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Author(s): James L. Gibson

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# Judges' Role Orientations, Attitudes, and Decisions: An Interactive Model\*

JAMES L. GIBSON  
*University of Wisconsin, Milwaukee*

*Despite almost two decades of behavioral research, our models relating the key variables in judicial decision making are incomplete and inadequate. In particular, the impact of two widely used variables, judges' attitudes and role orientations, is poorly understood. While there appears to be a consensus that attitudes and role orientations are important predictors of behavior, no research has been successful in developing a comprehensive model capable of predicting judges' behaviors. This article's objective is the development of a single model incorporating attitudes, role orientations, and decision-making behavior. While attitudes and role orientations taken singly explain insignificant amounts of the variation in behavior, an interactive model of attitudes and role orientations is shown to be extremely useful for understanding behavior. Although this research focuses on the sentencing decisions of Iowa trial court judges, the proposed model is potentially applicable to all instances of decision making.*

Despite almost two decades of behavioral research on judicial decision making, our models relating the key variables in the process are incomplete and inadequate. In particular, the impact of two widely studied concepts, judges' attitudes and role orientations, is poorly understood. While there appears to be a consensus that attitudes and role orientations are important predictors of behavior, no research has been successful in developing a comprehensive model of the interrelationship which is capable of predicting judges' behavior.

Part of the inability to explain decisions may be related to the highly simplified models of decision making which have been employed. The models are simple and incomplete in two respects. First, they posit direct and unconditional linkages among the variables; that is, they fail to consider the interaction of different variables and the complex way in which they may relate to decisions. The second deficiency is that they are statistically unsophisticated. Much judicial literature is based on relatively unenlightening statistical techniques. Differences of means tests, for instance, indicate very little about the degree to which one variable is dependent upon another.<sup>1</sup> Guttman

scaling, the grandfather of judicial statistics, is a relatively unpowerful mode of analysis which can produce questionable results.<sup>2</sup> These problems are especially severe in multivariate analysis. Finally, most statistical analysis has been limited to bivariate relationships, with little emphasis on multivariate modeling.

Thus there is a pressing need to develop a more complete understanding of this complex process. One approach with great potential for providing a fuller understanding is to examine the decision process from a multivariate perspective and to examine the interaction among important independent variables. This strategy may result in an improved ability to predict, or explain, decisions. The research discussed in this article, rather than limiting itself to a single independent variable, focuses on two concepts, attitudes and role orientations, in an effort to explain the sentencing policies of trial court judges in Iowa. Rather than merely reporting bivariate and multivariate results, I have placed particular emphasis on developing a theory of the interaction of role orientations and attitudes, and testing the theory against the data. The utility of the proposed model is strongly supported by the unusually high proportion of variance in the decision-making process which is explained.

\*The author wishes to acknowledge the extremely helpful comments on earlier versions of this article by Professors Beverly B. Cook, David Gow, Justin Green, and Thomas G. Walker.

<sup>1</sup>For a good example of this point see Bowen's (1965) reanalysis of Nagel's (1961) work on social backgrounds. Similarly, Hagen (1974) has challenged the conventional wisdom on the effect of the race of defendants in criminal cases on their sentences.

<sup>2</sup>"Like the blood test for paternity, cumulative scaling can eliminate erroneous hypotheses, but it cannot by itself demonstrate the existence of true ones" (Tanenhaus, 1966, p. 1589). See especially pp. 1590-94 for a further critique of Guttman scaling.

### Attitudes as Determinants of Judicial Behavior

There is little question that the predominant paradigm of judicial decision making places judges' attitudes in the center of the process. Indeed, it is not an overstatement to assert that attitudinal approaches have become the traditional nontraditional mode of judicial analysis. The basic theoretical framework for the analysis of attitudes and behavior adopted by this research asserts that an attitude represents a residue of previous experience which exercises a patterned tendency to respond to stimuli in a certain way (Campbell, 1963). Attitudes can be thought of as biasing behavior from a straight stimulus-response model. The notion that behavior can be predicted solely from knowledge of external stimuli is explicitly rejected. Attitudes represent generalizations about phenomena based upon extrapolations from previous experience and usually take the form of cognitive generalizations.

External stimuli have vastly different effects depending upon this residue of experience. The stimuli of cases do not impinge upon a tabula rasa. Thus, attitude theory points to the experience of the decision maker as a key variable in the decision equation. What evidence exists to support the theory?

Principal support for the attitude model is provided by studies of decision making in the U.S. Supreme Court.<sup>3</sup> These studies all rely on the judge's votes as the single bit of datum and scaling is the predominant method of quantitative analysis. To the extent that the votes demonstrate consistency, attitudes are postulated as the organizing element. The attitude is never measured—its existence is inferred from consistency in voting behavior. There is no empirical test of the relationship between attitudes and behavior beyond the test of consistency, and the substance of the attitude must be inferred from the substance of the cases. Further, this type of analysis makes it impossible to examine the relationship among attitudes, or any interaction effect of attitudes on behavior (and indeed, any complex model of the relationship). It is impossible to eliminate, on empirical grounds, rival hypotheses (such as hypotheses of small group, or game, influence<sup>4</sup>) which may account for the consistency. Due in

part to data limitations, research of this type is limited to a simplistic and incomplete model of attitudes and behavior. The "success" of attitude variables in predicting behavior is apparent only in a somewhat limited sense.

The only way to construct a more comprehensive model of decision behavior is through independent empirical measures of all variables in the model. Some attitude studies have proceeded in this way (Nagel, 1963; Hogarth, 1971). Other research uses disparities in sentencing behavior to infer the existence of an attitudinal influence (Atkinson and Neuman, 1970; Green, 1961).<sup>5</sup> Several other studies have focused on a particular attitude, role orientation, and will be discussed below. Thus, while behavior can be explained by attitudes, at least in part, the degree of influence and the process of influence are as yet unspecified.

