NEGATIVE SOCIAL SANCTIONS, SELF-REJECTION, AND DRUG USE

HOWARD B. KAPLAN
Texas A&M University
HIROSHI FUKURAI
University of California, Santa Cruz

Negative social sanctions are reactions by others to the real or imagined behavior of an actor that, either by the intentions of the others or the perceptions of the actor, serve as punishments for the behavior of the actor. One theoretical perspective, labeling theory, fosters "the ironic view that punishment often makes individuals more likely to commit crimes because of altered interactional structures, foreclosed legal opportunities and secondary deviance" (Sherman & Berk, 1984, p. 261). The continuity or amplification of deviant behavior, from this perspective, frequently is characterized as "secondary deviation, defined as deviant behavior or social roles based upon it, which becomes a means of defense, attack, or adaptation to the overt and covert problems created by the societal reaction to primary deviation" (Lemert, 1967, p. 17).

A number of research reports have associated being the object of negative social sanctions with later increases in deviant behavior and adoption of deviant identities. Apprehended youths tended to commit more offenses subsequently than did unapprehended controls (Farrington, 1977; Gold, 1970; Gold & Williams, 1969; Klein,

---

AUTHORS' NOTE: *This work was supported by research grants (R01 DA 02497 and R01 DA 04310) and a Research Scientist Award (K05 DA 00136) to the first author from the National Institute on Drug Abuse. Correspondence and reprint requests may be directed to Howard B. Kaplan, Department of Sociology, 323 Academic Bldg., Texas A&M University, College Station, TX 77843-4351.*

YOUTH & SOCIETY, Vol. 23 No. 3, March 1992 275-298

1974; Klemke, 1978; O'Connor, 1970; Wheeler, 1978). Among the more recent studies, Palamara, Cullen, and Gersten (1986) reported that police and mental health intervention had both independent and interactive effects on increasing juvenile delinquency. They also noted that the effects varied according to the form of juvenile deviance (delinquency, anxiety, general psychological impairment) under consideration. Although others have concluded that formal negative sanctions do not influence commitment to deviant careers (Gove, 1975; Hawkins, 1976; Hepburn, 1977; Wellford, 1975) or, indeed, deter rather than amplify deviance (Sherman & Berk, 1984), the several studies that report positive associations between negative social sanctions and amplified deviance suggest that at least under certain conditions negative sanctions influence subsequent performance of deviant behavior. These findings, along with the characterization of labeling research as "amorphous and subject to a serious lack of specification" (Howard & Levinson, 1985, p. 191), have encouraged speculation and research on the mechanisms that mediate the relationship between social sanctions and deviance amplification.

Several explanatory constructs have been cited as intervening between negative social sanctions and continuity or amplification of deviant behavior. Certain of these constructs refer to the responses of others to the "deviant" acts: being sensitive to disvalued aspects of the deviant but ignoring worthier aspects of the person, isolation of the deviant from conventional society, imputing negative characteristics to the person that are independent of the initial deviant act, and reinterpreting past and present behaviors by the subject in negative terms (Farrell, 1989). Other constructs are conceptualized in terms of self-referent responses by the deviant, including changes in the deviant's beliefs, values, feelings, and behaviors. These responses are assumed to influence acquisition of deviant identity and increased involvement with deviant roles and behavior (Wells, 1978).

The several mutually influential social and personal responses that were thought to mediate the effects of negative social sanctions on continuity of deviance have been organized around three explan-

atory constructs (Kaplan & Johnson, 1991). The personal and social responses that are influenced by negative social sanctions were interpreted as reflecting or influencing the deviant actor's (a) loss of motivation to conform to and acquisition of motivation to deviate from conventional norms, (b) association with deviant peers, and (c) reevaluation of deviant identities and behaviors. These three outcomes in turn have direct or indirect influences on the continuity or escalation of deviant behavior. Based on the premise that negative social sanctions in response to deviant behavior affected later deviant behavior via these constructs, structural equation models with latent variables were estimated (Kaplan & Johnson, 1991; Kaplan, Johnson, & Bailey, 1988). The results were congruent with expectations regarding the direct and indirect effects of negative sanctions in response to deviant behavior on later deviant behavior. In these models negative social sanctions in response to deviant behavior had a direct effect on loss of motivation to conform to and acquisition of motivation to deviate from conventional expectations (measured as disposition to deviance), and this construct had an indirect effect via association with deviant peers on later deviance. Negative social sanctions also had a direct effect on deviant peers, and this construct had a direct effect on later deviance. Finally, negative social sanctions had a direct effect on later deviance. This effect was interpreted as reflecting the process by which negative social sanctions led to the reevaluation of deviant identities, which in turn influenced later deviant behavior.

The reasoning that led to the prediction of the direct effects of negative social sanctions presumed the occurrence of a complex set of circumstances that were unmeasured in the estimated model. The present analysis tests an elaborated model in which one important intervening circumstance is specified. In particular the direct effects of negative social sanctions on (a) loss of motivation to conform to and acquisition of motivation to deviate from conventional expectations and (b) deviant behavior are decomposed in terms of the mediating influence of self-rejecting feelings associated with perceived experiences of rejection and failure in conventional groups.

