence to occur, any objective threats by the legal system must be perceived by the

individual to be deterred. Second, a choice of an alternatives to criminal behavior must be the result of the perceived threat. But this is not a sufficient characterization of the choice. The person's choice in behavior must be an attempt to avoid the future aversive consequences. Deterrence is essentially defined by the motive or reason that a person has for his behavior. With respect to police and juveniles, an officer's encounter with a juvenile delinquent will have a deterrent (specific) effect if subsequent to the encounter, a)the juvenile delinquent has a changed perception of the severity, celerity or certainty of the aversive consequences for delinquent behavior and is b)consequently less likely to commit delinquent acts because the youth has a greater incentive to avoid the negative consequences.

Differences in definitions of deterrence

As indicated in a statement by Erickson, Gibbs and Jensen(1977), there is agreement among the current definitions of deterrence that perceptions are important. On the other hand, differences in deterrence definitions are often determined by what motives for refraining from criminal behavior qualify as deterrence. For example, Zimring and Hawkins include as deterrence cases in which punishment informs a person what is illegal and allows him to correct his behavior out of a pre-existing motive to be a law abiding citizen. Although the perception of which behaviors will be punished is important, the motive for action is not that of fear or avoidance, and thus would not qualify as an instance of deterrence as defined in this paper. A contrasting case is presented by Gibbs' definition of

deterrence. Gibbs considers behavior that has the motive to avoid what he terms extralegal aversive consequences (social condemnation for example) to be unrelated to deterrence. The approach taken in this paper recognizes that there are a variety of aversive consequences and that individuals are differentially sensitive to different types, but a motive to avoid any aversive legal or extralegal consequences would qualify as an example of deterrence.

Each definitional approach might find a particular discussion in which it is most useful. It seems, however, for the purposes of research that seeks to understand when and how deterrence occurs, it is advisable to select a definition which most likely encompasses a family of phenomena that reflect highly similar underlying processes, rather than a family of phenomena that are grouped on the bases of some other shared characteristics such as social ends that are served. In arriving at the definition of deterrence used in this paper, this has been attempted. All instances of deterrence here defined share the two step psychological processes of perception and of choice, and the motive to avoid future aversive consequences.

The police encounter

The first step toward understanding the possible deterrent impact of the police-juvenile encounter is a general description of what occurs in such an encounter that could influence the youth's perception of the aversive consequences of his delinquent actions. What comes to mind immediately is the sanctioning role of the police. Contact with a policeman when a youth is

suspected of doing wrong can itself be an aversive experience. Arrest, being taken away from a place you know to a strange place, the attendant disorientation, detainment and loss of freedom, criticism, imminent threat of future loss of freedom, possible fines, incarceration and a record--some or all of these will likely be experienced by the youth as punishment. Concurrent with these are the extralegal consequences that may arise in home, school or work. What in fact the youth experiences as aversive will depend on the interests in his life that he believes are put in jeopardy by the police encounter. There will obviously be a great amount of individual differences in how punishing the same treatment by the police would be experienced by different youths.

In order for deterrence to occur it is not sufficient nor necessary that the youth experience punishment. It is not sufficient, because the juvenile must in addition learn from the punishment experience that future punishment will be more severe, more certain or quicker than he had previously anticipated. According to a rational choice model, a person performs a behavior when the anticipated reward outweighs the anticipated costs. The person can be deterred from future similar behavior, if he comes to learn that the actual costs are greater than had been anticipated and greater than the anticipated benefit. If punishment teaches either that costs are in fact less than anticipated or, while greater than anticipated, still less than anticipated rewards, the person will see that it still is in his interest to perform the punished act. Insufficient punishment

will not deter unwanted behavior. When less than anticipated by the person punished, it can result in an increased tendency to perform the unwanted behavior. Actual punishment is not necessary, because the police may effectively communicate a threat that future consequences will be much more severe than what the youth has anticipated without actually punishing the youth.

For deterrence, what is ultimately important is not what the youth experiences but what he believes about the future. Again individual differences between the youths play an important role in determining what is learned. The difference from the anticipated punishment in part determines whether what is experienced or learned about the future leads to a perception of greater severity, certainty or celerity. It is possible for two youths to experience the same punishment and yet have one's tendency to commit delinquent acts increase, because the received punishment was less than anticipated, and the second's decrease because the punishment was greater. Also, for deterrence to occur the changed perception of punishment must be great enough to outweigh motivation to commit an act. If the youth's motive is great enough, even an appreciable change in perceived threat will not inhibit the youth. Both differences in the youth's ~~anticipations of punishment~~ and in motivations for delinquency determine the net deterrent impact of a police encounter.

The second step toward understanding the deterrent impact of the police is to consider non-deterrent effects the police might have on juveniles. While the sanctioning functions of the police

are the most dramatic, there are two other functions that can likely affect future delinquent behavior. Police have both educative and reinforcing functions. In their conversations with the youths, police can inform them about opportunities for rewarding activities that are inconsistent with criminal behavior, help youths reassess downward the value of delinquent behavior, reassess upward the value of incompatible non-delinquent behavior and interests, they can act as role models, and they can provide social approval for constructive dimensions to the youths' lives.

There is an additional complication to understanding deterrence in police juvenile encounters. Punishment can have non-deterrent effects on the juvenile. Gibbs (1975) details nine effects of punishment that he distinguishes from deterrence but that can also produce a reduction in delinquent behavior. The two which are most relevant to our analysis are Reformation and Norm Validation. Gibbs distinguishes reformation from deterrence on the basis of motivation. "In the case of reformation, an individual refrains from criminal acts after punishment but not because of the fear of suffering punishment again, whereas the fear of suffering punishment again is the central consideration in specific deterrence"(p.72). The act of punishment stimulates the offender to reevaluate his values and he arrives at a devaluation of his delinquent tendencies. Gibbs describes normative validation as follows. "Individuals refrain from illegal acts not because they fear punishment but because they evaluate the acts negatively, and legal punishments maintain or

intensify those negative evaluations. Stated another way, individuals have internalized the norm...that the law expresses, and legal punishments contribute to that internalization"(p.80). Punishment reinforces one's beliefs that what one is doing or might do is wrong.

From this overview of the police-juvenile encounter, there are three ways in which the police can work toward a reduction of delinquent behavior. The first is through the deterrent effects of punishment, the second is through the non-deterrent effects of punishment, and the third is through the educative and reinforcing functions of the police officer. The distinctions between these influences on juveniles are absolute only on the conceptual level. They are, however, important to bear in mind when considering the juvenile-police interaction and in assessing the research evidence on deterrence. Taking into consideration the counter-productive influences posited by labeling theory to be discussed below, the interplay of all potential influences within the police juvenile interaction, unguided by understanding, may produce far from an optimal balance of the coercive processes. There exists the possibility that instances of police practices might cancel out the effective impact they are having. In evaluating the research on deterrence, they must be considered as rival alternative hypotheses for findings that purport to show a deterrence effect or explanations for findings that fail to demonstrate a deterrent effect.

Empirical literature

Major reviews of deterrence (Zimring and Hawkins, 1975;

Gibbs, 1975; and Tittle, 1981) have clearly described the difficulties in doing deterrence research in general and the lack of conclusive empirical findings. When one focuses on the state of research in deterrent effects of police encounters on juveniles, the conclusions are not more optimistic. Perhaps due to the limited range in the type of sanctions actually employed or manipulated by the police, to the failure of researchers to consider properly differences in the juveniles, and to the failure to control for the overriding effect of confounding factors, the review of the research does not reveal evidence for a dramatic deterrence effect. On the contrary, one wonders if deterrence is taking place at all. Yet there are lessons to be learned from reviewing the existing literature, especially as guides for future research.

Erickson, Gibbs and Jensen(1977) outline three approaches to doing research on deterrence. The first is the examination of the relation between properties of punishment and crime rates among jurisdictions. The research question is, do jurisdictions that punish a certain offense more severely have lower rates of commission for that offense? The second approach considers only a single jurisdiction. It examines the relationship between punishment properties and offense rates for different types of crimes. Within a jurisdiction, does more severe punishment for offenses correspond to the lower crime rates? And third, there is an examination of the relation between perceived properties of punishment and frequency of criminal acts among individuals. Do people who see punishment by the police and courts as more severe

or certain, commit fewer criminal offenses? In addition to the types of research listed by Erickson et al., research exists that examines the recidivism and attitudes of juveniles who had received different degrees of treatment for relatively the same offenses. Do juveniles who are treated more severely subsequently commit fewer offenses?

The fact that rarely if ever is deterrence research conducted as a true experiment (random assignment) poses difficulties in making inferences about causal relations. When studies also approach deterrence in terms of aggregate data, as is the case with the first two types of studies, rather than data more closely tied to individuals, obstacles to valid inferences are even greater. To begin to draw inferences about deterrence from such highly aggregated data requires reliable estimates of true crime rate and potential crime. But highly reliable measures are not available. Even with reliable measures, there could easily be alternative explanations for the finding that higher crime rates are associated with less severe punishment. Tittle (1981) has argued that "...most research has analyzed official statistics for entire political units, but ecological data can never provide information about general deterrence, if deterrence is taken to mean individual suppression of criminal impulses to avoid negative consequences. There is simply no way of inferring from ecological data whether individuals within political units actually perceive the sanction possibilities and act accordingly..."(p.383). The last two types of studies provide a stricter test of deterrence. Findings consistent with the

deterrence hypothesis rule out more plausible rival hypotheses. Consequently, only the last two types of studies will be reviewed; studies that evaluate the impact of police encounters on juveniles and studies that examine the relationship between perceived risk and the probability of delinquent behavior.

The effects of police encounters

The first category of deterrence studies to be examined will be those that evaluated the differential impact of punishments on individuals. Before discussing the specific studies assessing the impact of police encounters, it will be helpful to discuss the general research strategy. The general form consists of contrasting groups, one of which experiences a police encounter intended to have a deterrent effect and a second that does not. All things being equal, the test of the deterrent effect is the relative recidivism of the police deterred group compared to the non-deterred group. The deterred group should have a lower recidivism rate. The degree of the relative advantage is a measure of the strength of the deterrent effect of the police encounter. Unfortunately, the ceteris paribus clause incorporates a number of assumptions that are often not reasonable and which jeopardize the reasonableness of the assessment of the deterrent effect, whatever its outcome. Unless groups' are equivalent prior to the treatment groups contact with police, differences in behavior after treatment could be simply a continuation of preexisting differences.

If we assume that a study has internal validity, there are still limitations on the inferences that can be drawn. If a

particular study fails to demonstrate a deterrence effect for police intervention, the failure applies only a) to the specific type of police encounter found in the study and b) to the specific type of juveniles processed. It is conceivable that different ways of handling by the police or the identical treatment of different types of juveniles would produce deterrent effects. One can not draw conclusions about police effectiveness with youths in general on the basis of the failure of a single program. Different strategies may prove more effective and different youths may prove more deterrable.

Even if a study validly demonstrates decreased recidivism for more severe treatments or punishments, one must consider the possibility that the difference reflects the non-deterrence effects of punishment or the non-deterrence effects of the other police functions of education and reinforcement. For example, severe punishment may provide a greater motivation for the delinquent to consider his situation. This reflection could produce a downward evaluation of the desirability of the illegal gain or an upward evaluation of norm compliance. Either of these reevaluations would decrease the disposition towards delinquency, but neither would be instances of deterrence. There is no way to sort out how the punishment effect was mediated (that there was in fact deterrence) unless there were controls or measures that would permit differential identification of the mediating process.

In summary, an ideal investigative program on deterrence would a) randomly assign juveniles to groups, b) systematically

vary the types of police treatments and juveniles treated and c) employ reliable measures or controls to test for the operation of different mediating processes. Such an ideal set of studies has yet to be done. Short of the ideal, there are a number of studies worthy of review.

Rose and Hamilton (1970) compared the impact on first-time offenders of being cautioned with the impact of being cautioned and subsequently supervised. They randomly assigned offenders to one of the treatments and compared recidivism rates over a 24 month period. Recidivism was measured by the number of convictions for offenses. Comparisons were made in several ways in order to compensate for the fact that those juveniles supervised were in effect given a 6 month treatment versus the short term treatment of simple caution. The comparisons indicated that those juveniles supervised showed no lower recidivism than youths simply cautioned.

Rose and Hamilton pointed out that the specificity of the program limited generalizability and they cautioned against concluding that supervision itself does not help the youth beyond simple cautioning. They noted that there are possible benefits to supervision that would not be picked up by the recidivism measure. They also detailed carefully the characteristics of the youths in the program. The major limitations of the study are that 1) there were no comparisons with a no-police-involvement condition so we can not assess the impact of some police encounter versus none; and 2) there are no measures of the processes of the encounter that would allow a more detailed

assessment of the police-juvenile interaction.

Meade (1973) took a random sample of 500 cases from 8467 juvenile court records. Unlike the Rose and Hamilton study there was no random assignment to treatment, but like that study, he concentrated on first-time offenders. Unfortunately, offense was defined "...in terms of behavior so defined by the state juvenile code and resulting in an official petition before the county juvenile court." Because of the large number of first-offenders who are apprehended but are not processed to the point of a court petition, Meade's sample does not represent adequately the pool of all first-time offenders. In addition, offense in the recidivism measure was counted in the same way. Since many offenses never lead to petitions, his measure of recidivism is distorted by system factors. The sample was dichotomized into cases where a formal hearing took place and cases where "less formal remedial action took place"(p.479). The findings run counter to a deterrent effect. Persons who received a formal hearing were more recidivistic. Because there was no random assignment and because the impact of other processes was not assessed, the significance of the different recidivism rates is ambiguous. Meade himself recognized this in offering one possible explanation for the difference. "It is just as likely that court personnel, on the bases of professional experience and more subjective criteria, were selecting the more chronic offenders for exposure to a formal hearing, and that the total recidivism rate (37 per cent) would be even higher without such intervention"(p.484).

Farrington and Bennett (1981) attempted to compare the effects of police cautioning and court appearances on juvenile recidivism. The authors recognized that their data would not allow them to infer why any observed differences might have occurred. For example, they would be unable to differentiate between individual deterrence, stigmatization or pre-existing individual differences. 705 of the youths were cautioned and 202 were given one of a range of more severe dispositions. Although follow-up periods ranged from 22 months to 33 months, there was no indication that the researchers had controlled for differences in the time periods in their analyses. Rearrest was greater for youths who had a court appearance than for those simply cautioned. This effect was independent of sex, age, race, classes, area and offense seriousness. In a smaller sample of 47 cases the home visit report was studied. With attitude toward offense controlled, cautioning did not have a lower recidivism rate. This finding suggests that juveniles with better attitudes have less of a chance of recidivating and that the lower recidivism among juveniles who were cautioned was due to the fact that a greater percentage of cautioned youths had better attitudes.

Joan McCord (1981) reported on a follow-up of first time offenders who were either processed in some way short of incarceration by the criminal justice system (fines or court hearings) or were released without official processing. A non-random study that attempted to control for correlated variables, McCord found that more severe treatment (official

processing) resulted in lower recidivism. These statistically significant, but not large, differences provide the clearest support in the literature for a deterrent effect. It is impossible, however, to sort out what aspects of the official treatment may have been effective.

Gold(1970)reported on a small sample of 20 matched pairs of delinquents. The sample was taken from a cohort of youths who lived in a Michigan city. One member in each pair had been apprehended. The apprehensions resulted in a range of dispositions. His description of the two groups is somewhat incomplete "All of the 40 youngsters ... had committed at least four offenses in the three years prior to being interviewed, and 20 of them had been caught by the police for at least one offense. Matched with each of these 20 was a youngster of the same sex and age who had committed an undetected offense at about the same time, and who had committed the same number of offenses prior to that time"(pp. 106-107). He found that in eleven pairs the apprehended youngsters committed more offenses, in five pairs an equal number for each group, and in four pairs the unapprehended committed more. Using the same analytic approach on 35 matched pairs from a national sample of 847(1969), he found roughly similar results: in twenty pairs the apprehended committed more, in five pairs an equal number and in ten pairs, the apprehended committed a fewer number. Gold's conclusion that apprehension results in greater recidivism is based on two major assumptions. The first assumption is that apprehension is strictly a random process and that it is not affected by offense

committed. This seems unlikely. The second assumption is that the matched group has in fact controlled all relevant third variables. This assumption is almost assuredly false. The author's conclusion is very tenuous. Even if apprehension did cause the differences, it is still unclear what aspect of the process produced the results.

Thornberry(1971) reported on the proportion of juveniles in a birth cohort of 9,601 males who were arrested again after having been arrested and given one of four possible dispositions. 6515 were handled by the police only, 1,338 were dismissed by an intake worker or judge without probation, 1,094 were fined or put on probation and 654 were institutionalized. He found that for whites, higher SES, and those with a less serious offense that the more severe the disposition, the higher the proportion of juveniles who recidivated. This pattern held up through the first four offenses. This pattern was not true, however, for those who received the most severe disposition, the institutionalized. "The most severe disposition is not followed by the greatest amount of recidivism"(p.99). This tendency was not true for blacks, lower SES and those with a more serious offense. The findings clearly show that there is no overall deterrence effect. This is not to say, however, that deterrence does not occur, but that the net effect of the factors influencing recidivism overwhelms whatever deterrence impact may exist.

The fact that the pattern occurs only for whites, upper SES and less serious offenders suggests that in these cases the

juvenile justice system is able to assign the more severe disposition to the more severe offenders. This difference in system response could be a reflection of an inability of the system to read relevant differences in blacks, lower class and more serious offenders. It seems more likely, however, that there is less variance along relevant variables in the range relevant to recidivism. To put it simply, on average the black, lower class and more serious offender pools present more hard core delinquency. With regard to studying deterrence effects, it strongly suggests that we can not assume that dispositions are randomly assigned and, in fact, that we should assume that the more severe dispositions are given to delinquents more likely to recidivate.

Krause (1978) compares the effect of remand with custody (detention) with remand at home (release to home) on 90 male first offenders. He argues that the youths were effectively randomly assigned, but one can easily doubt the validity of this contention. While the study focus on specific deterrence and first time offenders, it unfortunately (for our purposes) examines the impact of a court disposition and is not readily generalizable to police handling. It found that with a 24 month follow-up, those remanded to home (less severe treatment) were less recidivistic.

Overall the studies reviewed tell us very little about deterrence effects. The heterogeneity of treatment conditions combined in a number of the studies confound the effects of apprehension, custody, petitions, fines, detention and even

institutionalization. Juveniles are rarely if ever randomly assigned to their dispositions. It is an important question whether or not it can be assumed that only random factors determine which youths are arrested. But one conclusion seems reasonable. Deterrence effects, if they exist, are not so powerful to override factors that work contrary to them. In particular, one factor that seems likely is that, as the system works now, the juveniles most likely to recidivate are given the harsher treatment. This fact alone would make it difficult to demonstrate a deterrence effect. There is an important corollary to this conclusion. The interactions observed between treatment and subject characteristics suggests that there are individual differences relevant to deterrence and that a more systematic understanding and recognition of these difference in disposition choice might improve deterrence effects.

There are four deterrence studies that in different ways are, perhaps, relevant to the issue of police deterrence effectiveness. Klemke(1978) compared the questionnaire responses of juvenile shoplifters who had been caught by parents or store personnel with those who had not been caught. The response came from an anonymous survey of high school students. Shoplifting rate was compared over the last nine months. Those apprehended by parents had a higher rate than those not apprehended. The comparison group is simply described as a "matched sample". It is not clear from the article how they were matched. The relation between apprehension by store personnel and recidivism was not statistically significant, but in the same direction. The

analysis is so sketchily presented, it is difficult to evaluate the significance of the findings. It is highly unlikely that apprehension was simply a random occurrence, so there is an unmeasured bias operating. There was no control for possible age differences in the comparison groups. The study is interesting in that it illustrates an interpretive problem in deterrence research. Increased recidivism for those apprehended by parents could be consistent with deterrence theory, if actual parental response was less harsh than had been anticipated.

In a study of juvenile traffic violations, Mecham(1968) managed to assign youths randomly to different conditions. The conditions are court dispositions, but since there was random assignment and dispositions were short of incarceration, it is worth considering. Mecham found that having the youths write a paper on traffic safety produced less recidivism than fines, classes or even restraint from driving. The study demonstrates a measurable deterrent effect for the type of behavior studied. In part the clarity of findings may have been due to the random assignment and the use of first-time offenders.

Wattenberg and Bufe (1963) examined how juvenile officers who apparently are successful in keeping youths from recidivating differ from officers who are less successful. Based on a review of the files of police contacts with boys ten to seventeen years of age, in the period between 1952 and 1959, it was possible to categorize them as repeat offenders (up to the age of 17). The authors state "These data enabled us to determine for each officer the proportion of the boys for whom he was the first

Youth Bureau contact became repeaters on the one hand or remained non-repeaters on the other"(p.472). The authors compared officers who had thirty or more recorded contacts. The data revealed a range of percentages from 28 to 78 non-repeaters for the different officers. Although the authors attempted to demonstrate statistically that differences were not due to chance, it is not clear that different success rates reflect differences in the officers' treatment of juveniles. The youths may not have been randomly assigned to officers. Nevertheless, on the basis of their study, they formed a composite picture of the deterring officer. "In his dealings with juveniles he is calm, manly, firm, and patient. He talks well to them, wording his remarks to their level. He keeps his promises to young people and exerts 'salesmanship' in support of a law abiding course of action.... competence in speaking and writing were highly important. So was willingness to work hard with parents. As to disposition, the key attribute was a tendency to judge cases on their merits as contrasted with a policy of either quickly filing charges with the juvenile court or being reluctant to do so"(p.473).

Murray (1980) reported a study on the effect of supervision, probation, a correctional program and incarceration on subsequent delinquency. He contrasted these dispositions to arrest with no further action. The study has no non-arrest controls so it is impossible to make any inferences about the effect of arrest itself, but it is possible to compare the effect of arrest with more severe dispositions. Moreover, the general plan of the

analysis and some of its findings are pertinent to the purposes of this review. His sample consisted in 1457 males who were born in 1960 in Chicago who had been arrested at least once. Only 309 of the arrested youths reached court. Of those, 60 were not put under any restrictions, 176 were put on supervision, 104 on probation and 45 youths were placed in correctional programs. 62 of the 309 received more than one sanction from the courts. The primary dependent variable was time to next arrest, after sanctioning.

Murray points out immediately that if one examines the data in the same way as is done in most studies, the same general findings are obtained. The more severe the disposition, the sooner the youth is rearrested. He points out, however, that other factors work to mask a potential suppression of delinquency. First of all, age at offense is positively correlated with severity of disposition given for the offense. In addition, delinquents tend to recidivate more quickly as they approach seventeen. In other words, more severe sanctions are given to youths who are more likely to recidivate quickly. A similar set of relationships exist among number of prior offenses, disposition severity and recidivism. Murray further contends that judges assign more severe dispositions to youths who are worse offenders and who are more likely to recidivate (a point raised earlier in this review). These three factors will mask any suppression effect produced by official sanctions. Yet few studies control for age and number of priors and there are no measures that can be used to control completely for the factors

upon which the judge makes his decision.

Aware of these confounding factors, Murray undertook a series of regression analyses, controlling for age, number of priors, sanctions and age interactions with sanctions. He recognizes the methodological problems that limit the conclusions that can be reached from data of this type. He argues, however, that employing a sophisticated analysis, it is reasonable to conclude from the data that more severe dispositions increase the time to next offense. Further, "failure to take the delinquent back to court after rearrest and delay in reaching disposition of pending petitions are followed by faster rearrest."

The findings shed little light on the deterrence effects of arrest alone. If anything, they suggest that simple arrest is not very effective. But the study clearly demonstrates the need for various control variables in police studies and the care needed in assessing the impact of the police encounter.

In general the study has many strong points and is worthy of close attention. Despite the cautions in interpretation discussed by the author, there are two additional points that need to be made explicit. First of all, supervision and probation are taken as instantaneous sanctions, while time until next arrest is measured from when the sentence is pronounced. In other words, the time on supervision and probation are included in the dependent measure. A more conservative conclusion is that supervision and probation inhibit delinquency while they are in effect, not that they have an impact after they are terminated. Secondly, Murray does a hierarchical regression analysis in which

he places age and arrest in the analysis before sanction type. With age and priors controlled, the sanction variables contributed a statistically significant but smaller portion in the R squared. He then discusses the effect of sanctions in terms of time in months based on the beta weights of the regression analysis. But the beta weights in a regression analysis are not partial regression weights, that is they do not estimate the effect of sanctions with age and priors completely controlled. Thus the figures discussed by Murray tend give an inflated picture of the impact of the dispositions.

Perceived risk

The second approach to the study of deterrence is the examination of the relation of perceived risk of arrest and the probability of an offense being committed. This approach more directly addresses the psychological mechanism of deterrence. As discussed above, regardless of what form of treatment effectively changes perceived risk, the deterrence theory requires that perceived risk affects the probability of committing the offense. To be more specific, the theory of deterrence asserts for a specific act, one factor (other factors may and undoubtedly do exist) which can either mask, attenuate or amplify the apparent relation between perceived risk and probability of offense.

There are two considerations to keep in mind when evaluating the studies in this section of the paper. The first is that the relation between perceived risk and offense probability is likely to be curvilinear rather than linear. When the probability of arrest is very low, increases in the probability of arrest will

have little effect on the probability of committing an offense. At some point in the range of arrest probabilities, the perceived risk would be sufficiently great to affect behavior and in this part of the full range of arrest probabilities, increases in perceived risk would dramatically affect behavior. The probability of committing an offense will drop quickly until it is so low that again increases in perceived risk will have little affect on offense behavior. In effect, there is a deterrence threshold for perceived risk which must be passed in order to have a deterrent effect. Further, individuals will surely differ with respect to the point in the range of perceived risks at which the threshold occurs. It is quite likely that this threshold is higher on the scale of perceived risks for hard core delinquents than for non-delinquents or marginally delinquent youths. In that case, finding that a group has both a higher average perceived risk and a higher rate of offense does not necessarily mean that deterrence does not work. While on the surface the finding would seem to disconfirm deterrence theory, when one considers the individual differences in deterrence threshold, it is clear that such group differences are ambiguously related to deterrence theory. Deterrence theory requires only that greater perceived risk results in lower offense probabilities on the individual level. Thus, when examining the differences between groups in the testing of a deterrence hypothesis, it is important to recall that deterrence is fundamentally an individual process.

The second issue is the reliability and validity of measures

of perceived risk. For the sake of research ease it is hoped that there is strong relation between what is said in response to questions and the effective beliefs. But this is an empirical question. It is unfortunately likely that request for general beliefs about risk will be less valid than questions about specific situations, and it is this more general sort of question that is most useful for research on deterrence. Even if it is possible for a youth to give a meaningful response, he may not be motivated to do so. Consequently, failure to obtain a relation between perceived risk and offense probability may be the fault of the measures and not of the theory.

Review of the major studies

In 1967 Claster reported on the differences in risk perception between delinquents and non-delinquents. He tested three hypotheses: 1) that delinquents perceive the police as less effective at arriving at arrest and convictions for offenses than do non-delinquents, 2) delinquents see themselves as more likely to violate the law in hypothetical situations 3) delinquents see their chances for apprehension as less likely for these hypothetical offenses. He compared the two groups on a series of questionnaire items. Delinquents were not significantly different from non-delinquents in their perception of the likelihood of arrest for the six types of crimes presented.

There were differences between the two groups in the responses to three hypothetical situations (murder for anger, burglary based on financial necessity, vehicular manslaughter) with response options from "definitely could" to "definitely could not".

Delinquents scored more towards the "probably could" end of the scale. In addition, delinquents saw themselves as less likely to be arrested for one of the three offenses.

There are several limitations that affect the interpretation of the findings. First, the groups were poorly matched, thus one could wonder if the differences reflect differences other than delinquency. Second, the author wishes to infer that the scale assessed the perceived likelihood that delinquents might do each of the three offenses. But the question was phrased could you and not how likely is it that you would do something. It is not clear what these items are measuring. Finally, the study in fact gives no evidence concerning the relationship between the obtained group differences in beliefs and actual behavior. One conclusion that needs to be drawn is that questionnaire items should either have strong face validity or else reasons should be given for apparent discrepancies.