### Data and Research Setting

This research investigates the decision-making process in the Iowa district court system. The district courts are the state trial courts of general and original jurisdiction, and are typical of many state trial courts. All criminal charges are either felonies or indictable misdemeanors. In noncriminal matters, the district courts try most major civil actions. The system is organized into 99 county courts. There are 8 judicial districts in Iowa, with each district composed of a number of counties. This research focuses upon the 3 southeastern districts of the system. Although the districts were selected primarily on ease of access criteria, they are representative, at least on several aggregate indicators, of the state trial court system. Twenty-five of the 99 counties and 24 of the 83 judges are included in these 3 districts.

The universe of criminal cases analyzed includes all cases initiated during 1972 and 1973 and concluded by the end of 1974. The data were collected from criminal case files stored at each of the county courthouses. In 22 of the counties no sampling was necessary, so the universe of cases was selected. In the remaining 3, the most populous counties in the districts, I used random sampling, selecting 5,350 cases. In 2,715 cases, 50.7 percent of the total, convictions resulted. Since the focus of this study is on sentencing, I excluded dismissals from the analysis.

These case data provide the basic dependent variable: sentencing outcomes. The inde-

<sup>3</sup>Virtually all behavioral studies of the U.S. Supreme Court can be placed in this category. See, for examples, the works of Pritchett (1941); Spaeth (1963); Schubert (1975); and Ulmer (1960).

<sup>4</sup>On small group influences see Walker (1973). For an application of game theory see Rohde (1972).

<sup>5</sup>Most studies of racial discrimination in sentencing could also be placed in this category.

pendent variables are derived from personal interviews, held in early 1975, with the judges who sentenced the defendants in these cases. A total of 27 judges was responsible for the sentences in the criminal cases. Twenty-six of these judges were interviewed (the remaining judge no longer resides in Iowa). The interviews lasted an average of one hour. From these interviews I derived several basic attitudinal measures, as well as several measures of the role orientations of the judges.

The dependent variable of concern to this study is the severity of criminal sentences. On its face, sentence severity would seem easy to measure quantitatively. In reality, the difficulties of such measurement are considerable. There are three characteristics which are highly desirable in any measure of sentence severity: (1) severity should be measured at least at the ordinal level; (2) it should be a single scale which makes use of all the different penalties in sentences; and (3) it should be a single scale equally applicable to sentences for crimes of widely varying seriousness. With one exception, a scale for measuring sentence severity first proposed by the Administrative Office of the U.S. Courts and later applied by Beverly Cook and others to sentences in federal criminal cases satisfies these criteria (Cook, 1973; Tiffany, Avichai, and Peters, 1975). The scale is based on (1) the length of probation, (2) the length of incarceration, (3) the amount of fine, and (4) whether the sentence was suspended or whether a deferred sentence was imposed.

While this research is mainly concerned with the impact of attitudes on sentencing behavior, many other factors may have an impact on sentences. If these influences are not controlled for, any observed relationship between attitudes and behavior might be spurious. This problem, one not faced by research on collegial courts, stems from the fact that the judges are deciding different cases and the cases (and defendants) may have different characteristics.

If case characteristics are related to sentence severity, then differences in sentencing among judges may not be due to attitudes or role orientations but may instead be due to the fact that they hear different kinds of cases. Consequently, it is prudent to examine the impact of several of these characteristics on sentence severity.

Nine characteristics of the cases and defendants have been identified as potential influences on sentencing decisions. These are: (1) the seriousness of the charge (based on the legislatively defined maximum sentence), (2) whether the defendant was released on bail, (3) the plea of the defendant, (4) whether the defendant's counsel was privately retained, (5) the defendant's sex, (6) whether there were multiple cases against the defendant, (7) the number of previous misdemeanor convictions, (8) the number of previous felony convictions, and (9) the age of the defendant.<sup>6</sup> The Pearson correlations between each of these variables and the Administrative Office severity scale are shown in Table 1. Only two of the variables, charge seriousness and whether the defendant was released on bail, are even moderately related to sentence severity. The type of counsel retained by the defendant and the defendant's plea are weakly related to sentence severity. However, the seriousness of the charge is the only variable which has a significant *independent* impact on sentence severity, as suggested by the insignificant partial correlation coefficients which result when the impact of seriousness is controlled. This of course suggests that the seriousness of a charge determines *both* sentence severity and, for instance, whether the

<sup>6</sup>The race of the defendant was also considered but since the number of black or Indian defendants is quite small the variable was omitted due to lack of variance. Social class was not measured but it can be assumed that there is little variance in this variable.

Table 1. Case Characteristics and Sentence Severity

Case Characteristics	Bivariate Pearson Correlation	N	Partial Correlation Controlling for Charge Seriousness
Charge Seriousness	-.58	2570	-
Pretrial Release on Bail	-.41	1815	-.23
Defendant's Plea	.24	2706	.21
Type of Counsel	.22	2730	.04
Defendant's Sex	-.05	2516	-.06
Number of Cases Against Defendant	.12	2730	.05
Previous Misdemeanor Convictions	.15	564	.07
Previous Felony Convictions	.12	629	.08
Defendant's Age	.13	1347	-.01

defendant is released on bail prior to trial. Charge seriousness is therefore the only variable for which it is necessary to control.<sup>7</sup>

<sup>7</sup>Under some circumstances it might be desirable to remove directly the impact of all of these nine variables on sentence severity. Beyond the question of linearity (which is considered next), this might be accomplished by regressing these sentence severity scores on the nine variables and then computing residuals. There are two reasons why that approach was not selected. First, a substantial quantity of data is missing for some of the variables (see the Ns reported in Table 1), requiring that the regression be performed on a matrix of correlations based on significantly different subsets of the total cases (for a discussion of the problems inherent in pairwise missing data deletion see Cohen and Cohen, 1975, Ch. 7). Even more important is the problem of how missing data are handled in the computation of the residuals which would be used to create the dependent variable for the remainder of this analysis (i.e., the method of computing  $\hat{y}$ ). While a number of alternatives exist (such as computing  $\hat{y}$  by scoring missing values as the mean of the variable) there is little statistical justification (beyond expediency) for their use, especially under circumstances such as these.