THEORETICAL CONSIDERATIONS

The theoretically informed elaborated model to be estimated is presented in Figure 1. The model presents the same causal structure that was hypothesized in earlier analyses (Kaplan & Johnson, 1991; Kaplan et al., 1988), with two important exceptions. In the earlier analyses, negative social sanctions were modeled as having a direct path to disposition to deviance (i.e., loss of motivation to conform to and acquisition of motivation to deviate from conventional norms). Negative social sanctions were also modeled as having a direct effect on drug use (independent of the indirect paths via disposition to deviance and deviant peers).[1]

These two paths were hypothesized on the basis of considerations relating to intervening effects of negative social sanctions on negative self-feelings associated with experiences of rejection and failure in conventional membership groups. However, self-rejection was not modeled as an intervening construct in the earlier studies. The present model makes these considerations explicit by hypothesizing that self-rejection mediates and decomposes the paths from negative social sanctions to disposition to deviance and from negative social sanctions to drug use. That is, it is hypothesized that negative social sanctions will have a significant effect on self-rejection; self-rejection will have significant effects on disposition to deviance and drug use; and no significant direct effects of negative social sanctions on disposition to deviance and drug use will be observed net of the indirect effects of negative social sanctions via self-rejection on these variables.

The theoretical bases for postulating the mediating role of self-rejection are summarized for each of the two relationships.[2]

NEGATIVE SOCIAL SANCTIONS AND DISPOSITION TO DEVIANCE

Negative social sanctions in response to initial deviant responses increase the likelihood that the deviant actor will be publicly identified as a deviant. The public identification has adverse social consequences for the deviant actor, including exclusion from conventional groups. These consequences, secondary to the earlier punitive responses, also serve as negative social sanctions that

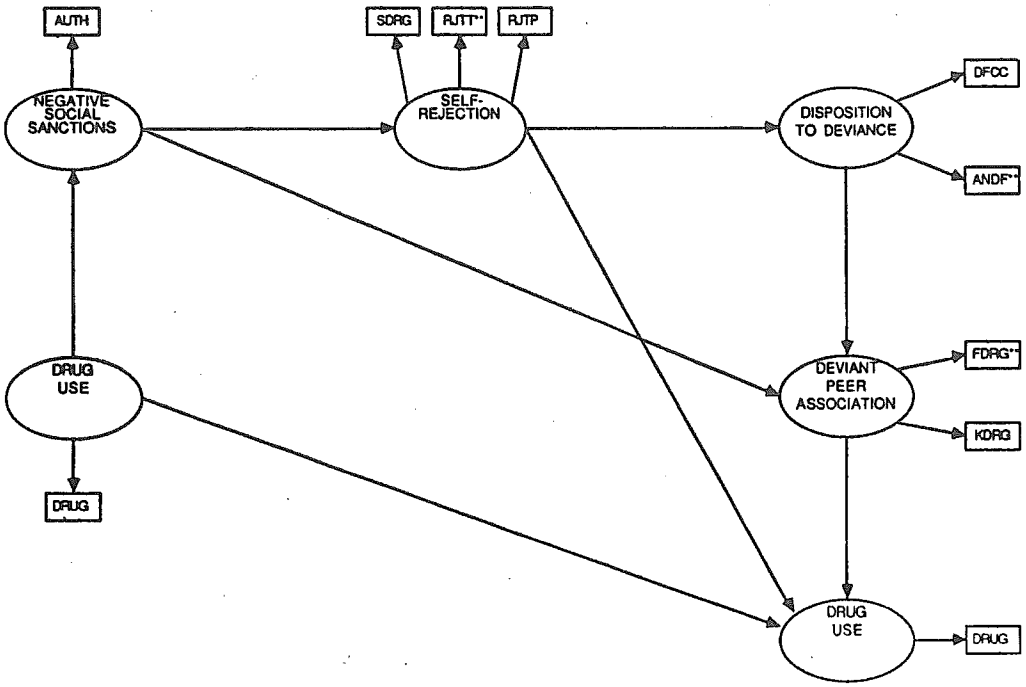

Figure 1: Theoretically Informed Model
NOTE: Double asterisks indicate the measurement variable used to set the metric for the latent construct.

signify and excite public identification of the person as deviant. Negative social sanctions and social ostracism, are intrinsically disvalued and reflect the deprivation of resources that are instrumental to the achievement of personal goals. Further, the associated deprivation of educational and employment opportunities and of social cooperation in general hinders the achievement of other social values.

The perception of being the object of negative sanctions by valued others (and the adverse concomitants of such sanctions) influences the evaluation of self as being less than worthy. The person's self-rejecting responses to negative social sanctions and their sequelae influence the person's affective investment in the conventional order. The individual *loses motivation to conform to conventional expectations*, because (a) the negative self-feelings, evoked by the self-devaluing experience of being publicly identified and punished as a deviant, come to be associated with the

conventional order and (b) the deviant actor anticipates that stigmatization as a deviant and concomitant exclusion from conventional society pose possibly insurmountable barriers to reentry into conventional society and access to needed resources (including social acceptance itself). The person also *acquires motivation to deviate from conventional norms*, because deviance represents repudiation of the evaluative standards that the deviant actor associates with being stigmatized and deprived of future rewards. Alienation itself becomes a self-protective response to negative self-feelings as well as a conditioned negative response to the conventional world that is associated with self-rejection. The self-protective response inheres in the rejection of the previously accepted validity of the conventional norms according to which the person was devalued by others for illicit substance use and excited self-devaluation and the associated negative self-feelings. To reject the validity of the conventional norms is to reject any basis for self-devaluation.

NEGATIVE SOCIAL SANCTIONS AND DRUG ABUSE

Independent of the effect of negative social sanctions on self-rejection and consequent alienation from the conventional world, self-rejection that is consequent to negative social sanctions has other effects that result in continuity or amplification of deviance. These effects are thought to relate to the reevaluation of deviant identities and behaviors. Negative social sanctions cause the deviant actor to value deviant behaviors and identities positively. The person becomes attracted to deviant behavior for reasons related to the reduction of self-rejecting feelings and the affirmation of self-worth. Deviant actors evaluate deviant behavior and identities positively to "regain their identity through redefining normality and realizing that it is acceptable to be who they are" (Coleman, 1986, p. 225).

