75 Iowa L. Rev. 653

Iowa Law Review
March, 1990

THE MEASURE OF THE JUDGE: AN EMPIRICALLY-BASED FRAMEWORK FOR EXPLORING TRIAL JUDGES' BEHAVIOR

Peter David Blanck, [1]Robert Rosenthal,[2]
Allen J. Hart,[3] Frank Bernieri[4]

"A judge ... is more than a moderator.... Justice does not depend upon legal dialectics so much as upon the atmosphere of the courtroom, and that in the end depends primarily upon the judge."[5]

I. INTRODUCTION

The courts, legal practitioners, scholars, and social scientists have longrecognized that judges' behavior, both verbal and nonverbal, may have importanteffects on trial processes and outcomes.[6] For example, appellatecourts have cautioned repeatedly that juries in criminal trials accord even themost subtle behaviors of the judge great weight and deference. One judgeconcluded that juries "can be easily influenced by the slightest suggestioncoming from the court, whether it be a nod of the head, a smile, a frown, or aspoken word."[7]

---

[1] Associate Professor of Law, University of Iowa College of Law. J.D. 1986, Stanford University; Ph.D. 1982, Harvard University. The authors thank Michael Saks and Steven Semeraro for their helpful comments.
[2] Professor of Psychology, Harvard University. Ph.D. 1956, U.C.L.A.
[3] Graduate Student in Psychology, Harvard University.
[4] Assistant Professor of Psychology, Oregon State University. Ph.D. 1988, Harvard University.
[5] Judge Learned Hand in Brown v. Walter, 62 F.2d 798, 799-800 (2d Cir.1933).
[6] See Note, The Appearance of Justice: Judges' Verbal and Nonverbal Behavior in Criminal Jury Trials, 38 Stan.L.Rev. 89, 97-101 (1985) (authored by Blanck, Rosenthal & Cordell) (relatively little systematic empirical study has been devoted to describing trial judges' behavior in actual trials) [hereinafter Appearance of Justice]; see also H. Kalven & H. Zeisel, The American Jury (1966) (classic study of judges and juries); J.P. Ryan, A. Ashman, B.D. Sales & S. Shane-DuBow, American Trial Judges: Their Work Styles and Performance (1980) (demonstrating a heightened sensitivity to understanding and analyzing judges' behavior); Blanck, The "Process" of Field Research in the Courtroom: A Descriptive Analysis, 11(4) Law & Hum.Behav. 337, 338 (1987) (discussing process of studying judges' behavior in "live" courtroom setting) [hereinafter The Process of Field Research]; Blanck, Off the Record: Nonverbal Communication in the Courtroom, 21 Stan.Law. 18, 21 (1987) (reprinted in 16(1) Student Law. 8 (1987)) (same) [hereinafter Off the Record].

[7] State v. Wheat, 131 Kan. 562, 569, 292 P. 793, 797 (1930) (Jochems, J., dissenting).

Over the years, the courts have struggled, on a case-by-case basis, to assessthe impact, style, and consistency of judges' behavior. In the absence of apractical, reliable, and valid framework, courts remain reluctant to review acontention that a judge's verbal or nonverbal behavior somehow may haveunfairly influenced the trial process.[8]

This article first describes an empirically-based framework forexploring trial judges' behavior in actual trials.[9] We then presentsome preliminary and exploratory results derived from our ongoing studies ofjudges' behavior with special emphasis on two areas of analysis: (1)descriptive--whether there are distinct and interpretable "global dimensions"of judges' behavior, particularly in the way judges relate to their juries,and (2) predictive--whether the delineated "global dimensions" of judges'behavior can be used to predict (or be predicted by) other more fine-grained"micro" nonverbal behaviors of these same judges, such as eye contact withtheir juries.[10]

In the last section, we discuss how the framework we present may prove usefulto courts, legal practitioners, scholars, and social scientists studyingjudges' behavior.[11] The final section also highlights how our frameworkmay help in the assessment and implementation of the recently adoptedamendments to the Model Code of Judicial Conduct (1990), set forth in PartIV(A).[12] These amendments relate to the relationship between trialjudges' verbal and nonverbal behavior and the appearance of courtroom fairness.

II. A Framework for the Study of Trial Judges' Behavior

A. Studying the Appearance of Justice

The data employed in this article were gathered as part of an ongoing studyof judges' behavior, in which we videotaped portions of actual criminalmisdemeanor jury trials.[13] Our initial research explored what has beendescribed by the courts as "the appearance of justice."[14] That

---

[8] See Appearance of Justice, supra note 2, at 97-101; Note, Removing Temptation: Per Se Reversal for Judicial Indication of Belief in the Defendant's Guilt, 53 Fordham L.Rev. 1333, 1334-36 (1985).

[9] Others have studied judges' working styles and have found, not surprisingly, that their qualitative methods demonstrate that judges vary in working styles. See Atkinson & Neuman, Judicial Attitudes and Defendant Attributes: Some Consequences for Municipal Court Decision-Making, 19 J.Pub.L. 69-87 (1970). The empirical study presented in this article is the first attempt to support this proposition by employing quantitative assessment of judges' actual behavior. See infra notes 102-09 and accompanying text.

[10] See infra notes 74-100 and accompanying text.

[11] See infra notes 105-15 and accompanying text.

[12] See infra notes 112-14 and accompanying text.

[13] For a detailed review of the methodology, see The Process of Field Research, supra note 2, at 342-51; Appearance of Justice, supra note 2, at 101-13.

[14] Offutt v. United States, 348 U.S. 11, 14 (1954).

is,judges' behavior or conduct must "appear" to the trial participants[15] to be fair and impartial. In certain extreme circumstances, courts have heldthat the "appearance" of judicial unfairness alone may deny defendants theirconstitutionally protected right to a fair and impartial trial.[16] Thus, the appearance of unfairness alone may be grounds for reversal.[17]

During a criminal jury trial, judges, like other human beings, developbeliefs and attitudes about certain aspects of the trial process, such as aboutthe defendant's guilt or innocence. The development of such beliefs is notnecessarily bad. We want humane and concerned judges sitting in our courts.However, these beliefs sometimes influence (or "appear" to influence) judges' behavior in relating to juries, often in ways difficult for trial counsel todocument for the appellate record. Our initial studies explored therelationship between judges' behavior and trial fairness as perceived bycounsel and their clients, jurors, and the judges themselves. This line ofstudy described how judges may reveal certain beliefs or attitudes to juriessolely through their nonverbal behavior at trial.[18]

Our earlier studies were useful for exploring the longstanding conceptionthat procedural fairness, at least in terms of judges' behavior, is not a fixedrequirement unrelated to the circumstances and individuals involved in aparticular trial. Not surprisingly, our earlier studies and discussions withparticipating judges showed that a fair and impartial trial is always thegoal. Nevertheless, it seemed to us that a judge's degree of involvement orgeneral style of behavior at trial represents an ongoing process of judgmentand discretion, guided by legally recognized limits.[19] It is from thisperspective and empirical background that we focus our exploratory analyseshere toward the development of a practical framework for describing andassessing judges' behavior.

B. Studying Trial Judges' Behavior

---

[15] We have defined trial participants to include judges, counsel, parties, witnesses and jurors. Elsewhere, we have included the press and the public generally to be "participants" in the trial experience. See Blanck, What Empirical Research Tells Us: Studying Judges' and Juries' Behavior, 40(2) Am.U.L.Rev. XX (forthcoming 1991).

[16] See Bollenbach v. United States, 326 U.S. 607, 612 (1946); see also State v. Larmond, 244 N.W.2d 233, 236 (Iowa 1976) (defendant is not required to show that jurors were actually prejudiced by judge's behavior but merely that jurors could have inferred judicial bias); see generally Appearance of Justice, supra note 2, at 90 n.n. 4, 5.

[17] See Bollenbach, 326 U.S. at 614 (fact that evidence may have supported conviction is irrelevant if appropriate standards and procedures are not followed); see also Larmond, 244 N.W.2d at 236; see generally Appearance of Justice, supra note 2, at 89-90.

[18] Appearance of Justice, supra note 2, at 91-92. Through our collaborative efforts with real judges, we are beginning to understand what many judges and practitioners already intuitively "know" about the trial process. We hope our efforts may aid judges, courts, and other trial participants to more fully understand and assess the impact of their behavior during the trial and to understand the values and behaviors underlying the "appearance of justice."

[19] Appellate courts have attempted to balance a number of factors in assessing the propriety of a judge's behavior during a jury trial. Four such factors have been applied: "(1) the materiality or [legal] relevance of the behavior, (2) the empathic or overbearing nature of the behavior, (3) the efficacy of any curative instruction used [by the judge] to correct the error, and (4) the prejudicial effect of the behavior ... in light of the trial as a whole." Appearance of Justice, supra note 2, at 95-96. As is often the case with such "sliding scale" assessments, different courts have weighed the importance of these factors differently depending on the circumstances of the case. E.g., United States v. Olgin, 745 F.2d 263, 268-69 (3d Cir.1984) (appellate court concluded it proper to weigh the totality of these four factors in determining whether the "quantum of harm" from a trial judge's behavior amounted to reversible error), cert. denied, O'Broda v. United States, 471 U.S. 1099 (1985).

To guide our study of judges' behavior we developed a working theoreticalmodel. As described in greater detail in Part IV(B)(2), this model orconceptual framework helps identify the variables that need to be studied toachieve a more fine-grained understanding of trial judges' behavior.[20] The basic elements of this framework are: (A) the background variables of the trial participants; (B) the judge's attitudes and beliefs about trial processes prior to trial outcome; (C) the verbal and nonverbal behaviors that communicate the judge's attitudes and beliefs to the trial participants, and, in particular, to the jury; (D) the outcome of the trial itself, in terms of the jury's decision; (E) the judges' attitudes and beliefs about trial processes after trial outcome; and (F) the sentence imposed by the judge.[21]

The analyses in this article are designed to aid in the development of apractical description of judges' verbal and nonverbal communicative behavior.That is, an exploration of the "C" variable in our working model. Moreover,the analyses extend the descriptive power of our model by exploring (1)judges' "global" or basic behavioral dimensions in relating to juries,[22] and (2) judges' "micro" or more fine-grained nonverbal behaviors in relating to their juries.[23] The analyses also examine the relationship between these two types of variables.

Our research framework attempts to maximize the "external validity," orthe real-world generalizability, of our findings and the precision of ratingjudges' behavior. In the present study, this goal is achieved by examining thevideotapes of actual trials and employing independent groups of raters toassess the communicative content of the videotapes.[24] Judges' behavioranalyzed in this study came from five California state court judges[25] who were videotaped delivering final pattern jury instructions to jurors inthirty-four criminal trials.[26] Videotaping the trials enabled thesystematic separation and comparison of the verbal and the

---

[20] See Appearance of Justice, supra note 2, at 101-02. The working model, described elsewhere in detail, is intended to serve generally as a theoretical guide for researchers and is not intended as a hard-and-fast predictive model for practitioners. Id. at 102. See generally The Process of Field Research, supra note 2, at 342-43.