Teevan(1976) reported on a questionnaire given to 191 introductory sociology students. He asked about their perception of the severity and the certainty of punishment for shoplifting and marijuana use and about their personal history of this behavior. He found that across persons higher perceived certainty was associated, statistically significantly but to a small degree, with less frequent repeated use of marijuana. This was not true for shoplifting. There was no statistically significant relation between perceived severity and offense history. If one looks only at those with higher assessed certainty, there is a tendency for perceived severity to be

negatively related to offense history. It was found, however, that having friends punished for an offense and self-reported delinquency are positively related. The sample may not have included much delinquency. There was a restricted range of certainty estimates reported and it was likely true of severity estimates also. With restricted ranges, correlations are lessened. It is interesting to note that having a friend punished still demonstrates a relation. This suggests that either social history has a stronger relation with offense history than does perceived risk, or that it is easier to get valid and reliable measures for social history. Finally, it should be noted that the correlations were between past behaviors and current perceptions. The significance of the temporal gap is unclear, but it may have served to reduce the correlations.

Waldo and Chiricos (1970) found marijuana users tended to have lower estimates of likelihood of arrest than non users when estimating risk for persons in general and for themselves. Those who had a history of at least one petty theft tended to estimate likelihood lower for themselves than those who had no history. But the pattern was not repeated with estimates for persons in general. As with Teevan, personal knowledge of individuals who had committed the offense was positively correlated with offense history. The authors compared estimates of likelihood of arrest for a person like the respondent versus for people in general and found that the respondent-similar estimates were related to offense history. In addition, they explored the issues of the significance of general type of offense mala prohibita and mala

in se, and attempted to examine the influence of severity independent of certainty.

The findings are ambiguous because of the nature of the sample and the skewed distributions of several of the variables. For instance, in the sixth table showing the relation between admitted marijuana use and perceived likelihood of arrest for marijuana possession, 83 per cent of the sample believed that marijuana use would be unlikely to lead to arrest. Only three of the students who reported any use of marijuana stated a 50-50 chance and none stated likely. Of the relatively few persons who estimated the chance of arrest as other than unlikely, almost all had never used marijuana. While it is possible that those who never use it were kept from using it because of the perceived certainty, it is more likely that most of those who never used marijuana did so because of a life style incompatible with its use and were so far removed from it that their view of perceived risk was quite unrealistic. In other words the relationship observed between perceived certainty and marijuana use that appears to support deterrence theory (weakly) may have nothing to do with deterrence, but rather reflects knowledge differences between those who are initiated and those who are not. Again the relation between past offense and personal knowledge of offenders was significant. There remains the problem of understanding the relation between current beliefs and past behaviors.

Silberman(1976)conducted a questionnaire study on college students. Perhaps the most interesting aspect of his study was his analysis and his discussion of it. He took two analytic

approaches. He divided youths into groups on the bases of their delinquency and compared them on different characteristics. He also compared offenses selected to represent a range of severities with respect to the average ratings given them by the youths. When examining correlations over persons, he found a fairly strong correlation (-.53) between condemnation (it is always wrong to do) and delinquent behavior (reported history of nine offenses), and a smaller but statistically significant relations between peer involvement (positive) and perceived certainty of punishment (negative) with delinquent behavior. His analysis across offenses revealed a different pattern. There was a very high correlation between perceived likelihood of arrest and condemnation (.91), between condemnation and per cent committing offense (-.90) and the likelihood of arrest and percent committing offense (-.82).

The difference between the correlations between perceived likelihood of arrest and social condemnation as a function of the form of analysis is difficult to understand. It may be that there is a relation between the two, but that the relation is such that individual differences in one or both measures are effectively error and thus uncorrelated. An examination of the nine offenses that Silberman studied reveals that the less severe offenses (marijuana use, premarital sex, drinking under the age) are, in fact, relatively difficult to detect because they are done in private and usually have no obvious effect. Whereas the more serious offenses (murder, petty theft, vandalism) are done with an effect that would likely be observed and lead to an

investigation. The one exception to this pattern is the use of hard drugs. It may be that measures of perceived risk are on average valid (if biased) measures of objective risk, but that the individual differences do not provide valid measures of objective risk

Again there are limitations to this study. The sample is of college students who are not highly deviant. Most of the reported offenses involved premarital sex, marijuana use, and drunk and disorderly behavior. Using both analytic approaches, there is a negative relation between perceived certainty of risk and offense history. The study finds that social condemnation has a consistently stronger relation with offense history, raising the question how this variable may be involved in any relation between perceived risk and behavior. Once again, peer involvement in delinquent behavior has a stronger relation with behavior than perceived risk on the individual level, but not when offenses are compared.

Erickson, Gibbs and Jensen (1977) have presented data on a sample of high school students. Questions asked about fifteen offenses were; (a) the individual's history in committing the offense, (b) the number of cases out of one hundred that end up in arrest, (c) the number of cases out of of one hundred that end up at a reformatory, and (d) the rated seriousness of an offense. The correlations across offenses were high (as in Silberman's study). The relation between perceived certainty and severity is above .90 and the correlations between frequency of the behavior, perceived severity and seriousness averaged .65. The authors

were struck by the high collinearity between perceived severity and seriousness. There are several questions that the methods of the study raise. What is the significance of the ratio measure of seriousness employed? Estimates of the number of cases out of one hundred are absolute, but the seriousness measure required students to assign a seriousness number value that reflects how more or less serious than petty theft is the offense to be evaluated. So the measure to some extent does not capture how wrong a youth believes offending to be in general. Rather it is a measure of spread of evaluations around the seriousness of petty theft.

Although Erickson et al. briefly discussed the psychometric uncertainties of these types of questions, it must be emphasized that there is little evidence about the reliability and validity or meaning of the responses to questions such as those employed in perceived risk studies. The responses may reflect differential compliance with the demands of the assessment situation. Some students may have very little motivation to treat the questionnaire seriously. The reported beliefs of those who try to respond honestly may have little to do with the psychological dispositions that constitute the phenomenon of perceived risk. There is little research on the relation of stated beliefs about risk to delinquent behavior beyond examining first order correlations. And there is little research connecting statements about perceived risk and other measures of moral beliefs, actions and development.

In a second report, Erickson, Stafford and Galliher (1980) on

a similar sample reported the average perceived seriousness of different groups of youth for different offenses discussed in the previous study. In general they found that youths that had committed the offense, especially if they had been processed by the juvenile justice system, gave lower seriousness scores to the different offenses. The findings are striking and the authors presented a strong argument that experience with the criminal justice system leads to what they call a normative erosion; that is, the juveniles come to see the criminal act as less wrong. They imply that increased delinquent behavior follows normative erosion. Again questions can be asked about the psychological significance of the responses. It is conceivable that the more delinquent youngsters wish to claim that serious offenses are not so serious in order to appear tough or maintain a consistency between their behavior and their stated beliefs. It may not reflect their basic moral evaluations. If the mean differences in perceived seriousness do reflect their respect evaluations of the offenses, the differences may not be great enough to affect behavior. There is also the possibility that persons brought further into the system are disposed to evaluate crimes as less serious. This interpretation, of course, applies only to those juveniles who have been referred to court.

The research on the relationship between perceived risk and delinquent behavior has consistently demonstrated a negative correlation between current assessments of risk and past behaviors. In general, researchers have taken this consistent finding to be confirmation of the hypothesis that level of

perceived risk determines delinquent behavior. This argument is based on two questionable assumptions. It assumes that a negative correlation between perceived risk and behavior across groups or offenses provides substantial evidence for the deterrence hypothesis. But as indicated above, with a more complex view of the nature of deterrence on the level of the individual offender, either a positive or negative correlation could be obtained in group data when in fact deterrence operates on the individual level. On the other hand, a negative relationship can be observed (as it has often been in the literature) and deterrence might not operate. More delinquent youths may have more accurate estimates and consequently lower estimates of perceived risk because experience as delinquents has made them more knowledgeable (Parker and Grasmick, 1979). Unless we have a greater understanding of why the correlations obtain, demonstrating even a strong relationship between perceived risk and behavior does not provide strong confirmation of the deterrence hypothesis and tells us nothing about what effect increases in perceived risk have on behavior. It has also been assumed that questionnaire responses are a valid measure of the cognitive processes that underly the perception of risk. But if the process is out of awareness and not rationally controlled as is often the case in fear responses, a person may not be able to report validly the sense or perception of fear that influences his behavior.

LABELING THEORY

The second theoretical perspective is labeling theory. Since this perspective applies to any type of deviant behavior, general

statements of the theory tend to reach a high level of abstraction. Moreover, it has been argued that labeling theory is so imprecise in its formulation (a mix of definitional and substantive claims) that it should be more properly called a sensitizing paradigm or conception (Gibbs, 1966). Consequently, the following description of the theory will be quite general. It states that deviant behavior can be better understood as the result of a social process in which a person is identified by society's representatives as a deviant. Thereupon the person adopts a view of the self as a deviant and commences a deviant career. An important aspect of the theory is the assertion that being deviant goes beyond doing deviant acts. There are behaviors and attitudes that are essentially unrelated to the deviant acts, which the person takes on because they are part of the deviant role that society has created and that he has adopted. The theory claims that although behavior that violates social norms can occur for a number of reasons, it is the labeling by society's representatives that triggers the change in self-image and causes the person to enter the role of the deviant.

There is an important distinction between the labeling act by society's representatives and the labeling process which includes the changes that occur within the person and within the system, as well as the mechanisms by which they occur. The process is to some degree an interaction between the deviant and society. The person is not completely powerless and passive in the labeling process. Labeling theory acknowledges that there is at least the

potential of a negotiation between the deviant and society when official labeling is initiated. A person could resist, block or undo the labeling activities of society. The labeling position claims that a process such as the one outlined occurs in most forms of deviant behavior. For example, mental illness, sexual deviance, heresy and, of particular interest to this paper, juvenile delinquency would be explained in the same general way.

In contrast to deterrence theory which requires distinguishing among clearly different positions and selecting among them for research purposes, for the most part the labeling perspective offers a variety of overlapping suggestions about what sorts of issues are relevant. These in turn must be applied to each type of deviance in an exploratory manner. The issues include the types of behaviors that tend to be labeled; the variety of careers that society has created; differences in the characteristics of potential deviants that influence their chances of being labeled; differences in the characteristics of persons that influence their susceptibility to the labeling act; the strategies available to combat labeling; the different labeling acts and their differential power.

There is a difference among labeling theorists with respect to the emphasis given to the two spheres in which the labeling process takes place: the individual and the social system. Some labeling theorists focus on the changes in self-definition that occur upon being labeled. For the purposes of the paper, these will be termed the self-definitional labeling theorists. The maintainance of deviant behavior is seen primarily as a result of

the identification with the deviant role. Society may do little to force the person into that role subsequent to the labeling act. The behavior is maintained by the "deviant's" conviction (reinforced by the media and observation) in the reality of the deviant type.

A second group of theorists focuses on changes in the system's behavior toward the individual once it has labeled the individual. These will be termed system labeling theorists. In this case the maintainance or amplification of the deviant role is a function of increased observation of the deviant and differential treatment of the deviant that forces him to adopt the deviant career (for example restricting job opportunities). Although self-perception may change, it is considered neither so pervasive nor important in understanding the deviant behavior.

The police encounter

As indicated at the beginning of the review, what is most striking with respect to the juvenile justice system is that labeling theory predicts that police encounters with juveniles, especially those encounters which resulted in firm treatment of the youth, increase deviant behavior. This is obviously the opposite prediction of deterrence theory. Both an increase and decrease cannot occur at the same time although both deterrence and labeling processes may occur simultaneously or under different circumstances. Given the undesirable effect predicted, it would be important to understand under what conditions and in what way labeling occurs in the police-juvenile interaction.

Applying labeling theory to police interactions is not a

straightforward task. Research is as much a process of discovery as of testing theoretically deduced hypotheses. There is a particular problem in the case of juvenile delinquency. Labeling theory is often discussed in black and white terms. It presents deviance as if it were a dramatic and rapid shift into a distinctive role. Either the person's self-image changes radically or the person experiences radically different treatment by society. A clear case would be a person who has a severe mental breakdown. He may quickly accept the self-definition of a mental patient and be placed in a mental hospital. In the case of juvenile delinquency, seldom is it ever so clear cut. Changes, if they occur, are a matter of degrees. Most juveniles who are arrested never become hard core delinquents, although it is possible that they see themselves as a little more delinquent after arrest. Those who do become highly delinquent usually change over a long period of time. If labeling occurs, in fact what will happen in most cases is that a juvenile will come to see himself somewhat more delinquent and certain agents of society will begin to treat the youth somewhat differently. Effects will not be as large as the theory seems to imply.

It would be helpful to sketch how labeling might occur in a police encounter. To begin with, society through the various media has created a distinct if imprecise image of what it is to be a delinquent. There are several components of the police encounter that could serve as official recognition that would prompt to youth to identify with this delinquent image. The fact of the arrest itself might serve as this recognition. Or a

declaration by an officer that he sees the youth as a delinquent may function as the labeling act. It is important, however, to note that officers often explicitly attempt to declare the opposite by either distinguishing the youth from his act "You are not the sort of person who does.." -- or indicates the youth has the option to avoid becoming a delinquent -- "If you continue as you are you will..." Independent of any declaration, the punishment aspects of the arrest (uncertainty, fears of detention, actual detention, etc) could serve as the official recognition. While labeling theorists have listed punishment as a form of recognition that can trigger the labeling process (Schur, 1971), there is the problem of determining which if any aspects of the encounter are punishments. Our current research indicates that police do not agree that anything short of petition to court with detention comprises punishment. While the juveniles may find the arrest upsetting, they themselves may not see it as an act of punishment. Although labeling theory suggests that some part of the police encounter may initiate the labeling process, the theory does not provide a clear guide to which part it may be.

It is consistent with labeling theory that recognition of the youth as a delinquent by parents, school, friends and significant others could contribute to the labeling effect. This additional effect would perhaps be strongest if it occurs in conjunction with an arrest, but it may also function prior to any arrest if the deviant act is discovered by a significant other. The labeling process might commence with the commission of the

act prior to any discovery. It seems likely that most delinquent acts are committed with some conflicted feelings of guilt. The youth will at least recognize in almost all instances that what he has done would be seen as delinquent. In these two cases, the youth could act as his own representative of society and label himself. Labeling theory, however, tells us very little about when these additional types of labeling might occur and what form they must take.

Once the youth has been identified, police may observe him more closely, check on him and consider him when investigations are started. Parents as well as other significant persons may begin to treat the youth differently. Consistent with the system labeling perspective, these new behaviors toward the youth could cause the youth to act more delinquently or to have his behavior reported more regularly. The possibility of system labeling effects that lead to an amplification of reported delinquency suggests that not all increases in officially reported juvenile delinquency are necessarily a sign that there is a rise in delinquency. Increases in delinquent behavior presents a problem to law enforcement and calls for a change in procedures.

Apparent increases in delinquency which are due solely to strict and reliable observation of selected juveniles may actually indicate an improvement in police work.

Research issues

As is the case with research on deterrence theory, one can design progressively stronger tests of labeling theory. One can simply examine if police processing is related to increased

delinquency. A positive correlation between the amount of processing and delinquency is consistent with either version of labeling theory, yet it is also consistent with other explanations. There are other processes that can lead to increases in recidivism. Experiences with the police system may teach the youth that being arrested is not so bad, reducing the perceived risk; an effect consistent with deterrence theory. The encounter may generate anger or rebelliousness that leads to additional delinquent responses. It may create anxiety and confusion that makes the offender temporarily more susceptible to delinquent pressure. A stronger test requires additional measures of police behavior and self-definition.

When testing a self-definitional explanation of delinquency increases, it must be kept in mind that labeling theory claims not only that self-definitional changes occur because of official recognition but that the youth comes to adopt a new definition in a certain way. The persuasive power of the police, family and society in general must convince the youth that he or she is in fact a certain kind of person defined by society to be a delinquent and because of this conviction he comes to act according to the role as he understands it. The labeling effect has not occurred if a youth on the bases of his experience with police is provided with information on the basis of which he decides that it is in his best interest to become a delinquent. Changes in self-definition are not to occur because of apparent reinforcing properties of the role but because of the apparent validity of his newly adopted identity and the necessity that

flows from the mere fact he is that sort of person.

As in the case of deterrence theory, when the psychological foundation of the theory is made clearer, the essential core of the theory is revealed to be the meaning the person's behavior has for that person. The person acts with respect to a complex of conditions for a certain reason. Because of this psychological dimension to the theory, a strong test of labeling theory will require a sophisticated set of studies that probe the motives underlying behavior.

Empirical studies

The research on labeling and the police handling of juveniles takes the form of assessing the impact of processing on recidivism, self-concept or both. Along with the issues on the interpretation of labeling research mentioned above, the general caveats about the absence of randomization discussed with the deterrence studies applies. Without randomization, differences observed after treatment may simply reflect differences in juveniles that already existed. As in the case of the research on deterrence, the research on the labeling effect on juveniles of police contact has not produced a study that has matched the ideal.

Several studies have examined the impact of police encounters on attitudes towards self and towards others. Foster, Dinitz and Reckless (1973) interviewed youths in their homes approximately two weeks after an encounter with the police. All juveniles had committed an act that would be a crime if an adult had committed it. 115 were seen by the courts and 80 by the police. The youths

reported that they saw no significant impact from the experience on their interpersonal relationships with friends and families. Slightly more than half of the youths believed that the arrest would affect how police acted towards them in the future and slightly less than half believed that it might endanger employment chances. The study raises the question of what information is relevant to testing a hypothesis of labeling. Although the authors discuss the labeling hypothesis, in fact the questions seem more relevant to testing deterrence theory. For the most part, they are examining the effect of arrest on perceived cost. There is also the methodological problem that the youths were interviewed in the presence of their parents. Their presence might well change the nature of the juveniles' responses. There is the limitation that the study does not attempt to relate the assessed attitudes toward the arrest with later behavior.

Jensen(1972) conducted a major study of the relationship between attitudes and past infractions. In his review of the issues he pointed out that much of the prior research, based on other theories about the relationship between attitude and behavior such as containment theory, focused on whether delinquents had good self-concepts or bad ones. He both questions the bases on which researchers categorized responses as good or bad and the relationship self-esteem has to delinquent self-perceptions. It is conceivable that youths who consider themselves to be delinquents have a positive sense of self-worth.

In his study, Jensen obtained measures on self-esteem,

official delinquent evaluations, student's own delinquency evaluations, and self-reported delinquency. He found that self-reported delinquency and delinquency self-evaluations are more strongly correlated with official delinquency for whites than for blacks. The same pattern was observed in the correlations of self-reported delinquency or self-reported police contacts with delinquency self-evaluations. Jensen also found that data suggested a negative but very weak relationship between a delinquent self-evaluation and self-esteem. For lower class blacks, there seems to be no relation at all. Jensen discussed the variation in correlation patterns in these findings. He raised the question whether blacks' real self-evaluations are in fact independent of authority figures and the dominant normative system with which they may not identify, or if there is some sort of denial or self-deception. His discussion indicates clearly that we have insufficient knowledge of the social psychology of the questionnaire situation to evaluate the validity of the questionnaire responses for the purposes of research on labeling and deterrence theory. We are, simply put, unsure of the meaning of the responses.

Hepburn (1977) examined the intercorrelations among attitude and past behavior variables for two groups of approximately 75 youths who had some contact with police and 75 who had none. He obtained measures of official frequency and severity of delinquency, self-reported measures of delinquency, socioeconomic status, self-satisfaction, delinquent identification, willingness to engage in delinquent behavior with others,

willingness to assist others in future delinquent behavior, commitment to future delinquent behavior and attitudes toward the police. There were mean differences in all the variables between the two groups in the expected direction (e.g. those with official contact had higher scores on delinquent identification). He examined partial correlations in several variable combinations and found, consistent with previous research, that self-satisfaction was unrelated to the other variables in the set. Delinquent identification was related to socioeconomic status and delinquent behavior.

Commitment to future delinquency was conceptually the closest measure to future behavior and, if one is willing to assume that it is in fact empirically related, then the impact of police intervention on the possibility of future delinquent behavior could be tested. The severity of the last disposition received was not related to future commitment, but time since last contact was positively related. There is thus a suggestion of a deterrence effect. The severity of the disposition did have a significant relation with attitude toward police. Hepburn's overall analysis was not guided by explicit structural hypotheses and he offered explanations in an ad hoc fashion. The multiple measures in his data make clear the problem of interpreting the meaning of assessment items. As one looks at the relationships among the different variables, one becomes more unsure of what is being measured and why they are related.

In a relatively complex reanalysis of Elliott and Voss's cohort data (1974), Ageton (1974) examined the relationship

between legal processing and a measure of delinquent orientation. The author assumed that the measure of delinquent orientation (DO) based on the California Psychological Inventory Socialization Scale would measure the changes in self-definition that labeling theory suggests police contact would cause. The main comparison was between youths who had no formal or informal contact with police and those that did. Since the youths were not randomly assigned to conditions, pre-existing differences on the DO scale were used as a control variable. Measures of delinquent orientation were taken once a year from the ninth to the twelfth grades. All youths had no official contacts at the time of the first measure. Depending on when they had their first contact, one or more change scores would be available for analysis.

According to the author's analysis, legal processing was positively associated with changes in delinquent orientation. The effect, however, decreased with time. Future multiple offenders had greater changes after the first encounter with police. This suggests that there are pre-existing differences between future multiple offenders and one-time-only offenders. Perhaps the most interesting finding is that variables independent of legal processing were related to delinquent orientation. If in fact the changes in DO are a measure of a labeling effect, the data indicate changes are much more strongly related to the number of delinquent acts committed during the change period and to peer associations. While this makes intuitive sense, it argues for a more complex picture of how

labeling occurs. The youth's relation to school and home also appear to be important variables. The strengths of the study demonstrate the necessity of using theoretically relevant control variables in order to understand the processes that underlie the changes in orientation. The major limitation is the lack of randomization. Without it, it is impossible to determine what selection factor may have caused group differences. One wonders whether it is reasonable to assume that arrest itself is a random process or if differences between youths and their behavior affect the probability of arrest. If we assume that the changes in delinquent orientation are partially a function of processing, the small magnitude of the changes and the fact that they decrease over time may be inconsistent with labeling theory. Some other explanation may prove more adequate.

Farrington (1977) reported on a longitudinal study in which youths were interviewed at fourteen, sixteen and eighteen. Forty-five had convictions at 14 and an additional 53 were found guilty between fourteen and eighteen. Although not a police study, it is of interest because the richness of the data might suggest important variables for future research. Convicted youths reported more offenses at eighteen suggesting that "public labeling" leads to deviancy amplification. Comparing youths who were arrested and found guilty at eighteen for the first-time with youths never arrested with respect to their self-reported delinquency at fourteen revealed that the arrested youths were more delinquent than the non-arrested at fourteen. "This indicates that selection for public labeling was not random, and

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that youths who committed found guilty in court"(p. 115). In order to control for these differences, a matched comparison was established based on delinquency at fourteen. The differences between convicted and non-convicted youths still obtained. The authors proceeded to match on all available variables that were related to delinquency, and the differences still reach statistical significance. As with all matched subject studies the question remains open whether or not the critical variables have been controlled. In particular, are there qualitative differences in offenses not captured by frequency measures or broad offense categorizations that may affect the probability of arrest?

The data suggest that differences in self-reported delinquency may express the fact that conviction amplifies the tendency toward delinquency. The amplification of deviance was not as strong for one-time-only offenders who barely failed to produce a statistically significant difference. This suggests that there are individual differences in the susceptibility to any labeling effect. Examining the data for twelve youths convicted for traffic offenses and nine youths cautioned but not processed revealed no indication of a labeling effect. There is some indication that based on a comparison of the same questionnaire administered at fourteen and sixteen, that the differences may at least in part be due to released inhibitions of self-reporting behavior. There is also evidence that conviction is related to poorer attitude toward the police.

Lincoln, Klein, Teilman and Labin(1981) reported on the

recidivism of three hundred and six youths who were processed in one of four ways by the juvenile justice system. Approximately of equal sizes, one group was simply released, the second referred to counseling, the third referred with payment for the counseling and the last group was sent to court. What is especially noteworthy about this study was that the researchers arranged to have random assignment of juveniles to conditions. In order to accomplish this, the youth offenses could not be very serious. Most instant offenses were burglary, petty theft, marijuana use and some runaways. They are comparable, however, to the majority of juveniles handled by the police. Unfortunately randomization was not perfect. In addition, there was significant attrition in the self-report interviews conducted after treatment. While statistical controls were employed to compensate for measurable differences between the groups (prior record) one can not simply assume that the controls reinstated randomization.

Generally, it was found that type of disposition was related to rearrest rate. The greater the official processing, the greater the rearrest rate. The authors argue that there was also evidence that disposition affected self-reported delinquency. One, however, has to be very cautious in this inference. Only one of the comparisons was statistically significant and that was in the third wave of interviews in which only 74 subjects remained out of the original 306. There was of course no evidence of decreased self-reported delinquency as deterrence theory would predict. The evidence from the study is fairly

clear tht organizational factors seems to lead to the increase in arrest, supporting a system labeling theory. In some way, youths became more identifiable and more readily processed after the initial processing.

The research on labeling theory has not directly addressed the issues of self-definition and system labeling process. There is evidence that youths who behaved more delinquently see themselves as more delinquent, but the causal implications of the self-image have not been explored. Ageton's work (1974) presents the strongest evidence that the police encounter itself results in changes in self-definition, but the impact was small and short lived. Lincoln et al. (1980) present evidence that strongly suggests that system labeling occurs, but we have no evidence on how it might occur.

CONCLUSION

There are two empirical questions that need to be answered in establishing support for either deterrence or labeling theory with regard to the police handling of juveniles. The first is what is the effect of the arrest on recidivism? The second is, for what reasons were the effects found? It has been pointed out several times in this review that neither the labeling nor the deterrence hypothesis invariably predicts a certain impact on future behavior from arrest. It is as important to discover why youths respond as they do as it is to assess the recidivism. Unfortunately, there has been very little research on the reasons for observed patterns of recidivism. As a result, there is no strong evidence for the validity of either theory as they apply

to police-juvenile encounters.

If one addresses the more modest inquiry about the impact of arrest on recidivism, the data tell more, although they are still far from providing a clear answer. On the basis of the research, we are, however, able to draw some conclusions that bring us closer to finding an answer to the question. The first conclusion is that there are several factors operating which could mask any suppression of delinquent behavior. Age and number of prior offenses are positively correlated with severity of disposition, but they are also positively correlated with recidivism. To a degree unaccounted for by age and priors, more severe dispositions are given to the youths who are more likely to recidivate. It appears, also, that youths who have a higher recidivism potential are more likely to be arrested. Consequently, comparisons between juveniles who have received different levels of treatment by the juvenile justice system are biased against whatever suppression effects exist.

The second conclusion is that there are individual differences between juveniles that are related to recidivism and they exist prior to any interaction with police. These differences may require different responses on the part of police in order to maximize police effectiveness. The third conclusion is that police may actively but unknowingly work to minimize the suppressive effect of arrest in an attempt to avoid labeling effects. Further, failing to follow arrest with significant court action may undermine existing arrest effectiveness. The last conclusion is that current suppression effects are not great

enough to overcome the factors that work to mask them. In general, it is painfully clear that simple research strategies such as comparing recidivism rates for groups of delinquents who have received different dispositions tell us very little about what is happening in the police-juvenile encounter.

These conclusions are important because they suggest the direction for future research. It obviously needs to become more sophisticated in both the methods employed and the theory that guides it. On the basis of the review, the following recommendations are made. Data must be collected on individuals rather than on the aggregate level. Whenever possible, youths should be randomly assigned to groups. Designs should incorporate both control groups and statistical controls on relevant variables. Variables should be selected that pertain to the decisions made by members of the juvenile justice system, to theories about the etiology of delinquency and to the hypothesized processes of deterrence and labeling. To maximize the sensitivity and relevance (both practical and theoretical) of studies, first-time offenders should form a focal point of the research. A longitudinal design should be employed. It could contain temporally appropriate measures that would allow stronger causal inferences. Finally, research should be based on a systematic descriptive study of police-juvenile interactions that delineates the channels of influence available to the police and catalogues the information about juveniles available to guide the choice of the best way to handle a particular case.

The amount of work proposed is formidable. But the potential

pay-off would be great. In Murray's (1980) study of delinquency in Chicago it was found that the mean number of arrests was 3.4 and many youths were seen several times by the police before they ever reached the courts. If this great amount of time and resources invested in juveniles could be made more productive, it could save a much greater investment at a higher level of processing. But until the necessary research is completed, we can say very little about the effectiveness of arrest, or how it might be improved.