Among the consequences of initial substance abuse (or of other modes of deviant response) are the negative sanctions applied by others to the person who engages in the behavior. The negative sanctions stimulate self-conceptions of having performed socially

disvalued acts and of being the object of punitive responses by others. Among the punitive responses that are perceived is the application of stigmatizing labels to the subject by others. Insofar as these self-conceptions are personally disvalued, the person experiences distressful, negative self-feelings. The negative self-feelings stimulate self-enhancing or self-protective responses that are (consciously or unconsciously) intended to reduce or forestall the further experience of negative self-feelings. The negative self-feelings that are the consequence of self-conceptions of being negatively labeled and the concomitant evaluation of oneself as unworthy are assuaged or forestalled by the identification with (i.e., the acceptance and positive evaluation of) the deviant label. The deviant identification becomes a basis for positive rather than negative self-evaluation and self-feelings. To the extent that they are excluded from opportunities to achieve according to conventional norms and, thereby, to evaluate themselves positively, individuals make the best of a bad situation and positively identify with the deviant status.

The deviant identity is now accepted as a basis for self-evaluation. To continue to perform the deviant behavior is to validate the now positively valued deviant identity. Once individuals come to value the identity, they are motivated to conform to the normative expectations that they see as defining that identity. Insofar as they successfully conform to those normative expectations and validate the identity, they are enabled to evaluate themselves positively. The need to validate the deviant identity through continued drug use that stems from negative social responses to earlier drug use is the basis for the hypothesized direct effect of negative social labels on later drug use (Kaplan, 1986).

Again, the earlier analyses were compatible with these theoretical premises. According to the reasoning specified above, self-rejection should be a consequence of negative social sanctions and precede both (a) the loss of motivation to conform to and acquisition of motivation to deviate from conventional expectations and (b) the need to identify with and positively reevaluate deviant identities and behaviors. However, the observation that self-derogation associated with self-perceptions of rejection and failure in conventional

membership groups decomposed relationships between negative sanctions, on one hand, and disposition to deviance and drug use, on the other hand, would lend greater credibility to the underlying theoretical premises.

METHOD

The model was tested using data from a three-wave panel study.

SAMPLE AND DATA COLLECTION

The target sample included all of the seventh-grade students in a randomly selected one half of the 36 junior high schools in the Houston Independent School District as of March 1971. The registered seventh-grade students in the selected schools composed 49.8% of the seventh-grade students in all 36 schools. The selected schools appeared to be representative of the 36 schools along a number of dimensions (Kaplan, 1980).

The seventh-grade students who were to take part in the study were convened at common locations in each school during the morning of a school day. At that time they responded to a 209-item, structured, self-administered questionnaire. The test was given three times at annual intervals; during March or April 1971 (Time 1), 1972 (Time 2), and 1973 (Time 3). The subjects were promised confidentiality but not anonymity. A face sheet requested identifying information.

Of the eligible seventh-grade students in the selected schools, 7,618 (81.6%) returned usable questionnaires at the time of the first administration. Of this group 41.3% (N = 3,148) were present for the second and third waves of data collection as well. Listwise deletion of missing values for the variables considered in this analysis reduced the sample size to 1,925. The subjects who were present for all three waves were compared with the subjects who were present at the first, but not the second or third, test administration and who provided Time 1 data for all of the variables of interest in this analysis, in order to evaluate the possible effects of sample attrition on the estimation of the models. The two sets of

subjects were compared with regard to the means and standard deviations of and the intercorrelations between Time 1 measures of the variables used in the analysis. These data are presented in the appendix.

In general, the subjects who were absent from the second or third test administration (absent) tended to have higher scores than those who were present for all three waves (present) on the Time 1 measure of the variables. However, differences in mean levels do not necessarily imply a different structure among the variables. A comparison of the intercorrelations among Time 1 measures of the variables for present and missing subjects revealed that the relationships between variables hypothesized to be causally related were quite similar for the two samples. In the instances where appreciable differences in magnitude of coefficients were observed, the larger coefficients tended to be observed for the missing subjects. This suggests that the hypothesized measurement models and structural relationships would have been stronger if the missing subjects had been included and that the use of the present sample provides a conservative test of the model. Nevertheless, because we cannot know if there would be differences in lagged relationships between the two samples, we must remain cautious with regard to generalizing the results of this analysis to the entire cohort.

ANALYSIS

The causal models were estimated using the covariance matrices of the measured variables as input to the EQS computer program (Bentler, 1989). This program provides maximum-likelihood estimates of all identified model parameters. The program also evaluates the degree to which an overidentified model reproduces the observed variance-covariance matrix in terms of a chi-square goodness-of-fit statistic. The correlation matrix of measurement variables is presented in Table 1.