[21] See infra notes 128-35 and accompanying text.

[22] For example, as embodied in the general communicative dimensions of "warmth" or "professionalism."

[23] For example, as expressed via head nods, eye contact, or body movements.

[24] Cf. Ebbesen, & Konecni, On the External Validity of Decision Making Research, in Cognitive Processes in Choice and Decision Behavior (T.S. Wallsten ed. 1980). The process for evaluating the videotapes has been set forth in great detail in The Process of Field Research, supra note 2, at 349-53; Appearance of Justice, supra note 2, at 109-14; and Blanck, Rosenthal, Hart & Bernieri, Trial Judges' Verbal and Nonverbal Behavior in Criminal Jury Trials: Descriptive, Psychometric, and Predictive Analyses (working paper 1990). Basically, raters are assigned randomly to rate the judges' taped behavior on different emotional scales, and these ratings are then used in developing the composite or global dimensions as described herein. A separate group of raters assess the judges on the "micro" nonverbal behaviors, for example, head nods, smiles, and eye contact. See infra note 73 and accompanying text.

[25] The judges studied included three males and two females.

[26] The analyses here focus on judges' behavior while delivering final jury instructions because we were interested in describing the type and generality of this information during this important part of the trial process, when the judge addresses the jury on the law. Moreover, because all of the judges read "pattern" jury instructions, it was possible to isolate or "naturally control" the effects of the judges' behaviors from the content of the instructions themselves. The Process of Field Research, supra note 2, at 349-51.

purely nonverbal channels of the judges' communication.[27]

It is clear that individuals' verbal and nonverbal channels of communicationconvey different types and amounts of information.[28] As suggestedabove, courts have long recognized the possible impact of a judge's nonverbalbehavior alone on perceptions of trial fairness.[29] Accordingly, theanalyses are organized by both the "content-present" and "content-absent" channels of communication. "Content-present" refers to verbal channels ofcommunication, such as the judges' normal speech-only cues, and "content-absent" refers to purely nonverbal channels of communication, such as facialexpressions, body movements or tone of voice.[30] Together, the analysesaid in the development of a framework for studying judges' communicativebehavior during "live" trials.

III. The Measure of the Judge: Descriptive and Predictive Analyses

This part sets forth two types of empirical analyses that may prove usefulfor assessing judges' communicative behavior. For each analysis, we discussrelated research findings, describe our findings, and frame future researchquestions in the area.

A. Analysis I: Descriptive Aspects of Trial Judges' Behavior

1. Background and Method of Study

The first analyses are aimed at delineating the global dimensions of judges'verbal and nonverbal behavior in relating to their juries. The term "globaldimension" is used to describe the general manner or mode of judges'communicative and interpersonal behavior--behavior often conveyed independentlyof verbal content.[31] Although a particular global behavior mayreflect a judge's general orientation in relating to others during the trial,judges probably show different global behaviors at different times, dependingon the circumstances of the trial process. For example,

---

[27] The dimensions of verbal and nonverbal behavior were assessed from altered versions of videotapes, including: (1) normal video-and-audio tapes, (2) audio-only tapes (normal speech only), (3) visual-only tapes (facial and body cues only), and (4) tone-of-voice-only tapes (by a "filtered" audio recording that allowed rhythm, pitch, and tone to be conveyed but not verbal content). See Blanck & Rosenthal, Developing Strategies for Decoding "Leaky" Messages: On Learning How and When to Decode Discrepant and Consistent Social Communications, in Development of Nonverbal Behavior in Children 203 (R.S. Feldman ed. 1982); Blanck, Rosenthal, & Vannicelli, Talking to and About Patients: The Therapist's Tone of Voice, in Nonverbal Communication in the Clinical Context 99-143 (P.D. Blanck, R. Buck & R. Rosenthal eds. 1986) [hereinafter Nonverbal Communication]; Blanck & Rosenthal, The Mediation of Interpersonal Expectancy Effects: Counselor's Tone of Voice, 76 J.Educ. Psychology 418 (1984) [hereinafter Mediation]; Blanck, Rosenthal, Vannicelli & Lee, Therapists' Tone of Voice: Descriptive, Psychometric, Interactional, and Competence Analyses, 4 J.Soc. & Clinical Psychology 154 (1986).

[28] See supra note 23 (references cited therein).

[29] See Appearance of Justice, supra note 2, at 97-101.

[30] The content-present channel of communication was expressed via the normal video and audio tapes, and the content-absent channel of communication was expressed via tapes altered experimentally to show only visual and only tone of voice.

[31] See Nonverbal Communication, supra note 23, at 108-12; Parloff, Waskow & Wolfe, Research on Therapist Variables in Relationship to Process and Outcome, in Handbook of Psychotherapy and Behavior Change 233 (S.L. Garfield & A.E. Bergin 2d ed. 1978); Schaffer, Multidimensional Measures of Therapist Behavior as Predictors of Outcome, 92 Psychological Bull. 670, 673 (1982).

when responding toimproper attorney behavior a judge might show more directive or controllingbehaviors; conversely, when dealing with child witnesses a judge might showmore caring and patient behaviors.

In an analogous line of study, we examined the nonverbal global behaviors orgeneral demeanor of psychotherapists when talking to and about their patients.[32] We found three basic dimensions of behavior in the way therapists interact with their patients. The first dimension of "professionalism" emerges and parallels what earlier researchers have called a "directive mode" of therapeutic interaction.[33] The emphasis of the more professional or directive style of therapy is on the therapist's role in structuring, leading, and advising.[34] In his classic analyses of the therapeuticinteraction, Carl Rogers described behavior high on the professional dimensionas providing "advice and persuasion," while others have interpreted this stylein therapy as influential, directive, and even critical.[35] Not onlyare therapists who are high on the professional dimension more active in thetherapeutic interaction, but they are more likely to inhibit activity on thepart of the patient.[36]

A second global dimension of "warmth" in relating to patients emerges.High scores on this dimension embody the qualities of empathy and positiveregard in the therapeutic interaction and are characterized by an open-mindedand understanding therapeutic style.[37] In relating to patients, thewarm therapist focuses on communicating to the patient in a "common sense"manner, with an emphasis on acceptance of the patient's feelings. In contrastto therapists rated high on the professional dimension, "warm" therapists mayattempt to create an atmosphere conducive to the patient's self-exploration anddevelopment.[38] In our work with psychotherapists, a thirddimension that typically emerges is the degree of general anxiety ornervousness in relating to patients.[39]

---

[32] See Nonverbal Communication, supra note 23, at 108-12; see also F. Bernieri, P.D. Blanck, R. Rosenthal, M. Vannicelli & P. Yerrell, Therapists' Speech: Channel Congruency, Affect, and Variability, (presentation at the Am. Psychological Ass'n Convention) (August 10, 1990) (available from first author); Bernieri, Blanck, Rosenthal, Vannicelli & Yerrell, Therapists' Speech: Channel Congruency, Affect, and Variability in Speaking to and About Patients (1990) [hereinafter Therapists' Speech] (manuscript submitted).

[33] See Gomes-Schwartz, Effective Ingredients in Psychotherapy: Prediction of Outcome from Process Variables, 46 J. Consulting & Clinical Psychology 1023, 1025-26 (1978); Gomes-Schwartz & Schwartz, Psychotherapy Process Variables: Distinguishing the "Inherently Helpful" Person From the Professional Psychotherapist, 46 J. Consulting & Clinical Psychology 196 (1978); Mintz, Luborsky & Auerbach, Dimensions of Psychotherapy: A Factor-Analytic Study of Ratings of Psychotherapy Sessions, 36(1) J. Consulting & Clinical Psychology 106, 110 (1971) [hereinafter Dimensions of Psychotherapy].

[34] See Rogers, The Necessary and Sufficient Conditions of Therapeutic Personality Change, 21 J. Consulting Psychology 95, 96 (1957). See generally C. Rogers, Counseling and Psychotherapy (1942).

[35] Dimensions of Psychotherapy, supra note 29, at 110; Rogers, supra note 30, at 97-99.

[36] Dimensions of Psychotherapy, supra note 29, at 110.

[37] Nonverbal Communication, supra note 23, at 109; see also Bayes, Behavioral Cues of Interpersonal Warmth, 39 J. Consulting & Clinical Psychology 333 (1972).

[38] Dimensions of Psychotherapy, supra note 29, at 109; Rice, Therapists' Style of Participation and Case Outcome, 29 J. Consulting Psychology 155, 158-60 (1965); Rice & Wagstaff, Client Voice Quality and Expressive Style as Indexes of Productive Psychotherapy, 31 J. Consulting Psychology 557, 560-62 (1967).

[39] See Nonverbal Communication, supra note 23, at 108-12 (although these dimensions seem to be independent of the professionalism and warmth dimensions, anxiety in relating to patients comprises both the more "critical" aspects of professionalism and the more "uncomfortable" aspects of the dimension of warmth).

Little attention, if any, has been devoted to the empirical study of judges'interpersonal or global behavior.[40] One study that employedparticipant observation methods examined the differences in the working styles,and by implication, "interpersonal" roles of nine criminal court judges.[41] These researchers developed a typology of six major judicial behavioral roles: Political Adventurer-Careerist, Intellectual-Scholar, Routineer-Hack, Judicial Pensioner, Hatchet-Man, and Tyrant-Showboat-Benevolent Despot. Particularly relevant to our interests are these researchers' behaviorally-based descriptions of these judges' different roles. For example, in the "Tyrant-Showboat-Benevolent Despot" style the judge "completely dominates the proceedings and manipulates them toward his own ends.... He manipulates juries through smiles, smirks, and unrecorded off-the-cuff comments which may tend to discredit a witness or a defendant's testimony during a trial."[42]

Unlike this earlier work, our research assesses judges' behavior fromvideotapes of actual criminal trials, utilizing groups of individuals who arenot connected with the trials, assigned randomly to rate the judges' behavior.Ratings of the judges' behavior were made on ten different scales: (1) professional--not professional, (2) warm--not warm, (3) open-minded--not open-minded, (4) honest--not honest, (5) dominant--not dominant, (6) competent--not competent, (7) dogmatic--not dogmatic, (8) wise--not wise, (9) hostile--not hostile, and (10) anxious--not anxious.[43]

These ten scales were selected for several reasons. First, many of thesescales have been employed in a variety of studies of verbal and nonverbalcommunication and have been shown to be related to the transmission of beliefsand attitudes.[44] Second, various social science studies

---

[40] E.g., Ungs & Bass, Judicial Role Perceptions: A Q-Technique Study of Ohio Judges, 6 Law & Soc'y Rev. 343, 343 (1972).