The second justification for controlling only for the seriousness of the charge concerns the minor independent contributions of the other eight variables. As Table 1 demonstrates, the impact of the eight variables is negligible once the effect of charge seriousness is partialled out. The defendant's age, sex, and prior record, as well as the number of charges filed against the defendant, are virtually independent of sentence severity (they explain less than 3 percent of the variance in severity), so even without partialing it is unnecessary to control for them. Type of counsel is weakly related to sentence severity but type of counsel is related to charge seriousness ( $r = -.32$ ) and it is this relationship which accounts for its impact on sentence severity (as reflected by the partial correlation of .04). Defendants with appointed counsel receive more severe sentences than defendants with private counsel, but that is only because defendants who cannot afford private attorneys tend to be prosecuted for more serious crimes (possibly because middle-class, or white-collar, crimes are rarely prosecuted). However, the impact of the defendant's plea on sentence severity is not affected by the control for charge seriousness but plea is only very weakly related to sentence severity (explaining less than 6 percent of the variance) and only 4 percent of the cases were not decided by guilty pleas. Finally, defendants incarcerated prior to trial receive more severe sentences ( $r = -.41$ ) but that is largely because those incarcerated prior to trial are charged with more serious crimes ( $r = .41$ ).

Thus, if it can be assumed that charge seriousness is logically antecedent to bail and to the type of counsel (and it is at least temporally antecedent), then the impact of the other variables is so slight that there is little need to control for them. This suggests that even if the missing data problem were solved the results of

The (linear) relationship between sentence severity and charge seriousness is fairly strong: a third of the variance in sentence severity can be explained by charge seriousness. However, the total impact of charge seriousness on severity is not linear. Eta<sup>2</sup> is .71, indicating that an additional one-third of the variance in sentence severity can be accounted for through a nonlinear relationship. Indeed, the null hypothesis that the variables are linearly related can be rejected at the .001 level. This suggests that the judges do not react to various crimes in the same way as legislators. More importantly for this analysis, the effect of this variable must be controlled both linearly and nonlinearly. Converting the sentence severity scores to "Z" scores *within each category of charge seriousness* is one way to remove the impact of charge seriousness on sentence severity. Using this procedure, the severity of each sentence is measured only in relationship to crimes of equal seriousness. By placing all of the sentences on a common metric (Z scores) the sentences become comparable. To compute severity scores for judges it is now necessary only to compute the mean standardized severity score for the cases each judge decided. These means are the dependent variables for the attitudinal portion of the analysis.

### Findings: Attitudes and Behavior

The first step in this analysis is to determine the strength of the influence of judges' attitudes on their behavior. Since independent measures of both attitudes and behavior are available, we need not limit the research to inferences about consistency in behavior, but rather can directly examine the relationship.

While judges have attitudes on an enormous spectrum of subjects, only a few of these attitudes are potentially relevant to the judicial decision-making process. Previous research has focused upon the concept "political liberalism." "Liberalism" has been defined as "the viewpoint associated with the interests of the lower or less privileged economic or social groups in one's society and (to a lesser extent) with the acceptance of long-run social change" (Nagel, 1963, p. 29). Liberal judges are expected to be less severe in sentencing because of their receptivity to the interests of the "lower or less privileged" groups, the groups from

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the analysis would not differ appreciably: the residuals and the observed data would be very highly correlated. Given the quantity of missing data and the low correlations, it is preferable to control only for charge seriousness.

which the overwhelming majority of criminal defendants originate.

In the interviews with the sentencing judges, I used measures of several subdimensions of political liberalism. The subdimensions are: (1) government economic intervention; (2) class-based beliefs; and (3) religious influence on society. The government intervention scale is composed of five Likert items; a scale of five items measures class-based beliefs; and three items are used to form the religious influence scale.<sup>8</sup> I hypothesized that "liberal" are more lenient in their sentencing behavior.

A fourth measure of liberalism was also used. I asked the judges to identify themselves subjectively on a liberalism-conservatism dimension, and coded their responses on a five-point scale (liberal, leaning toward liberal, middle-of-the-road, leaning toward conservative, and conservative).

To test the hypothesis that "liberal" judges are more lenient, I correlated the sentence severity means with the four measures of liberal-

ism, and the results are shown in Table 2. In general, the hypothesis receives no support from the data. Liberals are not in any meaningful sense less severe in sentencing than conservatives. The strongest relationship observed accounts for only 10 percent of sentencing variance and the relationship between self-identification and sentencing is in the wrong direction. The correlations are so consistently weak that one may place considerable faith in the findings.

Political liberalism may be too unfocused to provide the judge with much guidance in sentencing; that is, whether a judge is liberal or not may be largely irrelevant to the sentencing decision. Liberalism, to the extent that it is relevant to sentencing, must be more closely related to the actual operation of the criminal justice system. More specific attitudes, like beliefs about crime and the criminal justice system, may be better predictors of sentencing behavior.

Since I included in the interview measures of the judges' beliefs about crime and justice, it is possible to assess the hypothesis that these more relevant attitudes affect their decisions. Beliefs about crime and the criminal justice system have been measured along several dimensions. The first concerns attitudes toward the causes of criminal behavior. Judges who believe criminal behavior to be the result of social and environmental forces are hypothesized to be more lenient in sentencing than judges who view crime as a moral, free-choice decision. I measured this attitude using a scale of six Likert items. The responses to the items were factor-analyzed using principle components analysis.