In the causal analysis the measurement model and the structural model are estimated simultaneously. The measurement model describes the hypothesized relationship between a number of measurement variables and the latent or unobserved constructs that are

TABLE 1

Intercorrelations, Means, and Standard Deviations of the Observed Variables (N = 1,925)

Variables	*01*	*02*	*03*	*04*	*05*	*06*	*07*	*08*	*09*	*10*
01 Drug use (Time 1)	1.0000									
02 Negative sanctions (Time 1)	0.2873	1.0000								
03 Self-derogation (Time 2)	–0.0083	0.0719	1.0000							
04 Rejection by teachers (Time 2)	0.1199	0.1852	0.3606	1.0000						
05 Rejection by parents (Time 2)	0.0319	0.0950	0.3221	0.4120	1.0000					
06 Disaffect with convention (Time 3)	0.0767	0.1414	0.2673	0.3311	0.2738	1.0000				
07 Antisocial defenses (Time 3)	0.0228	0.1437	0.1598	0.2448	0.1383	0.3824	1.0000			
08 Friends use drugs (Time 3)	0.1725	0.2036	0.1371	0.2181	0.1521	0.3109	0.1678	1.0000		
09 School kids use drugs (Time 3)	0.0635	0.1074	0.1072	0.0951	0.0686	0.1482	0.0931	0.4227	1.0000	
10 Drug use (Time 3)	0.2279	0.2312	0.1240	0.2330	0.1652	0.2946	0.1220	0.5522	0.2400	1.0000
11 Mean	0.0748	0.3548	3.8600	0.5532	0.2706	1.0710	1.0730	0.6369	1.3330	0.4436
12 Standard deviation	0.3482	0.6594	2.8580	0.9752	0.6568	1.2810	1.2410	0.8595	0.8480	0.8522

presumed to underlie the indicators. The relationships between the measurement (observed) variables and the latent construct that is indicated by the measurement variables are expressed as factor loadings. The structural relations model expresses the hypothesized causal relationships among latent constructs as regression coefficients. The structural effects are determined under the assumption that all of the reliable variation between observed variables can be accounted for in terms of the theoretical variables. Any unique variation in any measurement variable is thus assumed to be uncorrelated, net of the sources of common variance, with any other measurement variable. This assumption is useful in sequential elaborations of theoretical models, because it allows the researcher to assess the impact of hypothesized causal structures with the introduction of new theoretical constructs. The elaboration strategy by which a new explanatory construct is added to a previously estimated model representing causal effects between variables drawn from three waves of a panel study is based on the postulate that the observed relationship between two variables or between two constructs (as indicated by several variables) is mediated by intervening processes, dependent on common antecedent processes, or related through their common effect on consequent processes. The only exception to this postulate occurs when the variables or constructs share both empirical and theoretical synchronicity. The strategy as it is here applied in a panel model in which variables are drawn from separate waves hypothesizes mediating effects of self-rejection.

LATENT CONSTRUCTS AND MEASUREMENT VARIABLES

The model specifies relationships among six latent constructs and 10 measurement variables. The latent constructs and the associated measurement variables are considered in turn.

Drug use at Time 1. The model is applied to drug use as one mode of deviant behavior. Drug use at Time 1 is measured by a single-indicator three-item measure of self-reports of using marijuana, using narcotics, and selling narcotic drugs during the month pre-

ceding the first test administration. Some indication of the validity of self-reports of drug use as an indicator of behavior (rather than, for example, as an indicator of willingness to report illicit behavior) is provided by observed relationships between self-reports and other reports (the reports of vice principals or school counselors) about the student's behavior. On the basis of the observed relationships, it was concluded that student self-reports generally could be used as a rough indicator of deviant behavior (Kaplan, 1976).

This measure (like the measure of negative social sanctions to be considered below) was used as a scale with fixed reliability rather than as a multiple indicator latent construct because the separate indicators were dichotomous variables reflecting the occurrence of rare events. The potential skew of these variables in a covariance matrix introduces special estimation problems (Kim & Rabjohn, 1980) that are avoided by this approach. Drug use at Time 1 is modeled as having a direct effect on negative social sanctions measured at Time 1 and on drug use at Time 3.

Negative social sanctions at Time 1. Negative social sanctions at Time 2 is measured by a four-item scale composed of self-reports of having been suspended or expelled from school; having had anything to do with police, sheriff, or juvenile authorities; having been sent to a psychiatrist, psychologist, or social worker; and having been taken to the office for punishment. On theoretical grounds, negative social sanctions at Time 1 is modeled as a consequence of contemporaneously measured drug use. That is, drug use evokes punitive responses from others. Negative social sanctions is modeled as having direct effects on self-rejection at Time 2 and on association with deviant peers at Time 3. Through these effects, negative social sanctions indirectly affects drug use at Time 3.

Self-rejection at Time 2. This construct is conceptualized as the person's subjective association of self-derogating attitudes with self-devaluing experiences in conventional membership groups. This construct is represented by three Time 1 measurement variables: (a) a 13-item measure reflecting global feelings of self-

derogation (e.g., "At times I think I am no good at all"; "All in all, I am inclined to feel that I am a failure"); (b) a 4-item measure of perceived rejection by teachers (e.g., "My teachers are not usually interested in what I say or do"; "By my teachers' standards I am a failure"); and (c) a 3-item measure of perceived rejection by parents (e.g., "As long as I can remember my parents have put me down"; "My parents do not like me very much").

Self-rejection at Time 2 is modeled as an outcome of negative social sanctions at Time 2 and as having direct effects on later disposition to deviance and drug use at Time 3. The decomposition of the direct effects of negative social sanctions on disposition to deviance and drug use observed in earlier studies in terms of the mediating role of self-rejection constitutes the theoretically informed elaboration of the earlier models in the model presently under consideration. In the case of the former relationship, self-rejection associated with adverse experiences in conventional groups consequent upon negative social sanctions leads to the loss of motivation to conform to and to the development of motivation to deviate from conventional expectations. In the latter relationship, the self-rejection consequent to experiencing negative social sanctions influences a positive reevaluation of deviant behaviors and roles.