[41] Smith & Blumberg, The Problem of Objectivity in Judicial Decision- Making, 46 Soc. Forces 96, 102-03 (1967).

[42] Smith & Blumberg, supra note 37, at 105. An analogous line of study demonstrates how global dimensions of verbal and nonverbal behavior could affect trial outcomes. See, e.g., Edinger & Patterson, Nonverbal Involvement and Social Control, 93 Psychological Bull. 30, 38 (1983); Erickson, Lind, Johnson & O'Barr, Speech Style and Impression Formation in a Court Setting: The Effects of "Powerful" and "Powerless" Speech, 14 J.Exptl.Soc. Psychology 266 (1978); Lind & O'Barr, The Social Significance of Speech in the Courtroom, In Language and Social Psychology 66 (H. Giles & R.N. St. Clair eds. 1979); Scherer, Voice and Speech Correlates of Perceived Social Influence in Simulated Juries, in Language and Social Psychology 88-120 (H. Giles & R.N. St. Clair eds. 1979); see also Sigal, Braden-Maguire, Hayden & Moseley, The Effect of Presentation Style and Sex of Lawyer on Jury Decision Making Behavior, 22 Psychology, Q.J. Hum.Behav. 13, 14-15 (1985) (discussing how mock jurors, who viewed a simulated courtroom trial in which defense attorneys adopted either an assertive, aggressive, or passive behavioral style, found that the defense attorneys' assertive and aggressive courtroom style tended to result in significantly more "not guilty" verdicts than the passive style).

[43] See Appearance of Justice, supra note 2, at 117-18 & App. C. Ten videotaped sections of the California Pattern Criminal Misdemeanor Jury Instructions, read by the judges to their juries, were rated. These sections were chosen to reflect the beginning, middle, and ending segments of the instructions, and all of these sections were rated for all 34 trials.

[44] See The Process of Field Research, supra note 2, at 351; Nonverbal Communication, supra note 23, at 103; see also R. Rosenthal, Experimenter Effects in Behavioral Research (enlarged ed. 1976) [hereinafter Experimenter Effects]; Skill in Nonverbal Communication: Individual Differences (R. Rosenthal ed. 1979); Rosenthal, Conducting Judgment Studies, in Handbook of Methods in Nonverbal Behavior Research (K.R. Scherer & P. Ekman eds. 1982) [hereinafter Judgment Studies]; Rosenthal, Nonverbal Cues in the Mediation of Interpersonal Expectancy Effects, in Multichannel Integrations of Nonverbal Behavior 105-28 (A.W. Siegman & S. Feldstein eds. 1985).

have foundthese scales useful in describing the communication of affect and interpersonalstyle.[45] Third, these scales reflect the dimensions on which judges'behavior has been described by the courts in case law requiring judges to befair and impartial, and on which judges and practitioners base their ownobservations of the importance of communicative behavior in the courtroom.[46]

In describing and delineating judges' global dimensions of behavior, weemployed a principal components analysis.[47] Principal componentsanalysis is a practical way to reduce the number of scales or variablesrequired to describe behavior. This type of analysis is particularlyapplicable to studies of complex courtroom behavior in which the goal is togenerate hypotheses and descriptions of behavior in the spirit of exploratorydata analysis. After performing the principal components analyses, we"rotated" the data matrix to maximize the ability to interpret resulting"factors" or "components," which are then used to create composite"supervariables" or, as we term them, the "global dimensions" of judges'behavior.[48]

2. Descriptive Analyses of Trial Judges' Behavior: Results and Discussion

Here, we present our empirically-based description of the participatingjudges' global dimensions of behavior. These analyses are summarized in Table1 below:

[45] See Nonverbal Communication, supra note 23, at 103.
[46] For example, the National Conference of State Trial Judges describes the essential qualities of a good judge to include graciousness, moral courage, reputation for fairness, mercy, patience, ability to communicate, decisiveness, innovation, open-mindedness, brevity, dignity, honesty, and integrity. See Nat'l Conf. of State Trial Judges, ABA, The Judge's Book 31-38 (1989) [hereinafter Judges' Book]; see also Appearance of Justice, supra note 2, at 95-96.
[47] This is a form of factor analysis. See R. Rosenthal & R.L. Rosnow, Essentials of Behavioral Research: Methods and Data Analysis 414-19 (1984).
[48] See R. Rosenthal & R.L. Rosnow, supra note 43, at 415-19. In our analyses, the mean of the raters' ten ratings of the judges' behaviors were intercorrelated, separately for the content-present and for the content-absent channels, and a principal components analysis with varimax rotation was computed for each of these correlation matrices. See also infra notes 49-52 and accompanying text; cf. Nonverbal Communication, supra note 23, at 110.

TABLE 1

Descriptive Aspects of Trail Judges' Behavior: Principal Components Analyses

	Content-Present Channels Component (Factor)			
	I	II	III	IV
	Judicial	*Directive*	*Confident*	*Warm*
Variable				
Professional	.779[†]	.267	-.260	-.156
Wise	.589	.503	.063	.281
Competent	.743	.446	-.196	.011
Honest	.808	.023	-.162	.206
Dogmatic	-.025	.870	.119	-.055
Dominant	.255	.798	.064	-.054
Not Anxious	-.0146	-.015	.911	.060
Not Hostile	-.205	.267	.782	-.264
Warm	.153	-.020	-.095	.936
Open-Minded	.726	-.232	-.056	.413

	Content-Absent Channels Component (Factor)			
	I	II	III	IV
	Judicial	*Directive*	*Confident*	*Warm*
Variable				
Professional	.721	.152	-.356	-.048
Wise	.829	.052	-.080	.132
Competent	.823	.214	-.207	.046
Honest	.799	-.091	.003	.282
Dogmatic	.112	.778	.192	-.163
Dominant	.080	.900	.071	-.054
Not Anxious	-.193	.099	.888	-.042
Not Hostile	-.192	.319	.710	-.333
Warm	.068	-.081	-.119	.920
Open-Minded	.474	-.242	-.159	.628

Table 1 shows that for both the content-present and content-absentchannels of communication, the principal components analysis yields fourinterpretable components or basic global dimensions of the judges' behavior,namely: judicial, directive, confident, and warm.

The following conclusions may be drawn about the four global dimensions onwhich judges may behave (or "appear" to behave) toward their juries: (1) A judge high on the judicial dimension is rated as more professional, wise, competent, and honest; (2) A judge high on the directive dimension is rated as more dogmatic and dominant; (3) A judge high on the confident dimension is rated as less anxious and less hostile; and (4) A judge high on the warm dimension is rated as

[†] Loadings serving to define each of the component-based global variables are underlined.

warmer and more open- minded.[49]

Interestingly, it seems that these judges' four global dimensions are readilyassessed from either the content-present or the content-absent channels ofcommunication.[50] Overall, the four empirically-derived dimensions ofjudges' behavior, analyzed separately for the content-present and content-absent channels, parallel earlier descriptions of the basic dimensions (or factor structure) of interpersonal communication.[51]

To develop a single interpretable solution across the content-present andcontent-absent channels of behavior that could be employed practically insubsequent analyses, we performed a cluster analysis.[52] As would beexpected, the cluster analysis yielded the same four global dimensions ofjudges' behavior: judicial, directive, confident, and warm. The implicationsof this analysis are summarized in Table 2.

[49] The only difference between the content-present and the content- absent conditions is that in the content-absent condition the "open-minded" scale loads more highly on the warm than on the judicial dimension. This factor structure parallels our earlier findings and descriptions of behavior for psychotherapists, business executives, and children. See Nonverbal Communication, supra note 23, at 108-12.

[50] This may result from the constrained nature of the judges' behavior when presenting pattern jury instructions. See supra note 22. We are presently exploring the relationship between the content-present and the content-absent channels during other portions of the trial process.

[51] See Wish, Dimensions of Dyadic Communication, in Nonverbal Communication 371-85 (S. Weitz ed. 1979) (showing that our findings are consistent with a series of earlier studies that revealed five basic dimensions of interpersonal communication, interpreted as (1) task-orientation, (2) formality, (3) intensity, (4) dominance, and (5) cooperativeness).

[52] Cluster analysis is a method for grouping complex sets of variables, such as those described above. See R. Rosenthal & R.L. Rosnow, supra note 43, at 424-25. Our cluster analysis is based on the "de-meaned" ratings or scores--that is, we standardized the scores by subtracting the group mean from each raw channel score, then aggregating across the content-present and the content-absent channels. To form a meaningful cluster or "global dimension," the median intra-correlation of the group needs to be substantially greater than the median inter-correlation of the group. See R. Rosenthal & R.L. Rosnow, supra note 43, at 424-25.

TABLE 2

Summary of Four Composite Global Dimensions of Trial Judges' Behavior

	Findings of the Present Analyses		*Possible Implications for the Study of Trial Judges' Behavior*
Global Dimension	Ratings Comprising Global Dimension	Behavioral Examples of Global Dimension	Appearance of Judges' Behavior Associated with Global Dimension
Legally-Based			
Judicial	Professional Wise Competent Honest	Dignified Impartial Fair	Traditional Judge-Like Quality
Directive	Dogmatic Dominant	Advising Leading Structuring	Task-Oriented and Managerial Approach
Emotionally-Based			
Confident	Not Hostile Not Anxious	Patient Interested	Self-Assured Presentational Style
Warm	Warm Open-Minded	Supportive Courteous Caring	Human and Empathic Quality

At one level, Table 2 shows that the four global dimensions maybe delineated into those that appear more "legally," "procedurally," or"managerially" oriented--as reflected by the judicial and directive dimensions,and into those that appear more "emotionally-based"--as reflected by theconfident and warm global dimensions.[53] This suggestion is supportedby our analyses and is consistent with Professor Bales's classic description ofthe central dimensions of interpersonal behavior in groups.[54] Inparticular, Professor Bales and his colleagues have demonstrated the importanceof an "instrumentally controlled" versus an "emotionally expressive" dimensionof individual behavior in group interaction. In Professor Bales's terms, tosay that a judge's behavior

[53] Our findings tend to support this hypothesis. The median intra- correlation between the judicial and directive dimensions (averaged over the content-present and the content-absent conditions) is .34 and the same correlation between the confident and warm dimensions is .39, while the median inter-correlation between the judicial and directive dimensions with the confident and warm dimensions is .26. The "legally-based" dimensions of judges' behavior (particularly directive behavior) are also similar to others' case-study descriptions of so-called "managerial judging" techniques. See Resnik, Managerial Judges, 96 Harv.L.Rev. 374, 376-77 (1982). Professor Resnik proposes that judicial management techniques, such as procedural mechanisms judges employ for managing cases and case loads, sometimes may undermine the "traditional" disinterested judicial role. Cf. Flanders, Blind Umpires--A Response to Professor Resnik, 35 Hastings L.J. 505 (1984). We make no such claims about our behaviorally- based dimensions. As discussed in the final part, it may be quite appropriate for judges to display behavior high on each of the global dimensions at different times during the trial process depending on the facts and circumstances of the case. Nevertheless, future study seems warranted to explore the relationship between judges' behavior and their methods of case management.