References

- Ageton, S. S. and Elliot, D. S. The effects of legal processing on delinquent orientations. Social Problems, 1975, 22, 87-100.
- Ageton, S. S. The effects of legal processing on delinquent orientations. Doctoral Dissertation, Boulder: University of Colorado, 1974.
- Claster, D. S. Comparison of risk perception between delinquents and non-delinquents. Journal of Criminal Law, Criminology and Police Science, 1967, 58, 80-86.
- Elliott, D. S., and Voss, H. L. Delinquency and dropout. Lexington, Massachusetts: Lexington Books, 1974.
- Erickson, M. L., and Gibbs, J. Objective and perceptual properties of legal punishment and the deterrence doctrine. Social Problems, 1978, 25, 253-264.
- Erickson, M. L., Gibbs, J. P., and Jensen, G. F. The deterrence doctrine and the perceived certainty of legal punishments. American Sociological Review. 1977, 42, 305-317.
- Erickson, M. L., Stafford, M. C., and Galliher, J. M. Difference in perceived seriousness of crimes and delinquences: The normative erosion hypothesis. Unpublished manuscript, 1980.
- Farrington, D. P. The effects of public labeling. British Journal of Criminology, 1977, 17, 112-125.
- Farrington, D. P., and Bennet, T. Police cautioning of juveniles in London. British Journal of Criminology, (forthcoming).

- Foster, J. D., Dinitz, S., and Reckless, W. C. Perceptions of stigma following public intervention for delinquent behavior. Social Problems, 1973, 20, 202-209.
- Gibbs, J. Conceptions of deviant behavior: the old and the new. Pacific Sociological Review, 1966, 9, 9-14.
- Gibbs, J. P. Crime, punishment, and deterrence. New York: Elsevier, 1975.
- Gold, M. Delinquent behavior in an american city. Belmont: Brooks Cole, 1970.
- Gold, M. and Williams, J. R. National study of the aftermath of apprehension. Prospectus, 1969, 3, 3-12.
- Hepburn, J. R. The impact of police intervention upon juvenile delinquents. Criminology, 1977, 15, 235-262.
- Jensen, G. F. Delinquency and adolescent self-conceptions: A study of the personal relevance of infraction. Social Problems, 1973, 20, 84-103.
- Klemke, L. W. Does apprehension for shoplifting amplify or terminate sholifting activity? Law and Society Review, 1978, 12, 391-403.
- Kraus, J. Remand in custody as a deterrent in juvenile jurisdiction. British Journal of Criminology, 1978, 18, 285-289.
- Lincoln, S. B., Klein, M. W., Teilmann, K. S., and Labin, S. Contol organizations and labeling theory: Official versus self-reported delinqueny. Unpublished manuscript (forthcoming, 1982).

- McCord, J. Myths and realities about criminal sanctions. Paper presented at meetings of the American Society of Criminology, San Francisco, November 1980.
- Meade, A. Seriousness of delinquency, the adjudicative decision and recidivism--longitudinal configuration analysis. The Journal of Criminal Law and Criminology, 1973, 61, 478-485.
- Mecham, G. D. Proceed with caution: Which penalties slow down the juvenile traffic violator? Crime and Delinquency, 1968, 14, 142-150.
- Murray, C. A. Days in court: patterns of juvenile court reponse and their impact on arrest rate. Washington, D.C.: American Institute for Research, 1980.
- Parker, J., and Grasmick, H. G. Linking actual and perceived certainty of punishment: An exploratory study of an untested proposition in deterrence theory. Criminology, 1979, 17, 366-379.
- Rose, G. and Hamilton, R. A. Effects of a juvenile liaison scheme. British Journal of Criminology, 1970, 10, 2-20.
- Schur, E. M. Labeling deviant behavior: its sociological implications. New York: Harper and Row, 1971.
- Silberman, M. Toward a theory of criminal deterrence. American Sociological Review, 1976, 41, 442-461.
- Stewart, C. H. M., and Hemsley, D. R. Risk Perception and the likelihood of action in criminal offenders. The British Journal of Criminology, 1979, 19, 105-119.

- Teevan, J. J. Deterrent Effects of Punishment: Subjective Measures Continued. Canadian Journal of Criminology and Corrections, 1976, 18, 152-160.
- Thornberry, T. P. Punishment and crime: the effect of legal dispositions on subsequent criminal behavior. Doctoral Dissertation, Philadelphia: University of Pennsylvania, 1971.
- Thornberry, T. P. Sentencing disparities in the juvenile justice system. The Journal of Criminal Law and Criminology, 1979, 67, 164-171.
- Tittle, C. Evaluating the deterrent effects of criminal sanctions. In The handbook of criminal justice evaluation, (Eds.) Klein, M. W. and Teilmann, K. S. Beverly Hills: Sage, 1980.
- Waldo, G. P., and Chiricos, T. G. Perceived penal sanction and self-reported criminality: A neglected approach to deterrence research. Social Problems, 1972, 19, 522-540.
- Wattenberg, W. W., and Bufe, N. The effectiveness of police youth bureau officers. Journal of Criminal Law, Criminology, and Police Science, 1963, 54, 470-475.
- Zimring, F. E. and Hawkins, G. J. Deterrence: the legal threat in crime control. Chicago: The University of Chicago Press, 1973.

Variations in Juvenile Law
and Police Practice

Part I: A Survey of Pre-adjudicatory Statutes
in Twenty States

by
Kathleen Shields

Part II: A Survey of Police Practice
in Twenty States

by
Kathleen Shields and Lawrence Panciera

Section IV of the Final Report
of Grant 80-IJ-CX-0055-*:
Exploring Guidelines for Specific
Deterrence Theory: Early Sanctions
in the Juvenile Justice System

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Department of Justice.

Abstract

By expressing the intentions of the legislature and by prescribing the boundaries for police work, juvenile law functions as one of the major determinants of police practice. There is, however, room for variation in the implementation of legislation. Contrasting law with practice provides a valuable perspective for understanding police practice.

The legal research revealed a wide variation in the language of the laws, its rules and procedures and the roles of the major officials of the juvenile justice system. These differences reflect the individual strategies adopted by the states for balancing the two goals of care and protection of the juvenile and the correction of delinquent behavior. The variations between states are not paralleled by like differences between reported police practices. Across states, police appear more homogeneous in their practices. There is, however, a good deal of variation within states that seems to reflect the demands of particular organizational needs and individual communities.

Recently formulated legislation has both lightened the impact of the juvenile justice system on minor offenders and increased its impact on selected severe offenders. The police appear to see their role as less punitive. The single disposition option uniformly seen by police as punishing is the most severe, referral to court with detention.

Preface

An important part of the general examination of the topic of early sanctioning of juveniles by police is the determination of what in fact police do in their handling of juveniles, especially first-time offenders. A second, related task, is the determination of the reasons for the current practices. The research projects reported in this component of the final report constitute initial endeavors in these two areas of inquiry. The first is an analysis of pre-adjudicatory legal codes pertaining to the police processing of juveniles in the following twenty states: Arkansas, California, Colorado, Florida, Georgia, Indiana, Kentucky, Maine, Michigan, Mississippi, Missouri, Montana, Nebraska, New Hampshire, New York, Ohio, Rhode Island, Texas, Washington and Wisconsin. The second is a survey of 365 police agencies from the above states on their practices in the area covered by the legal research. The law by its mandating, recommending and permitting a variety of police practices sets boundaries for the conduct of the police and, thereby, creates a space for police discretion. The law is one important context for police work and functions as one reason for existing practices. Therefore, a review of legal codes is a necessary beginning to an explanation or evaluation of police juvenile practices.

Consistent with our interest in the early police sanctioning of juveniles, both the legal and police surveys focused on police practices that occur up to the disposition decision and that are directly concerned with the sanctioning or punishing of juveniles

or significantly related to the punitiveness of the treatment of juveniles. The research concentrated on the sanction or disposition options available to the police, how they are applied, if there are categories of juveniles singled out for special treatment, and especially if there is differential treatment of first-time and repeat offenders. As pilot work led to the final design of the study, the manageable scope of the study became clear and it was decided that the legal research would be restricted to the twenty states listed above and that the police survey would go to a ten percent sample of departments in these states. The details of the refinement of the study will be discussed in the sections that follow.

Part I
Juvenile Law: A Survey of Pre-adjudicatory Statutes
in Twenty States
by
Kathleen Shields

Introduction

Part 1 is an analysis of pre-adjudicatory legal codes in the following twenty states; Arkansas, California, Colorado, Florida, Georgia, Indiana, Kentucky, Maine, Michigan, Mississippi, Missouri, Montana, Nebraska, New Hampshire, New York, Ohio, Rhode Island, Texas, Washington and Wisconsin. Part 2 reports a survey of 365 police jurisdictions in the twenty states listed, concerning the processing of juvenile offenders and, in particular, of the differential handling that may exist between the first-time and repeat juvenile offender.

The purpose of the legal research was two-fold. First, it was undertaken to provide the researchers with information about the constraints placed on police officers in their dealings with juvenile offenders. Additionally, it was our hope that the statutes would provide us with information about the differentiation made between first-time and repeat juvenile offenders. It was our hypothesis that the variations in the state legislated codes would be reflected in the manner in which the police handle the juvenile offender.

Background

The aim of the 19th Century juvenile justice reformers was to remove juvenile offenders from adult criminal court to more civil proceedings where the objectives of treatment and rehabilitation could be pursued. The Illinois Juvenile Court Act of 1899 was the first major legislation of this type, but by the year 1945, all states had enacted legislation to create separate juvenile court systems. Since the idea of a separate court system for juveniles was based on a concern for care, guidance and treatment of youthful offenders, little concern was placed on the legal rights of juveniles. Legal proceedings were informal compared to adult criminal court proceedings; due process safeguards were sidestepped, so that treatment could be tailored to the needs of the individual juvenile offender. Underlying this juvenile court legislation was the concept of parens patriae, which permitted the court to take the role of parent and use wide parental discretion when dealing with these offenders.

With the Gault decision of 1967, the juvenile courts were told that each juvenile offender was entitled to the same constitutional protections enjoyed by adult offenders. (1) This landmark decision was the moving force behind much legislative rethinking about processing juveniles, status offenders, non-offenders and delinquent offenders alike. With this ruling, the juvenile justice system began a new era, one that would see state legislators revising juvenile codes so that they would be more consistent with those of the adult criminal court system. The informal atmosphere that had characterized the juvenile

justice system was now being threatened with the imposition of formalities that have historically encumbered the adult court system. Granting legal rights to juveniles is a two-edged sword. On the positive side, each juvenile is guaranteed due process which was previously afforded only to his adult counterpart. However, when one examines the situation in greater detail, then some negative consequences appear. One such negative effect is the reduction in the court's ability to deal with the individual juvenile. At present, the juvenile may find himself caught between two systems. This marginal position was created by the fact that not all the constitutional safeguards enjoyed by adults in the criminal justice system have trickled down to the juvenile system. In addition, many of the benefits of informal and individualized methods of handling juveniles are no longer available.

The impetus behind recent legislation to revise the juvenile justice system has come from two camps: first, groups intent on insuring constitutional protections for juvenile offenders, and second, a crime-weary public who see the juvenile offender as a distinct personal threat. While much of this legislation was intended to provide due process for all juveniles and stiffer penalties for serious and repeat juvenile offenders, the system may have lost sight of the unsophisticated first-time or minor offender who is in danger of becoming lost in the morass of this changing system. If the trend to formalize the juvenile justice system continues unabated, the result could be the merging of the two independent systems. Created would be a new criminal justice

system that would handle adults and juveniles alike. The juvenile justice system would be reduced to a historical artifact.

Methodology

The purpose of this legal search was to provide information about the legal limitations mandated by each state legislature for the handling of juvenile offenders in the pre-adjudicatory stages of the juvenile justice system. Since the information obtained from this review was to serve as the basis for further investigation of police practices in the handling of juveniles, particularly, the possible differential handling that might exist between the first-time and repeat offender, it was important to obtain a sample of states that varied across relative dimensions of interest. The following criteria were employed for the selection of states to be included in this research:

- (1) States that had recent serious juvenile offender legislation; these include California, Florida, New York, Kentucky, Indiana, Colorado, and Washington.
- (2) States whose statutes address the issue of first-time juvenile offenders and repeat juvenile offenders with regard to differential handling; Texas and Rhode Island were two such states.
- (3) States where previous research had indicated minimal latitude was given to police while taking a juvenile into custody; this included Georgia and Arkansas.

- (4) States where there had been a recent (post 1974) overhaul in their juvenile codes.¹
- (5) Additional jurisdictions were selected to provide us with a regional balance within the continental United States, in order to detect possible regional similarities and differences in the legislative decision-making.²

The selection of jurisdictions based on criterion (1) was done to ascertain whether this particular "get tough" policy for repeat and serious offenders would have an opposite affect (i.e., "a slap on the wrist" policy for the first-time and minor offender).

¹ Maine, Mississippi, Missouri, Montana, New Hampshire and Wisconsin. While other states in the sample, e.g. California, Colorado and Washington, etc., have had recent major overhauls in their juvenile codes their selection was based on the above criteria.
² Michigan, Nebraska, Ohio.

Review

Our review of the juvenile statutes in the selected states indicates that there is limited consensus among these states about the handling of juveniles in the pre-adjudicatory stages in the juvenile justice system. This report will address those variations in the juvenile codes in the following general areas:

- (1) classification of delinquent and status offenders,
- (2) minimum and maximum age for juvenile court jurisdiction,
- (3) custody,
- (4) basic rights of juveniles,
- (5) intake,
- (6) detention,
- (7) the role of the district attorney,
- (8) differential processing of first-time and repeat offenders,
- (9) waiver from juvenile court,
- (10) diversion and informal disposition.

In addition to the above areas of interest, we have included in our comparison of legal codes the philosophy underlying the juvenile court acts of each jurisdiction. These legislative statements are included because they provide an indication of the purpose and direction of the individual juvenile statutes.

Philosophy Underlying Juvenile Court Acts

It was the intent of the Uniform Juvenile Court Act of 1968 to effectuate the following:(2)

- (1) "to provide for the care, protection and wholesome moral, mental and physical development of children coming within its provisions,
- (2) to remove children committing delinquent acts from the taint of criminality and the consequences of criminal behavior and to substitute a program of treatment, training, and rehabilitation,
- (3) to achieve the foregoing purposes in a family environment whenever possible, separating the child from his parent only where necessary for his welfare or in the interests of public safety,
- (4) to provide a simple judicial procedure through which this Act is executed and enforced and in which the parties are assured a fair hearing and their constitutional and other legal rights recognized and enforced, and
- (5) to provide simple interstate procedures which permit resort to cooperative measures among the juvenile courts of several states when required to effectuate the purpose of this act."

Of the jurisdictions sampled, most have followed the guidelines set forth in the Uniform Juvenile Court Act for devising their own juvenile statutes. In fact, many of the states have employed terminology similar to that used in the Act. Table 1 is provided for reference.

Table 1
Philosophy Underlying Juvenile Court Acts

State	Not treated as a Criminal	Care and Guidance	Protect the Public	Impose Responsibility	Preserve Family Unit	Treat Rehabilitate Protect	Insure Legal Rights	Punish	Remove Taint of Criminality	Insure Restitution	Treat
ansas	X	X			X						
ifornia		X	X	X	X						
orado		X			X						
rida ¹			X			X	X			X	X
rgia		X			X						
iana		X	X		X	X	X				
tucky		X			X	X	X				X
higan		X			X						
ne		X	X		X		X	X			
issippi		X			X						
souri		X			X						
tana ⁴		X	X		X	X	X				
raska ⁴		X	X		X		X				
Hampshire		X			X	X	X		X		
York ³			X				X				
o		X	X		X	X	X		X		
de Island		X	X		X						
as		X	X		X	X	X		X		
hington ²			X	X	X	X	X	X		X	
consin ⁴		X	X		X	X	X				

Florida stipulates that sanction should be applied consistent with each individual case.

Washington provides for the development of standard goals for funding and evaluation for all components of the juvenile justice system.

New York stipulates that when dealing with juveniles a balance must be met between their best interest and the best interests of society.

Additionally, Montana, Nebraska and Wisconsin statutes state that a child shall be removed from the juvenile justice system for social services whenever possible.

While care and guidance,¹ public safety,² preservation of the family unit,³ rehabilitation and treatment,⁴ and the insurance of constitutional and legal rights⁵ appear to be the main objectives of the majority of states sampled, a few jurisdictions explicitly state the purpose of their juvenile code is to punish the adjudicated,⁶ insure restitution⁷ and impose responsibility on the juvenile.⁸

In addition, Arkansas, Indiana, Montana, New Hampshire, Ohio, and Wisconsin all stipulate in their juvenile statutes that the juvenile not be treated as a criminal. The potential for "tailoring justice" for the juvenile is implicitly suggested in certain juvenile statutes. Two examples of this individualized handling can be seen in the New York code which states that when dealing with juveniles "a balance must be met between the juvenile and the best interests of society," and the Florida code which calls for "the application of sanctions which are consistent with the seriousness of the offense."

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- 1 Arkansas, California, Colorado, Georgia, Indiana, Kentucky, Michigan, Maine, Mississippi, Missouri, Montana, Nebraska, New Hampshire, Ohio, Rhode Island, Texas, and Wisconsin
 - 2 California, Florida, Indiana, Maine, Montana, Nebraska, New York, Ohio, Rhode Island, Texas, Washington, and Wisconsin
 - 3 Arkansas, California, Colorado, Georgia, Indiana, Kentucky, Michigan, Maine, Mississippi, Missouri, Montana, Nebraska, New Hampshire, Ohio, Rhode Island, Texas, Washington, and Wisconsin
 - 4 Florida, Indiana, Kentucky, Maine, Montana, Nebraska, New Hampshire, Ohio, Texas, Washington, and Wisconsin
 - 5 Florida, Indiana, Kentucky, Montana, New Hampshire, New York, Ohio, Washington, and Wisconsin
 - 6 Maine and Washington
 - 7 Florida and Washington
 - 8 California and Washington

Classification of Delinquency and Status Offenses

In an attempt to destigmatize conduct of a non-criminal nature, most juvenile statutes limit the classification of delinquency to violations of state and federal laws, and classify status offenses as violations that would not constitute a criminal act if they were committed by adults. While fifteen of the jurisdictions sampled employ the term delinquent in their juvenile codes,¹ the remaining five jurisdictions either refer to the youthful law violator as offender² or ward of the court,³ or label the "act", not the violator.⁴

The majority of states in the sample maintain a separate classification for status offenders. Maine and Michigan, however are exceptions. In fact in 1978, Maine abolished the status offense jurisdiction and only under limited circumstances does the court maintain jurisdiction over "runaways" or those who are neglected or at risk. Eleven of the states sampled include "unruly" in their classification of status offenses.⁵ In contrast to the Michigan classification of runaway as a delinquent, the codes in Colorado, Florida, Georgia, Maine, Mississippi, Nebraska, New Hampshire, Ohio, Rhode Island, Texas, Washington, and Wisconsin list the violation under the

-
- 1 Arkansas, Colorado, Florida, Georgia, Indiana, Kentucky, Mississippi, Missouri, Montana, Nebraska, New Hampshire, New York, Ohio, Rhode Island, Texas, Wisconsin
 - 2 Washington
 - 3 California
 - 4 Maine, Michigan and Missouri
 - 5 California, Colorado, Florida, Georgia, Kentucky, Michigan, Mississippi, Nebraska, New York, Ohio, and Wisconsin

category of status offense.⁶ While truancy and other school related offenses are considered delinquent acts in Indiana and Michigan, they are categorized as status offenses in fourteen of the jurisdictions sampled.⁷

Figure 1

Classification of Delinquent and Status Offender	State
Delinquent	Arkansas, Colorado, Florida, Georgia, Indiana, Kentucky, Missouri, Mississippi, Montana, Nebraska, New Hampshire, New York, Ohio, Rhode Island, Texas and Wisconsin
Offender	Washington
Ward of the Court	California
Act termed delinquent not the violator	Maine, Michigan and Missouri
Separate classification for status offender	Arkansas, California, Colorado, Florida, Georgia, Indiana, Kentucky, Mississippi, Missouri, Montana, Nebraska, New Hampshire, New York, Ohio, Rhode Island, Texas, Washington, Wisconsin
No separate classification for status offender	Maine and Michigan

6 Florida, Kentucky, Nebraska, New Hampshire, Ohio, and Wisconsin require habitual action.

7 Arkansas, California, Florida, Georgia, Kentucky, Mississippi, Montana, Nebraska, New Hampshire, New York, Ohio, Rhode Island, Texas, and Wisconsin

Minimum and Maximum Age of Juvenile Court Jurisdiction

The designation of a minimum age for juvenile court jurisdiction provides standards for determining criminal responsibility for children. This provision has been adopted by several of the states in our sample. New York maintains the lowest minimum age, which is set at seven. Colorado, Mississippi, and Texas all designate 10 as their minimum age for juvenile court jurisdiction. Wisconsin alone sets 12 years as its minimum age. The remaining states either have a common law presumption (3) or no specification.

Figure 2a

Minimum age for Juvenile Court Jurisdiction	State
7 years	New York
10 years	Colorado, Mississippi and Texas
12 years	Wisconsin
common law or no specification	Arkansas, California, Florida, Georgia, Indiana, Kentucky, Maine, Michigan, Missouri, Montana, New Hampshire, Nebraska, Ohio, Rhode Island, Washington

The maximum age provision is based on the assumption that "specific treatment" options available to the juvenile court may be counterproductive when applied to an individual sufficiently mature to warrant treatment as an adult". Of all the

jurisdictions sampled, New York state alone sets the maximum age for juvenile court jurisdiction at 16 years. Four jurisdictions -- Georgia, Michigan, Missouri and Texas -- set the maximum at age 17, and the remaining states set their maximum at 18 years of age. It is generally the case, however, that juvenile courts have jurisdiction to age 16 for cases involving serious offenses and up to the age of 18 for all other offenses.

Figure 2b

Maximum age for Juvenile Court Jurisdiction	State
16 years	New York
17 years	Georgia, Michigan, Missouri and Texas
18 years	Arkansas, California, Colorado, Florida, Indiana, Kentucky, Maine, Mississippi, Montana, Nebraska, New Hampshire, Ohio, Rhode Island, Washington and Wisconsin

Custody

The use of the phrase "taking into custody" instead of the term "arrest" is an additional attempt, on the part of the legislators, to avoid the stigmatizing effects associated with the latter term. The Uniform Juvenile Court Act (1968) recommended that "a child may be taken into custody pursuant to the laws of arrest, but the taking of a child into custody is not an arrest, except for the purpose of determining its validity under the constitution of the state or of the United States". (5) Nine jurisdictions in our sample have followed the guidelines of the Act by stipulating in their codes that "the taking of a juvenile into custody is not deemed an arrest".¹ (6) The Colorado statute goes beyond the Court Act recommendation by stipulating that "custody is not considered an arrest nor does it constitute a police record".

Juvenile codes in California, Indiana, Michigan, and Washington provide for the "taking into custody", but they do not specify whether or not this act constitutes an arrest. (7) While statutes in Missouri, Rhode Island, Arkansas, Maine and New Hampshire clearly provide for the arrest of a child, the New York statute permits a police officer to take a person under the age of 16 years into custody without a warrant in cases in which he may arrest an adult, but clearly prohibits the officer from taking a juvenile into custody for non-criminal behavior without

 1 Georgia, Florida, Kentucky, Mississippi, Montana, Nebraska, Montana, Wisconsin and Texas

a warrant. The New York statute alone seems to be clear on the issue that juveniles should be taken into custody only if the acts committed would be considered criminal acts if committed by an adult.

Figure 3

Custody versus Arrest	State
Taking into custody is not deemed an arrest	Colorado, Georgia, Florida, Mississippi, Kentucky, Ohio, Nebraska, Montana, Wisconsin and Texas
Use of the term custody as opposed to arrest, but does not stipulate if custody is deemed an arrest	California, Indiana, Michigan and Washington
Utilization of the term arrest	Arkansas, Maine, Missouri, New Hampshire and Rhode Island
Other	New York

Stipulations Surrounding The Taking of a Juvenile into Custody

While juvenile codes in every state provide for the taking into custody of juveniles pursuant to the laws of arrest for adults, many state codes have provisions for the taking of juveniles into custody that would not be applicable in the adult situation. This somewhat differential standard, coupled with the lack of maturity of these offenders, has led to the inclusion of certain provisions in the juvenile statutes that are unique to the juvenile offender. Each state stipulates the various procedures that the police officer must observe following the actual taking into custody of a juvenile.

The majority of states surveyed require that the arresting officer immediately notify the child's parents or guardian about the circumstances surrounding custody¹. In addition to notifying the parents, most codes permit the release of the juvenile into the custody of the parents or guardian with the provision that the juvenile will appear at a preliminary hearing, if necessary. The statutes in Missouri and Arkansas stipulate that the juvenile be immediately transported to court after he has been taken into custody by the police officer. The California statute requires if a child is not released, then the county juvenile probation department must be notified. Similarly, the Maine and Arkansas statutes require notification of the court intake officer and the prosecuting attorney, respectively.

In addition to these general requirements, some state codes

¹ Colorado, Kentucky, Michigan, Mississippi, Missouri, Nebraska, New York, Washington, and Wisconsin

provide their law enforcement officers with greater flexibility when taking juveniles into custody. For example, the Maine statute permits an officer to maintain custody of a juvenile for a period of time up to two hours, if the officer believes that a juvenile crime has been committed. (8) This time period is permitted for the verification of the youth's name and address. The New York Family Court Act permits the officer to question the child in a facility designated by the appellate division of the Supreme Court, and to question him for a reasonable length of time. (9)

Figure 4 a

Stipulations for taking a juvenile into custody	State
Immediate Notification of Parents, guardian or custodian	Colorado, Kentucky, Michigan, Mississippi, Missouri, Nebraska, New York, Washington, Wisconsin
Release	California, Mississippi*, Nebraska*
Release to parents	Colorado, Florida, Georgia, Indiana, Michigan, Missouri, New Hampshire, Montana,** New York, Ohio,** Rhode Island, ** and Texas **
Take Immediately to Court	Arkansas, ² Missouri*
Notification of Intake worker/court	Maine, Rhode Island,* Texas* and Wisconsin
Notification of Probation Department	California*
Notification of Prosecuting Attorney	Arkansas ³
Does not stipulate	Montana ⁴

* Previous stipulations adhered to first.

** With promise to appear for a hearing if necessary.

1 This may be done without court referral and may also refer to diversion programs with parental consent.

2 This refers to arrest with a warrant.

3 This refers to arrest without warrant.

4 While the Montana statute does not stipulate exactly what the arresting officer must do with the child once he has been taken into custody, it does stipulate that a youth may not be detained prior to a detention hearing except under the most extreme conditions.

Figure 4b

Stipulations surrounding the taking of a juvenile into custody, if the child is not released to a parent or guardian	State
Immediately taken to court or the court notified about the custody	Colorado, Georgia, Michigan, Mississippi, Nebraska, ¹ New Hampshire, Ohio, Rhode Island and New York
Divert (to the community) with permission of a parent or guardian	Kentucky and Washington
Taken to probation officer	California
Juvenile Code does not specify	Florida, Indiana, Maine, Missouri, Montana, Texas and Wisconsin

¹ If not released within 4 hours after being taken into custody.

Intake Procedures

Intake procedures are primarily responsible for "screening out" cases which should not remain under the jurisdiction of the juvenile court. Generally, intake personnel act on cases which are not sufficiently serious to warrant official court intervention, or those where the insufficiency of evidence would prevent successful prosecution. When the case does not warrant court intervention, it is the duty of the intake officer to refer the case to community agencies or otherwise assist the juvenile and the family with the matter that brought the juvenile to the attention of the court system. Since about one-half of all referrals to the juvenile court never proceed beyond the intake stage, this stage serves as an economical and productive means of processing alleged juvenile offenders. However, it also holds the potential for cajoling alleged offenders into informal probation programs without determining whether or not they are in fact guilty of the delinquent act as charged.

The responsibility for the initial intake decisions varies among jurisdictions, but usually intake decisions are made by probation officers.¹ In some jurisdictions, courts or the prosecuting attorney are responsible for intake decisions.²

¹ Georgia, Montana, New Hampshire, Washington, Nebraska, California, and New York

² In Rhode Island, Missouri and Kentucky the court has the responsibility for making preliminary investigations. Missouri and Kentucky grant additional power to the district attorney to make informal adjustments. Indiana and Colorado grant the prosecuting attorney the power of intake in delinquency case.

In Florida, the Department of Health and Rehabilitative Services serves the primary intake function. In the remaining jurisdictions, intake procedures are well defined in the juvenile statutes, but the agencies responsible for intake are not specified.³

Figure 5

Initial Intake Decision Agency	State
Juvenile Probation Department	California, Georgia, Montana, Nebraska New Hampshire, New York and Washington
Juvenile Court	Kentucky, Missouri and Rhode Island
Prosecuting Attorney	Colorado ¹ and Indiana ²
Other or Unspecified	Arkansas, Wisconsin, Maine, Texas ³ Michigan ⁴ , Ohio ⁵ , Mississippi, Florida

¹ While the district attorney in Colorado initially handles the intake decision, he may refer it to the probation office for investigation and other intake procedures.