Self-rejection is modeled as having only an indirect effect on association with deviant (i.e., drug-using) peers via disposition to deviance.

Disposition to deviance at Time 3. This construct is conceptualized in terms of attenuated motivation to conform to and the genesis of motivation to deviate from conventional group norms. This construct is reflected in two Time 2 scores: (a) a six-item measure reflecting the use of antisocial defenses and (b) a six-item measure reflecting disaffection with the conventional order. The first score expresses the readiness to respond to self-devaluing circumstances with the avoidance of attacks on or manipulation of others and to expect gratification from these responses (e.g., "If someone insulted me I would think about ways to get even"; "If you want people to like you, you have to tell them what they want to hear

even if it isn't the truth"). The disposition to deviance is expressed in the second instance in terms of the readiness to avoid or blame conventional institutional structures (family, school, the law) that are associated with self-derogating attitudes (e.g., "I would like to quit school"; "I have a better chance of doing well if I cut corners than if I play it straight").

Disposition to deviance at Time 3 is modeled as an outcome of self-rejection at an earlier point in time and, in turn, as influencing association with deviant peers. That is, disposition to deviance mediates the effect of self-rejection on association with deviant peers. The temporal relationship between disposition to deviance and association with deviant peers has been established in earlier analyses (Kaplan, Johnson, & Bailey, 1987). The relationship is specified using simultaneous measures in the present analyses in order to permit unequivocal temporal ordering between Time 1 negative social sanctions, Time 2 self-rejection, and Time 3 disposition to deviance and drug use.

Association with deviant peers at Time 3. This construct connotes knowledge of the behavior of, as well as affiliation with, drug-using peers. The involvement of a person with drug-using peers is reflected in two measurement variables indicating drug use by friends and by peers at school. Drug use by friends consists of two items ("My friends use drugs"; "My friends use marijuana") that reflect a peer reference and membership group. These peers provide the support mechanisms that enable engagement in drug use and are the source of approval for doing so. Awareness of drug use among peers at school consists of two items ("Many of the kids at school use marijuana"; "Many of the kids at school use drugs"). These items reflect the awareness of opportunities for drug use and occasions to learn and enact drug-using behavior. The two indicators of deviant peer association imply both recognition of drug use by people in one's more or less intimate peer network and relatively sustained interaction (particularly in the case of friends) with those peers who are recognized as drug users. This construct, then, encompasses variables such as peer definitions of deviance, peer imitation, and differential association with deviant peers.

Association with deviant (drug-using) peers is modeled as the outcome of disposition to deviance (which mediates the effect of self-rejection on association with deviant peers) and negative social sanctions. Disposition to deviance (the loss of motivation to conform to conventional norms and the acquisition of motivation to deviate from them) is expected to increase the individual's association with drug-using peers, because these peers (a) represent the repudiation of the conventional norms that were the source of self-perceived rejection and failure or (b) provide the opportunities to achieve gratifications (e.g., social acceptance) that the individual felt deprived of in conventional groups. Negative social sanctions are expected to increase association with deviant peers for several reasons. First, the stigma that is secondary to negative social sanctions limits the opportunities for the deviant actor to interact with conventional others in conventional contexts. The self-labeling as the object of formal and informal sanctions concurrently influences the deviant actor to recognize the difficulty of reentry into conventional society. As a result, the deviant actor decreases interaction in conventional spheres and, thus, increases interaction in deviant peer associations. Second, certain social sanctions impose structural imperatives that require association with deviant peers. Most apparent are incarceration and expulsion or suspension from school, which constrains interaction with others to those who are the similarly sanctioned. Third, the publicly identified deviant actor is attractive to deviant peers, who attempt to recruit him or her as part of their network (Kaplan et al., 1988).

Association with deviant peers, in turn, is modeled as having a direct effect on drug use at Time 3. Although the two constructs are measured contemporaneously (again, in order to establish the temporally unequivocal mediating role of self-rejection) in this analysis, the lagged relationship between the two variables has been established in earlier analyses (Kaplan et al., 1987). This direct effect is predicted on the grounds that association with drug-using peers facilitates the use of drugs, offers gratifications for drug use, and limits effectiveness of personal and social controls in forestalling drug use.

Drug use at Time 3. Drug use at Time 3 is measured by a single-indicator three-item measure of self-reports of using marijuana, using narcotics, and selling narcotic drugs during the year preceding the third test administration.[3] Drug use at Time 3 is modeled as is the outcome of association with deviant peers and earlier drug use as in earlier analyses (Kaplan et al., 1988). Unlike the earlier analyses, however, drug use at Time 3 is also modeled as the outcome of self-rejection, which mediates and decomposes the previously observed direct effect of negative social sanctions on later drug use. This effect presumably reflects the need (stimulated by self-rejection) to identify with and positively reevaluate deviant roles and behaviors.

RESULTS

The standardized factor loadings of the measurement variables on each latent construct, the standardized structural coefficient, and the R^2 for each endogenous and the dependent variable in the estimated theoretically informed model are presented in Figure 2. All of the coefficients are statistically significant and appreciable.