[54] R.F. Bales & S.P. Cohen, SYMLOG: A System for the Multiple Level Observation of Groups, 22, 176-82 (1979) (finding three basic dimensions of interpersonal behavior--(1) dominant vs. submissive, (2) friendly vs. unfriendly, and (3) instrumentally controlled vs. emotionally expressive).

is "instrumentally controlled" means that the judgeis task-oriented or takes a procedurally-based approach to decision making;for purposes of our findings--directive in relating to jurors. In line withthis suggestion, directive behavior may appear to jurors as "controlled" orlacking in spontaneous feelings or emotion.

In contrast to the legally and procedurally-based dimensions, the judges'behavior on the emotionally-based dimensions (i.e., confident and warmbehavior) may appear to jurors as more spontaneous, accepting, and friendly,yet positively assertive. This conclusion also is consistent with ProfessorBales's description of individuals' "emotionally-expressive" behavior ingroups.

On a more fine-grain level, our cluster analysis supports the delineation ofthe four individual global dimensions of judges' behavior. Specifically, thefindings imply that a judge high on the judicial dimension may appeardignified, thoughtful, and the embodiment of traditional views of the judge'srole.[55] The judicial dimension is focused, perhaps in the broadestsense, on the appearance of judicial propriety and fairness.[56] Judges' own intuitive views of the judicial dimension reflect ourempirically-based conclusions.[57]

In contrast to the judicial dimension, judges high on the directive dimensionmay appear more business-like, managerial, or task-oriented.[58] Thisdimension is consistent with the qualities of the "directive" style oftherapeutic interaction described above, in which the therapist structures andleads the proceedings.[59] It is also conceptually similar to thequality of "decisiveness," high scores on which are associated withindispensable characteristics of trial judges: " t houghtful consideration isessential, but indecisiveness is inconsistent with judicial responsibility."[60] On the other hand, the directive dimension seems to fit the behavioral pattern suggested by the role of the judge as "administrator," whichis manifested by an emphasis on procedural aspects and a concern for "a cleardocket."[61]

The third dimension, confident behavior, may reflect the extent to which thejudge appears

---

[55] The median intra-correlation for the judicial dimension is .61, compared to a median inter-correlation of .23. See supra note 48.

[56] See Redish & Marshall, Adjudicatory Independence and the Values of Procedural Due Process, 95 Yale L.J. 455 (1986) (describing values of procedural due process to include appearance of an independent and fair adjudicator); see also Judges' Book, supra note 42, at 33; Appearance of Justice, supra note 2, at 117; Ungs & Bass, supra note 36, at 344-48.

[57] See Judges' Book, supra note 42, at 31-38.

[58] For the directive dimension, the median intra-correlation is .54 compared to the median inter-correlation of .18. See supra note 48.

[59] Cf. Nonverbal Communication, supra note 23, at 110.

[60] See Judges' Book, supra note 42, at 31.

[61] See Ungs & Bass, supra note 36, at 357; see also H.R. Glick, Supreme Court in State Politics 29 (1971). Directive behavior in the content- absent conditions may reflect a more subtly controlling or forceful communicative style by judges. Cf. Judges' Book, supra note 42, at 34. We are exploring the extent to which a directive nonverbal style alone may, in the extreme, suggest to jurors a judge's beliefs about trial processes in ways that would never appear on a "dry" trial transcript. This is consistent with our suggestion that judges may tend to "leak" certain beliefs to juries through nonverbal messages. See Therapists' Speech, supra note 28 at 4; Appearance of Justice, supra note 2, at 130. Whether and how such subtle messages actually influence the behavior of juries remains an open question. See infra notes 101-01 and accompanying text; see also "Trial by Process?: Pretrial Publicity Doesn't Bias Jurors, Panelist Say," 76 A.B.A.J. 31 (Sept. 1990).

emotionally comfortable and patient with others during thetrial.[62] Judges themselves recognize the importance of a patientstyle, noting that " c lose to impatience is tyranny or despotism," and " t heconfident and enlightened judge frames commands in the form of requests, makingthem in a pleasant way, and is respected."[63] Trial judges high on theconfident dimension may be perceived also as relatively more self-assured andopen in the way they communicate to trial participants.

The fourth dimension, warm behavior, may reflect the extent to whichjudges appear to be supportive, courteous, and accepting of trialparticipants.[64] Warmth may also embody the style of positive regard inrelating to others, which has been the focus of the client-centered therapeuticschool and may reflect generally a counseling role of the judge, as compared tothe advice and managerial roles embodied in the more legally-orienteddimensions of behavior.[65]

The delineation of the four individual global dimensions may proveheuristically useful for several reasons. First, our analyses have resulted inpractical, interpretable, and externally valid dimensions of judges'communicative behavior that are consistent with prior case-oriented andclinically-derived descriptions.[66] Second, each global dimension isderived by maximizing the traditional safeguards associated with precision ofmeasurement and the independence of raters.[67] In the next part, weexplore the extent to which the global dimensions of judges'

---

[62] For the confident dimension, the median intra-correlation is .63 as compared to the median inter-correlation of .29. See supra note 48.

[63] Judges' Book, supra note 42, at 34.

[64] For the warm dimension the median intra-correlation is .49 versus a median inter-correlation of .17. See supra note 48; cf. Ungs & Baas, supra note 36, at 360 (suggesting a "peacekeeper" role of trial judges).

[65] Judges' Book, supra note 42, at 31-33; see also Scherer, supra note 38, at 103 (warm dimension is consistent with a "likability-benevolence" dimension found in research on perceived social influence on juries). See generally C.E. Osgood, G.J. Suci & P.H. Tannenbaum, The Measurement of Meaning (1957) (warm dimension is consistent with an "evaluative" dimension of behavior found in these classic early studies).

[66] Each of the four cluster-based global dimensions of judges' behavior is defined as the mean of the variables included in that cluster with the sign of the loading taken into account (because the variances of these variables were homogeneous, standardizing was not employed prior to computing the means of the ratings). For example, the judicial dimension is defined as the mean rating of professional, wise, competent, and honest. In this way, the ten initial ratings of judges' behavior are reduced to the four basic global dimensions and could be practically employed in subsequent analyses. Cf. J.M. Conley & W.M. O'Barr, Rules Versus Relationships: The Ethrography of Legal Discourse 82-83 (1990) (identifying by anthropological analyses five "roles" of the trial judge, including: "the strict adherent to the law," "the lawmaker," "the authoritative judge," "the mediator," "the procedualist"); Flango, Wenner & Wenner, The Concept of Judicial Role: A Methodological Note, 19 Am.J.Pol.Sci. 277, 284 (1975) (suggesting four ideal role types of judges' behavior, including "law applier", "law extender", "mediator", and "policy maker").

[67] The four global dimensions help to improve the "psychometric" or measurable properties associated with the study of judges' behavior. This is because the four dimensions are both more interpretable and reliable, as they are based on a greater number of observations and ratings of behavior. To determine the reliability and utility (generalizability) of the global dimensions, across the content-present and the content-absent conditions, intraclass correlations were computed. See Rosenthal, Judgment Studies, supra note 40, at 292-99. Briefly, these results are as follows. The simple reliability of a single rater on the four dimensions ranged from .02 to .19. Thus, single raters vary considerably in their assessments of the behavior of these judges, suggesting that social scientists and legal scholars who wish to assess global dimensions would be well-advised to employ either several raters, longer clips, or both, to achieve an acceptable level of reliability. The simple reliability for a single rater extrapolated to a full 30-minute jury charge ranged from .20 to . 70 (based on three one-minute viewings extrapolated to 30 minutes), suggesting that single raters should be able to reliably assess the global dimensions over the course of an entire jury charge. The effective reliability of the mean of the ratings made by the raters across all 34 trials ranged from .61 to .95 and extrapolated to a full jury charge ranged from .95 to .99. Large numbers of raters should reliably agree

behavior maypredict, or be predicted by, other more easily coded and monitored nonverbalbehaviors of these same judges.

B. Analysis II: Predictive Aspects of Trial Judges' Behavior

1. Background and Method of Study

In this set of analyses, we examine the degree to which other more "micro"nonverbal behaviors of trial judges, such as eye contact, postural attention,and head nods, serve as important indicators of their four global dimensions ofbehavior. If micro behaviors show such predictive validity, they would suggestmethodologically effective and economical shortcuts to researchers andpractitioners interested in studying and assessing judges' global behaviorsduring the "live" trial process.[68] Even moderate relationships betweenthe more readily quantifiable micro behaviors and the more generalized globalbehaviors could be of important substantive and methodological value to socialscientists, legal researchers, and legal practitioners.[69]

In an analogous line of research, we have examined the predictive value ofmicro behaviors in the psychotherapeutic context. This research establishedthe basic predictive validity of nonverbal behaviors while talking aboutpatients as predictors of nonverbal behaviors while talking to patients.[70] The findings demonstrate that therapists' nonverbal style in relating to patients could be predicted from observing how therapists talked about those same patients.[71]

The predictive value of micro behaviors has been studied in the courtroomcontext. In one study, researchers identified the micro behaviors thatsubjects (and presumably, jurors) might associate with witnesses' attempts atdeception.[72] In that study, the raters of videotapes associated lesseye contact, more backward leans, trunk swivel, leg movement, self-touching,gesturing, and speech

---

about the global dimensions of judges' behavior when they view a full charge. For a review of the psychometric properties of the analysis of judges' behavior, see Blanck, Rosenthal, Hart & Bernieri, supra note 20. Nevertheless, brief segments of judges' behavior cannot be naively extrapolated to full jury charges or to other parts of trials. Cf. Gertz & Talarico, Problems of Reliability and Validity in Criminal Justice Research, 5 J.Crim.Just. 217 (1977). Although the present findings suggest that, under certain conditions, judges' global dimensions may be measured reliably even by brief segments of the trial process, more research is needed before any conclusive statements can be made about the generalizability of our analyses to other parts of the trial or to other judges

[68] See infra notes 93-100.

[69] See M.L. Knapp, Nonverbal Communication in Human Interaction 376- 410 (2d ed. 1978) (describing several "live" or on-line methods for recording micro nonverbal behaviors).

[70] See Nonverbal Communication, supra note 23, at 131-37. Our results show that therapists who spoke about their patients (1) in a dominant and optimistic manner talked to those same patients in a professionally competent manner, (2) in a cold autocratic manner tended to speak to those same patients in a cold professional manner, and (3) with warmth and concern tended to speak to these patients with warmth and respect.