² The prosecutor decides to file in criminal delinquency cases, but in the cases of CHINS an intake officer makes the preliminary inquiry and may recommend informal adjustment.

³ Law enforcement officers may refer cases to the court or to intake workers or probation officers or may dispose of the case without referral to court.

⁴ Does not specify which arm of the juvenile justice system shall make preliminary inquiry.

⁵ Provides for intake on decisions for detention and not in cases of whether or not a petition is filed.

³ Maine, Wisconsin, Arkansas, Texas, Michigan, and Ohio.

Basic Rights of Juveniles

The Supreme Court decision Miranda vs. Arizona (1966) provided every accused individual with:

- (1) the right to remain silent
- (2) a warning that any statement he/she makes may be used against the accused in a court of law,
- (3) the right to be represented by a counsel and to have a counsel present during any questioning; and
- (4) a court appointed counsel, if a private counsel cannot be afforded.

Although the Supreme Court never declared whether or not these basic rights applied to juveniles, eleven of the states sampled explicitly provide for these rights in their juvenile codes.¹ Other jurisdictions provide for other individual safeguards; for example, the Mississippi code provides for a telephone call to parents, counsel, guardian ad litem or authorized personnel of the juvenile court. In addition, it states that "no person shall interview or interrogate a child who is in detention or a shelter facility unless judicial approval has been obtained." The Missouri code stipulates that once a child is taken into custody, "all admissions, confessions, and statements made by the child to the juvenile officer or juvenile court personnel are not lawful or proper evidence against the child and shall not be used for any purpose whatsoever in any proceeding, civil, criminal....."

¹ California, Colorado, Florida, Indiana, Kentucky, Maine, Montana, Nebraska, Ohio, Texas, and Washington

Although the statutes in Arkansas,² New Hampshire, Rhode Island, New York, and Michigan do not expressly stipulate the juvenile's legal guarantees, the Michigan Court of Appeals in 1966 decided that while it is a legal right to question a juvenile suspect under certain protective circumstances in a police station, compliance with constitutional and statutory safeguards is absolutely necessary when the "search for knowledge turns from investigation to accusation."

In addition to providing for the right to counsel as does the Wisconsin statute, the Georgia act guarantees the right against self-incrimination and the admissibility of extra judicial statements which were illegally obtained. Furthermore, confessions made outside the courtroom are insufficient unless corroborated in whole or part by additional evidence. The above provisions indicate that, while the states are not unanimous with regard to the legal rights extended to juveniles, these juvenile justice systems are moving in the direction of providing the juvenile offender with constitutional safeguards comparable to adult criminal court settings.

2. Arkansas juvenile code stipulates that juveniles are to be guaranteed all the protection of due process.

Figure 6

Rights of Juveniles	State
Miranda applied when the juvenile is taken into custody	California, Colorado, Florida Indiana, Maine and Montana
Basic rights given when appearing in court or detention facility	Kentucky ¹ , Nebraska ² , Ohio ³ , Texas ⁴ and Washington ⁵
Juvenile code does not stipulate	Arkansas ⁶ , Michigan, New Hampshire, New York and Rhode Island
Other	Georgia, Missouri, Mississippi and Wisconsin

- 1 Kentucky provides for these basic rights when the court determines that formal proceedings are required.
- 2 Nebraska's statute provides for these rights at hearings.
- 3 The Ohio statute provides for these rights prior to detention hearings.
- 4 The Texas code provides for these rights when a child is in a detention facility.
- 5 Washington provides for these rights when a child appears in court.
- 6 Arkansas' code states that "juveniles are to be guaranteed all the protection of due process".

Diversion and Informal Disposition

There are several channels through which a juvenile may be diverted from the juvenile justice system. First, he may be placed on informal probation or informal supervision. This type of disposition, which can be handled by either police or probation department, is generally given in cases where the offender has committed only a minor offense. Its main purpose is prevent further penetration into the justice system. The rationale behind this type of disposition is two-fold: (1) to eliminate the possibility of a formal record and (2) to provide the judge with more time to deal with the serious offender. Generally, if the youth cooperates with his probation officer or the police officer in charge of his supervision and avoids any additional confrontations with the law, his record will be expunged. Several jurisdictions directly address the issue of informal probation in their juvenile codes. For example, both New York and California include a very general provision for the use of informal probation as a disposition, while the Wisconsin and Montana codes are somewhat more specific by including a provision that requires consent for this type of adjustment prior to the filing of a petition. In contrast to the above states, the Indiana statute provides for the use of informal probation after the close of evidence and before a judgment is entered.

A second means of avoiding further penetration into the juvenile justice system is through in-house or community based diversion programs. These programs vary in commitment and degree with the size and texture of the police department and the

surrounding community. They can range from highly structured formal arrangements to very informal operations.(10) Most of the jurisdictions in our sample had provisions in their juvenile code which provided for the use of some type of diversion,¹ either through the police department, probation department, or through juvenile court. Only Michigan, Nebraska, Ohio and Rhode Island did not explicitly provide for diversion in their statutes.

¹ California, Colorado, Florida, Georgia, Indiana, Kentucky, Maine, Mississippi, Missouri, Montana, New Hampshire, New York, Texas, Washington and Wisconsin.

Figure 7

Informal Disposition	State
Informal Probation	California, Indiana, New York, Montana and Wisconsin
Informal Adjustment Diversion	California, Colorado, Florida, Georgia, Indiana, Kentucky, ¹ Maine, Mississippi, Missouri, Montana, New Hampshire, ² New York, ³ Texas, Washington, and Wisconsin
Informal Adjustment not specified	Arkansas, Michigan, Nebraska, Ohio and Rhode Island

-
- 1 Court may make informal adjustment.
 - 2 Police or probation officer may refer to court approved diversion program, court may order diversion (with consent) after an arraignment and prior to adjustment.
 - 3 New York juvenile statute does not provide for diversion in the form of community treatment program; the only type of informal disposition is informal probation.

Detention Hearing

In an attempt to protect the juvenile against the potential harmful effects of a prolonged stay in a police facility, most states have followed the guidelines set forth in the Uniform Juvenile Court Act (1968) regarding the circumstances that would necessitate the detention of a child. The Act states that a child shall not be detained unless:

- (1) his detention or care is required to protect the person or property of others or of the child, or
- (2) because the child may abscond or be removed from the jurisdiction of the court, or
- (3) because he has no parent, guardian, or custodian, or other person able to provide supervision and care for him and return him to the court when required, or
- (4) an order for his detention or shelter care has been made by the court pursuant to the Act. (11)

In addition to the incorporation of these guidelines into their statutes, juvenile codes in most of the jurisdictions sampled specifically stipulate a maximum length of time a child may be held in custody before he is given a detention hearing. While this time limit varies between the states from 24 hours to 96 hours, the majority of the states sampled defined the time for a detention hearing to be within the range that does not exceed 48 hours excluding Saturdays, Sundays, and holidays. Montana and Nebraska are the only states where a child must be released within 48 hours unless a petition or criminal complaint is filed and a court order continuing jurisdiction is entered by the juvenile court. The Montana statute simply states that a court order or hearing is not required for the detention of a child, although a petition to detain must be filed within 5 days after

the child has been taken into custody.

Figure 8

Detention Hearing Held Within	State
24 hours	Florida, Missouri, ¹ New Hampshire, Rhode Island, ² and Wisconsin
48 hours	Colorado, Indiana, ³ Maine, ⁴ Michigan, Mississippi, ⁵ and Texas
72 hours	California, ⁶ Georgia, Kentucky, New York, ⁷ Ohio and Washington
96 hours	Arkansas
Not required	Montana ⁸ and Nebraska ⁸

-
- 1 Child can only be detained if there is a court order, if it is a Sunday or holiday or it is impractical to obtain a written order from the court, then the child may be detained up to 24 hours.
 - 2 Delinquent or wayward child may not be detained in custody more than 24 hours without being referred to the family court for consideration.
 - 3 24 hours if CHINS.
 - 4 24 hours following a Saturday, Sunday or legal holiday which occurs after placement.
 - 5 Within 24 hours if no court order is obtained.
 - 6 Petition must be filed within 48 hours.
 - 7 Within 72 hours or the next day the court is in session whichever is sooner.
 - 8 Child must be released within 48 hours after being taken into custody unless a criminal complaint or an order continuing jurisdiction is entered.

Secure Facilities

Pre-trial detention of juveniles has three primary objectives:

- (1) to ensure that the child will be available for his court appearance;
- (2) to ensure that the juvenile does not commit any additional offenses while he is awaiting adjudication (this is generally referred to as preventive detention);
- (3) to remove the child from his present surroundings when the court views them as a potential danger to the child (therapeutic detention).

When it becomes necessary to place a child in detention, the designers of the Juvenile Justice and Delinquency Prevention Act of 1974 recommend that "no child alleged to be within the jurisdiction of the juvenile court shall be held in a facility where he would have regular contact with accused or convicted adult offenders." (12) Of the sampled jurisdictions, only Arkansas, California, Florida, Georgia, Indiana, Missouri, New Hampshire, New York, Ohio, Texas, Washington and Wisconsin appear to be in compliance with this recommendation. (Section 223(a) 13)

Section 223 (a)(12)(a) of this Act requires that "juveniles who are charged with or who have committed offenses that would not be criminal if committed by an adult, or non-offenders such as dependent or neglected children shall not be placed in juvenile detention or corrective facilities." While twelve of the jurisdictions sampled were in compliance with section 223(a)(13), only eight jurisdictions complied with section 223

(a)(12)(a).

Figure 9

Compliance with Secure Detention Restrictions	State
Section 223(a)(13)	Arkansas, California, Florida Indiana, Maine, New Hampshire, New York, Ohio, Texas, Washington and Wisconsin
Section 223(a)(12)(a)	Arkansas, California, Indiana Maine, New Hampshire, New York Washington and Wisconsin

The Role of the District Attorney

While the precise role of the district/prosecuting attorney is not clearly defined in most of the jurisdictions sampled, two functions of the office are most frequently stipulated:

- (1) to make the final decision whether or not to file the complaint; and
- (2) to act as a representative of the state at the juvenile court proceeding.

Figure 10

Role of the District Attorney	State
Appear and Assist	Arkansas, Indiana, ¹ Michigan, Mississippi, Ohio, ³ Rhode Island, Texas, ² Washington and Wisconsin
Determine if action is to be taken on the case	California, ⁴ Colorado, ⁴ Florida, Georgia, ⁵ Maine, Montana, Nebraska, New Hampshire and New York
Does not specifically stipulate	Kentucky ⁶
Aid juvenile officer	Missouri

- 1 If prosecutor requests that the juvenile court authorize the filing of a petition alleging that a child is delinquent, then he must represent the interests of the state at all subsequent proceedings on this petition.
- 2 Prosecuting attorney files a petition for an adjudication or transfer hearing of a child alleged to have engaged in delinquent conduct indicating need of supervision.
- 3 While the county prosecuting attorney shall be party to all juvenile court proceedings involving juveniles, he may after giving appropriate notice decline to represent the state in juvenile court matters, except felony cases unless requested by the state at an adjudicatory hearing.
- 4 He may refer matter to probation.
- 5 The district attorney or a member of his staff must conduct the proceedings on behalf of the state if requested to do so by the juvenile court at least 96 hours prior to the proceedings.
- 6 County attorney has the authority to modify or terminate an order of commitment, protective supervision, or probation at any time prior to its expiration.

Transfer to Adult Court

The Juvenile Court's option of waiving its jurisdiction over a juvenile and transferring the case to criminal court is generally based on the following considerations: (1) the juvenile's age, (2) the offense committed, (3) amenability of the juvenile to the court's treatment options and (4) what is in the best interest of the public. The philosophy underlying transfer of juvenile cases to adult court is two-fold: first, unless the juvenile court has certain boundaries for the age of the individual it processes, it will not be effective in processing any of its clients; and second, there exists a certain subset of juveniles who either because of age or alleged offense will not be properly served by the juvenile court.

Since the main purpose and function of the juvenile court is care and guidance of juvenile offenders, it is necessary to restrict jurisdiction to those individuals who would be most amenable to this type of handling. Of the jurisdictions in our sample, only New York and Nebraska do not provide for the waiver of juvenile court jurisdiction in their codes. While age and offense restrictions vary among the states, we noted that the most frequently stipulated age for transfer to adult court was 16 years¹. The Indiana juvenile statute provides the lowest age for transfer from juvenile court with their minimum age set at 10 years². This is followed by Mississippi and Georgia which

 1 Arkansas, California, Indiana, Kentucky, Montana, Rhode Island, Washington, and Wisconsin

2 A 10 year old may be transferred for the alleged commission of a murder in the first-degree.

stipulate 13 years of age for transfer to adult court.¹ Several states included in their codes various age/offense combinations which provide sufficient cause for waiver of jurisdiction; Missouri, Washington, and Indiana are among those in our sample which offer the most complex arrays of restrictions of this type.

 1 A 13 year old may be transferred to adult court for an offense punishable by death or life imprisonment.

Figure 11

Transfer to Adult Court Age Restriction	State
17 - 21	Missouri ¹
16	Arkansas, ² California, Indiana, ³ Kentucky, ⁴ Montana, Rhode Island, Washington, ⁵ and Wisconsin
15	Georgia, ⁶ Michigan, Ohio and Texas
14	Colorado and Florida
13	Mississippi
No age restrictions	Maine and New Hampshire
No waiver	Nebraska ⁷ and New York.

1 Missouri varies its age restrictions depending on offense alleged to have been committed-14 or more for a traffic or felony violation and 17-21 for the violation of any state law or ordinance if the child is already within the court's extended jurisdiction.

2 Arkansas will waive a juvenile age 15, 16 or 17 years to criminal court for felony or misdemeanor violations.

3 According to the Indiana statute a juvenile aged 14 or more can be waived to criminal court for the commission of a heinous or aggravated act, or part of a repetitive pattern of less serious delinquent offenses. A 10 year old can be waived for first-degree murder and a 16 year old for a Class A or B felony or murder.

4 A juvenile under the age of 16 can be transferred to adult court for a capital offense or a Class A felony.

5 Washington permits a transfer to adult court for a 16 or 17 year old who has been alleged to have committed a Class A felony; and a 17 year old who has been alleged to have committed the following offenses; second degree assault, first degree extortion, indecent liberties, second degree kidnapping, second degree rape and second degree robbery.

6 Georgia will transfer a 13 year old to adult court for an offense punishable by death or life imprisonment.

7 There is no waiver in Nebraska--the Juvenile and Criminal courts have concurrent jurisdiction and the prosecutor decides where to file the case.

First-time and Serious Juvenile Offender Legislation

In recent years, a number of states have enacted legislation to institute special language, rules, procedures, and sanction possibilities to be applied to special categories of juvenile offenders. These categories include first-time offenders and serious or habitual juvenile offenders. It is useful to view both of these types of distinctions as complementary issues. Both stem from the original philosophy of the juvenile justice system which recognized the special problems and needs of juvenile offenders. The first-time offender statutes are intended to minimize contact with the juvenile justice system for juveniles who fall into this category. Habitual or serious offenders statutes identify those juveniles whose criminal acts or history of misconduct disqualify them from the special treatment afforded other juvenile offenders.

Several of the jurisdictions in our sample include provisions in their juvenile codes which differentiate between these two classes of offenders. Often the first-time offender distinction provides some latitude in the actual classification of delinquent. For example, the Texas juvenile statute will permit three or more misdemeanor offenses before affixing the label of delinquent to a juvenile.¹ The Rhode Island code will permit the application of the term delinquent to a child only if he has committed a felony or on more than one occasion violates any state or federal law other than a traffic violation. In contrast

1 This refers to a misdemeanor which is punishable by a fine only.

to Rhode Island and Texas, the Washington statute is precise in the classification of minor or first-time offender. The code provides a list of offense combinations that are to be used in assessing whether a juvenile offender falls within this category.¹

Several jurisdictions in our sample have recently amended their juvenile codes to include serious and habitual offender provisions. This classification can have two consequences, waiver to adult court, or mandatory sentencing, or both. New York's recent legislation provides for automatic exclusion from Family Court jurisdiction for any youth age 13-15 who has committed one of a series of specified violent offenses (e.g. rape, murder). Similarly, Florida's juvenile code now includes a mandatory waiver hearing for individuals age 13-15 who commit one of a series of specified felonies. In addition, the statute provides for the exclusion from juvenile court jurisdiction of any youth over the age of 16 years who had been previously adjudicated a delinquent for a felony or two times adjudicated misdemeanor. Additional examples of this "get tough"

¹ Minor or first-time offender means a person 16 years of age or younger whose current offense(s) and criminal history fall entirely within one of the following categories: (1) four misdemeanors, (2) two misdemeanors and one gross misdemeanor, (3) three gross misdemeanors, (4) one class C felony and one misdemeanor or gross misdemeanor, (5) one class B felony.

legislation can be seen in California¹, Indiana², and Rhode Island³.

Colorado and Washington are the only states in our sample to have included mandatory sentencing laws in their juvenile statutes. The Washington code imposes a minimum sentence on juveniles who have committed serious felonies, while the Colorado statute requirement is imposed on the repeat or violent offender.

¹ California WIC 707 created a presumption in favor of waiving to adult court for the commission of one of 11 targeted offenses for 16 and 17 year olds.
² Indiana's provision for waiving to criminal court includes: (1) heinous or aggravated act, (2) repetitious pattern of delinquent acts, (3) beyond rehabilitation.
³ The Rhode Island code notes that if a child is 16 or over and found delinquent for two offenses after turning 16, he will be prosecuted in adult court for any subsequent offense.

From our review of juvenile codes in twenty selected jurisdictions, we have observed wide variation in the language of the law, its rules and procedures, and the role of the police, probation, and prosecution officials in the juvenile justice system. These variations reflect the states' attempt to deal with the twin concerns of the juvenile justice system, the care and protections of juveniles and their correction or punishment. These conflicting aims inherent in the juvenile justice system can be seen to account for the recent proliferation of rules for separating different types of juveniles for differential processing.

Discretion exercised by police can extend beyond the mere act of "taking into custody". The laws of our twenty sampled jurisdictions allow the police officer substantial effect on the final disposition of the alleged juvenile offender. This police power certainly exceeds the similar effect that police have over the disposition of adult arrestees.

This legal review has provided us with knowledge about the legal parameters within which police officers must function. The following section will investigate the manner, attitudes and self-reported practices pertaining to the police handling of juvenile offenders.

REFERENCE NOTES FOR PART 1

- (1) In re Gault, 387 U.S. 1 (1967), The Supreme Court held that fact-finding adjudicatory hearings were to be measured by due process standards. In all cases due process requires adequate, timely, written notice of the allegations against the respondent. Juveniles, in all cases in which they are in danger of loss of liberty because of commitment, are to be accorded, on due process grounds, the right to counsel, the privilege against self-incrimination, and the right to confront and cross-examine opposing witnesses under oath.
- (2) The Uniform Juvenile Court Act of 1968 was drafted by the National Conference of Commissioners on Uniform State Laws. "The Act provides for judicial intervention when necessary for the care of deprived children and for the treatment and rehabilitation of delinquent and unruly children, but under defined rules of law and through fair and constitutional procedures." The Commissioners called for the general adoption of this Act citing the need for uniformity in law among states as an important issue.
- (3) Common law presumption is that children under the age of 7 years are not mature enough to understand the consequences of their acts; therefore it is not reasonable to charge them with an offense.
- (4) Comparative Analysis of Standards and State Practices, National Institute for Juvenile Justice and Delinquency Prevention, Law Enforcement Assistance Administration, U.S. Department of Justice, 1977.
- (5) Ibid, Section 13(a)
- (6) Ibid, Section 13(b)
- (7) See Klein, Malcolm, Susan Labin Rosensweig, and Ronald Bates, "The Ambiguous Juvenile Arrest", Criminology, 13 (May) 1975: 78-89.

- (8) According to section 3101 of the Maine Juvenile Code, the term juvenile crime shall include:
- (a) conduct which if committed by an adult would be defined as criminal
 - (b) possession of a usable amount of marijuana,
 - (c) offenses involving intoxicating liquor.
- (9) In determining what is a reasonable length of time for questioning a child, the child's age and the presence or absence of his parents shall be included among the relevant considerations.
- (10) See Klein, Malcolm and Kathie S. Teilmann, "Pivotal Ingredients of Police Juvenile Diversion Programs", National Institute of Juvenile Justice and Delinquency Prevention, Law Enforcement Assistance Administration, U.S. Department of Justice, May 1976.
- (11) Op cit, Uniform Juvenile Court Act.
- (12) One purpose of the Juvenile Justice and Delinquency Prevention Act of 1974 was to encourage the adoption of national standards on juvenile justice. The act provided recommendations for administrative, budgetary and legislative action at the federal, state and local level to facilitate the adoption of the recommended standards.

References

- Arkansas,
1977. Arkansas Statutes 1947 Annotated, Replacement 1977, Vol 4A, Bobbs Merrill, New York.
- Arkansas,
1981. Arkansas Statutes 1947 Annotated, 1981 Cumulative Supplement, Bobbs Merrill, New York.
- California,
1972. West's Annotated California Codes, Welfare and Institutions, St. Paul, Minn.
- California,
1981. West's Annotated California Codes, Welfare and Institutions, 1981 Supplement, West Publishing Company, St. Paul, Minn.
- Colorado,
1978. Colorado Revised Statutes 1973, Vol 8, 1978 Replacement, Bradford Robinson Company, Denver.
- Colorado,
1981. Colorado Revised Statutes 1973, Vol 8, 1981 Cumulative Supplement, Bradford-Robinson Company, Denver.
- Florida,
1974. West's Florida Statutes Annotated, Vol 1A, West Publishing Company, St. Paul, Minn.
- Florida,
1981. West's Florida Statutes Annotated, Vol A, 1981 Supplement, West Publishing Company, St. Paul, Minn.
- Georgia,
1981. Code of Georgia Annotated, Book 9A, The Harrison Co. Publishers, Norcross, Georgia.
- Indiana,
1980. Burns Indiana Statutes Annotated, Title 31, Bobbs Merrill, New York.
- Kentucky,
1977. Kentucky Revised Statutes, Vol 9, 1977 Replacement, The Bobbs Merrill Company, New York.
- Maine,
1980. Maine Revised Statutes Annotated, West Publishing Company, St. Paul, Minn.

- Maine,
1981. Maine Revised Statutes Annotated, 1981 Cumulative Supplement, West Publishing Company, St. Paul, Minn.
- Michigan,
1980. Michigan Compiled Laws Annotated, Vol 37, 1980 Cumulative Supplement, West Publishing Company, St. Paul, Minn.
- Mississippi,
1980. Mississippi Code 1972 Annotated, The Harrison Company, Atlanta, Georgia.
- Missouri,
1981. Vernon's Annotated Missouri Statutes, 1981 Supplement, Vernon Law Book Company, St. Louis, Missouri.
- Montana,
1981. Montana Code Annotated, Vol 5, Montana Legislative Council, Montana.
- Nebraska,
1978. Revised Statutes Nebraska, Vol III, Revisor of Statutes, Nebraska.
- New Hampshire,
1978. New Hampshire Revised Statutes Annotated, Vol 2A, Equity Publishing Corporation, Oxford, New Hampshire.
- New Hampshire,
1981. New Hampshire Revised Statutes Annotated, 1981 Supplement, Equity Publishing Corporation, Oxford, New Hampshire.
- New York,
1981. New York Consolidated Law Service, The Lawyer Co-operative Publishing Company.
- Ohio,
1976. Page's Ohio Revised Code, Anderson Publishing Company, Cincinnati, Ohio.
- Ohio,
1980. Page's Ohio Revised Code, Supplement 1980, Anderson Publishing Company, Cincinnati, Ohio.
- Rhode Island,
1981. General Laws of Rhode Island, Reenactment 1981, Vol 3, Michie Bobbs Merrill Law Publishers, Charlottesville, Virginia.

- Texas,
1981. Vernon's Texas Codes Annotated, West Publishing Company, St. Paul, Minn.
- Washington,
1980. West's Revised Code of Washington Annotated, West Publishing Company, St. Paul, Minn.
- Wisconsin,
1980. West's Wisconsin Statutes Annotated, Vol 6, West Publishing Company, St. Paul, Minn.

Part II
Juvenile Law Enforcement: A Survey of
Police Practice in Twenty States
by
Kathleen Shields
and
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Introduction

This section consists of the analysis of the 365 returns from a mail survey of 452 individual police units randomly sampled from the twenty states that were the subjects of the intensive analysis of juvenile statutes. The goal of the police questionnaire was to obtain information on what dispositions or sanctions are employed by the police, what factors determine their use in particular cases and, in particular, how police treat first-time offenders differently from repeat offenders. Information on the structure of the department was also obtained in order to be able to examine how the size and organization of the department might relate to use of sanctions.

METHOD

The sampling of police agencies

For each of the states in the survey a list of all police and sheriff agencies was drawn up. Information for these lists were obtained from the National Directory of Law Enforcement Administrators (1980) and, in the case of California, The Directory of California Justice Agencies Serving Juveniles and Adults(1981). Because of our interest in the operations of the police personnel who have direct and immediate contact with juveniles, it was judged that the most valid informant would be someone working at that level. In addition, the overwhelming number of small agencies compared to large agencies raised the concern that large agencies would not be adequately represented in the random sample. For these two reasons it was decided in

the case of multi-station agencies to treat each station as a separate sampling unit rather than sample the entire department and enlist a central office staff member as a respondent. Employing this strategy would increase the probability of securing a knowledgeable respondent and would permit a representative picture of the larger departments that process the bulk of the juveniles. A ten per cent random sample of police units was drawn from each state with the exceptions of Rhode Island and Maine. These two states had so few agencies and were of such importance because of their particular approaches to juvenile legislation, that more than a ten per cent sample was taken. This sampling scheme produced a total sample of 452 police agencies.

The distribution of questionnaires

The address for each police agency sampled was obtained from either the National Directory of Law Enforcement Administrators or the Directory of California Justice Agencies Serving Juveniles and Adults. Except for California, which had agency telephone numbers listed in the state directory, directory assistance was called in the sampled cities and counties in order to obtain the agencies' telephone numbers. A letter was sent to the police chief or sheriff indicating the nature of our research, requesting his cooperation for the study and stating that we would be calling him to confirm his reply. Within two weeks of the mailing of the initial letter, a call was placed to the head of the agency by a member of our staff. The police official contacted was reminded of the letter, offered an opportunity to

ask questions about the research and asked if he would arrange for someone in the department to complete a questionnaire. Where possible, the name of a respondent indicated by the head of the agency was recorded. A questionnaire along with a second explanatory letter and a stamped self-addressed envelope was sent to each respondent. If the questionnaire was not returned within six weeks, a second call was placed. This procedure was followed in the majority of cases. Lost mail and changes in personnel required additional communications. Very small departments in which the head of the agency was to fill out the questionnaire required a shorter version of the second letter.

The construction of the questionnaire

After an examination of the preliminary review of the juvenile law in several target states and after a discussion of the pertinent aspects of early police sanctioning of juveniles which could be studied with a questionnaire, a preliminary version of the questionnaire was constructed. Five officers at three different agencies then reviewed the questionnaire with one of our staff members. A penultimate version of the questionnaire was sent to two agencies randomly selected from each of the twenty targeted states. At the same time, the proposed method of contacting prospective agencies was tested.

In addition to the considerations of content determined by the goals of our overall project, the final questionnaire is sensitive to the limited time available to respondents and to the range of information that the average respondents would be able to provide. The final questionnaire (see appendix 1) requires

approximately twenty minutes to fill out. The first seven questions concern the structure of the police department, the background of the respondent, the degree of juvenile specialization in the department, the size of the department, the amount of contact with juveniles and the hierarchy of personnel followed in the processing of juveniles. Four questions concern the dispositions available to the police, their bases for selecting among them and which dispositions are used more frequently for first-time or repeat offenders. At the end of the questionnaire there are places for the respondent to indicate if there are any laws, case decisions or departmental policies specifically concerned with first-time offenders. Finally there is a space for the respondent to describe the typical sequence of events in the processing of two types of offenders.

ANALYSIS

The results of the survey are organized in terms of several general questions and concerns. First, we shall present a brief statistical description of the nature of the obtained sample of police respondents and the nature of their departments. The next section describes the functioning of the policing units. Here, we detail the structure of the department's juvenile policing activities. Included is the presentation of results concerning the use of various types of dispositions and a series of attitudinal questions about the level of punishment associated with the various options. The final section contains a comparative analysis of jurisdictions grouped by size, structure, and state.