Three of the constructs (drug use at Time 1, drug use at Time 3, negative social sanctions at Time 1) were measured as single-indicator latent constructs. In each case, the residual (error) variance of the measured variable is fixed to a nonzero value. This value was assumed to be nonzero, because like the other measurement variables, we did not expect it to be a perfect indicator of the theoretical construct (although in most cases single measurement variables are usually assumed to be perfect indicators). Because we have three repeated measures of each variable, we were able to make an estimate of how reliably it is measured if we assumed that each time it was measured, the proportion of "true score" variation (the variation we will later attribute to the latent construct) and the proportion of measurement error both remained constant. The error variance was fixed according to the equation

$$e^2 = s^2 - r^2 s^2,$$

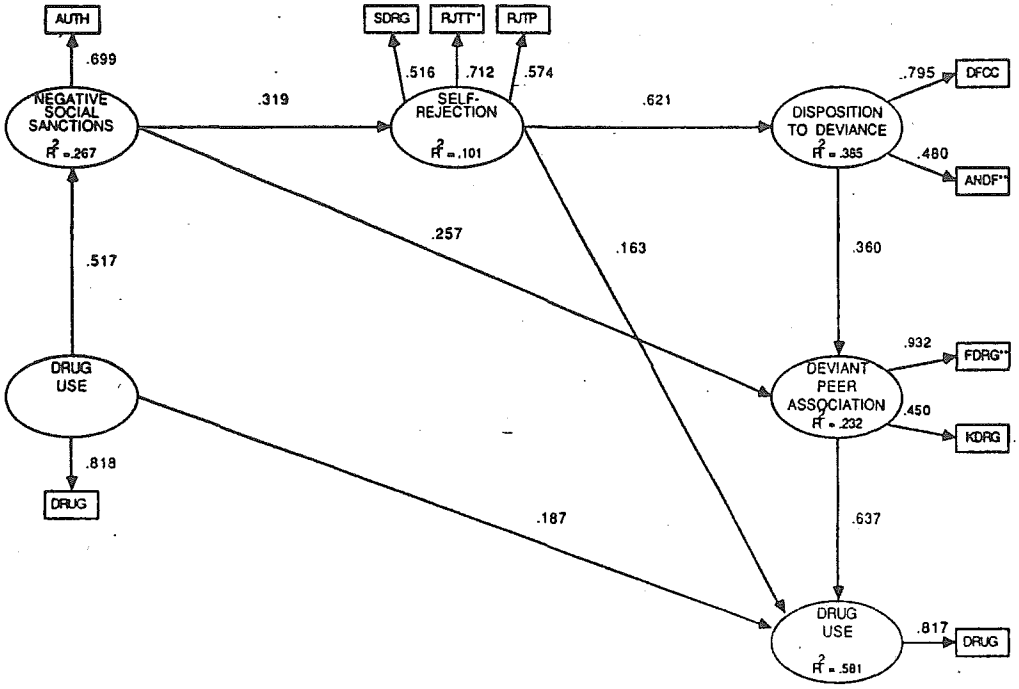

Figure 2: Estimates of the Theoretically Informed Model
NOTE: Double asterisks indicate the measurement variable used to set the metric for the latent construct. The measures of goodness of fit for the model are chi-square with 30 degrees of freedom = 96.17; the normed fit index = .970; the nonnormed fit index = 968; the comparative fit index = .979; N = 1925.

in which e^2 is the error variance, r is the standardized reliability coefficient, and s^2 is the total observed variance in the variable (Kessler & Greenberg, 1981). The fixed reliability estimate for drug use across the three panel waves is r = .82, and for negative social sanctions it is r = .70.

The other three constructs were measured as multiple indicator latent constructs. The factor loadings for each of the constructs were statistically significant and appreciable. Which of the measurement variables for each latent construct was specified as a fixed parameter is indicated in Figure 2.

The structural effects were as hypothesized. As expected from earlier theoretically informed analyses, drug use had only a modest effect on later drug use, most of the stability effect having been accounted for by the mediating effect of negative social sanctions.

Negative social sanctions, as in earlier analyses, had a direct effect on deviant peers, and disposition to deviance had a direct effect on deviant peers that, in turn, had a direct effect on drug use.

In earlier analyses, however, negative social sanctions were hypothesized and observed to have direct effects on disposition to deviance and later drug use. These effects were hypothesized on theoretical premises relating to the effects of negative social sanctions on self-rejection and the effects of self-rejection on disposition to deviance and drug use, respectively. However, the mediating effect of self-rejection was not tested. The present elaboration of the earlier model specified these intervening effects and observed them. It was hypothesized and observed that self-rejection would mediate and decompose the effects of negative social sanctions on disposition to deviance and drug use. These expectations were rewarded. Negative social sanctions had a significant and appreciable effect on self-rejection, and self-rejection had a strong effect on disposition to deviance and a modest (but statistically significant) effect on drug use.

The overall fit of the model was acceptable. Relevant statistics are provided in Figure 2. Particularly relevant for the theoretically informed elaboration under consideration is the observation of the hypothesized mediating effects of self-rejection.

DISCUSSION

The results lend greater credibility than earlier analyses to the theoretical premises that underlie the hypothesized association between negative social sanctions evoked by earlier deviance and later deviance. These premises, derived in large measure from the labeling perspective, as they are integrated into the general theory of deviant behavior that informs these analyses (Kaplan, 1980, 1984), specify that self-rejection as the outcome of negative social sanctions influences changes in the actor's attitudes toward the system of conventional expectations and toward deviant identities and roles. The changes in the former attitudes are reflected in the strong effect of negative social sanctions on loss of motivation to conform to and genesis of motivation to deviate from normative

expectations (i.e., disposition to deviance). The changes in the latter attitudes (i.e., positive reevaluation of deviant behaviors and identities) are thought to be reflected in the independent (weaker) effect of self-rejection on drug abuse. Presumably, the experience of self-rejection in response to earlier deviance stimulates the need to think well of himself or herself, which leads to the positive reevaluation of the deviant behavior and roles and the expression of this reevaluation in deviant behavior (here, drug abuse).