[71] For related studies, see Edinger & Patterson, supra note 38; Harrigan & Rosenthal, Nonverbal Aspects of Empathy and Rapport in Physician- Patient Interaction, in Nonverbal Communication in the Clinical Context 36-73 (P.D. Blanck, R. Buck & R. Rosenthal eds. 1986): Lee, Uhlemann & Haase, Counselor Verbal and Nonverbal Responses and Perceived Expertness, Trustworthiness, and Attractiveness, 32 J. Counseling Psychology 181 (1985); Experimenter Effects, supra note 40; Strong, Counseling: An Interpersonal Influence Process, 15 J. Counseling Psychology 215 (1968).

[72] Pryor & Leone, Behavioral Stereotypes of Deceptive Communication, 17 Trial 14 (June 1981); see also Zuckerman, DePaulo & Rosenthal, Humans as Deceivers and Lie Detectors, in Nonverbal Communication in the Clinical Context 13-35 (P.D. Blanck, R. Buck & R. Rosenthal eds. 1986).

errors with deceptive communications.[73] Anotherstudy examined the effects of eye contact, self-touching (nervous, fidgetybehavior), and speech errors on mock jurors' perceptions of adefendant's credibility and guilt.[74] The defendant's eye contact, self-touching, and verbal nonfluencies were varied across three distinctlevels: high, moderate, and low anxiety. For example, in the "high anxiety"condition, defendants displayed low levels of eye contact, high levels of self-touching, and high levels of verbal nonfluencies such as stuttering and usingwords like "um" and "uh." These researchers found that defendants manifesting"high micro behavior" anxiety received relatively lower credibility ratings andthe highest percentage of guilty verdicts of any of the conditions.

Other studies of courtroom processes have focused solely on thefrequency of a trial judge's looking behavior, gaze, or eye contact, as afactor influencing juries' decisionmaking. In one such exploratory study,researchers found a significant positive relationship between the rate of gazeby the trial judge at the defendant and the fine received if the defendant wasfound guilty.[75] Similarly, mock jurors tend to perceive witnesses asless credible when the witnesses fail to look toward their questioner, a mocklawyer. Ultimately, the defendant for whom they testify is rated as morelikely to be guilty.[76]

In the present analyses, we employ as predictors the judges' micro behaviorsand as criterion variables the four global dimensions. The judges' microbehaviors assessed are seven discretely coded actions that have been employedregularly in studies of nonverbal behavior, including: (1) amount of eye contact with the jury; (2) number of smiles; (3) number of head nods or shaking head movements; (4) number of significant hand movements; (5) number of forward leans toward or away from the jury; (6) number of significant changes in posture, body position, or body movements (with fewer shifts defined as "postural attention"); and (7) number of self-touching behaviors, such as hand to body scratching or chin rubbing when instructing the jury.[77]

---

[73] Pryor and Leone, 1981, supra note 68, at 19 (these researchers speculate further that certain pattern jury instructions may accentuate jurors' focus on witness or defendant micro behaviors).

[74] Pryor & Buchanan, The Effects of a Defendant's Demeanor on Juror Perceptions of Credibility and Guilt, 34 J.Comm. 92 (Summer 1984).

[75] See Dorsch & Fontaine, Rate of Judges' Gaze at Different Types of Witnesses, 46 Perceptual & Motor Skills 1103 (1978); see also Burgoon, Coker & Coker, Communicative Effects of Gaze Behavior, 12 Hum.Com.Research 495 (1986).

[76] Hemsley & Doob, The Effect of Looking Behavior on Perceptions of a Communicator's Credibility, 8 J.Applied Soc. Psychology 136 (1978); see also Siegel, Effects of Objective Evidence of Expertness, Nonverbal Behavior, and Subject Sex on Client-Perceived Expertness, 27 J. Counseling Psychology 117 (1980); Siegel & Sell, Effects of Objective Evidence of Expertness and Nonverbal Behavior on Client-Perceived Expertness, 25 J. Counseling Psychology 188 (1978).

[77] Two raters, not employed in rating the global behaviors, independently coded the tapes for the micro variables. The simple reliability of a single rater ranged from .26 to .99, with a median reliability of .71. Thus, single raters were very consistent in their rating of the micro behaviors. The effective reliability of the mean of the two raters' ratings for the micro behaviors ranged from .41 to .99, with the median effective reliability of .72. When we examined the relationship among the micro behaviors themselves, the resulting median correlation was .26, with the absolute value median correlation of .35, $p < .05$. These intercorrelations provide strong preliminary evidence that judges' micro behaviors, like their global behaviors, may predict a more general constellation or pattern of behavior. To test this hypothesis, we performed a principal components analysis on the micro behaviors and the analysis yielded two interpretable components after rotation. A first component of "engaged" micro behaviors emerged with judges scoring high on this dimension displaying more eye contact, more postural attention, and less self-touching.

We employ two types of analyses to address the question of whetherthe micro behaviors are predictive of judges' global dimensions: simplecorrelations and multiple regression. These analyses are discussed next.

2. Predicting Trial Judges' Global Behavior from Their Micro Behaviors: Results and Discussion

In the first set of analyses, we correlate each of the four globaldimensions--judicial, directive, confident, and warm--with the seven microbehaviors separately for the content-present and the content-absentcommunicative channels. The purpose of examining the simple correlations is toestablish the basic validity of the micro behaviors as predictors of judges'global behavior.[78] The results for the simple correlations arepresented in Table 3 below.

A second component of "emotional" micro behaviors emerged with judges scoring high on this dimension displaying more smiles, head nods, hand movements, and forward leans. These constellations parallel conceptually our findings for the "legal" and "emotional" global dimensions of judges' behavior.

[78] Statistical significance is indexed here by a probability value that an observation would have been found if, in the population from which we had sampled, the true correlation were zero. We present probability values (p) of .10 or smaller because these values are useful in assessing the types of variables under study here. See Appearance of Justice, supra note 2, at 119-20 n. 98. For a discussion of the correlation coefficient, see supra note 44. The correlation coefficient (r) can take on values between -1.00 and +1.00. A value of -1.00 means that there is a perfect negative relationship, a value of +1.00 means there is a perfect positive relationship and a value of .00 means that there is no linear relationship between the two variables. Correlational analyses describe the predictive relationship between two variables and do not isolate the "causes" and "effects" of that relationship.

TABLE 3

Predictive Aspects of Trial Judges' Behavior: Predicting Judges' Global Behavior from Their Micro Behaviors--Simple Correlations

Global Dimension	Legally-Based				Emotionally-Based			
	Judicial		*Directive*		*Confident*		*Warm*	
Predictor Variable	Content Present	Content Absent	Content Present	Content Absent	Content Present	Content Absent	Content Present	Content Absent
Eye Contact	.56**	-.38**	.44***	.10	.47***	.09	.49***	-.20
Smiles	.20	-.30*	.39**	-.15	.16	-.16	.38**	.17
Postural attention	.32*	-.08	-.08	.07	.29*	.20	.30*	-.33*
Head nods	.30*	-.02	.40**	-.17	.23	.02	.23	.11
Hand Movements	.13	.10	.25	-.27*	.12	-.14	.09	.24
Forward leans	.16	-.23	.36**	-.06	.15	-.15	.10	-.12
Self touching	-.19	.15	.17	-.11	-.26	-.18	-.29*	.28
Mean[†]	.21	-.11	.28	-.08	.17	.05	.19	.02
Difference[††]	.32*		.36*		.22		.17	

n =34; * p<.10; ** p<.05; *** p<.01
All tests of signifcance are two-tailed.

Table 3 provides strong evidence that judges' micro behaviors can beused to predict their global behavior.[79] High scores on the judicialdimension are predicted by more eye contact, head nods, and postural attentionin the content-present condition, while less eye contact and fewer smilespredict more judicial behavior in the content-absent conditions. Thus, atleast overtly, judicial behavior is predicted by more engaged and serious micrononverbal behaviors. However, in the content-absent condition, the judicialdimension is generally predicted by less engaged micro behaviors, such as lesseye contact. The difference between the correlations in the content-presentand the content-absent conditions is statistically significant. This resultsuggests that the judicial dimension may be more directly assessed from thecontent and the behavior of judges, rather than from the judges' nonverbalmicro behaviors alone.[80]

Table 3 shows that high scores on the directive dimension arepredicted by more eye contact,

---

[†] Mean correlations separately for Content-Present and Content-Absent conditions.

[††] Difference between mean correlations for Content-Present and Content-Absent conditions.

[79] The judges' micro behaviors were evaluated by using tapes without the audio component.

[80] For this predictive relationship across the content-present conditions, the mean effect size (r) of .32 is significant at p - .10, and is equivalent in practical magnitude to increasing the accuracy of prediction of behavior from 34% to 66% by means of the binomial effect-size display (BESD). See Rosenthal & Rubin, A Simple, General Purpose Display of Magnitude of Experimental Effect, 74 J.Educ. Psychology 166 (1982). The use of the BESD to display the increase in the predictive power of the micro behaviors communicates the real-world importance and practical validity of employing ratings of micro behaviors.

smiles, head nods, and forward leans in thecontent-present condition, and by fewer hand movements in the content-absentcondition. Consistent with the findings for the judicial dimension, moreengaged nonverbal behaviors seem to predict the judges' directive behavior inthe content-present condition better than in the content-absent condition.[81]

Table 3 also shows that high scores on the confident dimension are predictedby more eye contact and postural attention in the content-present condition butare not predicted by any of the micro behaviors in the content-absentcondition. Similarly, high scores on the warm dimension are predicted by moreeye contact, smiles, and postural attention and by less self-touching in thecontent-present condition, and by less postural attention, that is, a morerelaxed body position, in the purely nonverbal content-absent condition.

Several preliminary conclusions can be drawn from the results of the simplecorrelations. First, the degree of eye contact between the judge and the juryappears to be an especially effective predictor of the global dimensions in thecontent-present channels.[82] This is an interesting finding given thelarge body of research showing the important effects of eye contact and gazingbehavior on social influence.[83] As suggested above, increased levelsof eye contact are indicative of more engaged or involved behavior, of effortsto maintain dominance or to persuade others, and of more truthful, sincere, orcredible behavior.[84] One direction for future study will be to explorethe relationship between judges' eye contact (with different trialparticipants) and the trial participants' perceptions of the judges'"appearance of justice."

Second, the results support our suggestion that the micro behavioralcorrelates most associated with the more legally-based dimensions--judicial anddirective--include more engaged nonverbal behaviors, such as more eye contactand head nods. Again, this result suggests that a task-oriented or managerialstyle by judges is reflected alone by more engaged micro behaviors.

Third, the results suggest that for the warm dimension, the microbehaviors most often associated with judges' warm and relaxed demeanor includeless postural attention (e.g, as reflected by less body stiffness) and less self-touching (e.g., as reflected by less nervous chin rubbing).[85] Together, these simple correlations provide preliminary evidence for the hypothesis that judges' micro behaviors alone can be used to predict significantly, and with practical benefit, the global

---

[81] The difference between the correlations for the content-present and the content-absent conditions of .36 is significant at $p < .05$.