The second of the measured criminal justice beliefs is the judges' goals in sentencing. Judges who hold rehabilitative goals and who are concerned for the perpetrator are hypothesized to be more lenient in sentencing than judges with a greater concern for the crime victim and with punishment or deterrence as objectives. This measure uses a scale of eight Likert items. The items were also factor-analyzed, resulting in factor scores.

Table 2. Liberal Attitudes and Sentencing Behavior<sup>a</sup>

Liberalism Subdimensions	Pearson <i>r</i>	<i>b</i>	Beta
Attitude toward Government Economic Intervention	-.01	.01	.08
Class-Based Beliefs	-.14	-.00	-.03
Attitude toward Religious Influence on Society	-.15	-.02	-.20
Liberalism Self-Identification	-.22	-.03	-.21

<sup>a</sup>*R* = .26; *a* = .10; *N* = 26.

The judges were also asked to rank several national problems in terms of their seriousness. This question generated the third criminal justice belief variable—the judges' evaluation of the seriousness of crime as a social problem. The variable is simply measured by the rank which the judge assigned to the problem of crime. It is hypothesized that judges who see crime as more serious will be more severe in sentencing.

The judges' positions on several criminal justice issues constitute the fourth belief about criminal justice. The issues are: (1) allowing six-member juries in criminal cases, (2) allowing non-unanimous verdicts in criminal cases, (3) reactions to the "Miranda" rules, (4) providing free legal counsel to indigents in all criminal cases, (5) the use of plea bargaining, (6) gun control, and (7) the use of the death penalty. The first four items were measured by a "favor-oppose" response set, while the last three asked the respondents to indicate which of several statements came closest to the way they felt about the issue. The measure used is a summated scale of the responses, with a maximum value of 14. Favoring smaller juries, non-unanimous verdicts, plea bargaining, and the death penalty, and opposing the Miranda rules, free legal counsel and gun control are viewed as antidefendant positions. I hypothesize that judges favoring antidefendant positions will be more severe in sentencing.

The fifth measure concerns the legalization of private behavior. Each judge was asked to evaluate (1) decriminalizing all sex acts of mutual consent, (2) legalizing gambling, and (3) the general trend toward decriminalization. Factor scores were produced for this variable. Attitudes in support of the legalization of private behavior are hypothesized to result in lenient sentencing behavior.

Table 3 reports the results of the bivariate correlations and multivariate regression for the five attitudes and sentencing behavior. The data demonstrate that judges' attitudes toward crime and criminals have little impact on their sentencing behavior, just as their political liberalism had little influence. Even though these

attitudes are more closely related to the day-to-day operation of the criminal justice system, they apparently have little influence on the judgments produced by the system. Sentencing behavior varies independently of these five attitudes of the sentencer.

Further investigation of these data merely confirms the lack of relationship between attitudes and behavior. For instance, I inspected the scattergrams to determine whether curvilinear effects had depressed the linear correlation coefficients. They did not. Even a multiple regression analysis using all nine attitudes supported the finding of little relationship. Together, the nine attitudes account for only 14 percent of the variance in sentencing behavior. The regression indicated that the two best predictors of behavior are the judges' attitudes on the legalization of private behavior ( $\beta = .29$ ) and their attitudes on the criminal justice issues ( $\beta = .27$ ). The other attitudes make rather minor contributions to explaining sentencing variance. Thus, these findings cast significant doubt on the traditional approach to predicting judicial behavior from attitudes: the model  $B = f(\text{Attitudes})$  is inadequate.<sup>9</sup>

<sup>9</sup>It can be argued that the attitude-behavior model is still adequate, the problem being that the measures of attitudes do not include the attitudes which are "really" important. Political liberalism and criminal justice beliefs may be too diffuse to have much impact on sentencing. So that I could assess this argument, I included a question in the questionnaire which directly measured the propensity of the judge to give severe sentences in specific types of crimes. The responses were correlated with the actual sentences the judges gave for each type of crimes. While the number of cases on which the actual sentence scores are based is frequently quite small, the data clearly indicate that the judges' attitudes toward the severity of these crimes do not influence their behavior. (Further details on the analysis can be obtained from the author.)

Table 3. Criminal Justice Attitudes and Sentencing Behavior<sup>a</sup>

Criminal Justice Subdimensions	Pearson $r$	$b$	Beta
Attitude toward Causes of Criminal Behavior	.14	.03	.17
Goals in Sentencing	.03	-.01	-.05
Perception of Seriousness of Crime Problem	-.16	.02	.15
Attitude toward Criminal Justice Issues	.10	.03	.18
Attitude toward Legalization of Private Behavior	.03	.02	.09

<sup>a</sup> $R = .26; a = -.33; N = 25.$

### Role Orientation as an Intervening Variable

The correlations between the judges' attitudes and the severity of their sentencing behavior are less than spectacular. This is not entirely surprising: nonjudicial experimental research on the relationship between attitudes and behavior have reported similarly unsubstantial correlations. However, these same experimental studies have also made some significant advances in dissecting the nature of the low correlations. Several scholars have suggested that the relationship between attitudes and behavior is probably mediated by situational intervening variables. That is, the relationship between attitudes and behavior is modified by the situational context of the behavior. Reference group variables, the subject's definition of the situation, social participation, need for approval, social constraints and social distance, the consequences of behavior, and a wide variety of other variables have been identified as significant contextual variables.<sup>10</sup>

The most relevant formulation of the role of intervening variables, however, is found in Campbell's notion of situational thresholds (Campbell, 1963). Similar attitudes may result in different overt behaviors due to situational pressures which inhibit the expression of behavior consistent with the attitude. The impetus for a response must be strong enough to overcome situational forces inhibiting the response. Consequently, we can predict that an individual would give a discriminatory response to a questionnaire item (low threshold) but fail to discriminate in face-to-face situations (high threshold). Thus, there is little question that the actor's assessment of the context of behavior affects the degree of relationship between attitudes and behavior.