It should be emphasized that the reevaluation of deviant behavior and identities is not measured here. The fact that the effect of self-rejection on drug use is independent of the effect of self-rejection on disposition to deviance, however, is consistent with the interpretation that the former effect reflects motivation to reevaluate the deviant behavior and associated deviant identities positively. Nevertheless, future elaborations of the model should specify this hypothetical intervening variable (as they should specify other mediating variables, such as those that hypothetically mediate the effect of negative social sanctions on association with deviant peers).

In some ways the present analysis represents a more stringent test of the effects of negative social sanctions on later deviant behavior than did the earlier analyses. In the earlier analyses, negative social sanctions were measured at the same point in time as disposition to deviance and drug use among peers, and 1 year before later drug use. In the present analysis negative social sanctions were measured 2 years before all three of these variables. The relationships therefore appear to be robust because they might have been expected to be greatly attenuated when measured over longer periods of time. The measurement of the effects of negative social sanctions on disposition to deviance, association with deviant (drug-using) peers, and drug use over a 2-year period, in addition to allowing examination of the robustness of the relationships, permitted unequivocal temporal ordering of negative social sanctions, self-rejection as a hypothetical mediating variable (measured 1 year following the measurement of negative social sanctions), and disposition to deviance and drug use (measured 1 year following the measurement of self-rejection).

The generalizability of the results to the cohort remains problematic. The association between Time 1 variables that were hypothesized to be indicators of common latent constructs or that were hypothesized to be causally related were similar for subjects who were present for all three test administrations and for subjects who were destined to drop out of the study for one or the other of the test administrations following the Time 1 testing. Further, when differences were appreciable, the magnitude of the relationships were such that they favored observation of the theoretically informed model among the subjects who were destined to drop out of the study. That is, the test of the model on subjects who remained in the study was a conservative one. Nevertheless, the lagged correlations might have been quite different for the two groupings of subjects. Thus the most cautious position might be to generalize the findings only to those kinds of subjects who remained in the study. This position challenges the researcher to define the variables that (a) differentiate these subjects from those who did not stay in the study and (b) might be expected to moderate the hypothesized measurement models and structural effects in future analyses.

Nevertheless, at least for this large study group, the results are compatible with the theoretical premises underlying the predicted association between negative social sanctions and deviant behavior and define a research agenda for further elaboration of the model.

APPENDIX

Comparisons of Intercorrelations, Means, and Standard Deviations For Respondents Present in All Three Waves[a] and Respondents Not Present in All Three Waves[b]

Variables (Time 1)	*01*	*02*	*03*	*04*	*05*	*06*	*07*	*08*	*09*	*Mean*	SD
01 Drug use		.3569	.0985	.2256	.1731	.2971	.0985	.4686	.2428	0.1629	0.5252
02 Negative sanctions	.3022		.1851	.3485	.2098	.3302	.2051	.3064	.1607	0.6787	0.9028
03 Self-derogation	.0533	.1809		.3870	.3361	.3040	.2778	.2075	.1185	4.9687	2.4254
04 Rejection by teachers	.2210	.2981	.3476		.3757	.4021	.2958	.2843	.1701	0.9782	1.2508
05 Rejection by parents	.1613	.1812	.2855	.3414		.4033	.2519	.1963	.1003	0.3550	0.7379
06 Disaffect with convention	.2329	.2406	.3178	.3882	.3753		.3751	.3149	.1408	1.4127	1.4436
07 Antisocial defenses	.0993	.2030	.3197	.3398	.2556	.4098		.1242	.0811	1.4856	1.3898
08 Friends use drugs	.4033	.2357	.1308	.2284	.1315	.2621	.1551		.4423	0.3839	0.7184
09 School kids use drugs	.1637	.1224	.1428	.1876	.0847	.1571	.1191	.3854		0.9177	0.8948
10 Mean	0.0695	0.3676	4.6623	0.6375	0.2269	1.0316	1.2759	0.2068	0.7791		
11 Standard deviation	0.3454	0.6747	2.2973	1.0401	0.5669	1.2296	1.2933	0.5491	0.8752		

a. Below the diagonal; $N = 2,345$.

b. Above the diagonal; $N = 2,842$.

NOTES

1. In one of the earlier analyses deviance was measured as a general construct (Kaplan & Johnson, 1991). In the other analyses deviance was measured in particular as drug use (Kaplan et al., 1988). It is the latter study that is used as the basis for comparison with the present analysis.

2. More detailed theoretical specifications may be found in Kaplan and Johnson (1991). The theoretical justification for the other paths may be found in Kaplan and Johnson (1991), Kaplan, Johnson, and Bailey (1986, 1987, 1988), and Kaplan, Martin, and Johnson (1986).

3. The briefer time frame of one month used in the Time 1 measure of drug use was employed in order to increase the likelihood that Time 1 users were other than experimental users (see Kaplan, 1976).

REFERENCES

Bentler, P. M. (1989). *EQS: Structural equations program manual.* Los Angeles: BMDP Statistical Software.

Coleman, L. M. (1986). Stigma: An enigma demystified. In S. C. Ainlay, G. Becker, & L. M. Coleman (Eds.), *The dilemma of difference: A multidisciplinary view of stigma* (pp. 211-232). New York: Plenum.

Farrell, R. A. (1989). Cognitive consistency in deviance causation: A psychological elaboration of an integrated systems model. In S. F. Messner, M. D. Krohn, & A. E. Liska (Eds.), *Theoretical integration in the study of deviance and crime 1: Problems and prospects* (pp. 77-92). New York: State University of New York Press.

Farrington, D. P. (1977). The effects of public labeling. *British Journal of Criminology, 17,* 112-125.