[82] For this predictive relationship across the content-present conditions, the median effect size (r) of .48 is significant at $p < .01$, and is equivalent in practical magnitude to increasing the accuracy of prediction from 26% to 74% by means of the BESD. Rosenthal & Rubin, supra note 76, at 167.

[83] For reviews, see Exline & Fehr, The Assessment of Gaze and Mutual Gaze, in Handbook of Methods in Nonverbal Behavior Research 91-135 (K.R. Scherer & P. Ekman eds. 1982); M.L. Knapp, supra note 65, at 376-410.

[84] See M.L. Knapp, supra note 65, at 294-321.

[85] Cf. Bayes, supra note 33, at 335 (frequent smiling and positive comments about others are the best behavioral cues predicting interpersonal warmth); D'Augelli, Nonverbal Behavior of Helpers in Initial Helping Interactions, 21 J. Counseling Psychology 360 (1974) (smiling and nodding in helping interactions are related significantly to perceptions of warmth and empathic understanding of the helper).

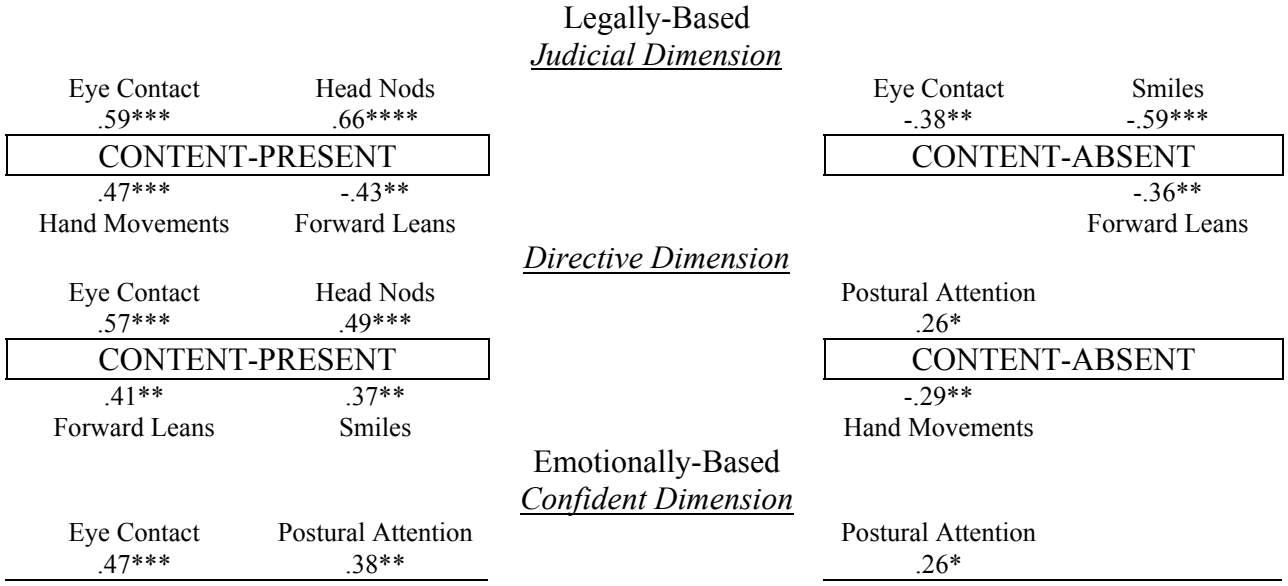
dimensions of judges' behavior.[86]

After establishing the basic validity of micro behaviors as predictors ofglobal dimensions, we wanted to learn how much better we might do employingmultiple regression analyses rather than just simple correlation. From apractical point of view, the regression analyses enable a more detailedassessment of the relationship between the set of micro behaviors with eachglobal dimension.[87] Consistent with our analyses above, we employedthe four global dimensions as criterion variables, assessing their predictiverelationship with the set of micro behaviors separately for the content-presentand the content-absent channels of communication.

The results of the regressions are presented in Figure 1 below.[88]

FIGURE 1

Predictive Aspects of Trial Judges' Behavior: Predicting Judges' Global Behavior from Their Micro Behaviors--Multiple Regressionsd[†]

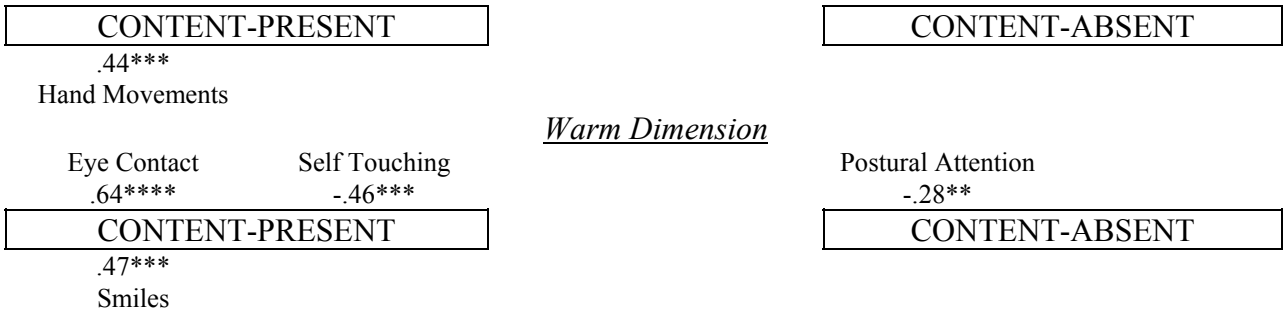


[86] The findings are particularly encouraging given the brief length of the global video clips and that the micro behaviors were rated by a different group of raters. See Schaffer, supra note 27, at 677.

[87] For a review of multiple regression techniques, see J. Cohen & P. Cohen, Applied Multiple Regression/Correlation Analyses for the Behavioral Sciences 7 (2d ed. 1983) (explaining that multiple regression analyses describe the relationships that characterize a complex set of variables in which a single criterion variable is predicted from scores on two or more predictor variables).

[88] Figure 1 displays the eight dependent "criterion" variables (the four global dimensions of judges' behavior for the content-present and content- absent channels) in the boxes and the significant micro predictors on the perimeter of each box. This form of display illustrates in practical terms the relationship between the global dimensions and the micro behaviors. See Nonverbal Communication, supra note 23, at 136; Rosenthal, Blanck, & Vannicelli, Speaking To and About Patients: Predicting Therapists' Tone of Voice, 52 J. Consulting & Clinical Psychology 679 (1984).

[†] The communication channels for a particular global dimension as criterion variables are enclosed in the boxes and the seven micro predictor variables, and their effect size (partial) correlation ®, are arrayed around the perimeter. *p < .10; **p < .05; ***p < .01; ****p < .001.



As Figure 1 illustrates, the results for the legally-based dimensionscan be summarized as follows: (1) the judicial dimension is predicted by themicro constellation of more eye contact, head nods, hand movements, and fewerforward leans in the content-present condition,[89] and by less eyecontact, and fewer smiles and forward leans in the content-absent condition;[90] and (2) the directive dimension is predicted by more eye contact, head nods, smiles, and forward leans in the content-present condition,[91] and by more postural attention and fewer hand movements in the content-absent condition.[92]

The results of the regressions for the two "emotionally-based" dimensionsshow: (1) the confident dimension is predicted by more eye contact, handmovements, and postural attention in the content-present condition,[93] and is predicted by more postural attention in the content-absent condition;[94] and (2) the warm dimension is predicted by more eye contact, smiles, and less self-touching in the content-present condition,[95] and is predicted by less postural attention in the content-absent condition.[96]

Our findings, showing significant predictive relationships, suggest that theanalysis of judges' micro behavior can be of heuristic value to thoseinterested in the practical description and assessment of judges' globalbehavior.[97] This is true even when the study involves a relativelysmall sample of judges, all of whom knew that they were being videotaped andassessed

[89] In the presentation of our results, the Multiple R (R) represents the relationship between the global dimensions and the set of predictor micro behaviors. R takes on values only between 0 and 1, with the former indicating no relationship and the latter indicating a perfect relationship between the variables. The F and t tests describe the level of confidence that the linear relationship between the set of micro behaviors and the global dimensions is not zero in the population. See J. Cohen & P. Cohen, supra note 83, at 78, 104 (df refers to the "degrees of freedom" required for statistical significance testing). For the judicial dimension in the content-present condition, R = .848, F = 25.93, df (4,29), $p < .0001$.

[90] R = .731, F = 13.03, df (3,30), $p < .0005$.

[91] R = .825, F = 18.23, df (4,29), $p < .0001$.

[92] R = .387, F = 3.45, df (2,31), $p < .05$.

[93] R = .649, F = 5.97, df (3,30), $p < .005$.

[94] R = .257, F = 2.91, df (1,32), $p < .10$.

[95] R = .794, F = 19.72, df (3,30), $p < .0005$.

[96] R = .282, F = 4.16, df (1,32), $p < .10$

[97] For example, our framework may prove useful in the more fine-grained analysis of claims on appeal of judicial bias in the jury selection process, or in the more general training of judges and trial counsel. See infra notes 106- 12 and accompanying text.

by a group of naive raters.[98] Because of the seriouslogistical and ethical problems associated with studying and videotaping actualtrials to assess judges' behavior,[99] our findings suggest thatresearchers could use the more easily coded and unobtrusively collected microbehaviors as an index of judges' global behavior. Thus, the theoreticalframework may prove useful and be practically applied in "on-line" training oreducational programs for judges who are interested in the analysis of courtroomcommunication.[100]

The simple correlation and multiple regression analyses, taken together,further suggest that, with additional study, micro behaviors may provepractically and economically useful for describing and predicting the general"appearance" of the judge during the trial.[101] Thus, the degree of eyecontact between the judge and jury alone, or the judges' degree of posturalattention in listening to testifying witnesses, may be particularly goodindicators of the appearance to the jury of a judge's engagement or interest during the trial.[102]

Finally, the present findings are consistent with a series of studies showingthat individuals may "leak" through nonverbal channels certain emotions orbeliefs about social interaction.[103] The findings suggest that judges'global and micro behaviors alone might "leak" to the trial participants thejudges' views about the trial process.

IV. GENERAL CONCLUSIONS AND IMPLICATIONS

This article has set forth a preliminary framework for describing anddocumenting trial judges' behavior. It has not been our intention to suggestthat there is a bright-line method for detecting or measuring the legallypermissible limits of judges' behavior, for example, separating a judge'sverbal and nonverbal behaviors that are legally appropriate from those that mayunduly

---

[98] Cf. Babad, Bernieri & Rosenthal, When Less Information Is More Informative: Diagnosing Teacher Expectations from Brief Samples of Behaviour, 59 British J. Educ. Psychology 281 (1989) (stating that raters can assess teachers' negative feelings toward their students from 10-second clips of teachers' nonverbal behavior).