Situational variables can be summarized most usefully by the concept "role expectations." Individuals who interact with role occupants have conceptions of what constitutes "proper" role behavior for the role occupant. These are norms of behavior which constrain the activities of the role occupant. Situational constraints and "contingent consistency" are concepts highly related to role expectations. While expectations affect almost all social behavior, they are especially salient for actors in positions subject to relatively unambiguous, institutionalized role expectations. A role orientation is a psychological construct which is the

combination of the occupant's perception of the role expectations of significant others and his or her own norms and expectations of proper behavior for a judge.<sup>11</sup>

The concept of role orientation plays a central function in this analysis. Role orientation is essentially a summary variable which defines for the role occupant the range of appropriate behavioral alternatives in any given situation. As such, role orientations are very similar to many of the situational intervening variables identified above and are almost identical to Rokeach's (1968) notion "attitude toward situation" ( $A_s$ ). Role orientations are also similar to Campbell's situational threshold. In order for an attitude to find expression in behavior, the behavior consistent with the attitude must lie within the range of acceptable behaviors, i.e., be defined as situationally appropriate.

While many judicial researchers have investigated judicial role orientations, none has done so from this perspective. Most studies have been content to develop empirically based typologies. For instance, basing their conclusions on interviews with 26 Supreme Court justices from Louisiana, New Jersey, Pennsylvania, and Massachusetts, Glick and Vines have identified four types of purposive role orientations: (1) the ritualist, (2) the adjudicator, (3) the policy maker, and (4) the administrator. Decision-making role orientations include: (1) the law interpreter, (2) the lawmaker, and (3) the pragmatist (Vines, 1969; Glick, 1971; Glick and Vines, 1969). Ungs and Baas (1972) have also developed a similar typology based on the responses of Ohio trial and appellate judges. Howard (1974a) also has developed similar categories. Flango, Wenner and Wenner (1975) have refined some of these typologies and extended them to non-American judges. Nevertheless, few researchers have attempted to relate role orientations to judicial behavior. To do this it is useful to think of a role orientation as judges' beliefs about what variables can properly be allowed to influence their behavior. Becker, among others, has suggested that the most important of these variables is precedent. He offered some empirical support that judges' orientations toward precedent can be used to

<sup>11</sup>This is not to assert that role orientations perfectly mirror either role expectations or the role occupant's own role expectations. Role orientations reflect what individuals think they ought to do, tempered by what they think others think they should do. It is also possible that non-normative expectations, such as those reflected in power relationships, influence the acting-out of role orientations. How these factors can be identified and measured is not apparent.

<sup>10</sup>See for examples of this type of research the articles reprinted in Deutscher (1973) and Thomas (1971).

predict their behavior (Becker, 1966). However, Flango and Schubert (1969) presented contradictory evidence on this point. Grossman (1962) suggested a similar hypothesis with respect to Justice Frankfurter's votes in civil liberties cases, while Schubert (1963) has demonstrated that precedents affected some U.S. Supreme Court justices in several military law cases. Howard (1974b) suggests that the influence may be issue-specific. While these scholars seem to agree that the judge's orientation toward precedents is an important intervening variable, none has been successful in developing an empirical model integrating attitudes, role orientations, and behavior (Gibson, 1977a).

At least a portion of the difficulty in relating role orientations to decision behavior stems from the inadequacy of the present conceptualization of role concepts. Judges' role orientations are their beliefs about the kind of behavior proper for a judge. In the case of decisional role orientations, the beliefs concern what constitutes proper decision-making behavior. "Proper" does not, however, refer as much to the kind of policy which is made as it does to the kind of stimuli which influence policy making. The basic function of decision-making role orientations is to specify what variables can legitimately be allowed to influence decision making, and in the case of conflict, what priorities to assign to different decisional criteria. Some judges may believe it proper to be influenced by a particular stimulus while other judges may regard the stimulus as improper.

There are good reasons for conceptualizing role orientations in this way. A central expectation of judicial and legal traditions concerns the criteria of decision making employed by judges. For instance, "equality before the law" is not an empirical statement; it does not assert that individual litigants are in fact equal. Rather the phrase is an exhortation to ignore the variables (stimuli), such as power, on which litigants are unequal and to render decisions only on variables which provide for equality. As an additional illustration, it is generally regarded as illegitimate to discriminate on the basis of race in sentencing. This means that it is illegitimate to allow the race of the defendant to influence the decision. Race is not viewed as a proper decisional criterion. Similarly, even such concepts as the presumption of innocence in criminal cases are merely expectations that court officials will not allow empirical stimuli relating to the factual guilt of the defendant to influence their pretrial decisions (e.g., bail). The presumption of innocence is a norm which defines some criteria of decision making as proper and others as improper (Packer, 1968).

Thus, role orientations specify the criteria upon which decisions are made. A generalized role orientation might concern the legitimacy of allowing criteria which have no strictly legal base to influence decision making. A "broad" role orientation restrains the use of other criteria very little. The "narrow" orientation is more restrictive in the use of "nonlegal" criteria. What is important to note, however, is that the role orientation does not indicate whether judges' policy decisions will be liberal or conservative, but instead indicates the criteria upon which their decisions will be based. For a decision to be liberal, the theory predicts that the criterion upon which the judge bases a decision must itself predict a liberal decision. Two factors must therefore be known in order to predict decisions: (1) what criteria the judge considers to be legitimate determinants of decisions, and (2) whether the criteria themselves predict liberal or conservative decisions.