PROFILE OF RESPONDENTS

The final sample consisted of completed questionnaires from 365 police agencies. These responses were distributed across the twenty states selected for our investigation as shown in Table 1. As can be seen, six states account for over half of the total responses.

TABLE 1
STATE OF RESPONDENT

	FREQUENCY	PERCENT
Arkansas	9	2.5
California	37	10.1
Colorado	9	2.5
Florida	29	7.9
Georgia	15	4.1
Indiana	15	4.1
Kentucky	18	4.9
Maine	9	2.5
Michigan	37	10.1
Mississippi	10	2.7
Missouri	15	4.1
Montana	3	0.8
Nebraska	9	2.5
New Hampshire	6	1.6
New York	43	11.8
Ohio	30	8.2
Rhode Island	8	2.2
Texas	33	9.0
Washington	11	3.0
Wisconsin	19	5.2
TOTAL	365	100.0 (1)

TABLE 2
SIZE OF RESPONDENT'S DEPARTMENT

	FREQUENCY	PERCENT
NUMBER OF SWORN PERSONNEL:		
Less than 10	112	36.1
10 to 24	87	28.1
25 to 99	85	27.4
100 or more	26	8.4
Missing	55	-
Total	365	100.0

Table 2 presents a frequency distribution of the size of departments from which responses were received. It should be noted that since respondents were sampled from a population of policing units that were themselves smaller than a total police department, the figures presented here represent both total agency size for departments with only one station, and the size of police substations for police departments that have more than one precinct.

TABLE 3
DEPARTMENTAL STRUCTURE FOR JUVENILE PROCESSING

	FREQUENCY	PERCENT
No specialized juvenile unit or officer	155	42.5
A sworn officer who acts in the capacity of a part-time juvenile officer	59	16.2
Full-time juvenile officer but no formal or centralized juvenile unit	45	12.3
Full-time local or centralized juvenile unit	105	28.8
TOTAL	364	100.0

Table 3 displays frequencies for respondents based on a classification of juvenile specialization. Here we can see that 42.5 percent of the respondents in the sample work for departments that do not have specially defined juvenile units. These respondents, then, are officers who spend only part of their time dealing with juveniles. Many of the departments in this category are quite small, consisting of fewer than 10 sworn officers. Following the percentages shown in Table 3 we may observe that 16.2 percent of the responses come from departments with at least one sworn officer who is designated as a juvenile officer on a part time basis. Thus almost 60 percent of the departments are without full-time juvenile specialization.

Table 4 underscores the relationship between juvenile specialization and the distribution of initial contacts with juveniles by different types of officers. In the more specialized departments, the proportion of initial contacts made by patrol officers is lower. Nevertheless, for all types of departmental structures, patrol officers have the majority of initial contacts with juveniles: an average of 75 per cent across departments.*

TABLE 4
DISTRIBUTION OF INITIAL CONTACT BY TYPE OF OFFICER
BY DEPARTMENTAL STRUCTURE

	NO JUVENILE OFFICER OR UNIT	PART-TIME JUVENILE OFFICER	FULL-TIME JUVENILE OFFICER	LOCAL OR CENTRAL JUVENILE UNIT	TOTAL
Full time juvenile officers	-	-	33.4	35.0	-
Part-time juvenile officers	-	24.0	-	-	-
Regular patrol officers	92.3	70.9	63.3	59.0	75.7
Other sworn personnel	4.5	2.5	2.9	3.5	3.7

*Note that this does not reveal who initiated these contacts. Many result from calls and referrals by parents, school officials, victims, witnesses, and so on.

JUVENILE ARREST DISPOSITIONS

Figure 1 presents an ordered list of factors considered to be important to the process of making decisions about the disposition of juvenile arrestees. The order shown is found to be consistent across police departments of various size categories, structures and geographic locations. Striking and consistent with past research, is the fact that legal factors are found to be most important. Both offense seriousness and prior record were observed to be the nearly unanimous choice for the number one and two rankings. These facts are identical to those most often considered in the adult court system. (2) Notice, however, that the admissibility of evidence is not as highly considered as would be the case for adult arrestees. This is consistent with what we might expect because the adjudication of juvenile arrests is less highly dependent on the formal rules of evidence.

FIGURE 1
FACTORS IMPORTANT TO DISPOSITION DECISIONMAKING

1. Offense Seriousness
2. Prior Record
3. Attitude of Juvenile
4. Age of Juvenile
5. Attitude of Parents
6. Admissibility of Evidence
7. Helpful Home Environment
8. Gender

TABLE 5
THE USE OF SELECTED ARREST DISPOSITIONS
(PERCENT OF RESPONSE)

	COMMONLY USED	SELDOM USED
Release only	67.1	32.9
Release and official report	86.8	13.2
Referral to outside agency	58.5	41.5
Informal probation	53.5	46.5
To court without detention request	75.1	24.9
To court with detention request	50.5	49.5

Table 5 is the first of a series of analytic displays that deals with types of police dispositions available for juvenile arrestees. For purposes of these analyses, six possible juvenile dispositions have been chosen. These range from outright release to court referral with a specific request for detention of the juvenile arrestee. This table illustrates the extent to which these dispositional options are commonly or seldom employed in the respondents' departments. Note that these dispositions are the potential outcomes of arrest events that may include transporting a juvenile to a police station. Notice also that a release with no further action is reported as a common occurrence by 67.1 percent of the respondents but that a release with an

official report is more commonly used in 86.8 percent of the respondents' jurisdictions. These two release dispositions are seen to be more common than referral to the formal court system or the two diversion dispositions, referral to an outside agency or the use of informal probation. With specific regard to referral to outside agencies, we have investigated and will later report the details of state jurisdictional differences in the use of these dispositions. These analyses suggest that outside agency dispositions are more commonly used in the New England states, California and the state of Washington, and are less common in southern states. This finding may be explained by the availability of relevant outside agencies in less populous jurisdictions.

TABLE 6
OPINIONS ABOUT THE PUNISHMENT STATUS
OF SELECTED ARREST DISPOSITIONS
(PERCENT OF RESPONSE)

	YES	NO
Release only	2.6	97.4
Release and official report	24.4	75.6
Referral to outside agency	44.7	55.3
Informal probation	65.2	34.8
To court without detention request	72.9	27.1
To court with detention request	92.5	7.5

Table 6 presents the results of a series of attitudinal questions that investigate whether or not the respondents believed that each of the six dispositions constitute punishment. This has direct relevance to the issue of sanctioning effectiveness. Only 2.6 percent of the respondents considered an outright release to be punishment of any sort. The addition of an official report increased the proportion to over 24 percent. As we would expect, referral to court is considered punishment by the majority of respondents. In addition, the presence of a detention request increased the assessment of punishment from 72 to 92 percent.

The dispositions, referral to outside agency and informal probation, fall between the release and the court referral dispositions. Informal probation was considered to be punishment by 65 percent of the respondents, a higher proportion than that observed for agency referral, 44 percent. This finding may be explained by the amount of control relinquished when the juvenile is referred to an agency outside of the formal juvenile justice system.

Table 7, the final element of the dispositional analyses, reports on a series of questions about the equal application of the six dispositions to first-time or repeat juvenile offenders. Considering the two release dispositions, we may observe that in more departments first-time offenders are more likely to receive outright release without an official report than are repeat offenders. Similarly, considering the court referral dispositions, we may observe that in more departments first-time

offenders are far less likely to be referred with an accompanying detention request.

As previously shown in Table 6, referral to an outside agency is considered to be less punishing than informal probation. Surprisingly, Table 7 shows that in more departments it is also less likely to be a disposition for first-time offenders. Forty-five percent of the respondents identify informal probation as a common disposition for first-time offenders, which compares to 23 percent of the respondents who identify outside agency referral as more appropriate for first-time offenders.

TABLE 7
APPLICATION OF SELECTED ARREST DISPOSITIONS
FOR FIRST-TIME VERSUS REPEAT OFFENDERS
(PERCENT OF RESPONSE)

	FIRST-TIME OFFENDER	REPEAT OFFENDER	EQUALLY APPLIED
Release only	90.7	0.0	9.3
Release and official report	57.3	11.2	31.5
Referral to outside agency	23.6	33.1	43.3
Informal probation	45.6	23.3	31.1
To court without detention request	21.6	43.8	34.6
To court with detention request	0.09	87.1	12.8

TABLE 8
 EQUAL TREATMENT FOR FIRST-TIME AND REPEAT
 OFFENDERS FOR SELECTED CRIMES
 (PERCENT OF RESPONSE)

	DIFFERENT TREATMENT	EQUAL TREATMENT
Truancy	63.0	37.0
Malicious mischief	65.0	35.0
Marijuana use	56.9	43.1
Joy riding	45.0	55.0
Assault and battery	36.0	64.0
Armed robbery	31.7	68.3

Table 8 also addresses the issue of differential treatment for first-time and repeat offenders. Here, the dispositional treatments of these two categories of juvenile offenders are compared for a list of six types of offenses. From this table we may conclude that as offense seriousness increases, disparity in the treatment of first-time and repeat offenders decreases. This conclusion is consistent with the finding previously reported in connection with Figure 1, the ranked list of factors generally considered during dispositional decisionmaking. Notice that in Table 8, differential treatment for truants is predicted by over 60 percent of the respondents. In contrast, only 36 percent would predict differential treatment for first-time offenders accused of assault and battery. Thirty-one percent of the respondents predict differential treatment for the more serious offense,

armed robbery. For crimes as serious as this, the prediction of differential treatment may be based on the expectation of enhanced punishment for the repeat offender, rather than lenient treatment for the first-time juvenile offender.

DEPARTMENT DIFFERENCES IN THE APPLICATION OF JUVENILE
DISPOSITIONS

As illustrated in Table 9, the disposition most often reported to be commonly used for police departments of all sizes and structures is release with official report, followed by court referral without a detention request. It can be observed from this table that departments with formal or centralized juvenile units or departments with a full-time juvenile officer appear to utilize the court dispositions request more readily than the smaller, less specialized departments. Perhaps the most notable differentially used disposition is referral to an outside agency.

TABLE 9

DISPOSITIONS COMMONLY USED
BY DEPARTMENTAL STRUCTURE

	NO JUVENILE OFFICER OR UNIT	PART TIME JUVENILE OFFICER	FULL TIME JUVENILE OFFICER	LOCAL OR CENTRAL JUVENILE UNIT	TOTAL
Release only	70.6	60.4	69.8	65.2	67.1
Release with report	86.6	90.7	87.8	87.0	86.8
Referral to agency	44.3	53.1	71.4	71.3	58.5
Informal probation	53.2	51.4	46.7	58.6	53.5
To court without detention	71.8	66.7	74.4	84.2	75.1
To court with detention	45.5	48.1	46.2	59.8	50.5

From the two categories of less specialized departments, 44.3 and 53.1 percent of the respondents report this disposition to be commonly used, while respondents from the larger and more specialized departments reported common use at a significantly higher rate, 71.4 and 71.3 percent. More frequent common use of referral to outside agencies by larger departments may have several explanations: (1) an indication that juvenile units or larger departments make a conscious effort to divert youngsters away from the formal justice system or, (2) it may reflect a lack of available community based options for police in the smaller departments.

TABLE 10

PUNISHMENT STATUS OF SELECTED DISPOSITIONS
BY DEPARTMENTAL STRUCTURE

	NO JUVENILE OFFICER OR UNIT	PART-TIME JUVENILE OFFICER	FULL-TIME JUVENILE OFFICER	LOCAL OR CENTRAL JUVENILE UNIT	TOTAL
Release only	2.1	3.7	2.3	3.1	2.6
Release with report	25.9	29.6	20.5	21.2	24.4
Referral to agency	50.0	50.0	41.9	35.7	44.7
Informal probation	62.9	75.0	67.4	62.1	65.2
To court without detention	80.0	72.2	60.5	68.4	72.9
To court with detention	95.9	92.6	88.1	89.2	92.5

Table 10 displays a range of arrest dispositions and the respondent's opinion about whether or not each disposition constitutes punishment. While all types of departments view these dispositions as an ordered scale of severity, there are some interesting differences between the structure of the department and percent of respondents who view referral to outside agency and the court referral options as punishment. In each case, presence of juvenile units is associated with lower assessment of punishment. For the referral to outside agency option in particular, 50 percent of the smaller departments as opposed to 41.9 and 35.7 of the respondents from larger departments consider this disposition to be a form of punishment. This is an interesting finding in light of the fact that these larger departments responded that they utilized this type of disposition more commonly than the smaller departments.

Tables 11a, b, and c display the differential use of available dispositions for first-time and repeat offenders by the structure of the department.

As can be noted from Table 11a, the overwhelming majority of respondents from all types of departments employ release only more frequently for the first-time offender as opposed to the repeat offender. As can be observed from this table, while an average 11.2 percent of the respondents replied that they used release with official report more frequently for repeat offenders, only 8.7 and 7.4 percent of the respondents from the smaller, less specialized departments replied that they used this disposition more frequently for the repeat offender.

TABLE 11a
DIFFERENTIAL TREATMENT FOR
FIRST-TIME VERSUS REPEAT OFFENDERS
BY DEPARTMENTAL STRUCTURE

	NO JUVENILE OFFICER OR UNIT	PART-TIME JUVENILE OFFICER	FULL-TIME JUVENILE OFFICER	LOCAL OR CENTRAL JUVENILE UNIT	TOTAL
RELEASE ONLY:					
First-time offender	90.8	87.3	92.9	90.7	90.4
Repeat offender	0.7	0.0	0.0	0.0	0.3
No difference	8.5	12.7	7.1	9.3	9.3
RELEASE WITH OFFICIAL REPORT:					
First-time offender	58.0	63.0	50.0	55.7	57.1
Repeat offender	8.7	7.4	14.3	15.5	11.2
No difference	32.6	29.6	35.7	28.9	31.4

TABLE 11b
DIFFERENTIAL TREATMENT FOR
FIRST-TIME VERSUS REPEAT OFFENDERS
BY DEPARTMENTAL STRUCTURE

	NO JUVENILE OFFICER OR UNIT	PART-TIME JUVENILE OFFICER	FULL-TIME JUVENILE OFFICER	LOCAL OR CENTRAL JUVENILE UNIT	TOTAL
REFERRAL TO OUTSIDE AGENCY:					
First-time offender	15.4	16.7	23.8	37.6	23.5
Repeat offender	32.3	35.2	38.1	30.7	33.0
No difference	51.5	48.1	38.1	31.7	43.1
INFORMAL PROBATION:					
First-time offender	44.8	52.2	45.7	46.3	46.6
Repeat offender	21.6	21.7	22.9	28.8	23.8
No difference	32.8	26.1	31.4	23.8	28.9

From Table 11b we can observe the most significant variation in the use of differential treatment for first-time and repeat offenders. Less specialized departments are more likely to use referral to outside agency equally for these two types of offenders, 51.5 and 58.1 percent of the time as opposed to 38.1 and 31.7 percent of the time for the more specialized departments.

TABLE 11c
DIFFERENTIAL TREATMENT FOR
FIRST-TIME VERSUS REPEAT OFFENDERS
BY DEPARTMENTAL STRUCTURE

	NO JUVENILE OFFICER OR UNIT	PART-TIME JUVENILE OFFICER	FULL-TIME JUVENILE OFFICER	LOCAL OR CENTRAL JUVENILE UNIT	TOTAL
TO COURT WITHOUT DETENTION REQUEST:					
First-time offender	23.2	23.6	19.0	19.4	21.6
Repeat offender	39.1	36.4	45.2	53.4	43.8
No difference	37.7	40.0	35.7	27.2	34.6
TO COURT WITH DETENTION REQUEST:					
First-time offender	1.4	1.8	0.0	0.0	0.9
Repeat offender	84.1	82.1	87.8	93.9	87.1
No difference	14.5	16.1	12.2	6.1	12.0

Table 11c illustrates the differential/equal application of the requested court sanctions for first-time and repeat offenders. As can be observed, for all types of departments these dispositions are more likely to be applied to the repeat offender. However, the more specialized departments seem to be less inclined to use these court dispositions for a first-time offender.

TABLE 12

DIFFERENTIAL TREATMENT FOR SELECTED OFFENSES
BY DEPARTMENTAL STRUCTURE
(PERCENT AFFIRMATIVE)

	NO JUVENILE OFFICER OR UNIT	PART-TIME JUVENILE OFFICER	FULL-TIME JUVENILE OFFICER	LOCAL OR CENTRAL JUVENILE UNIT	TOTAL
Truancy	60.9	75.9	52.3	63.6	63.0
Malicious mischief	64.6	63.2	56.8	70.2	65.0
Marijuana use	54.9	52.6	54.5	63.1	56.9
Joy riding	41.3	56.1	34.1	48.5	45.0
Assault and battery	34.3	28.6	43.2	39.4	36.0
Armed robbery	32.2	26.8	31.8	33.7	31.7

Examining selected offenses, Table 12 indicates for which types of offenses first-time and offenders are treated differentially. As can be observed for each type of offense, there is a consistency in the percentage of departments that indicated differential treatment. However, there is no clear pattern to suggest that these two types of offender will be handled in a different manner in departments which have a specialized juvenile unit as opposed to departments which do not.

TABLE 15a

DIFFERENTIAL TREATMENT OF FIRST-TIME VERSUS REPEAT OFFENDERS
FOR SELECTED DISPOSITIONS, BY STATE
(PERCENT OF APPLICATION)

RELEASE ONLY.....		RELEASE WITH REPORT...		
	1ST TIME	REPEAT	EQUALLY	1ST TIME	REPEAT	EQUALLY
Arkansas	100.0	0.0	0.0	57.1	14.3	28.6
California	94.4	0.0	5.6	77.8	11.1	11.1
Colorado	62.5	0.0	37.5	57.1	0.0	42.9
Florida	88.5	0.0	11.5	61.5	3.8	34.6
Georgia	85.7	0.0	14.3	50.0	0.0	50.0
Indiana	80.0	0.0	20.0	57.1	7.0	35.7
Kentucky	88.9	0.0	11.1	58.8	11.8	29.4
Maine	77.8	0.0	22.2	87.5	0.0	12.5
Michigan	91.7	0.0	8.3	63.9	5.6	27.8
Mississippi	88.9	11.1	0.0	50.0	25.0	25.0
Missouri	100.0	0.0	0.0	38.5	23.1	38.5
Montana	100.0	0.0	0.0	66.7	0.0	33.3
Nebraska	88.9	0.0	11.1	62.5	12.5	25.0
New Hampshire	100.0	0.0	0.0	66.7	0.0	33.3
New York	92.3	0.0	7.7	47.5	15.0	37.5
Ohio	92.6	0.0	7.4	53.6	10.7	35.7
Rhode Island	100.0	0.0	0.0	66.7	0.0	33.3
Texas	85.2	0.0	14.8	39.3	32.1	28.6
Washington	100.0	0.0	0.0	66.7	0.0	33.3
Wisconsin	94.7	0.0	5.3	41.2	11.8	47.1
Total	90.4	0.3	9.3	57.1	11.2	31.4

TABLE 15b

DIFFERENTIAL TREATMENT OF FIRST-TIME VERSUS REPEAT OFFENDERS
FOR SELECTED DISPOSITIONS, BY STATE
(PERCENT OF APPLICATION)

	REFERRAL TOOUTSIDE AGENCY.....			INFORMALPROBATION.....		
	1ST TIME	REPEAT	EQUALLY	1ST TIME	REPEAT	EQUALLY
Arkansas	14.3	28.6	57.1	57.1	0.0	42.9
California	36.1	25.0	38.9	50.0	32.1	17.9
Colorado	12.5	25.0	62.5	42.9	14.3	42.9
Florida	20.0	20.0	60.0	60.0	20.0	15.0
Georgia	15.4	15.4	69.2	50.0	0.0	50.0
Indiana	23.1	46.2	30.8	66.7	16.7	16.7
Kentucky	27.8	33.3	38.9	25.0	37.5	37.5
Maine	25.0	25.0	50.0	37.5	12.5	50.0
Michigan	24.3	35.1	37.8	44.4	22.2	29.6
Mississippi	25.0	37.5	37.5	62.5	12.5	25.0
Missouri	41.7	41.7	16.7	63.6	18.2	18.2
Montana	0.0	0.0	100.0	0.0	0.0	100.0
Nebraska	12.5	62.5	25.0	57.1	14.3	28.6
New Hampshire	0.0	50.0	50.0	33.3	33.3	33.3
New York	12.2	46.3	41.5	29.4	32.4	38.2
Ohio	38.5	23.1	38.5	68.0	12.0	20.0
Rhode Island	28.6	28.6	42.9	60.0	20.0	20.0
Texas	16.7	45.8	37.5	19.2	38.5	42.3
Washington	33.3	0.0	66.7	60.0	40.0	0.0
Wisconsin	21.1	36.8	42.1	53.3	33.3	13.3
TOTAL	23.5	33.0	43.1	46.6	23.8	28.9

TABLE 15c

DIFFERENTIAL TREATMENT OF FIRST-TIME VERSUS REPEAT OFFENDERS
FOR SELECTED DISPOSITIONS, BY STATE
(PERCENT OF APPLICATION)

	TO COURT WITHOUTDETENTION.....			TO COURT WITHDETENTION.....		
	1ST TIME	REPEAT	EQUALLY	1ST TIME	REPEAT	EQUALLY
Arkansas	42.9	0.0	57.1	0.0	100.0	0.0
California	17.1	54.3	28.6	0.0	93.9	6.1
Colorado	12.5	50.0	37.5	0.0	87.5	12.5
Florida	28.6	32.1	39.3	3.6	89.3	7.0
Georgia	33.3	20.0	46.7	7.1	78.6	14.3
Indiana	33.3	40.0	26.7	0.0	86.7	13.3
Kentucky	18.8	37.5	43.8	0.0	88.9	11.1
Maine	37.5	50.0	12.5	0.0	88.9	11.1
Michigan	19.4	52.8	27.8	0.0	86.5	13.5
Mississippi	11.1	66.7	22.2	12.5	87.5	0.0
Missouri	21.4	42.9	35.7	0.0	78.6	21.4
Montana	0.0	66.7	33.3	0.0	66.7	33.3
Nebraska	25.0	37.5	37.5	0.0	87.5	12.5
New Hampshire	16.7	50.0	33.3	0.0	100.0	0.0
New York	15.0	47.5	37.5	0.0	80.0	20.0
Ohio	21.4	32.1	46.4	0.0	89.3	10.7
Rhode Island	14.3	57.1	28.6	0.0	100.0	0.0
Texas	31.0	44.8	24.1	0.0	83.3	16.7
Washington	0.0	28.6	71.4	0.0	75.0	25.0
Wisconsin	15.8	57.9	26.3	0.0	94.1	5.9
TOTAL	21.6	43.8	34.6	0.9	87.1	12.0

percent from Kentucky report that this disposition would be most likely employed for a first-time offender.

Table 15c shows a clear trend for the differential application of the referral to court with detention request for repeat offenders. Eighty-seven percent of the respondents stated that this disposition is more likely to be applied to the repeat offender. Referral to court without a detention request is not as likely to be used more frequently for the repeat offender since more than one-third of the respondents reported the equal application of this disposition. Seventy-one percent of the respondents from Washington report that they employ this disposition equally. This fact is particularly interesting when contrasted with the 25 percent reporting the equal application of the more severe referral to court with request for detention. This differential application of the court disposition options may be an indication of their serious offender legislation.

Table 16 displays differential treatment for first-time versus repeat offenders for selected offenses by state. This table demonstrates that as crime seriousness increases the dispositional disparity decreases. State differences can be observed in this table. One hundred percent of the respondents from Washington and Nebraska report that for the offenses of assault and battery and armed robbery both first-time and repeat offenders are treated equally. This finding is in contrast to the responses from police in the remaining states who report that differential treatment for these two types of offender exists even for the more serious offenses. It is interesting to note

TABLE 16
DIFFERENTIAL TREATMENT FOR FIRST-TIME VERSUS REPEAT OFFENDERS
FOR SELECTED OFFENSES BY STATE
(PERCENT OF AFFIRMATIVE RESPONSES)

	TRUANCY	MALICIOUS MISCHIEF	MARIJUANA USE	JOY RIDING	ASSAULT BATTERY	ARMED ROBBERY
Arkansas	50.0	66.7	83.3	66.7	16.7	50.0
California	57.1	75.0	74.3	57.1	54.3	37.1
Colorado	50.0	55.6	55.6	33.3	22.2	33.3
Florida	55.6	65.5	58.6	48.3	44.8	37.9
Georgia	64.3	64.3	57.1	42.9	42.9	35.7
Indiana	60.0	60.0	33.3	26.7	26.7	26.7
Kentucky	50.0	66.7	50.0	55.6	27.8	44.4
Maine	28.6	66.7	77.8	55.6	33.3	33.3
Michigan	82.9	63.9	55.6	44.4	44.4	27.8
Mississippi	55.6	88.9	77.8	44.4	66.7	44.4
Missouri	64.3	78.6	50.0	35.7	35.7	35.7
Montana	100.0	100.0	100.0	66.7	33.3	33.3
Nebraska	66.7	66.7	11.1	55.6	0.0	0.0
New Hampshire	50.0	50.0	66.7	16.7	50.0	33.3
New York	60.6	59.5	59.5	43.2	32.4	29.7
Ohio	86.7	63.3	50.0	37.9	27.6	20.7
Rhode Island	50.0	62.5	62.5	37.5	25.0	12.5
Texas	67.7	51.6	48.4	45.2	38.7	38.7
Washington	66.7	63.6	63.6	27.3	0.0	0.0
Wisconsin	44.4	68.4	52.6	52.6	36.8	42.1
Total	63.0	65.0	56.9	45.0	36.0	37.1

that, with the exception of Washington, the other states which have passed serious offender legislation (California, Colorado, Florida, Indiana, Kentucky and New York) all report some degree of differential treatment for these offenses.

Conclusion

One of the most striking findings from the police research is the contrast between the variety in the state statutes and the relative uniformity of the police practices across states. Our review of the statutes indicates that while a number of states that have explicit requirements in the law for diversion, there are several states that make no mention of diversion. Yet this difference is not reflected in the data. When examining Table 13, which indicates the percentage of respondents in each state that commonly use diversion, one fails to find any difference between the two group of states. It is not clear from the data that the inclusion of provisions in the statutes have led to an increase use of diversion.

Of course, the data may fail to reveal existing differences, but there are reasons to suspect that under certain conditions the legal codes may not be translated straightforwardly into practice. Van Dusen (1981) has argued that implementation is a function of the amount of necessary resources available and the degree of consistency of the philosophy of the legislation with the beliefs and values of the practitioners. In the case of diversion legislation, the amount of diversion that actually occurs will be a function of the availability of programs into which juveniles can be diverted. Although legislation encouraging diversion might stimulate the formation of diversion programs, factors outside the control of legislation determine the number of diversion programs available. Since most juvenile statutes permit law enforcement officers a great of deal of discretion,

the amount of diversion in a state will also be determined by law enforcement's willingness to employ diversion. These two factors may work relatively independently of the states' recognition of diversion in their statutes and may have a greater impact on actual police practice.

A second example of a discrepancy between differences in state legislation and in police practices across states occurs in the case of Arkansas. Unlike other states, their legislation appears to mandate formal entry into the court system whenever a youth is contacted. This apparently precludes the use of release with no official report as a disposition. Yet departments in this state frequently report that they commonly use this disposition. The demands of police work with juveniles make very practical a disposition of release with no official report. It is likely that Arkansas' use of this disposition is a response to pressures on the law enforcement system.

The homogeneity of police practices across states is not matched by homogeneity within states. There is a variety of responses to many of the questionnaire items. It seems likely that much of the difference between departments is a function of community and organizational constraints within which the agencies operate.

Another striking finding is the frequency with which respondents failed to see their options in handling the youths as comprising forms of punishment. Only when one examines court referral with detention do the respondents approach agreement that the disposition is a form of punishment. Even in this case,

ten per cent of the respondents did not consider it punishment. In addition, it is the larger agencies processing more juveniles that more consistently see their disposition options as non-punishing. If officers do not see what they do as punishment, it is likely that they communicate this to the juveniles that they process. The net effect may be that the police may undermine the deterrent effect of their encounters with juveniles.

A final striking finding is the prevalence of differential treatment of first-time offenders. Despite the absence of explicit legislative directives to treat first-time offenders differently from repeat offenders in the great majority of cases, first-time offenders are generally treated more leniently than repeat offenders. Thirty per cent of the agencies reported differential treatment for first-time offenders even in the case of armed robbery. A great many departments have gone so far as to formulate such policies explicitly.