[99] Appearance of Justice, supra note 2; Blanck & Turner, Gestalt Research: Clinical-Field-Research Approaches to Studying Organizations, in Handbook of Organizational Behavior 109-25 (J.W. Lorsch, ed. 1987); Bray & Kerr, Methodological Considerations in the Study of the Psychology of the Courtroom, in The Psychology of the Courtroom 287-324 (N. Kerr & R. Bray eds. 1982).

[100] See infra notes 106-09.

[101] We are conducting other analyses to examine the relationship between the set of micro behaviors and the set of global dimensions, employing canonical correlation analysis. From a practical point of view, the canonical correlation analyses will help describe the overall relationship between the sets of micro and global behaviors in the different channels of communication.

[102] It is important to point out that the analyses here do not address how judges' global and micro behaviors are related to the circumstances and individuals involved in a particular trial. Rather, the analyses here yield central dimensions on which any judge would show some high and some low scores at different points in the trial process and in the different channels of communication. Future studies, employing large numbers of judges, are needed also to explore the extent to which particular judges display primarily one type of global or micro behavioral style.

[103] Babad, Bernieri & Rosenthal, Nonverbal Communication and Leakage in the Behavior of Biased and Unbiased Teachers, 56 J. Personality & Soc. Psychology 89 (1989); Appearance of Justice, 1985, supra note 2, at 91; Blanck, Rosenthal, Snodgrass, DePaulo & Zuckerman, Sex Differences in Eavesdropping on Nonverbal Cues: Developmental Changes, 41 J.Personality & Soc.Psychology 391 (1981); Ekman & Friesen, Nonverbal Leakage and Clues to Deception, 32 Psychiatry 88 (1969); Blanck, Rosenthal & Zuckerman, Sex Role Orientation and Eavesdropping on Nonverbal Cues: Age Changes (unpublished manuscript 1990).

influence a jury.[104] Nor has it been our intention to suggestthat the judge is required to be a "stoneface," showing no emotion or reactionto events in the courtroom.[105] Rather, our more modest goal has beento present a method to aid in the assessment and description of judges' actualbehavior.[106]

A. Implications For Courts, Judges, Practitioners, and Social Scientists

The framework for studying judges' behavior presented in this article raisestheoretical and practical issues for individuals affected by the interpersonaldynamics of the trial process. Appellate courts have grappled with theseissues in addressing the interpersonal dynamics of courtroom behavior byattempting to describe the effect and propriety of judges' verbal and nonverbalbehaviors during the trial. In fact, appellate courts regularlyconsider the "emphatic or overbearing" nature of a judge's verbal and nonverbalbehavior as a measure of improper judicial influence.[107]

As the tendency to videotape trials continues to rise, the frameworkpresented here may become increasingly useful to courts and to practitioners inthe assessment of judges' and of other trial participants' behavior.[108] Moreover, it may become apparent that many important verbal and nonverbal behaviors of judges' and trial participants not recorded by the "cold" court transcript or written trial record can be preserved and summarized by videotape analyses, making it possible for courts or counsel to more adequately describe these behaviors for appellate review.[109]

Judges as a community of professionals are interested in the issues discussedhere and judicial training programs exist across the country, teaching judgesthe importance of communication behavior and style in the courtroom. Somecourses offer judges the opportunity to conduct a judicial proceeding before avideo camera.[110] The recording is then played back to the judges

---

[104] Appearance of Justice, supra note 2, at 95-96; LeVan, Nonverbal Communication in the Courtroom: Attorney Beware, 8 Law & Psychology Rev. 83, 84-86 (1984).

[105] Judges' Book, supra note 42, at 37-38.

[106] We stress again that the framework presented in this article is a first attempt to more systematically and economically assess courtroom behavior as an alternative to the more expensive and cumbersome process of videotaping. Moreover, although our emphasis is solely on the study of behavior, we still view the "strength of the evidence" and quality of trial presentation to be of paramount importance in determining trial outcome. We are presently exploring how behavioral, procedural and evidentiary factors influence trial outcome. See Blanck, Hart & Rosenthal, infra notes 139-40.

[107] See Appearance of Justice, supra note 2, at 95-96 & n. 25. To give one example, an appellate court reversed a burglary conviction when the trial judge, "hearing the defendant's brother testify that the defendant was at home watching television when the alleged burglary occurred," without saying a word, "placed his hands to the sides of his head, shook his head negatively, and leaned back, swiveling in his chair 180 degrees" away from the jury. See id. at 98 (citing State v. Barron, 465 S.W.2d 523, 527 (Mo.1971)).

[108] See Grisso, Baldwin, Blanck & Borus-Rotheram, Standards in Research: APA's Mechanism for Monitoring the Challenge, Am. Psychologist (forthcoming 1991); see also Experimental Cameras, 76 A.B.A.J. 37 (1990) (in some federal civil trials, appeals may be broadcast).

[109] See Appearance of Justice, supra note 2; Blanck & Rosenthal, Nonverbal Behavior in the Courtroom, in Application of Nonverbal Behavioral Theories and Research (R. Feldman ed. 1991) (forthcoming); Blanck, Pygmalion in the Courtroom, in Interpersonal Expectations: Theory, Research and Application (P.D. Blanck ed. 1991) (forthcoming).

[110] Off the Record, supra note 2, at 38.

andinstructors for comments about the strengths and weaknesses of the judges'communicative skills.[111] Other programs for new judges emphasize thetrial judge's role as a "teacher," focusing on the ability to communicateclearly and fairly.[112] We hope that the research presented here mayaid courts and judges to evaluate more systematically the qualities of theirbehavior and guide the future study of judges' behavior in the courtroom.[113]

Legal practitioners may also apply our basic framework to aid in theanalysis of courtroom behavior in a systematic and economical fashion. Forexample, practitioners may employ our rating system of micro behavior in theassessment of a particular judge's global communicative style, either assessedduring a jury or bench trial.[114] This approach might be helpful in thepreparation of a case before a particular judge. Similarly, this approach mayprove useful in the area of jury selection,[115] particularly to theextent that some jurors may be relatively more influenced by some judges'behavioral or "working" styles more than by others. Moreover, practitionersmay be able to enhance the working communicative "match" between judges andjurors.[116] Lastly, our approach might help in the selection andpreparation of witnesses at trial, at least in terms of enhancing theeffectiveness and clarity of their communication or presentational style.

Legal scholars are similarly interested in the impact of judges'behavior on courtroom fairness. The American Bar Association's recentlyadopted amendments to the Model Code of Judicial Conduct (1990) specificallyinclude a new canon that emphasizes the need for the appearance of fairness andjustice in the courtroom.[117] The commentary to Canon 3(B)(5) states: A judge must perform judicial duties impartially and fairly. A judge who manifests bias on any basis in a proceeding impairs the fairness of the proceeding and brings the judiciary into disrepute. Facial expression and body language in addition to oral communication, can give to parties or lawyers

---

[111] See Appearance of Justice, supra note 2, at n. 179-80; see generally Judge's Book, supra note 42; Bias in the Courtroom: A Four-Part Program for Judges and Other Judicial Personnel (1989) (videotape and written materials developed by the A.B.A.).

[112] Judges' Book, supra note 42, at 34-35; cf. State v. Windsor, 316 N.W.2d 684, 687-88 (Iowa 1982); Van Koppen & Ten Kate, Individual Differences in Judicial Behavior: Personal Characteristics and Private Law Decision-Making, 18 Law & Soc.Rev. 225, 231-32, 241 (1984) (Dutch judges in civil litigation influenced significantly in their decisionmaking by their conception of the judicial roles of "legality," "empathy," and "autonomy").

[113] We have also just begun to explore conceptions of judges' behavior in other cultures with different procedural and substantive laws. Blanck, A Comparative Study of the Appearance of Justice: The American Versus the Continental System (manuscript submitted for Old Gold Fellowship, University of Iowa 1990). This comparative research builds on our studies of American trial judges' behavior by exploring how cultural norms may impact on trial participants' perceptions of justice, cf. Redish & Marshall, supra note 52; David, The Different Conceptions of the Law, 1 Int'l Encyclopedia Comp.L. 3- 13 (R. David ed. 1975).

[114] As our colleague Professor Richard Matasar has suggested, it might be expected that our approach would be especially fruitful in the study of judges' behavior in bench trials.

[115] See Appearance of Justice, supra note 2, at 146-47.

[116] For example, our framework may aid in jurors' comprehension of judges' instructions or to sensitize jurors to the effects of judges, counsel, or witnesses' communication bias as reflected in their subtle, nonverbal behaviors at trial.

[117] Section 3(B)(5) states: A judge shall perform judicial duties without bias or prejudice. A judge shall not, in the performance of judicial duties, by words or conduct manifest bias or prejudice based upon race, sex, religion, national origin, disability, age, sexual orientation or socioeconomic status, and shall not permit staff, court officials and others subject to the judge's direction and control to do so.A.B.A. Model Code of Jud. Conduct 9-10 (August 1990).

in the proceeding, jurors, the media and others an appearance of judicial bias. A judge must be alert to avoid behavior that may be perceived as prejudicial.

Our exploratory work, along with other more descriptive and clinically-orientedassessments of judges' behavior and conduct, may help to alert and sensitizejudges and other trial participants to how fairness and bias, expressedverbally and nonverbally, may be manifested and studied in the "live"courtroom.[118]

For social scientists, the present results highlight the richness andcomplexity of the study of judges' behavior.[119] More detailedassessments of behavior in the courtroom need to be conducted withdifferent trial participants, jurors, lawyers, and witnesses, as well as with alarger number of judges, at different points in the trial process. Thesestrategies might provide a more complete picture of the impact of judges'communicative behavior on the appearance of fairness in the courtroom.[120] As suggested above, future analyses are needed also to test the extent to which judges' influence on the jury decision-making process, as conveyed via global and micro behaviors, may depend on the jurors' own ability to interpret the verbal and nonverbal behaviors of others.[121] Whether jurors' skill at interpreting judges' behavior actually affects their decisionmaking is an interesting question to which we are now beginning to turn and which is highlighted in Section B(1) immediately below.[122]

For each of these groups--courts, judges, legal practitioners, scholars, andsocial scientists--prior research and more clinically-oriented observations bythe legal community suggest a strong relationship between judges' global andmicro behaviors and the appearance of fairness.[123] Yet, in spite ofwidespread appreciation of this issue by these groups, there has been noattempt to describe or define systematically the behavioral correlates ofjudges' actual behavior. One reason for this may be the lack of a frameworkfor specifying judges' behavior and the complexity of

---

[118] For a review of judicial conduct and gender bias in the courts, see generally L.H. Schafran, Promoting Gender Fairness Through Judicial Education: A Guide to the Issues and Resources (1989).