There is no logically *necessary* basis for expecting judges with "broad" role orientations to make "liberal" decisions unless the decisional criteria employed by "broad" judges are liberal. One might imagine, for instance, that judges with "broad" role orientations would grant greater legitimacy to allowing their own values and sense of justice to influence their decisions than would "narrow" judges. If the values are liberal (as in the case of William O. Douglas, for instance), then the decisions will be liberal. If the values are conservative, however, then the decisions will be conservative (as illustrated by William Rehnquist). Obviously, this suggests that "activism" can just as well be conservative "activism" (e.g., the Hughes Court) as liberal activism. Similarly, a "narrow" orientation does not necessarily lead to conservative decisions. If "narrow" judges tend to grant greater legitimacy to criteria with a strictly legal base (e.g., precedents, statutes, and "strict construction" of constitutions), and if those criteria were liberal, then a "narrow" judge would make liberal decisions. For instance, the Burger Court, if it were acting "narrowly," with strong regard for Warren Court precedents, would make liberal decisions. Further, a "strict construction" of the First Amendment prohibition on laws restricting freedom of speech would result in very liberal decisions (at least up to the question of "symbolic speech"). Thus, role orientations should not directly predict decisions but, in combination with the decisional criteria a relationship should exist.

Consequently, role orientations, attitudes and behavior can be integrated into one model; attitudes are related to behavior only insofar as the judge's role orientation allows it. Judges

viewing attitudes as having a legitimate role in decision making allow their personal values to influence their decision making.<sup>12</sup> This formulation is amenable to direct empirical evaluation.

Regression residuals can provide a good measure of the extent to which individual judges' attitudes predict their behavior. Using the nine attitudinal measures as independent variables and the sentence severity score as the dependent variable, I calculated these residuals. A small (absolute value) residual indicates that the attitudes are strong predictors of sentence severity; a large residual indicates that attitudes are weak predictors of severity. Thus, the hypothesis is that the judge's role orientation is related to the degree to which behavior is influenced by attitudes (the residuals).<sup>13</sup>

The measure of role orientations, like the attitudinal measures, is a standardized factor score resulting from factor analyzing six Likert items. These items all measure the judge's conception of proper judicial decision making,

<sup>12</sup>This, of course, is not to deny that assuming a role orientation is very much a function of the judge's own values.

<sup>13</sup>The residuals were calculated in the normal fashion: residual =  $(y_i - \hat{y}_i)$ .  $\hat{y}$  is calculated from the coefficients listed in Tables 2 and 3. A residual is simply the deviation of an individual from what is predicted on the basis of the linear regression. The measure of attitudinal influence is the absolute value of the residual.

and specifically concern the legitimacy of relying on their own attitudes and values, in contrast to precedent, statutes, etc., in decision making. Low scores indicate that the judge accepts attitudes as a legitimate decisional criterion and sees a somewhat limited role for precedents. This will serve as the measure of role orientations.<sup>14</sup>

Figure 1 shows the plot of the regression residuals and the role orientation factor scores. The Pearson correlation is .51. The results are just as hypothesized: role orientations are acting as an intervening variable mediating the attitude-behavior relationship. Attitudes are good predictors of behavior only for those judges with "broad" role orientations. Role orientations do not predict the severity (policy content) of the sentences ( $r = .29$ ); they do, however, predict how much influence certain criteria will have on behavior.

These data clearly indicate that role orientations intervene between the judges' attitudes and their behavior. Role orientations do significantly predict the criteria, but not the policy content of decision-making behavior (at least in terms of sentencing). The question which re-

<sup>14</sup>While there are obviously other dimensions of judicial role orientations, the research is specifically designed to investigate the impact of role orientations on decisional behavior so the measure focuses specifically on the judges' conceptions of legitimate decisional criteria. The items and the results of the factor analysis are available upon request from the author.

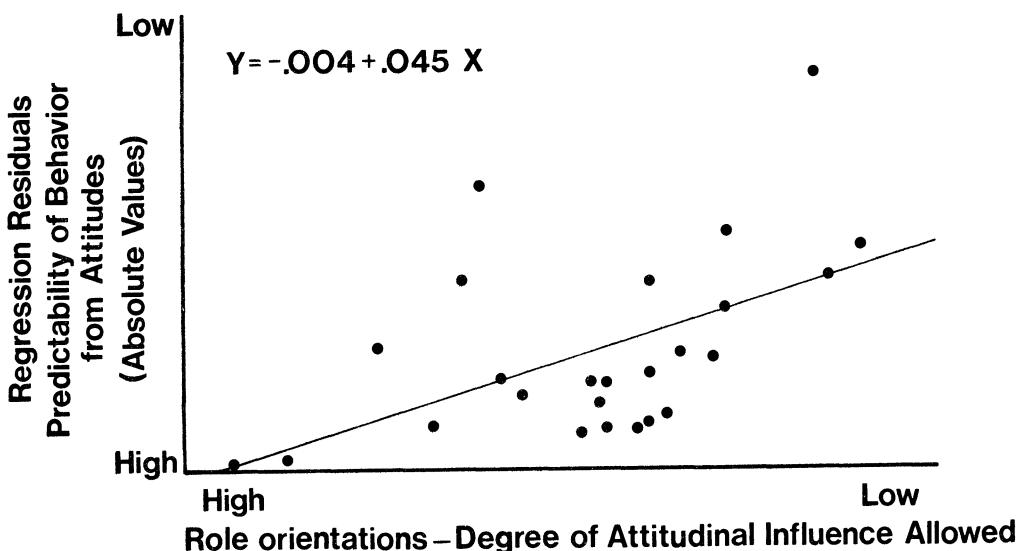


Figure 1.  
Scattergram of Role Orientations and Regression Residuals

mains is: what does predict policy content? The answer to this question is not entirely straightforward. It is possible, however, to assess the degree to which attitudes influence sentencing behavior for those judges who view such influence as legitimate. The approach is to first dichotomize the role-orientation factor score at the mean (or median, the groups are the same), resulting in two groups of judges. I then calculated the correlations between the nine attitudes and the sentence severity scores for each group of judges *separately*. Judges with role-orientation scores below the mean are hypothesized to have a greater correlation between their sentencing behavior and their attitudes about criminal justice and liberalism than judges who are above the mean score for the role-orientation factor. The results are shown in Table 4.