There is, however, an interesting exception to this pattern. Informal probation is seen more frequently as punitive than diversion to outside agencies, yet in a greater percentage of agencies it is used more frequently with first-time offenders. The data suggest that in some cases agencies use informal probation to provide a somewhat harsher response to juveniles who are at the beginning of their involvement with the police.

In conclusion, the relation between a state's statutes and police practices is not straightforward. Information about the community and organizational factors might be more predictive of

practice. On the other hand, the imprecise fit between statutes and practice is in part a reflection of police discretion. And it is the existence of discretion that provides the potential for the design of police practices responsive to the characteristics of juveniles, especially when they are being contacted by the police for the first time.

REFERENCE NOTES FOR PART 2

- (1) The numbers in all tables are rounded to the nearest hundredth.
- (2) See Green, 1964; Hagan, 1974; and Tiffany, 1975.

CONTINUED

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BIBLIOGRAPHY

- Comparative Analysis of Standards and State Practices,
1977 National Institute for Juvenile Justice and Delinquency
Prevention, Law Enforcement Assistance Administration,
U.S. Department of Justice.
- Green, Edward
1964 "Inter and intra racial crime relative to sentencing",
Journal of Criminal Law, Criminology and Police Science.
- Hagan, John
1974 "Extra-legal attributes and criminal sentencing: an
assessment of a sociological viewpoint", Law and Society,
(Spring).
- Klein, Malcolm , Susan Labin Rosenweig and Ronald Bates,
1975 "The ambiguous juvenile arrest", Criminology, 13 (May):
78-89.
- Klein, Malcolm and Kathie S. Teilmann
1976 "Pivotal ingredients of police juvenile diversion
programs", National Institute of Juvenile Justice and
Delinquency Prevention, Law Enforcement Assistance
Administration, U.S. Department of Justice.
- Tiffany, L.P. et al.
1975 "A statistical analysis of sentencing in federal court:
defendants convicted after trial, 1967-1968",
Journal of Legal Studies, vol. 4.
- Van Dusen, Katherine Teilmann
1981 "Net widening and relabeling: some consequences of
deinstitutionalization", American Behavioral Scientist,
(July/August): 801-810.

APPENDIX I

Department Name _____

Station _____

Name and Title _____

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C1	2	3	4

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The following brief questionnaire about the handling of juvenile cases should take approximately thirty minutes to complete. Please recall that it is being sent to jurisdictions across the country. Since terminology varies from jurisdiction to jurisdiction, some of the terms may be unfamiliar to you. Please take this into consideration and answer the questions as well as possible. Whenever an alternative answer does not apply to your particular department, put NA on the line provided. Thank you for your cooperation.

For the purposes of the questionnaire "contact" is defined as an officer's encounter with a juvenile for a possible infraction; this may or may not lead to a formal arrest.

Structure of Department

1) Are you either a full or part-time juvenile officer?

C5

____ Yes

____ no

If yes, how long have you worked in that capacity?

C6

C7

____ Years

2) Which one of the following five statements best describes the way your department handles juvenile work?

C8

____ no juvenile specialization

____ sworn officer(s) assigned part-time to juveniles

____ a full-time juvenile officer, but no formal unit

____ a full-time formal juvenile unit

____ a central juvenile unit, but with juvenile units also in outlying precincts

3) In your station, how many of the following are employed?

C9

C10

C11

C12

____ juvenile officers

____ other sworn personnel

C13

C14

C15

C16

4) Approximately what percent of the initial juvenile contacts are made by each of the following?

C17

C18

C19

____ % by full-time juvenile officers

____ % by part-time juvenile officers

C20

C21

C22

____ % by patrol officers

C23

C24

C25

____ % by others, please specify _____

C26

C27

C28

____ 100% contacted

5) Once a juvenile is taken into custody, who processes him? If more than one person is involved in the processing, place a 1 before the person who handles the juvenile first; 2 before the person who handles the juvenile second, etc.

C29

C30

____ patrol officer

C31

____ juvenile officer

C32

____ probation officer

C33

____ juvenile intake officer

C34

____ court intake officer

____ if other, please specify _____

In questions 6 and 7 we are interested in determining your station's juvenile caseload.

6) During an average month, approximately how many juveniles are contacted by:

C35

C36

C37

____ juvenile officers

____ other sworn personnel

C38

C39

C40

7) During an average month, approximately how many juveniles are taken into custody by:

_____ juvenile officers

_____ other sworn personnel

C41

C42

C43

C44

C45

C46

Juvenile Dispositions

8) Please indicate which of the following juvenile dispositions are available to juvenile officers and how frequently they are used. If available and commonly used, please place the letter C in the space provided. If available but seldom used, please place the letter S in the space provided. If unavailable please place a U in the space provided.

_____ release, with no additional action

_____ release accompanied by official report

_____ referral to outside agencies, public or private

_____ informal probation

_____ referral to juvenile court without detention request

_____ referral to juvenile court with detention request

_____ other, please specify _____

C47

C48

C49

C50

C51

C52

C53

9) Which of the following are important in choosing among dispositions? RANK ORDER those that apply. Mark NA where "not appropriate." Please place 1 next to the most important, 2 next to the second most important, etc. Use each number only once.

_____ age of juvenile

_____ sex of juvenile

_____ seriousness of offense

_____ attitude of juvenile

_____ attitude of parents

_____ prior record

_____ whether home environment of juvenile is helpful

_____ admissibility of evidence

_____ other, please specify _____

C54

C55

C56

C57

C58

C59

C60

C61

C62

C63

C64

C65

C66

C67

C68

C69

C70

C71

10) Which of the following dispositions do you consider a form of punishment? Place a P before those you consider punishment and a NP before those you do not.

_____ release, with no additional action

_____ release accompanied by official report describing encounter with juveniles

_____ referral to outside agencies, public or private

_____ informal probation

_____ referral to juvenile court without detention request

_____ referral to juvenile court with detention request

_____ other, please specify _____

C72

C73

C74

C75

C76

C77

C78

C79 Blank

C80

C1 C2 C3 C4

11) In your department, all other things being equal, for which type of juvenile is a more severe disposition more likely?

younger
 older

C5
 C6

no prior record
 prior record

First-Time Juvenile Offenders

We want to know whether or not you handle first-time juvenile offenders differently from repeat juvenile offenders.

12) Generally speaking, in comparison with repeat offenders, how frequently are the following dispositions used for first offenders. Please place the letter F before those dispositions used more frequently for first-time offenders; put the letter R before those used more frequently for repeat offenders; and put the letter E before those that are used equally.

Note:
F= First-time Offender
R= Repeat Offender
E= Equally applied

release, with no additional action
 release accompanied by official report describing encounter with juveniles
 referral to outside agencies, public or private
 informal probation
 referral to juvenile court without detention request
 referral to juvenile court with detention request
 other, please specify _____

C7
 C8
 C9
 C10
 C11
 C12
 C13

13) We are interested in knowing for which type of offenses first-time juvenile offenders are treated differently from repeat juvenile offenders. Please check the offenses for which first-time juvenile offenders and repeat juvenile offenders are likely to be treated differently:

truancy
 malicious mischief
 marijuana use
 joy riding
 assault/battery
 armed robbery

C14
 C15
 C16
 C17
 C18
 C19

14) Are there any statutes or codes in your state that specifically apply to treatment of first-time juvenile offenders as opposed to repeat juvenile offenders?

Yes
 No

If yes, please describe what it requires for first-time juvenile offenders as opposed to repeat juvenile offenders.

C20

If you happen to know the name of the statute or code, cite it here.

15) Are there any case decisions from your state or local courts that specifically apply to the handling of first-time juvenile offenders as opposed to repeat juvenile offenders?

Yes

No

C21

If yes, please describe what it requires for first-time juvenile offenders as opposed to repeat juvenile offenders.

If you happen to know the name of the case decision, please cite it here.

16) Are there any policies of police, court or prosecution that specifically apply to first-time juvenile offenders as opposed to repeat juvenile offenders?

Yes

No

C22

If yes, please describe what it requires for first-time juvenile offenders as opposed to repeat juvenile offenders.

17) Would you please describe the typical sequence of events in the processing of a juvenile for the following two offenses. Please include who interacts with the juvenile, where he is kept during the processing and the various stages involved in the processing.

petty theft

armed robbery

18) Is there anything else about the different handling of first-time and repeat juvenile offenders that we should know? If so, please indicate here.

19) If any of our questions do not apply to your situation, we would appreciate your indicating which questions and why they do not apply.

Analyses of Two Danish Data Sets

by
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and
Sarnoff A. Mednick

Section V of the Final Report
of Grant 80-IJ-CX-0055-*:
Exploring Guidelines for Specific
Deterrence Theory: Early Sanctions
in the Juvenile Justice System

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Los Angeles
April, 1982

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Abstract

This research tests the hypothesis that delinquents who desist from further delinquent acts following their first justice system contact may be different from recidivistic juvenile offenders on some biological, psychological, or social variables. If these variables discriminate the one-time offender from the non-offender prospectively (before onset of delinquent behavior) we may propose that the variables predispose the one-time offender to be more sensitive than the recidivist to the deterrent effects of negative sanctions applied by the justice system.

Study 1 used a birth cohort of 4,267 Danish males to examine the relationship of perinatal factors to the one-time offender recidivist dichotomy. We hypothesized that one-time offenders would have suffered more perinatal complications than recidivists, because perinatal complications have been shown to relate positively to autonomic nervous system (ANS) sensitivity, and ANS sensitivity may predispose children to be susceptible to the deterrent effects of punishment. Results did not disconfirm this hypothesis. In addition, analyses of constructed scales reflecting motor development and size development by one year of age showed that the one-time offender is both smaller and more precocious in development of motor skills during early childhood than are both non-offenders and recidivists.

Using a subset of 129 males from the Danish birth cohort, Study 2 examined the differences between one-time and recidivist offenders on a number of variables measured during preadolescence. Family status, school adjustment, IQ, empathic ability, neurological status, EEG measures of CNS activity, and skin conductance measures of ANS

responsiveness were considered. One-time offenders were significantly different from recidivists in family status, school adjustment, WISC verbal IQ, WISC full IQ, Feffer Empathy, and one subtest of the neurological examination. It is also noted that the one-time offenders scored "better" on family status, school adjustment and empathy, and had more neurological abnormalities than did non-offenders, as well as recidivists. A regression model constructed of these variables yielded significant R of .48, but replication may reduce this R value.

In terms of our original hypothesis, the results of Study 1 and Study 2 suggest that an individual who desists from delinquent behavior after one justice system contact shows more evidence of characteristics associated with sanction sensitivity than both the recidivistic offender and the non-offender. The report culminates with suggestions for future investigation, including replication of the present results and examination of the interactions between biological and social variables in producing sanction sensitivity.

Analyses of Two Danish Data Sets

Introduction

Most researchers are of the opinion that the juvenile justice system's sanctions are not effective in controlling crime. They point out that 50% of initial offenders go on to commit additional offenses. From the same data, however, it could also be hypothesized that the juvenile justice system's sanctions are actually quite effective; after all, one might assert, 50% of offenders are so affected by initial justice system sanctioning that they desist from additional offenses. It could be instructive to consider ways in which the assertion that the justice system works relatively effectively might be put to empirical test. If we assume, for the moment, that the 50% of first offenders who go on to remain offense-free, are being responsive to interventions by the justice system, what mechanisms might we posit for this effectiveness? Assuming (for the purpose of discussion) a rather even-handed application of the justice system to first-time delinquents, the reasons that half of the first-time delinquents desist from further illegal activity may lie with characteristics they share or the interaction of such characteristics with the behavior of the justice system. Delinquents who are deterred from further offending after an initial encounter with the justice system may bring to the encounter some early experiences or personal characteristics which render them more sensitive to the negative sanctions applied by the justice system than are similarly treated delinquents who continue to offend.

One approach to examining our "assertion" is to compare one-time offenders with recidivists on variables theoretically related to sensitivity to sanctions. It is necessary that such characteristics be assessed prior to the delinquents' initial encounter with the justice system. When differences are found between one-time offenders and recidivistic offenders on variables assessed after the subjects' arrests we cannot rule out the possibility that such differences have resulted from dissimilar amounts of contact with the justice system. In the context of two prospective longitudinal studies of Danish birth cohorts we were able to hypothesize certain subject characteristics that might make it more likely that delinquent subjects will be impacted by the actions of the justice system. This report compares, on a number of these variables, delinquents who offended only once with delinquents who reoffended. The relative status on these variables of a third group, non-offenders, is also presented for purposes of comparison with the two delinquent groups.

Two studies will be separately described in this report. Study 1 examines the differences between one-time offenders, recidivists, and non-offenders on some variables from early childhood. Study 2 investigates differences between these groups on a number of variables which were assessed in early adolescence. Within the Methods sections of both studies, brief rationales explaining our interest in (and hypotheses about) each variable will precede description of the procedures used in measuring the variable. The report culminates in a joint discussion of the conclusions and implications from the two studies.

Study 1: Variables From Birth and Early ChildhoodMETHOD

Subjects. In 1959 a prospective longitudinal study began which included all 9,125 infants delivered between September 1, 1959 and December 31, 1961 at the University Hospital (Rigshospitalet) in Copenhagen, Denmark (Zachau-Christiansen and Ross, 1975). Extensive data were recorded concerning the prenatal social and health status of the subjects' mothers, the birth process, and physical and neurological status of the subjects. Because of the special facilities available at Rigshospitalet, and because of its location in the center of the city, the mothers of subjects in the cohort were more often referred to the hospital for problem pregnancies, were of lower social class and more often unmarried than the general population of Danish mothers. Delinquency is relatively rare among the female offspring of the cohort; the present study includes only the 4,267 male live births. This study reports on the relationships between perinatal measures recorded in the period from 1959 to 1962 and registered delinquency assessed in 1978.

Variables. The following variables were used in Study 1.

a. Delinquency. The number of dates recorded in the Danish National Police Register upon which each subject was charged with an offense serves as the measure of delinquency. There is no juvenile justice system in Denmark, and official recording of offenses begins at the fifteenth birthday. In addition to the

date of each violation, the paragraph of Danish law which was violated is recorded, allowing for classification by types of offense. Subjects were categorized by whether they had no record of offenses, a record of only one offense, or a record of two or more offenses. Only subjects who had spent at least six months offense-free between their single offense and the time of data collection were included in the one-time offender group. This criterion assured that the juveniles included in the one-time offender group had experienced sufficient time in which to reoffend.

b. Perinatal factors.

b.1. Rationale for study. Neurological problems have been reported to be more frequent among delinquents than non-delinquents in some studies (Thompson, 1953, 1961; Stott, 1969). It has been suggested that the relationship found between neurological dysfunction and delinquency may be the result of impaired capacity for modulation and control of behavior by the brain (White, 1964). Perinatal complications can be an important source of neurological dysfunction (Stott, 1962), and retrospective studies exist which have found delinquents to have suffered more pregnancy and birth complications (PBC) than non-delinquents (Pasamanick and Knobloch, 1960, 1966; Drillien, 1964). It should also be noted that no PBC/delinquency relationship was found in a 1954 study by Pasamanick. There are implications from a PBC/neurological dysfunction/delinquency hypothesis for the one-time offender. If PBC-induced neurological dysfunctions impair

the brain's capacity for modulating behavior, including responses to justice system actions, we might expect recidivistic offenders to have more PBC's in their perinatal histories than one-time offenders, whose response to correction is more appropriate.

An opposing hypothesis, that one-time offenders have experienced more PBCs than recidivists, is also possible. In earlier studies, Mednick (1970) has noted a positive relationship between number and severity of PBCs and level of autonomic nervous system (ANS) responsiveness. Level of ANS responsiveness has been shown very reliably to predict to, and be positively associated with, law abiding behavior. A theory has been proposed that links specific aspects of ANS responsiveness with aptitude to learn inhibition of antisocial behavior (Mednick, 1977). Those with high levels of ANS responsiveness have an aptitude for learning to avoid antisocial behavior if they receive contingent punishment (from parents, peers, or the criminal justice system) for such acts. We may predict that those with higher levels of PBCs would have more responsive ANSs, be more affected by official sanctions, and be more likely to desist from delinquent behavior following a single contact with the juvenile justice system.

b.2. Perinatal item variables. A total of 1,734 items were recorded for each subject in the course of documenting the parents' social and civil status, maternal reproductive history, maternal health and prenatal care, pregnancy and delivery complications and procedures, infant's condition at birth, results of physical and neurological examinations at one day and five days

of age, medical care, accidents and illnesses experienced during the first year, and physical, neurological, and motor development status at one year of age.

b.3. Perinatal Composite Scores. In order to reduce these data to a more manageable group of variables, 8 sets of symptom composite scores were developed with the collaboration of American and Danish obstetricians and pediatric neurologists. Each set includes three scores. A "frequency" score is a count of the number of problem symptoms noted. The "problem of highest severity" score provides a measure of the magnitude of the subjects' most severe symptom. Values for this second score ranged from 1 (denoting mild level of severity) to 5 (denoting serious level of severity). Third, the "weighted score" for each scale was calculated accounting for severity of the symptom noted. Each symptom was given points for severity ranging from 1 to 5 and these points were added for all symptoms to give a score for each subject. The eight sets of three composite scores are labelled:

- predisposing factors
- pregnancy complications
- delivery complications
- neonatal physical status
- neonatal neurological status
- one-year physical status
- one-year neurological status
- one year motor development status

These sets of composite scores have been used in previous research (Mednick, Mura, Schulsinger, and Mednick, 1971; Mednick, 1977). See Appendix A for a description of these scores.

RESULTS

Perinatal Composite Scores. Table 1 shows the mean perinatal composite scores for boys having zero, one or more than one offense date. Only those scores are reported for which analysis of variance yielded Fs significant beyond the .01 criterion. The Predisposing Factors score primarily reflects the mother's social conditions prior to onset of the pregnancy. The mothers of recidivists experienced a greater mean number of these adverse conditions than did mothers of one-time offenders, who in turn experienced more predisposing factors than did mothers of non-offenders. Results for all remaining scales indicate that birth, neonatal status, and status at one year of age were relatively less stressful for recidivists than for one-time offenders, who had experienced fewer of these early difficulties than the non-offender group.

Confounding variables. The possibility was investigated that confounds might exist in these results from certain variables known to relate to delinquency. Because of the nature of Rigshospitalet policy, a relatively large proportion of the mothers in the cohort were unmarried at the time of their pregnancies. The unmarried mothers were somewhat more likely to be young, and to have delinquent sons, than the married mothers of the cohort. Age of mother is positively related to perinatal problems in this cohort. It was possible that the relatively positive perinatal status found among the delinquent groups was partly the result of the youth of these unmarried mothers. Ana-

lyses of variance were performed for the perinatal composite scores controlling for effects of the mother's age. All differences shown in Table 1 remained significant ($p < .01$).

Because the Predisposing Factors score represents a number of items concerning the social environment of the mother, we inquired to what extent Predisposing Factors scores were related to the perinatal composite scores shown in Table 1. No significant Pearson correlations between Predisposing Factors and these variables were obtained.

Finally, it was proposed that some number of individuals may have been handicapped by perinatal damage to the extent that they were physically unable to engage in delinquent acts, therefore inflating the amount of perinatal symptomatology reported for the non-offender groups. All boys ($N = 112$) were identified whose perinatal histories included record of symptoms, diseases, or perinatal injury judged by Mednick to be severe enough that delinquent involvement would be improbable. When these subjects were excluded from analyses, all differences reported in Table 1 remained significant.

Insert Table 1 about here

Individual item analysis. We wished to determine which of the original individual perinatal items were contributing to the differences found for the groups on the composite scores listed in Table 1. The individual perinatal items which had composed the composite scores for Predisposing Factors, Delivery Condi-

tions, Neonatal Physical Exam, Neonatal Neurological Exam, One-Year Neurological Exam, and One-Year Motor Development were selected for chi square analysis across the three subject groups. Fifty-two of these items yielded chi square values significant beyond the .01 alpha level. (See Appendix B for a list of these items.) Factor analysis of these items was attempted, but distribution problems made such an approach fruitless. This lack of success matches an earlier experience with these same data (B. Mednick, in press).

Constructed perinatal scales. As an alternative approach, two scales were constructed which represent rate of motor development and size development assessed at one year. Scale construction was conducted using one randomly selected half of the subjects, and cross validation was conducted with the remaining subjects. Items judged to represent physical development were selected from the large pool on a rational basis, and then subjected to an item analysis which attempted to maximize coefficient alpha (Cronbach, 1951) by emphasizing biserial correlations between items and scale totals. This analysis allowed us to drop items from the scales which did not maximize alpha. The final scale for rate of motor development includes the months at which each subject began to sit up, crawl, stand, and walk. The size development scale consists of weight, height, chest circumference, and number of teeth present at the time of the one-year examination. For the four-item motor development scale, Cronbach's coefficient alpha, a measure of the internal consistency

(reliability) of the scale, was .74. For the size development scale, with four items, alpha was also .74. The scale scores were standardized, with a mean of 0 and a standard deviation of 1, so that group means reflect group deviation from the population mean. Group means and results of analyses of variance for these two scales are presented in Table 2. (Scale construction and analysis of variance were successfully replicated using the remaining half of the sample. Results presented in Table 2 are from the initial analyses). For the measure of development in size during the first year, the one-time offenders were smaller on the average than the non-offenders. Recidivists were the group most greatly developed in size by age 1. Means for motor development show that the one-time offender displayed motor skills such as crawling, sitting, standing, and walking a good deal earlier in their first years than did recidivists and non-offenders. Thus, the average future one-time offender seems to be both smaller and more precocious in motor behavior during early childhood than are the average future non-offenders and recidivists.

The scales of motor and size development were submitted to discriminant analysis of the one-time offender and recidivist offender groups. This attempt yielded a 49% error rate in discrimination, suggesting that these variables are not of practical significance in predicting which individuals will desist from further delinquent involvement following their first offense. It is, however, notable that these perinatal variables do predict delinquency, despite a 15 to 20 year time span.

 Insert Table 2 about here

Analyses within offense types. Analyses of variance of the perinatal composite scores were also performed on subjects of the cohort who had committed (1) only traffic violations, (2) only theft, or (3) violent offenses. Very few subjects had engaged in violence to the exclusion of other offense types. Therefore, subjects included in the one-time and recidivist violent offender group may also have committed one or more non-violent offenses. Table 3 reports these results. Only those scores are reported for which analysis of variance yielded Fs significant beyond the .01 criterion.

Table 3 shows that, although fewer significant differences were found for composite scores when groups were defined within offense types, differences found to be significant among traffic offenders and thieves were in the same direction as the differences reported in Table 1 for the whole cohort. Subjects with only a single traffic violation scored somewhat more poorly in motor development at one year of age than subjects with multiple traffic offenses. Subjects with no offenses fared even more poorly in motor development than the one-time traffic offenders. Recidivistic theft offenders appeared to be characterized by less severe conditions during their mother's pregnancies than did one-time theft offenders, who had less severe pregnancy problems than the non-offender group.

For the cohort as a whole, subgroups of traffic offenders and subgroups of theft offenders, recidivist groups have repeatedly been found to be characterized by more healthy perinatal conditions than one-time offender groups, who are in turn characterized by more healthy perinatal conditions than the non-offender groups. Results for the violent subgroups provide an exception to this pattern. Table 3 shows that recidivistic violent offenders are not more healthy at the one-year neurological examination than one-time violent offenders. Within the violent offenders, recidivists and non-offenders score similarly and relatively more poorly than do one-time offenders.

 Insert Table 3 about here

Study 2: Variables from early adolescence

METHOD

Subjects. The project began in 1972 with a group of 265 children who were intensively examined during that year (Mednick, et al., 1971). The subjects of the second study were drawn from the same Danish birth cohort used in Study 1. A group of 144 of the children were selected because they were judged to be at high risk for antisocial behavior; at least one of their parents had hospital records of deviance (schizophrenia, psychopathy, or character disorder). The remaining 121 subjects were controls; their parents had never had a psychiatric hospitalization. These controls were matched to the risk subjects for (1) sex of criterion parent, (2) sex of child, (3) race, (4) multiple birth sta-

tus, (5) pregnancy number, (6) social class, (7) mother's age, (8) mother's height, and (9) father's age. Because of the low number of females with official records of delinquency, only the 129 males were included in the present analysis. The final group of subjects consisted of 36 boys with a schizophrenic parent, 36 boys with a psychopathic father, or a character disordered mother, and 57 boys with parents who had never been admitted to a psychiatric hospital. This study reports the relationship between 1972 measures of social, psychological, and biological status and registered delinquency assessed in 1978.

Variables. Social, psychological, and biological variables were examined in Study 2.

a. Delinquency. Delinquency for individuals in the study involved primarily traffic and theft offenses, with a few instances of arrest for violent crimes. As a measure of delinquent involvement, the subjects were categorized by whether they had no registered offenses, one offense (with at least six offense-free months between the offense and the time at which the data were collected) or more than one offense registered in the Danish National Police Register.

b. Socioeconomic Status. SES was assessed by a scale derived from one developed by Svalastoga (1959), a Danish sociologist. The scale yields seven levels of SES based on the level of prestige associated with the occupation held by the subject's father in 1972.

c. Family Factors.

c.1. Rationale for Study. Among others, Reiss and Rhodes (1961) and more recently Hirschi (1969) have proposed that failure on the part of individuals to internalize adequate and appropriate sets of social norms may be a mechanism contributing to delinquency. The acquisition of such internalized standards of conduct is posited as being critical to the control of antisocial behavior. These theorists hypothesize that internalized control mechanisms are developed in the course of normal socialization and in the process of integration into conventional social groups. Thus the sociocultural environment in which an individual develops and the child-rearing techniques employed by his parents may play important roles in determining the extent to which an individual does internalize social norms. For those individuals for whom internalization of appropriate norms has been only partially successful (as evidenced by the fact that they have been apprehended once), a single unpleasant experience with the juvenile justice system may be sufficient to complete their appreciation of appropriate social rules. If parental child-rearing techniques do not include consistent delivery of contingent punishment for antisocial acts, internalization of norms may be impeded. There are a variety of factors which might be posited as restricting the consistency of parental punishment; absence of a parent, large family size, siblings very close in ages, institutional placement of the child, poor disciplinary habits of primary caretakers, and mother's employment outside the home are a few.

c.2. Scale of deviance from the ideal family. A social worker rated the family of each subject on a number of characteristics indicative of quality of the early home environment and parental supervision. In order to combine these variables into a single summary score and reduce measurement error, a scale was constructed from these characteristics which yields a single score for each subject representative of the extent to which his family was found to deviate from an "ideal" family (Gabrielli, 1981). Two judges chose 47 items reflective of this construct from the social worker's interview. A number of items were dropped from this pool because of linear dependence on other items, or because they were descriptive of less than 10% or more than 90% of the sample. Item analysis was performed using Spechts (1977) reliability program, and items were dropped if they did not contribute to the reliability of the scale through maximization of coefficient alpha. Seventeen items were retained; these are presented in Table 4.

 Insert Table 4 about here

Each subject receives a score on this scale which is standardized to have a mean of 10 and standard deviation of 1, where low scores indicate a more "socially" desirable family and high scores indicate a more deviant family. The scale has been cross-validated successfully using a second group of subjects (Gabrielli, 1981).

d. School Factors.

d.1. Rationale for Study. Hirschi and Hindelang (1977, p. 583) have stated that the significance of school variables for delinquency ". . . is nowhere in dispute and is, in fact, one of the oldest and most consistent findings of delinquency research." Advocates of strain theory and control theory have found the school experience to have an important relationship to delinquency (e.g. Elliott and Voss, 1974; Empey and Lubeck, 1971; Frease, 1973; Gold, 1963, 1970, 1978; Hirschi, 1969; Polk and Halferty, 1966; Rhodes and Reiss, 1969). The importance of school-related variables in the etiology of delinquency is firmly established. The role of the school as a variable affecting responsiveness to the deterrence actions of juvenile justice has not been so widely examined.

d.2. Scale of adjustment in school. Generally, the same scale construction procedure which was used in creating the family scale was followed in developing a scale of the teacher's assessment of subjects' school adjustment and performance (Switaj, in preparation). Questionnaires filled out by the subjects' math and Danish teachers were analyzed, yielding a final scale consisting of items presented in Table 5. The scale has a mean of 5.17, standard deviation of 3.22. Higher scores represent relatively greater evidence of positive adjustment in school and lower scores indicate less evidence.

 Insert Table 5 about here

e. Intelligence.

e.1. Rationale for Study. A number of studies have established the existence of a relationship between low IQ and delinquency (Prentice and Kelly, 1963; Hirschi and Hindelang, 1977; West and Farrington, 1973; Wolfgang, Figlio, and Sellin, 1972; Kirkegaard-Sorensen and Mednick, 1977). In addition, Moffitt, Gabrielli, Mednick, and Schulsinger (1981), Wolfgang et al.