Gold, M. (1970). *Delinquent behavior in an American city.* Belmont, CA: Brooks/Cole.

Gold, M., & Williams, J. R. (1969). The effect of "getting caught": Apprehension of the juvenile offender as a cause of subsequent delinquencies. *Prospectus, 3,* 1-12.

Gove, W. R. (1975). *The labeling of deviance: Evaluating a perspective* (1st ed.). New York: Halstead Press.

Hawkins, G. (1976). *The prison: Policy and practice.* Chicago: University of Chicago Press.

Hepburn, J. R. (1977). The impact of police intervention upon juvenile delinquents. *Criminology, 15,* 235-262.

Howard, J. A., & Levinson, R. (1985). The overdue courtship of attribution and labeling. *Social Psychology Quarterly, 48,* 191-202.

Kaplan, H. B. (1976). Self-attitudes and deviant response. *Social Forces, 54,* 788-801.

Kaplan, H. B. (1980). *Deviant behavior in defense of self.* New York: Academic Press.

Kaplan, H. B. (1984). *Patterns of juvenile delinquency.* Beverly Hills, CA: Sage.

Kaplan, H. B. (1986). *Social psychology of self-referent behavior.* New York: Plenum.

Kaplan, H. B., & Johnson, R. J. (1991). Negative social sanctions and juvenile delinquency: Effects of labeling in a model of deviant behavior. *Social Science Quarterly.*

Kaplan, H. B., Johnson, R. J., & Bailey, C. A. (1986). Self-rejection and deviance: Refinement and elaboration of a latent structure. *Social Psychology Quarterly, 49,* 110-128.

Kaplan, H. B., Johnson, R. J., & Bailey, C. A. (1987). Deviant peers and deviant behavior: Further elaboration of a model. *Social Psychology Quarterly, 50,* 277-284.

Kaplan, H. B., Johnson, R. J., & Bailey, C. A. (1988). Explaining adolescent drug use: An elaboration strategy for structural equations modeling. *Psychiatry, 51,* 142-163.

Kaplan, H. B., Martin, S. S., & Johnson, R. J. (1986). Self-rejection and the explanation of deviance: Specification of the structure among latent constructs. *American Journal of Sociology, 92,* 384-411.

Kessler, R. C., & Greenberg, D. F. (1981). *Linear panel analysis: Models of quantitative change.* New York: Academic Press.

Kim, J., & Rabjohn, J. (1980). Binary variables and index construction. In K. F. Schuessler (Ed.), *Sociological methodology* (pp. 120-159). San Francisco: Jossey-Bass.

Klein, M. W. (1974). Labeling, deterrence, and recidivism: A study of police dispositions of juvenile offenders. *Social Problems, 22,* 292-303.

Klemke, L. W. (1978). Does apprehension for shoplifting amplify or terminate shoplifting activity? *Law and Society Review, 12,* 391-403.

Lemert, E. M. (1967). *Human deviance, social problems, and social control.* Englewood Cliffs, NJ: Prentice-Hall.

O'Connor, G. G. (1970). The impact of initial detention upon male delinquents. *Social Problems, 18,* 194-199.

Palamara, F., Cullen, F. T., & Gersten, J. C. (1986). The effect of police and mental health intervention on juvenile deviance: Specifying contingencies in the impact of formal reaction. *Journal of Health and Social Behavior, 27,* 90-105.

Sherman, L. W., & Berk, R. A. (1984). The specific deterrent effects of arrest for domestic assault. *American Sociological Review, 49,* 261-272.

Wellford, C. (1975). Labeling theory and criminology: An assessment. *Social Problems, 22,* 332-345.

Wells, L. E. (1978). Theories of deviance and the self-concept. *Social Psychology, 41,* 189-204.

Wheeler, G. R. (1978). *Counter-deterrence: A report on juvenile sentencing and effects of prisonization.* Chicago: Nelson-Hall.

Howard B. Kaplan is a professor of sociology and Mary Thomas Marshall Professor of Liberal Arts at Texas A&M University. He is principal investigator of longitudinal studies of deviant adaptations to stress and psychosocial correlates of aspects of the AIDS process. His current analyses test theoretical models, the basis of which appears in certain of his books, including Social Psychology of Self-Referent Behavior *(Plenum),* Patterns of Juvenile Delinquency *(Sage),* Psychosocial Stress *(Academic Press), and* Deviant Behavior in Defense of Self *(Academic Press). His recent articles include "Negative Social Sanctions and Juvenile Delinquency: Effects of Labeling in a Model of Deviant Behavior," "Relationships Between Circumstances Surrounding Initial Drug Use and Escalation of Drug Use: Moderating Effects of Gender and Early Adolescent Experiences," "Developmental Processes Leading to Marijuana Use: Comparing Civilians and the Military" (all with Robert Johnson), "Social Psychology," and "Acorns and Oaks, Sowing and Reaping, . . . and Cabbages and Kings."*

Hiroshi Fukurai is an assistant professor in the Board of Studies in Sociology at the University of California, Santa Cruz. His research interests include advanced quantitative statistics, sociology of law, and the U.S.-Japanese relationship. His current publications include A Common Destiny: Japan and the U.S. in the Global Age *(MacFarland, 1990),* Race and the Jury *(Plenum, 1991),* The McMartin Trial: The Anatomy of a Jury *(Rutgers University Press, 1991), "A Cross Sectional Jury Representation or Systematic Representation?" in* Journal of Criminal Justice *(1991), and "Japanese Migration in Contemporary Japan," in* Social Biology *(1991).*