The data clearly show that judges who view attitudes as legitimate criteria of decision making are strongly influenced by their attitudes: the adjusted coefficient of determination (adjusted  $R^2$ )<sup>15</sup> of the attitudes and sentencing behavior is .44. Judges who view attitude influence as proper are especially influenced by their beliefs about class relations in the U.S. and their beliefs about the causes of criminal behavior. Activists who see divergent social classes and who believe crime is environmentally determined are very much more

sympathetic to defendants. Thus, for at least a significant minority of judges, attitudes are a key determinant of behavior.

The causes of the sentences given by the remaining judges are not as easy to determine. Attitudes aid comparatively little in explaining their behavior (adjusted  $R^2 = -.46$ ). Previous research has suggested that this type of judge relies more heavily on the recommendation of the district attorney (Gibson, 1977a). A similar analysis can be conducted on these judges. The judges were asked to respond to the following question: "How influential do you think the following factors should be in sentencing defendants found guilty in criminal court?" The response set ranged from extremely influential to unimportant. The correlations between each of the factors and the judges' role orientations are shown in Table 5.

The data are still somewhat inconclusive on the question of what judges with "narrow" role orientations base their decisions on. While judges with "broad" orientations, as expected, rely more heavily on such extralegal variables as the attitude of the defendant, the severity of the crime, their own values and public opinion, they are also more influenced by the prior record of the defendant. Indeed, there is a tendency for "broad" judges to rely on almost all criteria more heavily. Conversely, "narrow" judges rely slightly more heavily on the recommendation of the district attorney.<sup>16</sup> Conse-

<sup>15</sup>Adjusted  $R^2$  can aid in the comparison of the coefficients for the two groups of judges since the Ns are different and quite small. Adjusted  $R^2$  corrects for the degrees of freedom so that  $R^2$  for different groups can be compared (Johnston, 1972, pp. 129-30). For the 12 judges who viewed attitudes as legitimate criteria unadjusted  $R^2 = .92$ . For the remaining 13 judges the coefficient is .63.

<sup>16</sup>This assertion is empirically supported by correlating the role orientation measure with a measure of the number of criteria which the judge rated as "extremely influential." The correlation is -.52, indicating that "broad" judges are more likely to rely heavily on more criteria than "narrow" judges.

Table 4. The Intervening Effect of Role Orientations on the Attitude-Behavior Relationship

Attitude	Below Mean Role Score (Activists)		Above Mean Role Score (Nonactivists)	
	r	N	r	N
<b>Criminal Justice</b>				
Attitude toward Causes of Criminal Behavior	.58	12	-.10	14
Goals in Sentencing	.17	12	-.08	14
Perception of Seriousness of Crime Problem	.37	12	.05	13
Attitude toward Criminal Justice Issues	.10	12	.02	13
Attitude toward Legalization of Private Behavior	.11	12	.13	13
<b>Political Liberalism</b>				
Attitude toward Government Economic Intervention	-.01	12	.04	14
Class-Based Beliefs	-.66	12	.23	14
Attitude toward Religious Influence on Society	.02	12	-.29	14
Liberalism Self-Identification	-.56	12	-.03	14

quently, while the data do provide some further clues to the behavior of the "broad" judges, they are still relatively unenlightening in regard to the "narrow" judges.<sup>17</sup>

To summarize: this analysis began with fairly small correlations between judges' attitudes and their sentencing behavior. The low correlations are apparently due to the inadequacy of a simple linear model of decision making, and they strongly suggest the necessity of considering the intervening effect of the role orientations of the judges. The policy content of the sentencing behavior of "broad" judges is now fairly predictable; the behavior of the remaining judges is not so well understood.

<sup>17</sup>As this research demonstrates, the interactions among attitudes, role orientations, and behavior are complex. When consideration of case and defendant characteristics is attempted theoretical and methodological problems increase exponentially. For instance, consider how the sex of the defendant might affect decisions: first, some judges may not even recognize sex as a decisional stimulus: sex is simply not salient to them. Among those to whom sex is salient, differences exist in perceptions of the legitimacy of relying on this criterion in making decisions. If sex is viewed as legitimate and if the judge has sexist attitudes then a difference will exist in the sentences given males and females. If the judge's attitude is nonsexist, then no difference will be apparent. Thus, nondiscriminatory behavior will be exhibited by judges who (1) do not perceive sex as salient, and/or (2) do not believe sex is a legitimate decisional cue, and/or (3) have nonsexist attitudes. Obviously, a complex simulation is the only means by which the process can be modeled. Research in this direction is currently in progress.

Table 5. Role Orientations and the Determinants of Sentencing Behavior

Determinant <sup>a</sup>	Correlation with Role Orientation <sup>b</sup>
The recommendation of the district attorney	-.09
The attitude of the defendant	.39
The prior record of the defendant	.42
Public opinion	.20
The severity of the crime	.27
Whether the defendant pleaded guilty or was found guilty by a jury	.03
The recommendation of the pre-sentence report	.13
The defendant's sex	-.07
Your own personal philosophy and values	.23

<sup>a</sup>The question used was: "How influential do you think the following factors should be in sentencing defendants found guilty in criminal court?"

<sup>b</sup>N = 26.