(1972), and West and Farrington (1973) reported higher IQs among one-time offenders than among recidivists. Most studies have found the largest IQ deficiency for delinquents to be in verbal IQ (see Prentice and Kelly, 1963 and Wechsler, 1958 for reviews). It is likely that relatively greater verbal intelligence will contribute to the one-time offenders' positive response to contact with the juvenile justice system. He is more likely to verbalize, and hence conceptualize and recall, the relationship between his antisocial act and its consequences.

e.2. The WISC. Five subtests of a Danish translation of the Wechsler Intelligence Scale for Children (WISC) were administered: Vocabulary, Similarities, Block Design, Object Assembly, and Mazes. Since no Danish norms existed for the WISC, American norms were used for the IQ scores, a common practice in Denmark.

f. Empathy.

f.1. Rationale for Study. A measure of the subjects' abilities to empathize with others was included among the psychological variables examined. In etiological considerations of criminality it may be hypothesized that individuals with impaired

ability to understand the impact on victims of criminal acts might be more willing to engage in such harmful acts. However, a somewhat different role may be hypothesized for empathic abilities in susceptibility to negative sanctions among first-time offenders. A boy who is high on empathic ability may be more likely to understand why agents of law enforcement are responding negatively to his delinquent act, and thus be more likely to decide to desist from further delinquency.

f.2. The Feffer Test. The measure of empathic ability used was the Feffer Test (Feffer, 1959). In this test the subject views a scene and is asked to make up a narrative describing his perception of the event that is taking place in the picture. The subject is next asked to tell a second story, describing the same situation, but from the perspective of one of the characters in the scene. Each subject receives a score (from one to three) reflecting the extent of similarity between the stories. Dissimilarity (a high score) is interpreted as reflecting a subject's ability to understand and relate events as they might be perceived by someone other than himself.

g. Neurological Factors.

g.1. Rationale for Study.

In the investigation of perinatal factors in Study 1 it was found that recidivists had experienced fewer pregnancy and birth complications (PBCs) than one-time offenders. Despite the fact that PBCs do not seem to be a source of neurological dysfunction for delinquents, such dysfunction from other sources may be

important in determining the strength of delinquent's behavioral controls. Previous studies have found neurological problems to be more prevalent among delinquents than among non-delinquents (Thompson, 1953, 1961; and Stott, 1969). We investigated the neurological symptoms detected during an examination of our subjects in early adolescence with the hypothesis that one-time offenders might evidence fewer signs of neurological impairment than recidivists.

g.2. Neurological Examination. A complete neurological examination was conducted in 1972 (Mednick and Michelsen, 1977). The examination consists partly of subtests from an adult neurological examination (Touwen and Prechtl, 1970), partly of pediatric neurological tests, and partly of motor control and development tests (Rutter, Graham and Yule, 1970; Bakwin, 1968; Stott, 1966).

h. Central Nervous System Factors.

h.1. Rationale for Study. A number of studies indicate that the EEGs of adult criminals are more frequently classified as abnormal than those of non-criminal subjects. Slowing of the EEG alpha frequency was a principal finding in these studies. In addition, Mednick, Volavka, Gabrielli, and Itil (1981) have reported that this slowing involved increased amounts of EEG slow alpha waves. The results of Mednick et al. (1981) supported an hypothesis that the EEG abnormalities noted may represent low CNS arousal among delinquents. Mednick (1977) has theorized that low arousal may attenuate the fear responses of children in discipli-

nary situations. Thus it is possible that EEG differences may contribute to the varying reactions of juveniles to justice system sanctions.

h.2. CNS Measures. Central nervous system activity was measured by electroencephalogram recording and analyses. Electrodes were placed over the right and left parietal, temporal, central and occipital areas. Eight EEG derivations were used; left and right temporoparietal, right and left central (ear as reference), right and left parietoccipital, and right and left occipital (ear as reference). The EEG used in this study was recorded while subjects were resting with their eyes closed. A Beckman Type R Dynograph was used for amplification and paper recording. Ten-minute EEG segments were also recorded on magnetic tape, and these tape records were later subjected to period analysis by Itil et al. (1974). For each of the eight derivations, the analysis yielded relative amounts (percentages) of activity in eight frequency bands (in Herz): 1.5 - 3.5, 3.5 - 5.5, 5.5 - 8.0, 8.0 - 10.0, 10.0 - 13.0, 13.0 - 18.0, 18.0 - 26.0, and above 26.0.

The frequency band associated with maturity and arousal for subjects in the age range of our subjects is the slow alpha band (8 - 10 Hz). Since the relative activity across the eight derivations within this band is essentially redundant for the purpose of this study (i.e., each measure can be taken as a separate measure of the same relative brain wave activity), a summary variable was constructed. The scores for each of the eight deriva-

tions within the slow alpha frequency band were summed to yield a single summary variable reflecting relative slow alpha EEG activity (Gabrielli, 1981). This summary variable is standardized with a mean of 10 and standard deviation of 1, where low scores suggest more slow alpha activity and high scores reflect relatively less alpha activity.

i. Autonomic responsiveness.

i.1. Rationale for Study. An incidental finding of a prospective, longitudinal study in Sweden noted that delinquents who reported being frightened by their first police contact tended to refrain from further antisocial activity. On the other hand, delinquents who stated that they were not frightened by their first police contact tended to become recidivists (Rydellius, 1981). Perhaps some personal characteristics of the first-time delinquent help determine whether he is frightened enough by his first police contact to discourage him from engaging in further anti-social behavior. The response of fear is, in part, controlled by the autonomic nervous system (ANS). We can estimate the nature of the activity of the ANS by means of peripheral indicants such as heart rate, blood pressure and skin conductance. This line of reasoning leads us to a testable hypothesis--namely, that an individual who is apprehended by the police for the first time will tend to desist from further criminal activity if his autonomic nervous system is highly responsive. That is, youths who are more easily frightened are more likely to respond to an initial police contact as an effective specific

deterrent. If such an hypothesis were supported, it would imply that, for autonomically reactive individuals, contact with the criminal justice system may be effective to some degree in preventing recidivism.

i.2. ANS measures. Psychophysiological recording was made using an Offner-Beckman Type R Dynograph using couplers built especially for this cohort. Unilateral bipolar recording was made continuously from the nondominant hand. In addition, levels were obtained from the other hand during the rest periods. The procedure involved the constant voltage method advocated by Venables and Christie (1973) using a coupler designed by them.

The stimuli consisted of 14 orientation tones each of 1 sec, 400 Hz. This was followed by a rest period of 10 minutes. After the rest period a series of 36 stimuli comprising a conditioning, generalization and extinction schedule followed.

The stimuli used were:

Conditioned stimulus 1	1 kHz 60 db 12.5 sec
Unconditioned stimulus	
(occurred only with C.S. 1)	noise 96 db 4.5 sec
Conditioned stimulus 2	500 Hz 60 db 12.5 sec
Generalization stimulus 1	1311 Hz 60 db 12.5 sec
Generalization stimulus 2	1967 Hz 60 db 12.5 sec

This procedure took approximately 25 minutes.

The ANS measures relevant to this investigation are the subject's general level of arousal, his orienting response (related to attentional factors), his responsiveness to stimuli, his ability to associate a response to the anticipation of a fear inducing stimulus (classical conditioning), and the speed with which he recovers from the stimulus-induced arousal, once the threat is removed.

The subject's general level of arousal is measured by his basal conductance level. Although this measure is recorded for each trial (it is the conductance level at the beginning of the trial before the stimulus tone is presented), for the purposes of this investigation, the measure of the subject's basal level of arousal is taken as the mean of the basal conductance level for the first 14 (orienting) trials. Such a measure minimizes random measurement error by using multiple measurements. Basal levels from later trials were not used because these levels could be somehow influenced by a residual arousal level remaining after the presentation of the UCS.

The subject's orienting response (which should be closely related to his level of arousal) is taken as the number of the 14 orienting stimuli to which he had a measureable change in skin conductance (responsiveness to the orienting stimuli), and the number of the last orienting trial (habituation of the orienting response) to which the subject responded. The quality of the subject's responsiveness to the noxious stimulus, the UCS, is an indication of his responsiveness. The number of UCS stimuli to which he responded with a measureable change in the skin conductance level reflects his level of responsiveness. The average onset latency (after the UCS), the average peak amplitude, and the average rise time from the onset of the UCS are also measures of this characteristic. These averages were taken over the 12 trials in which a UCS was presented.

Only one measure is used for how well the subject is able to associate the fear response to the UCS with the conditioning tone to which the UCS is sometimes paired. This measure is the number of the conditioning tones in which no UCS was presented, to which the subject responded after the time the UCS would have been presented. (The maximum possible number of such responses is 12.)

The final ANS measure, reflecting how quickly the subject recovers from his fear arousal, is taken as the reciprocal of his half-recovery rate; i.e., it is the time required for the subject to recover one unit of skin conductance amplitude. This measure was chosen over half-recovery time because the time required to attain half-recovery depends upon the amount of change as well as the rate of change.

Since measurements were taken from both hands, a total of 18 measures were used in this analysis. Because of the high correlation between right and left hand measures and because traditionally the left-hand measures are used for indication of ANS activity, only the left-hand measures were used in further analyses. Because of skewness, a log (base 10) transformation of one plus the initial value was used for peak amplitude and reciprocal half-recovery rate. The transformation provided more normal distributions of these variables.

Principal-components analysis (Barr et al., 1979) of the correlation matrix for the left-hand measures revealed three eigenvalues above 1.0 with a possible break between the second and third eigenvalue. Interpretation of the eigenvalues would sug-

gest either a one-component solution or, perhaps, a two-component one. In the present context, a one-component solution was selected.

A number of rotations of the factors were completed with two-, three-, and four-factor solutions. None of these provided better interpretation than the simple unrotated solution (Gabrielli, 1981).

Perhaps the most meaningful interpretation of the results is that which relates all of the ANS measures to a single factor, the reactivity of the subject. Such a factor would reflect the basal attention, responsiveness and recovery of the subject to stimuli, and general association of the threat (UCS) to the conditioning stimulus.

An ANS summary variable was constructed by summing the nine ANS variables from the one factor solution discussed above. These variables are listed in Table 6. The summary variable is standardized to have a mean of 10 and standard deviation of 1. Low scores reflect less ANS reactivity and high scores reflect relatively greater reactivity. The procedures involved in reduction of the ANS data have been successfully replicated in another sample (Gabrielli, 1981).

Insert Table 6 about here

RESULTS

Individual variables. Table 7 presents the mean scores for non-offenders, one-time offenders, and multiple offenders for the

Study 2 variables yielding significant ($p < .05$) values for the t-test of the difference between the means of the one-time offender and multiple offender groups. Differences between the groups for SES, the ANS summary variable, the EEG summary variable, and several of the neurology examination subtests did not attain significance. In a previous report (Mednick, Volavka, Gabrielli, and Itil, 1981), EEG was found to discriminate significantly between non-offenders, one-time thieves, and offenders with multiple thefts. Analysis in the present study of EEG in subjects with 0, 1, or more than one theft offenses yielded similar significant discrimination ($F = 4.64, p < .01$). However, the focus of the present report is on the ability of variables to discern the one-time delinquent in general, so that the results of analyses conducted within offense types will not be emphasized here.

Insert Table 7 about here

For 5 of the 6 variables shown in Table 7, the status of the future one-time offender is more positive than that of the future multiple offender. That is, relative to the multiple offenders, the one-time offenders had families closer to the "ideal" family, were better adjusted at school, scored higher on intelligence, and were more able to be empathic with the viewpoints of others. For the neurological subtest of associated movements, the one-time offenders showed more evidence of neurological abnormality than the multiple offender group. In addition to these differences between the one-time and multiple offender groups, it is

useful to consider the status of the one-time offender group relative to that of the non-offender group. The one-time offenders also have more positive families, better school adjustment, greater empathic abilities, and more evidence of neurological abnormality on the associated movements test than the non-offenders.

In terms of our original hypothesis, this suggests that an individual who desists from delinquent behavior after one criminal justice system contact shows evidence of characteristics associated with greater sanction sensitivity.

Regression analysis. An SAS procedure was used which performed all possible regressions for the dependent variable; subject group (one-time or multiple offender), and the collection of all independent variables investigated in Study 2. The procedure yielded an R^2 for each model (Cuthbert and Wood, 1971). The model was selected from all the possible combinations of four variables which yielded the greatest value of R^2 . Selection was limited to those models including combinations of four variables because increases in R^2 for models combining five or more of the variables were not as large as the increase in R^2 between the three-variable models and the four-variable models.

Stepwise regression of the four-variable model selected showed that the variables were entered in the following order: (1) ANS summary variable, (2) scale of deviance from the ideal family, (3) WISC Verbal IQ, (4) Neurological examination: associated movements subtest. Note that while ANS was not one of the

variables which differentiated the offender groups in Table 7, it was an important component of the regression model. We have found frequently that biological variables can explain deviance where social variables fail in explanation. Therefore, the ANS summary variable may account for variance that is not explained by the social and psychological measures. R^2 for this model was .48 ($F = 6.07, p .01$). This result must be viewed with caution because the regression procedure employed maximizes effects. It is most likely that on replication the R^2 would shrink. Replication of these results is needed before conclusions can be drawn.

Discussion

We began this report with the assertion that there may be a group of individuals who are deterred from further delinquent behavior by their initial experience with negative sanctions imposed by the juvenile justice system. The phase of study reported in this paper was limited to testing the hypothesis that an individual who commits a single offense, but desists from further offending following contact with the justice system, has characteristics that mark him as different from individuals who continue to offend, and perhaps also from individuals who have no offenses registered at all. Both Study 1, which examined variables from birth and early childhood, and Study 2, which examined variables from pre-adolescence, have demonstrated that a number of characteristics do exist which distinguish the one-time offender from the non-offender and multiple offender. In addition,

these are characteristics which were assessed six years prior to the onset of offending, so that differences found between offender groups do not reflect the results of differential amounts of delinquent involvement or justice system contact.

Results from Study 1 did not lend support to the hypothesis that perinatal and birth complications are a source of neurological dysfunction which impairs the brain's capability for appropriately modulating responses to punishment. Both one-time offenders and multiple offenders (especially multiple offenders) had experienced fewer and less severe problems during birth, neonatal development, and the first year of life than did the non-offender group. These results did not disconfirm the alternate hypothesis that perinatal complications are positively related to responsiveness of the ANS, which is positively associated with the ability to benefit from punishment. Analyses of size and motor development indicate that the one-time offender is quite different from the recidivistic offender on these measures (see Table 2).

Measures from early adolescence. In Study 2, a number of variables measured in early adolescence were found to distinguish the one-time offender from non-offenders and multiple offenders--verbal intelligence, school adjustment, family characteristics, ability to empathize with the viewpoints of others, and neurological dysfunction as evidenced by the subtest for associated movements. For each of these measures the one-time offender groups scored "better" than the multiple offender group.

We proposed that one-time offenders might be expected to have greater verbal ability than multiple offenders if good verbal skills enable them more to easily label, conceptualize and recall the contingency between their delinquent acts and the sanctions they received. Aronfreed (1968, p. 72) has stated that verbal communication abilities may serve "the most crucial function of cognitive representation in the socialization process, the mediation of the temporal gap between the child's behavior and its punitive consequences." (See Section II of this report, "Relevance to delinquency/deterrence of the learning theory model of punishment," for further explanation of the role of verbal intelligence in deterrence.) Results from analysis of Verbal IQ in Study 2 do not disconfirm this proposal.

The data also supported our hypothesis regarding the role of the family in offenders' responses to sanctioning. The sociocultural milieu in which a child develops and the approach of his parents to their child-rearing responsibilities are crucial determinants of the extent to which the child internalizes behavior norms. Individuals with relatively more positive family backgrounds may be expected to respond well to sanctioning. While situational factors might lead a well-socialized child to commit a delinquent act, a single unpleasant experience with the juvenile justice system may be sufficient to complete the process of norm internalization for these children. Children with less stable family backgrounds would probably need more than a single unpleasant sanction to complete their internalization of the

importance of social rules and should therefore be more likely to join the multiple offender group.

The one-time offenders we studied were rated by their teachers as better adjusted in school than the multiple offenders. It is possible to interpret this result in the context of Hirschi's (1969) version of control theory. Children who experience more positive adjustment in school may be more likely to be more committed to the educational goals of school and also may be more involved in school-related activities than are children who are less well adjusted in school. In Hirschi's view, individuals who are committed and involved are less likely to engage in delinquent acts. It is also possible that, when a child who is committed and involved at school does offend, he will desist from further offending as soon as he learns that official sanctions can jeopardize his positive relationship with the school. He has stakes in conformity.

We proposed that individuals who are characterized by impaired ability to empathize with the viewpoints of others might have greater difficulty than individuals with empathic talents in understanding why the agents of the juvenile justice system respond negatively to their delinquent acts. We hypothesized that the one-time offender group would have a greater mean score on the Feffer test of empathic ability than the multiple offenders, and the data fulfilled this hypothesis.

Sanction sensitivity. The intention of this initial analysis was to examine the general hypothesis that the one-time

offender displays unique characteristics which make him more sensitive to a juvenile justice system aversive contact. The general hypothesis could not be rejected by our observations. A variety of factors which seem intuitively reasonable and which are in accordance with earlier literature findings indicate that the one-time offender may be better (family) socialized, more intelligent, more empathic, and display better school adjustment than either the multiple offender or the non-offender. Our hypothesis concerning sanction sensitivity seems worthy of further study.

Suggestions for future directions. First and foremost is the need for replication of these results in other longitudinal cohorts. A proposal for such an investigation is currently being submitted. A second and related interest is more intensive examination of the biosocial interaction terms as they are related to one-time offender status. We tested one such interaction to determine whether the one-time offender would be high in ANS responsiveness and high on family stability. An interaction term was created by simply multiplying the ANS sensitivity score by the family deviance scale score. The highest score (indicating the worst family and least responsive ANS) was obtained by the multiple offender; next was the non-offender. The one-time offender had a significantly lower interaction score than either of the other two groups. They included the most sensitive ANS and the most stable families.

Table 1

Mean perinatal composite scores for
non-offenders, one-time offenders and multiple offenders
in Study 1

Higher scores indicate relatively less desirable status.

Perinatal Composite Score	Number of offenses			F	P
	None (N=3123)	One (N=572)	2 or more (N=572)		
Predisposing Factors, Frequency Score	2.35	2.48	2.59	7.68	<.01
Delivery Conditions, Frequency Score	2.85	2.60	2.54	12.45	<.01
Delivery Conditions, Weighted Score	6.33	5.75	5.62	9.89	<.01
Neonatal Physical Exam, Frequency Score	3.32	3.10	3.07	4.87	<.01
Neonatal Physical Exam, Weighted Score	5.64	5.11	5.03	7.21	<.01
Neonatal Neurological Exam, Weighted Score	16.98	16.33	15.78	5.65	<.01
One-Year Neurological Exam, Frequency Score	0.84	0.75	0.67	4.98	<.01
One-Year Neurological Exam, Problem of Highest Severity	0.78	0.69	0.60	7.75	<.01
One-Year Neurological Exam, Weighted Score	1.23	1.06	0.92	5.48	<.01
One-Year Motor Development, Frequency Score	1.85	1.63	1.46	13.66	<.01

We have been assuming that the fact that the one-time offender can be distinguished by antecedent characteristics reflects a special sensitivity to punishment. Our results could also be interpreted as a purely etiological effect. That is, perhaps these characteristics simply relate to severity of delinquency. The one-time offender is different from the multiple offender because he is simply less severely delinquent. Arguing against this, however, is the fact that on a number of the variables examined, the one-time delinquent evidences less delinquency-associated characteristics than does the non-offender. A definitive study might examine the relationship between sanction sensitivity variables and degree of recidivism at different levels of juvenile justice system sanctions. Those high in sanction sensitivity should only receive mild punishments to attain the same level of inhibition of delinquent acts as severe punishment levels in those low in sanction sensitivity.

Table 2

Mean Z scores on constructed perinatal scales for non-offenders, one-time offenders, and multiple offenders in Study 1

Positive scores indicate greater development.

Scale	Number of offenses*			F	P
	None (N=1040)	One (N=182)	2 or more (N=168)		
Size Development	-.166	-.218	.578	4.41	.01
Motor Development	-.199	.638	.152	4.86	<.01

*Ns for Table 2 differ from those of Table 1 because these analyses were conducted (and replicated) using split halves of the cohort. Means reported are from the half of the sample analysed initially; results from the replication were also significant.

Table 3

Mean perinatal composite scores for non-offenders, one-time offenders, and multiple offenders within crime types in Study 1

Higher scores indicate relatively less desirable status.

Perinatal Composite Score	TRAFFIC VIOLATIONS Number of offenses			F	P
	None (N=3123)	One Traffic Only (N=409)	Two or more Traffic Only (N=106)		
One-Year Motor Development, Frequency Score	1.84	1.60	1.45	5.37	<.01
One-Year Motor Development, Weighted Score	2.98	2.54	2.27	5.15	<.01

Perinatal Composite Score	THEFT OFFENSES Number of offenses			F	P
	None (N=3123)	One Theft Only (N=131)	Two or more Thefts (N=82)		
Pregnancy, Problem of Highest Severity	2.11	1.74	1.91	6.25	<.01
Delivery Conditions, Frequency Score	2.85	2.38	2.42	7.46	<.01
Delivery Conditions, Weighted Score	6.33	5.21	5.51	5.66	<.01

Perinatal Composite Score	VIOLENT OFFENSES Number of offenses			F	P
	None (N=3123)	One Violent (N=102)	Two or more Violent (N=32)		
One-Year Neurological Exam, Problem of Highest Severity	0.78	0.45	0.71	4.73	<.01

Table 4

Items deviating from an "ideal" family

-
- The biological parents are not married to each other.
 - The child has spent less than seven years with a single family organization.
 - The child has spent time in whole day care.
 - The child has spent time in an orphanage.
 - The child has spent less than seven years with his mother.
 - The child has spent less than seven years with his father.
 - The child was not always with his mother during the first year.
 - The child's father has problems with alcohol.
 - There are not at least two adults in the home.
 - The social worker judges the home atmosphere to be inadequate.
 - The mother does not like the child.
 - The mother is judged to be immature.
 - The mother is judged to be somewhat neurotic.
 - The parents of the child fight.
 - The mother worked full-time during the first five years of the child's life.
 - The mother has been hospitalized with a psychiatric problem.
 - The mother has had a serious physical illness.
-

Table 5

Teacher's assessment of school adjustment

-
- The child attends a normal class.
 - The child's performance (in Danish or Math) is generally not of lower quality than expected from his ability.
 - The child is ambitious and wants to be among the best in the class.
 - The child is not often in fights.
 - The child does not often tease other children.
 - The child does not talk back to the teacher in a provocative way.
 - The child does not interrupt the teacher or other children when they are talking.
 - The child occupies a central position in the class.
 - The child has average or above average ability relative to the rest of the class.
 - The quality of the child's work does not vary.
 - The child does not underestimate his own abilities.
-

Table 6
Variables combined in ANS Summary Variable

--Basal level
 --Number of OR responses
 --Last OR response
 --Number of UCS responses
 --Onset latency
 --Peak amplitude
 --Risetime
 --Number of CS1 responses
 --Half-recovery

Table 7
Mean scores on social, psychological and biological variables for non-offenders, one-time offenders and multiple offenders in Study 2

Variable	Number of offenses			t	p
	None (N=84)	One (N=21)	2 or more (N=22)		
Scale of Deviance from the ideal family	10.07	10.24	9.17	2.58	<.05
Scale of adjustment to School	5.22	6.56	4.36	2.08	<.05
WISC verbal IQ	110.31	107.80	97.77	2.46	<.05
WISC full IQ	113.80	112.30	102.54	2.60	<.05
Feffer Empathy	2.53	2.82	2.40	2.38	<.05
Neurological Exam: Associated Movements*	2.23	2.00	2.40	2.45	<.05

Note: Only those variables are presented for which t-tests of the means of the one-time offender and multiple offender groups were significant beyond the .05 criterion. Means for the non-offender group are shown for comparison. Larger scores indicate relatively more positive status.

*Eight sub-tests of the neurological examination were analyzed separately. One sub-test, associated movements, yielded a significant t. This sub-test includes examination for mimic, diadochokinesia, reciprocal coordination, walking tests, and Prechtl's and Fog's tests.

Appendix A

Description of Perinatal Composite Scores from Study 1

Pregnancy and Birth

Material available for investigation in the study was logically grouped into four basic sets of pregnancy and birth scores: Predisposing Factors Score, Pregnancy Score, Delivery Score, and Non-Maturity Score.

Predisposing Factors Scores: The PF composite scores consisted of items which were concerned with the mother's physical and emotional state prior to the pregnancy under investigation. Information included such material as whether the mother was married when she conceived and whether she had previously had an abortion, a miscarriage, or a stillbirth. Points on the PF Scores indicated that conditions (physical and emotional) were probably less-than-optimum for conception.

Pregnancy Scores: The P composite scores consisted of items which were concerned with the mother's physical and emotional state during the pregnancy under investigation. Information included such material as whether the mother had experienced any illnesses during the period of gestation and whether she had been exposed to radiation or taken drugs during the pregnancy. Points on the P Scores indicated that conditions (physical and emotional) were probably less-than-optimum for the period of the pregnancy.

Delivery Scores: The D composite scores consisted of items which were concerned with the mother's delivery from the beginning of labor to the evaluation of the neonate's condition at the point of birth. Information included such material as whether the mother's labor had been induced or artificially stimulated in any way and whether the fetal presentation was atypical (for example, breech birth). Points on the D Scores indicated that delivery conditions were probably less-than-optimum.

Non-Maturity Scores: The NM composite scores consisted of items which were concerned with the neonate's physical maturity at birth. Information included evaluation of three areas: whether the neonate was born before or after the optimum number of weeks of gestation, whether the neonate's birth weight was below 3000 grams, and whether the neonate was judged at birth to be premature or postmature. Points on the NM Scores indicated that at the point of birth, the neonate's physical condition was probably less-than-optimum to insure normal post-natal development.

Children's Neonatal and One-Year Examinations

Material available for investigation in the study was logically grouped into five basic sets of children's examination scores: Neonatal Physical Examination Scores, Neonatal Neurological Examination Scores, One-Year Physical Examination Scores, One-Year Neurological Examination Scores, and One-Year Motor Development Examination Scores.

Neonatal Physical Examination Scores: The NP Composite Scores consisted of items which were concerned with the neonate's physical condition during the first five days of life. Information included such material as the use of special treatment in the delivery room (for example, an incubator or an oxygen mask) and whether the neonate was cyanotic or jaundiced. Points on the NP Scores indicated that the neonate's physical condition in the first five days of life was less-than-optimum.

Neonatal Neurological Examination Scores: The NN composite scores consisted of items which were concerned with the neonate's condition during neurological examination and indications of probable brain damage during the first five days of life. Information included such material as abnormal responses when reflexes were tested on Day 1 and Day 5 of life. Points on the NN Scores indicated that the neonate's neurological condition in the first five days of life was abnormal.

One-Year Physical Examination Scores: The OP composite scores consisted of items which were concerned with the child's physical condition during the first year of life. Information came from two sources: a questionnaire which the mother filled out regarding illnesses and physical difficulties during the first year, and a physical examination which a pediatrician conducted at approximately one year of age. Information included such material as whether the child had had illnesses or surgery during the first year and whether the child's physical condition (for example, height and weight) was within the normal range at

one year. Points on the OP Scores indicated that the child's physical condition during the first year was marked by difficulties.

One-Year Neurological Examination Scores: The ON composite scores consisted of items which were concerned with the child's neurological condition upon examination by a pediatrician at one year of age. Information included head circumference outside normative values and abnormal responses when reflexes were tested. Points on the ON Scores indicated that the child's neurological condition at one year of age was abnormal (i.e., he showed signs of brain damage).

One-Year Motor Developmental Examination Scores: the OD composite scores consisted of items which were concerned with the child's motor development during the first year of life. Information came from two sources: a questionnaire which the mother filled out regarding the attainment of motor milestones (for example, crawling and sitting) during the first year, and observation by a pediatrician of the child's level of development during a one-year examination. Information included such material as whether the child was within the normal range (as judged by evaluation of attainment of motor milestones for approximately 9,000 Danish children born within the same time period as the children used in the study) when he first smiled, crawled, sat with and without support, etc. Points on the OD Scores indicated that the child's motor development during the first year of life was retarded when he was compared to a large group of peers.

Appendix B

Individual perinatal items for which chi squares across the non-offender (0), one-time offender (1), and multiple offender (2+) groups were significant beyond the .01 alpha level. Numbers in cells indicate row percents.