### An Interactive Model of Role Orientations, Attitudes, and Decisions

The objective of this research has been to develop a model and theory of the interrelationships among judges' attitudes, role orientations, and behavior. While the utility of the model was demonstrated in the previous section it is possible to describe the effect of attitudes and role orientations in a somewhat more simplified fashion. A regression equation of the form

$$Y = b(ZX_1) + b(ZX_2) + \dots + b(Z_n X_n)$$

where  $Y$  = the sentence severity scores,  $X_1$  = the attitudes of the judge, and  $Z$  = the role orientation of the judge, statistically describes the theory of the interaction of attitudes and role orientations. Using this equation, we may assess the utility of the model for explaining the behavior of the Iowa trial court judges. While the small N limitation still applies, it is instructive to examine the data with this equation.

Each of the nine attitudinal variables identified in Tables 2 and 3 were first multiplied by the role-orientation factor score. I then converted them to standard scores, and ran a multiple regression analysis with the mean standardized sentence severity scores as the dependent variable. The results strongly support the use of the equation. The squared multiple correlation coefficient ( $R^2$ ) for this interactive equation was .64, which means that almost two-thirds of the variance in the sentencing behavior of the judges can be accounted for by the interaction of attitudes and role orientations! This compares to a multiple  $R^2$  of only .14 for the correlation of the nine (noninteractive) independent variables and the sentence severity scores. A difference of this magnitude cannot be attributable to the small number of judges. Thus these data are extraordinarily supportive of the theory: attitudes alone account for 14 percent of the variance in sentencing behavior; role orientations alone account for 8 percent of the sentencing variance; while the interaction of attitudes and role orientations can explain 64 percent of the variance.

### Conclusions

This research was designed to develop a model of the interrelationships among judges' role orientations, attitudes, and sentencing behavior. I generated measures of the role orientations and attitudes of the judges from personal interviews and constructed a measure of

sentencing behavior from court records on nearly 3,000 criminal convictions. Not surprisingly, the bivariate correlations between the attitudes of the sentencer and the actual sentences were quite low: the findings are consistent with experimental attitude-behavior studies as well as some previous judicial research. The reason for the lack of significant correlations can apparently be attributed to the effect of an intervening variable, role orientation. A role orientation specifies for the role occupant the range of legitimate criteria of decision making. Thus, some judges believe that it is not proper for them, as judges, to allow their own values to influence their decisions. The data demonstrated that the role orientations of judges do indeed block the relationship between attitudes and behavior, a finding also consistent with the experimental literature. The correlation between the role orientation and the degree of influence of attitudes on sentencing was .5. The data show that for some judges attitudes are extremely influential in their sentencing decisions; for others, attitudes are inconsequential. Role orientations do not directly predict the policy content of behavior; rather, they predict the criteria of decision making. This may also explain why previous studies of role orientations have not been successful in predicting judges' behavior. Finally, an interactive regression model was presented which was capable of explaining two-thirds of the variance in sentencing.

The generalizability of this model of decision making is indeed limited by the small number of judges analyzed, the lack of comparative data, and the lack of data on other important decisions criminal court judges make (e.g., decisions on bail, pretrial motions, and, in some jurisdictions but not in Iowa, the guilt or innocence of defendants). The model which I have employed is not so limited, however. Any instance of decision making in which some decisional criteria are considered legitimate and others are not considered legitimate is susceptible to analysis by this model. Whenever decision makers are subject to role expectations concerning the criteria of decision making the model may be useful. By conceptualizing the process as essentially two-dimensional (*how* decisions are made and *what* decisions are made) and by examining the relationship between the two dimensions, the model is capable of bringing together a variety of previously unrelated theories of decision making (e.g., attitude theory, role theory, cue theory, information integration theory, etc.) with the ultimate result of a more generalized theory and a greater ability to explain and predict complex decision-making processes.

Nor is the model limited to the effect of judges' attitudes on their behavior. The theory can be applied to virtually any criteria of decision making, and any type of decision, as long as measures of the criteria, and measures of behavior are included in the research. For instance, this model has been profitably extended to the decision criteria of public opinion (Gibson, 1976), and the sentence recommendations of district attorneys (Gibson, 1977b). The model might even be applied to fact pattern analyses. For instance, recent analysis by Ulmer (1974) indicates that members of the U.S. Supreme Court differ in the degree to which they are influenced by "non-legal" case characteristics. This may be a function of the intervening effect of the role orientations of the justices; that is, they may differ in their beliefs about the legitimacy of allowing non-legal criteria to influence their decisions. In principle, at least, there seems to be little obstacle to applying the model to other decisional criteria. Given a sufficient number of judges the equation

$$Y = b(Z_1 X_1) + b(Z_2 X_2) + \dots + b(Z_n X_n)$$

where  $Y$  = the decision,  $X$  = any decisional criteria, and  $Z$  = whether the criterion is considered legitimate by the judge, has great potential for explaining the behavior of judges.

Finally, the model may also be useful for understanding decision making in nonjudicial institutions. Indeed, role orientations may provide an appropriate vehicle for analyzing inter-institutional differences in decision making in a more systematic fashion. Differences among institutions in the predictability of behavior from various decisional criteria may be a function of differences in the contextual constraints imposed on decisions through role expectations and role orientations. If a common pool of criteria could be identified, a truly general model could be developed to explain judicial and legislative decisions, for instance. Judges and legislators may differ only in their perceptions of the legitimacy of various decision-making criteria. When institutional differences are treated as role-related variables, this single general equation allows the behavior of different decision makers to be parsimoniously analyzed.

This research has also shown how much utility there is in combining several variables in decision-making models. Considered separately, neither attitudes nor role orientations adequately explain sentencing behavior; it is only when they are placed in a multivariate model that a significant amount of variance is explained. Certainly, the addition of measures of

more and different concepts to the decision process model will increase the ability to predict decisions (that is, beyond statistical artifacts). Judicial decision making is simply too complex to be adequately characterized by bivariate theories or models. Future efforts to understand judicial behavior should be sensitive to this fact.

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