Items assessed prior to birth

1. Mothers marital status:

	<u>unmarried</u>	<u>married</u>
0	30	70
1	35	65
2+	41	59

2. Mother's attitude toward present pregnancy:

	<u>wanted</u>	<u>unwanted</u>
0	45	55
1	41	59
2+	32	68

3. Mother experienced genitalia-related illness prior to pregnancy:

	<u>yes</u>	<u>no</u>
0	90	10
1	86	14
2+	85	15

4. Mother's age:

	<u>14-20</u>	<u>21-30</u>	<u>31+</u>
0	26	51	23
1	34	46	20
2+	39	43	18

5. Number of cigarettes smoked daily by mother in last trimester of pregnancy:

	<u>none</u>	<u>21</u>	<u>20</u>
0	51	47	2
1	44	55	1
2+	40	57	3

6. Mother took any drug at least 5 days in succession during last month of pregnancy:

	<u>no</u>	<u>yes</u>
0	69	31
1	71	29
2+	76	24

7. Mother took diuretics in last month of pregnancy:

	<u>no</u>	<u>yes</u>
0	86	14
1	88	12
2+	91	9

8. Mother exposed to radiation during routine TB exam in last trimester of pregnancy:

	<u>no</u>	<u>yes</u>
0	95	5
1	94	6
2+	92	8

Items assessed during delivery

9. Mother experienced proteinuria following delivery:

	<u>no</u>	<u>yes</u>
0	95	5
1	97	3
2+	97	3

10. Labor was drug-induced:

	<u>no</u>	<u>yes</u>
0	91	9
1	93	7
2+	95	5

11. Birth was spontaneous and normal:

	<u>no</u>	<u>yes</u>
0	70	30
1	66	34
2+	60	40

12. Caesarian section was performed:

	<u>no</u>	<u>yes</u>
0	91	9
1	94	6
2+	96	4

13. Fetal presentation was in normal position (occiput anterior):

	<u>no</u>	<u>yes</u>
0	18	82
1	15	85
2+	12	88

14. Fetal head position was indeterminant at delivery:

	<u>no</u>	<u>yes</u>
0	93	7
1	96	4
2+	97	3

15. Anesthesia given during birth was obstetrical trilene:

	<u>no</u>	<u>yes</u>
0	62	38
1	59	41
2+	54	46

16. Anesthesia given during birth was nitrous oxide:

	<u>no</u>	<u>yes</u>
0	90	10
1	93	7
2+	95	5

17. Anesthesia given during birth was a relaxant:

	<u>no</u>	<u>yes</u>
0	91	9
1	93	7
2+	96	4

18. Anesthesia given during birth was atropine:

	<u>no</u>	<u>yes</u>
0	92	8
1	94	6
2+	96	4

Items assessed following delivery

19. Treatment given to facilitate breathing of infant:

	<u>no</u>	<u>yes</u>
0	74	26
1	77	23
2+	80	20

20. Peripheral cyanosis in infant:

	<u>no</u>	<u>yes</u>
0	94	6
1	92	8
2+	96	4

21. Infant given any drug:

	<u>no</u>	<u>yes</u>
0	85	15
1	87	13
2+	91	9

22. Infant given penicillin:

	<u>no</u>	<u>yes</u>
0	88	12
1	90	10
2+	93	7

23. Infants extremities move in a lively manner:

	<u>no</u>	<u>yes</u>
0	42	58
1	41	59
2+	33	67

24. Opacity of media seen at examination of infant's eyes:

	<u>no</u>	<u>yes</u>
0	99	1
1	100	0
2+	100	0

25. Infant's eyes uncoordinated:

	<u>no</u>	<u>yes</u>
0	93	7
1	97	3
2+	96	4

26. Plantar reflex: infant spreads toes without dorsal flexion of hallax:

	<u>no</u>	<u>yes</u>
0	47	53
1	54	46
2+	54	46

27. Patellar reflex absent:

	<u>no</u>	<u>yes</u>
0	99	1
1	98	2
2+	97	3

28. Leg movement alone seen in crawling reflex:

	<u>no</u>	<u>yes</u>
0	100	0
1	100	0
2+	99	1

29. Javar reflex is present:

	<u>no</u>	<u>yes</u>
0	30	70
1	37	63
2+	36	64

30. Hanging reflex: bilateral extension present:

	<u>no</u>	<u>yes</u>
0	83	17
1	80	20
2+	77	23

31. Neck-arm reflex: right arm normal:

	<u>no</u>	<u>yes</u>
0	99	1
1	97	3
2+	98	2

32. Moro reflex cannot be elicited:

	<u>no</u>	<u>yes</u>
0	4	96
1	5	95
2+	2	98

Items assessed at one year of age

33. Child experienced accident in fourth month of age:

	<u>no</u>	<u>yes</u>
0	98	2
1	100	0
2+	94	6

34. Child experienced accident in seventh month of age:

	<u>no</u>	<u>yes</u>
0	97	3
1	91	9
2+	93	7

35. Child had pertussis:

	<u>no</u>	<u>yes</u>
0	92	8
1	86	14
2+	87	13

36. No AD vitamins were given to child in first year:

	<u>no</u>	<u>yes</u>
0	100	0
1	99	1
2+	98	2

37. When child first began to lift head:

	<u>1st month</u>	<u>2nd month</u>	<u>2nd month +</u>
0	62	31	7
1	65	28	7
2+	71	20	8

38. When child can sit without support:

	<u>month 1-6</u>	<u>month 7-12</u>
0	18	82
1	22	78
2+	25	75

39. Child received tetanus vaccinations:

	<u>none</u>	<u>some</u>
0	27	73
1	31	69
2+	37	63

40. Child received BCG vaccination for TB:

	<u>no</u>	<u>yes</u>
0	47	53
1	51	49
2+	58	42

41. Child's height at age 1:

	<u>76 cm</u>	<u>77-78 cm</u>	<u>78 cm +</u>
0	45	24	31
1	46	23	31
2+	45	18	37

42. Child's skin was dirty at examination:

	<u>no</u>	<u>yes</u>
0	97	3
1	95	5
2+	93	7

43. Number of teeth present at age 1:

	<u>none</u>	<u>1-8</u>	<u>8+</u>
0	2	75	23
1	2	71	27
2+	0	69	31

44. Child has tachycardia with normal respiration:

	<u>no</u>	<u>yes</u>
0	98	2
1	95	5
2+	96	4

45. Positive pulse detectable in femoral artery:

	<u>no</u>	<u>yes</u>
0	21	79
1	28	72
2+	33	67

46. Abnormal skeleto-musculative apparatus:

	<u>no</u>	<u>yes</u>
0	88	12
1	92	8
2+	92	8

47. Child stands with strong support:

	<u>no</u>	<u>yes</u>
0	92	8
1	94	6
2+	95	5

48. Child able to stand independently:

	<u>no</u>	<u>yes</u>
0	48	52
1	40	60
2+	33	67

49. Child cannot walk despite support:

	no	yes
0	92	8
1	95	5
2+	95	5

50. Child walks with support:

	no	yes
0	64	36
1	66	34
2+	73	27

51. Child walks well independently:

	no	yes
0	56	44
1	48	52
2+	40	60

References

- Aronfreed, J. Conduct and Conscience. N.Y.: Academic Press, 1968.
- Bakwin, H. Developmental disorders of motility and language. Pediatric Clinic, N. Amer., 1968, 15, 3.
- Barr, A.J., Goodnight, J.H., Sall, J.P., Blair, W.H., and Chilko, D.M. SAS User's guide, Raleigh, N.C.: SAS Institute, 1979.
- Cronbach, L.J. Coefficient alpha and the internal structure of tests. Psychometrika, 1951, 16, 297-334.
- Drillien, C. Growth and development of the prematurely born infant. Edinburgh: Livingstone, 1964.
- Elliott, D.S. & Voss, H.L. Delinquency and dropout. Lexington, Mass.: D.C. Heath, 1974.
- Empey, L.T. & Lubeck, S.G. Explaining delinquency. Lexington, Mass.: D.C. Heath, 1971.
- Feffer, M.H. The cognitive implications of role-taking behaviors. Journal of Personality, 1959, 27, 2.
- Frease, D.E. Delinquency, social class, and the schools. Sociology and Social Research, 1973, 57, 443-459.
- Gabrielli, W.F. The interaction of family and biological factors in learning law-abiding behavior. Unpublished dissertation, 1981.
- Gold, M. Status forces in delinquent boys. Ann Arbor, Mich.: Institute for Social Research, University of Michigan, 1963.

- Gold, M. Delinquent behavior in an American city. Belmont, CA: Brooks/Cole, 1970.
- Gold, M. Scholastic experience, self-esteem, and delinquent behavior: a theory for alternative schools. Crime and Delinquency, 1978, 24, 290-308.
- Hirschi, T. Causes of Delinquency. Berkeley, CA.: University of California Press. 1969.
- Hirschi, T. & Hindelang, M.J. Intelligence and delinquency: A revisionist review. American Sociological Review, 1977, 42, 571-587.
- Itil, T.M., Hsu, W., Saletu, B. & Mednick, S.A. Computer EEG and auditory evoked potential investigations in children at high risk for schizophrenia. American Journal of Psychiatry, 1974, 131, 892-900.
- Kirkegaard-Sorensen, L.D. and Mednick, S.A. In S.A. Mednick & K.O. Christiansen (Eds.), Biosocial bases of criminal behavior. N.Y.: Gardner Press, 1977.
- Mednick, S.A. Breakdown in individuals at high risk for schizophrenia: possible predispositional perinatal factors. Mental Hygiene, 1970, 54, 50-63.
- Mednick, S.A., Mura, E., Schulsinger, F. and Mednick, B. Perinatal conditions and infant development in children with schizophrenic parents. Social Biology, 1971, 18, 5103-5113.
- Mednick, S.A. In S.A. Mednick & K.O. Christiansen (Eds.), Biosocial bases of criminal behavior. N.Y.: Gardner Press, 1977.

- Mednick, S.A., Volavka, J., Gabrielli, W.F., & Itil, T.M. EEG as a predictor of antisocial behavior. Criminology, 1981, 19, 219-229.
- Mednick, B.R. & Michelson, N. Neurological & motor function of 10-12 year old children who showed mild transient neurological symptoms the first five days of life. Acta Neurologica Scandinavica, 1977, 56, 70-78.
- Mednick, B. Effects of social familial, and maternal state variables on neonate and infant health. Child Development, in press.
- Moffitt, T.E., Gabrielli, W.F., Mednick, S.A., and Schulsinger, F. Socioeconomic status, I.Q., and delinquency. Journal of Abnormal Psychology, 1981, 2, 152-156.
- Pasamanick, B. The prevention of juvenile delinquency, N.Y. Acad. Med. Symp. on Records, 1954.
- Pasamanick, B. & Knobloch, H. Brain damage and reproductive casualty. American Journal of Orthopsychiatry, 1960, 30, 298-305.
- Polk, K. & Halferty, D.S. Adolescence, commitment, and delinquency. Journal of Research in Crime and Delinquency, 1966, 3, 82-96.
- Prentice, N.M. & Kelly, F.J. Intelligence and delinquency: a reconsideration. Journal of Social Psychology, 1963, 60, 327-337.
- Reiss, A.J., Jr. & Rhodes, A.L. The Distribution of juvenile delinquency in the social class structure. American Sociological Review, 1961, 26, 720-732.

Rhodes, A.L., & Reiss, A.J. Apathy, truancy, and delinquency as adaptations to school failure. Social Forces, 1969, 48, 12-22.

Rutter, M., Graham, P. & Yule, W. A. Neuropsychiatric study of childhood. Philadelphia: Lippencott Co., 1970.

Rydelius, P. Children of alcoholic fathers. Acta Paediatrica Scandinavica, Supplement 286, 1981.

Stott, D. Evidence for a congenital factor in maladjustment and delinquency. American Journal of Psychiatry, 1962, 118, 781-794.

Stott, D.H. A general test of motor impairment for children. Developmental Medicine and Neurology, 1966, 5, 523.

Stott, D. The congenital background to behavior disturbance. Paper presented at the Hillside Hospital Conference, October, 1969.

Specht, D.A. Reliability. In N.H. Nie and C.H. Hull, SPSS batch release 7.0. update manual, 1977.

Svalastoga, K. Prestige, class & mobility. Copenhagen: Gylclendal, 1959.

Switaj, S. The relationship between IQ, the school, and delinquency. In preparation.

Thompson, G. The psychopathic delinquent and criminal. Springfield, Ill.: Thomas, 1953.

Thompson, G. Psychopathy, Arch. Crim. Psychodyn. 1961, 4, 736-748.

Documentation of File Contents:

Police Survey Data

Police Survey Data

Description and Location of Variables

An attempt was made to enlist a respondent at each department who was most familiar with juvenile processing. In multi-station departments, the respondent worked at the particular station sampled. The sample consists of 365 police jurisdictions.

Reference Number	Variable Name	Description*	Column**
1	C1ID	Case ID Number Card 1 Value Range 101-2019 Missing value none	1 - 4
Are you either a full-time or part-time juvenile officer?			
2	VOX1	0. NA 1. Yes 2. No 8. Do Not Know 9. Missing	5

* Includes missing data code and valid values.

** All data are integers.

Reference Number	Variable Name	Description	Column
How long have you worked in that capacity?			
3	VOX2	Value range 1-27 Missing value 99	6 - 7
Which best describes the way your department handles work?			
4	V02	1. no juvenile specialization 2. sworn officer(s) assigned part-time to juveniles 3. a full-time juvenile officer, but no formal unit 4. a full-time formal juvenile unit 5. a central juvenile unit, but with juvenile units also in outlying precincts 9. missing	8

Reference Number	Variable Name	Description	Column
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In your station how many of the following are employed?

5	V03X1	Juvenile officer Value Range 0 - 86 Missing 9999	9 - 12
6	V03X2	Other sworn personnel Value Range 0 - 2009 Missing Value 9999	13 - 16

Approximately what percent of the initial juvenile contacts are made by each of the following?

7	V04X1	Full-time juvenile officer Value Range 0 - 100 Missing 999	17 - 19
8	V04X2	Part-time juvenile officer Value range 0 - 100 Missing 999	20 - 22
9	V04X3	Patrol Officer Value range 0 - 100 Missing 999	23 - 25
10	V04X4	Other Value range 0 - 100 Missing 999	26 - 28

Reference Number	Variable Name	Description	Column
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Once a juvenile is taken into custody, who processes him? If more than one person is involved in the processing, place a (1) before the person who handles the juvenile first; (2) before the person who handles the juvenile second, etc.

11	V05X1	Patrol officer 0. NA 1. Handles first 2. Handles second 3. Handles third 4. Handles fourth 5. Handles fifth 6. Handles sixth 9. Missing	29
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12	V05X2	Juvenile Officer 0. NA 1. Handles first 2. Handles second 3. Handles third 4. Handles fourth 5. Handles fifth 6. Handles sixth 9. Missing	30
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13	V05X3	Probation Officer 0. NA 1. Handles first 2. Handles second 3. Handles third 4. Handles fourth 5. Handles fifth 6. Handles sixth 9. Missing	31
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14	V05X4	Juvenile Intake Officer 0. NA 1. Handles first 2. Handles second 3. Handles third 4. Handles fourth 5. Handles fifth 6. Handles sixth 9. Missing	32
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Reference Number	Variable Name	Description	Column
15	V05X5	Court Intake Officer 0. NA 1. Handles first 2. Handles second 3. Handles third 4. Handles fourth 5. Handles fifth 6. Handles sixth 9. Missing	33
16	V05X6	Other 0. NA 1. Handles first 2. Handles second 3. Handles third 4. Handles fourth 5. Handles fifth 6. Handles sixth 9. Missing	34

Reference Number	Variable Name	Description	Column
<p>In Questions 6 and 7 we are interested in determining your juvenile case load. During an <u>average month</u>, approximately how many juveniles are <u>contacted</u> by:</p>			
17	V06X1	Juvenile Officer Value range 0 - 300 Missing 999	35 - 37
18	V06X2	Other sworn personnel Value range 0 - 752 Missing 999	38 - 40
<p>During an average month, approximately how many juveniles are <u>taken into custody</u> by:</p>			
19	V07X1	Juvenile Officer Value range 0 - 525 Missing 999	41 - 43
20	V07X2	Other sworn personnel Value range 0 - 800 Missing 999	44 - 46

Reference Number	Variable Name	Description	Column
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Please indicate which of the following juvenile dispositions are available to juvenile officers and how frequently they are used. If available and commonly used, please place the letter C in the space provided. If available but seldom used, please place the letter S in the space provided. If unavailable please place a U in the space provided.

21	V08X1	Release with no additional action 0. NA 1. Commonly used 2. Seldom used 3. Unavailable 9. Missing	47
22	V08X2	Release accompanied by official report 0. NA 1. Commonly used 2. Seldom used 3. Unavailable 9. Missing	48
23	V08X3	Release to outside agencies, public or private 0. Na 1. Commonly used 2. Seldom used 3. Unavailable 4. Missing	49
24	V08X4	Informal Probation 0. NA 1. Commonly used 2. Seldom used 3. Unavailable 4. Missing	50

Reference Number	Variable Name	Description	Column
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25	V08X5	Referral to juvenile court without detention request 0. NA 1. Commonly used 2. Seldom used 3. Unavailable 4. Missing	51
26	V08X6	Referral to juvenile court with detention request 0. NA 1. Commonly used 2. Seldom used 3. Unavailable 4. Missing	52
27	V08X7	Other 0. NA 1. Commonly used 2. Seldom used 3. Unavailable 4. Missing	53

Reference Number	Variable Name	Description	Column
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Which of the following are important in choosing among dispositions?
Rank order those that apply. Mark NA where "not appropriate". Please place (1) next to the most important, (2) next to the second most important, etc. Use each number only once.

28	V09X1	Age of Juvenile 1. 1st in importance 2. 2nd in importance 3. 3rd in importance 4. 4th in importance 5. 5th in importance 6. 6th in importance 7. 7th in importance 8. 8th in importance 9. 9th in importance 0. NA 99. Missing	54 - 55
29	V09X2	Sex of Juvenile 1. 1st in importance 2. 2nd in importance 3. 3rd in importance 4. 4th in importance 5. 5th in importance 6. 6th in importance 7. 7th in importance 8. 8th in importance 9. 9th in importance 0. NA 99. Missing	56 - 57
30	V09X3	Seriousness of Offense 1. 1st in importance 2. 2nd in importance 3. 3rd in importance 4. 4th in importance 5. 5th in importance 6. 6th in importance 7. 7th in importance 8. 8th in importance 9. 9th in importance 0. NA 99. Missing	58 - 59

Reference Number	Variable Name	Description	Column
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31	V09X4	Attitude of Juvenile 1. 1st in importance 2. 2nd in importance 3. 3rd in importance 4. 4th in importance 5. 5th in importance 6. 6th in importance 7. 7th in importance 8. 8th in importance 9. 9th in importance 0. NA 99. Missing	60 - 61
32	V09X5	Attitude of parent 1. 1st in importance 2. 2nd in importance 3. 3rd in importance 4. 4th in importance 5. 5th in importance 6. 6th in importance 7. 7th in importance 8. 8th in importance 9. 9th in importance 0. NA 99. Missing	62 - 63
33	V09X6	Prior Record 1. 1st in importance 2. 2nd in importance 3. 3rd in importance 4. 4th in importance 5. 5th in importance 6. 6th in importance 7. 7th in importance 8. 8th in importance 9. 9th in importance 0. NA 99. Missing	64 - 65

Reference Number	Variable Name	Description	Column
34	V09X7	Helpful Home Environment 1. 1st in importance 2. 2nd in importance 3. 3rd in importance 4. 4th in importance 5. 5th in importance 6. 6th in importance 7. 7th in importance 8. 8th in importance 9. 9th in importance 0. NA 99. Missing	66 - 67
35	V09X8	Admissibility of Evidence 1. 1st in importance 2. 2nd in importance 3. 3rd in importance 4. 4th in importance 5. 5th in importance 6. 6th in importance 7. 7th in importance 8. 8th in importance 9. 9th in importance 0. NA 99. Missing	68 - 69
36	V09X9	Other 1. 1st in importance 2. 2nd in importance 3. 3rd in importance 4. 4th in importance 5. 5th in importance 6. 6th in importance 7. 7th in importance 8. 8th in importance 9. 9th in importance 0. NA 99. Missing	70 - 71

Reference Number	Variable Name	Description	Column
		Which of the following dispositions do you consider a form of punishment? Place a <u>P</u> before those you consider punishment, an a <u>NP</u> before those you do not.	
37	V10X1	Release, with no additional action 1. Punishment 2. Not punishment 0. NA 9. Missing	72
38	V10X2	Release accompanied by official report describing encounter with juvenile 1. Punishment 2. Not punishment 0. NA 9. Missing	73
39	V10X3	Referral to outside agency public or private 1. Punishment 2. Not punishment 0. NA 9. Missing	74
40	V10X4	Informal Probation 1. Punishment 2. Not punishment 0. NA 9. Missing	75
41	V10X5	Referral to juvenile court without detention request 1. Punishment 2. Not punishment 0. NA 9. Missing	76

42	V10X6	Referral to juvenile court with detention request 1. Punishment 2. Not punishment 0. NA 9. Missing	77
43	V10X7	Other 1. Punishment 2. Not punishment 0. NA 9. Missing	78
44	Card1Num	Card Number One	80
45	C2ID	Case ID Number	1-4

Reference Number	Variable Name	Description	Column
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In your department, all other things being equal, for which type of juvenile is a more severe disposition more likely?

46	V11X1	Severe Disposition Age 0. Na 1. Younger 2. Older 9. Missing	5
47	V11X2	Severe Disposition Prior 0. NA 1. Younger 2. Older 9. Missing	6

Reference Number	Variable Name	Description	Column
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We want to know whether or not you handle first-time offenders differently from repeat juvenile offenders.

Generally speaking, in comparison with repeat offenders, how frequently are the following dispositions used for first-time offenders. Please place the letter F before those dispositions used more frequently for first-time offenders; put the letter R before those used more frequently for repeat offenders; and put the letter before those that are used equally.

Note:
 F = first-time offender
 R = repeat offender
 E = equally applied

48	V12X1	Release with no additional action 1. First-time offender 2. Repeat offender 3. Equally applied 8. Don't know 0. NA 9. Missing	7
49	V12X2	Release accompanied by official report describing encounter with juvenile 1. First-time offender 2. Repeat offender 3. Equally applied 8. Don't know 0. NA 9. Missing	8
50	V12X3	Referral to outside agency public or private 1. First-time offender 2. Repeat offender 3. Equally applied 8. Don't know 0. NA 9. Missing	9
51	V12X4	Informal Probation 1. First-time offender 2. Repeat offender 3. Equally applied 8. Don't know 0. NA 9. Missing	10

52	V12X5	Referral to juvenile court without detention request 1. First-time offender 2. Repeat offender 3. Equally applied 8. Don't know 0. NA 9. Missing	11
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53	V12X6	Referral to juvenile court with detention request 1. First-time offender 2. Repeat offender 3. Equally applied 8. Don't know 0. NA 9. Missing	12
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54	V12X7	Other 1. First-time offender 2. Repeat offender 3. Equally applied 8. Don't know 0. NA 9. Missing	13
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Reference Number	Variable Name	Description	Column
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We are interested in knowing for which type of offenses first-time juvenile offenders are treated differently from repeat juvenile offenders. Please check to offenses for which first-time juvenile offenders and repeat juvenile offenders are likely to be treated differently.

55	V13X1	Truancy 1. Different treatment 2. Same treatment 0. NA 9. Missing	14
56	V13X2	Malicious Mischief 1. Different treatment 2. Same treatment 0. NA 9. Missing	15
57	V13X3	Marijuana Use 1. Different treatment 2. Same treatment 0. NA 9. Missing	16
58	V13X4	Joy Riding 1. Different treatment 2. Same treatment 0. NA 9. Missing	17
59	V13X5	Assault and Battery 1. Different treatment 2. Same treatment 0. NA 9. Missing	18
60	V13X6	Armed Robbery 1. Different treatment 2. Same treatment 0. NA 9. Missing	19

Are there any statutes or codes in your state that specifically apply to treatment of first-time juvenile offenders as opposed to repeat juvenile offenders?

61	V14	0. NA 1. Yes 2. No 8. Do not know 9. Missing	20
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Are there any case decisions from your state or local courts that specifically apply to the handling of first-time juvenile offenders as opposed to repeat juvenile offenders?

62	V15	0. NA 1. Yes 2. No 8. Do not know 9. Missing	21
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Are there any policies of police, court or prosecution that specifically apply to first-time juvenile offenders as opposed to repeat juvenile offenders?

63	V16	0. NA 1. Yes 2. No 8. Do not know 9. Missing	22
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64	C2NUM	Card Number Two	80
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NOTES

1. The first two columns of the identification number is an identification number for the state of the respondent.

- | | |
|-----------------|-------------------|
| 1. Arkansas | 11. Missouri |
| 2. California | 12. Montana |
| 3. Colorado | 13. Nebraska |
| 4. Florida | 14. New Hampshire |
| 5. Georgia | 15. New York |
| 6. Indiana | 16. Ohio |
| 7. Kentucky | 17. Rhode Island |
| 8. Maine | 18. Texas |
| 9. Michigan | 19. Washington |
| 10. Mississippi | 20. Wisconsin |

2. The different sub-questions for this group of items may be coded with the same number of order (ties are acceptable).

3. If V08X7 is blank, code 3.

4. Ties are acceptable (see note 2)

5. If a corresponding item from V08X1 through V08X7 is coded 3, the missing data for variables from V12X1-V12X6 are coded 0. If V12X7 is blank, code 0.

FREQUENCY DISTRIBUTIONS

VARIABLE	1	2	3	4	5	6	7	8	9	0	99
V01X1	191	170						0	2	2	
V02	155	59	45	88	17				1		
V05X1	312	4	0	0	0	0			5	44	
V05X2	45	127	8	2	0	0			5	178	
V05X3	2	31	29	26	14	3			5	255	
V05X4	2	44	33	8	0	1			6	271	
V05X5	4	35	36	22	11	0			6	251	
V05X6	11	42	9	1	0	1			5	296	
V08X1	204	100	19						38	4	
V08X2	264	40	19						37	5	
V08X3	161	114	38						47	5	
V08X4	99	86	127						49	4	
V08X5	235	78	23						25	4	
V08X6	148	145	29						38	5	
V08X7	37	8	284						10	26	
V09X1	44	59	54	39	29	30	41	5	0	51	13
V09X2	1	12	4	4	8	13	40	104	1	165	13
V09X3	285	41	9	5	3	0	0	0	0	10	12
V09X4	23	48	77	83	50	23	8	2	0	37	14
V09X5	16	19	34	68	84	56	23	5	0	45	15
V09X6	37	139	77	43	15	13	4	1	0	23	13
V09X7	11	19	13	28	68	86	61	9	1	54	15
V09X8	23	36	33	26	29	43	52	32	0	77	14
V09X9	2	1	0	0	0	0	0	2	2	351	7

FREQUENCY DISTRIBUTIONS

Variable	1	2	3	4	5	6	7	8	9	0	99
V10X1	9	331						22		3	
V10X2	83	257						23		2	
V10X3	149	184						25		7	
V10X4	215	115					1	26		8	
V10X5	248	92						23		2	
V10X6	319	26						18		2	
V10X7	26	6						13		320	
V11X1	7	249						104		5	
V11X2	2	345						16		2	
V12X1	303	1	31					0	15	15	
V12X2	189	37	104					1	19	15	
V12X3	77	108	141					1	13	25	
V12X4	129	66	80					2	18	70	
V12X5	73	148	117					0	11	16	
V12X6	3	290	40					0	11	21	
V12X7	10	5	10					0	24	316	
V13X1	211	124						11		19	
V13X2	227	122						11		5	
V13X3	198	150						11		6	
V13x4	156	191						11		7	
V13X5	125	222						11		7	
V13X6	110	236						1	11	7	
V14	57	281						12	13	2	

V15 14 300
V16 117 221

27 21 3
7 15 5

CONTINUED

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CONTINUOUS VARIABLES

Variable	Mean	Standard Deviation	Range	Number of Cases
V01X2	5.94	4.77	26	182
V03X1	1.57	6.15	86	358
V03X2	54.54	198.15	2009	311
V04X1	14.78	25.64	100	346
V04X2	4.88	15.96	100	347
V04X3	75.51	30.24	100	356
V04X4	3.95	12.63	100	346
V06X1	21.80	44.88	300	349
V06X2	41.89	91.35	752	312
V07X1	9.83	36.67	525	350
V07X2	25.75	72.54	800	337