[119] Cf. Pennington & Hastie, Practical Implications of Psychological Research on Juror and Jury Decision Making, 16(1) Personality & Soc. Psychology Bull. 90 (1990).

[120] The global dimensions of judges' behavior may eventually prove useful in predicting other aspects of trial processes. See infra notes 131-41 and accompanying text. Cf. Milmoe, Rosenthal, Blane, Chafetz & Wolf, The Doctor's Voice: Postdictor of Successful Referral of Alcoholic Patients, 72 J. Abnormal Psychology 78 (1967) (doctor's hostility, assessed from nonverbal behavior only while speaking of patients, is negatively related to doctor's effectiveness in the referral of alcoholic patients); Mediation, supra note 23, at 425 (less competent camp counselors are more prone to biasing effects, as reflected in their tone of voice when talking about their campers, while more competent counselors do not show such effects); Nonverbal Communication, supra note 23, at 122-29 (therapists are less hostile, less anxious and less dominant in their tone of voice only when talking to and about their more acutely ill patients).

[121] R. Heslin & M.L. Patterson, Nonverbal Behavior and Social Psychology (1984); S. Milgram, Obedience to Authority: An Experimental View (1974); Claiborn, Counselor Verbal Intervention, Nonverbal Behavior, and Social Power, 26 J. Counseling Psychology 378, (1979); Claiborn & Schmidt, Effects of Presentation Information on the Perception of the Counselor in an Interview, 24 J. Counseling Psychology 259 (1977); Dell & Schmidt, Behavioral Cues to Counselor Expertness, 23 J. Counseling Psychology 197, (1976); Konecni & Ebbesen, The Mythology of Legal Decision Making, 7 J. Law & Psychiatry 5 (1984); Blanck & Rosenthal, Training and Practice in Nonverbal Sensitivity and Athletic Team Performance (unpublished manuscript 1990) (data cited in Blanck & Rosenthal (1982), supra note 23).

[122] Blanck, Rosenthal, Hart & Krafka, infra note 138.

[123] See generally S. Hamlin, What Makes Juries Listen (1985).

emotion and attitudesexpressed in the different verbal and nonverbal channels.[124] Ourempirically-based framework, in conjunction with other case-oriented analysesof judges' behavior, begins to address these issues. The next sectionhighlights our efforts to pursue this line of research through the refinementof a theoretical model of the impact of judges' behavior on the trial process.

B. Research in Progress

Trial judges have a responsibility in a jury trial to avoid anybehavior that could "appear" to the jury to indicate the judge's beliefs aboutthe defendant's innocence or guilt. It is our goal to contribute to the studyof judges' behavior and its important relationship to fairness in thecourtroom. Our approach has been to help identify the types of variables thatneed to be studied to achieve a more systematic understanding of judges'behavior and its potential influence on juries' decisionmaking processes.

In our ongoing research, we approach this problem from several vantagepoints. Part One below briefly describes our studies designed to highlight theimportance of training in nonverbal communication skills and its potentialrelevance to judges' behavior, other trial participants, and perceptions offairness in the courtroom. Part Two below outlines further development andrefinement of our theoretical model of judges' behavior.

1. Improving Sensitivity to Nonverbal Communication

As evidenced by the community of judges' concerns described above,[125] the practical usefulness of programs of training in communication skills, withparticular emphasis on improving awareness of and sensitivity to nonverbalcommunications, will become increasingly important to trial participants. Wehave pilot-tested a field-based method for evaluating the effects of practiceand training on skill at interpreting nonverbal messages.[126] Forexample, in one program with basketball players, not only did our effortsimprove sensitivity to nonverbal messages, but the effects of practice andtraining were related to the type of communication and to differences inindividual competencies and abilities.[127]

Specifically, in the "basketball study," we administered two versions of astandardized test of nonverbal decoding skill to the Harvard University varsityand junior varsity men's basketball teams during the course of the season. Inaddition to exploring the general benefits of training, we explored therelationship between nonverbal decoding skills and basketball ability,particularly defensive basketball ability which may rely on an acutesensitivity to body movements and body cues.

---

[124] See Blanck, Empirical Study of the Americans with Disabilities Act: Method, Preliminary Findings and Implications, N.M.L. Rev. (forthcoming 1991) (presenting an empirical framework for examining behavior and attitudes in real-world settings). Cf. Schuck, Why Don't Law Professors Do More Empirical Research?, 39 J. Legal Educ. 323, 330-33 (1989) (listing reasons for the neglect of empirical research).

[125] See supra notes 106-09 and accompanying text.

[126] Blanck & Rosenthal, supra note 23, at 210-11.

[127] Blanck & Rosenthal, supra note 23. See also Hart, Improving Sensitivity to Nonverbal Communication (1990) (unpublished manuscript) (similar empirical study on training effect).

Interestingly, the results of our study showed that superior basketballplayers were relatively better than less expert basketball players ininterpreting body cues as opposed to facial cues. We suggested, as anybasketball coach might believe, that better defensive players are less likelyto be deceived or "faked out" because, instead of watching the opponents' face,these players are more functionally attentive to body cues and movements.[128]

We are currently exploring how particular training programs on verbal andnonverbal courtroom communication can help trial participants improve theircommunicative skills, both in terms of interpreting (i.e., decoding) andsending (i.e., encoding) verbal and nonverbal behaviors.[129] Ourpreliminary findings suggest potential avenues of future research with trialjudges and other trial participants on the impact of training on courtroomcommunication and fairness, including study of: (1) the type of informationexpressed in different channels of communication[130] and its cumulativeimpact on the jury over the course of a trial;[131] (2) how and whennonverbal behaviors alone--of judges, witnesses, or counsel--"leak" hiddenmessages to juries; (3) the long-term effectiveness of "consciousnessraising," awareness, or training programs[132] on the importance ofverbal and nonverbal behavior in the courtroom; (4) the development andeffectiveness of pattern instructions, presented at different points during thetrial, cautioning the jury about the potential impact of the judges' and othertrial participants' behavior on the trial process;[133] and (5)strategies designed to "enhance" judges' interpersonal competencies to the typeof case before the court (e.g., communicative sensitivity in cases involvingchildren).[134]

2. The Next Step in the Development of the Research Model

We are continuing to explore the extent to which judges' global andmicro behaviors predict other aspects of the trial process through therefinement of our theoretical model of judges' and juries' behavior. Thevariables in the research model, presented in Figure 2, are described below.

---

[128] Blanck & Rosenthal, supra note 23.

[129] See Blanck, Courtroom Communication and Fairness (working paper 1990). For related discussions, see Givens, The Way Others See Us, 19(3) Judges J. 20 (1980); Shapiro, Can We Match the Skills of Our Judges to the Needs of Our Courts?, 62 Judicature 164, 164-65 (1978) (discussing possibility of matching judges' knowledge and skills with type of case).

[130] That is, whether the channel contains written, verbal, or their nonverbal information.

[131] For example, how the information affects jurors in terms of ultimate perceptions of trial fairness.

[132] See supra notes 106-09 and accompanying text.

[133] This is particularly interesting in light of the American Bar Association's recently adopted amendments to the Code of Judicial Conduct (1990). See supra note 113 and accompanying text. Some states, for example, California, have pattern instructions directing the jury to take no cue, neither verbal nor nonverbal, from the judge as to his or her opinion about the guilt or innocence of the defendant. See Appearance of Justice, supra note 2, at 155-56 and App. A.

[134] Cf. Givens, supra note 125 ("matching" judicial competencies); Shapiro, supra note 125 (discussing possibility of matching judges' knowledge with type of case).

FIGURE 2

Model for the Study of Judges' and Juries' Behavior

Variable Name	Background	Expectancy	Behavioral	Trial Outcome	Judge/Jury Agreement/ Disagreement	Sentence
Relationship Of Variables[†]	A	B	C	D	E	F
Variables Under Study	Defendant's Criminal History	Judges' Beliefs *Prior* to Jury Verdict About Expected Trial Outcome	Verbal and Nonverbal Global Styles and Micro Behaviors	Jury Verdict	Judges' Beliefs *After* Jury Verdict	Magnitude of Sentence Imposed by Judge

("A") *Background Variables*. These variables refer to the more stable attributes of the trial participants. For example, the background variables associated with trial judges, such as age, sex, race, political ideology, and number of years on the bench, have been shown to influence judges' behavior toward trial participants.[135] Similarly, the background variables of jurors, including age, sex, race, political ideology, occupation, and income, have been shown to influence jury decision- making processes.[136] Finally, the defendant's characteristics, such as race or criminal record, have been shown to influence the decisions of judges and jurors.[137] Thus, although background variables should have no direct legal bearing on trial processes, prior research suggests that they are useful in predicting trial outcomes.

("B") *Expectancy Variables.* These refer to the judge's attitudes and beliefs for trial outcomes evaluated during the actual trial. A judge's particular expectations for trial outcome can affect the judge's behavior in such a way as to lead the jury to confirm the judge's expectations (an example of an "expectancy effect").[138] This variable assesses how a judge's expectations, as measured during the trial process but prior to the jury's verdict, relate to trial processes, jury verdicts, judge-determined trial outcomes and/or to the sentence ultimately imposed by the judge. Under some conditions, we believe that a judge's "expectancy effects" might act to deprive a defendant of a fair and impartial trial.

("C") *Transmitting Variables*. These variables, the focus of this article, refer to the verbal and nonverbal micro and global behaviors that communicate the judge's attitudes and beliefs to the trial participants. Moreover, as suggested by the present results, the "C" variables encompass

---

[†] The simple relationships are between any two variables in the model.
Cumulative relationships (e.g., "A-B-C" predicting "D") involve more than two variables.

[135] See Dorch & Fontaine, Rates of Judges' Gaze at Different Types of Witnesses, 46 Perceptual Motor & Skills 1103 (1978).

[136] See, e.g., R. Hastie, S.D. Penrod & N. Pennington, Inside the Jury (1983); Mills & Bohannon, Juror Characteristics: To What Extent Are They Related to Jury Verdicts? 64 Judicature 22 (1980).

[137] See, e.g., Zeisel, Race Bias in the Administration of the Death Penalty: The Florida Experience, 95 Harv.L.Rev. 456 (1981); S. Kadism, S. Schulhofer & M. Paulsen, Criminal Law and Its Processes 44-48 (4th ed. 1983).

[138] See E.E. Jones, Interpersonal Perception 237-59 (1990) (outlining development of expectancy effects).

more than merely the content of the judges' verbal remarks. As anecdotal evidence and caselaw show, judges sometimes influence jury verdicts through nonverbal behaviors alone, such as facial expressions and tone-of-voice cues. Such behaviors have been held to influence juries in an impermissible manner or to an impermissible extent.[139]

("D") *Outcome Variables*. These variables refer to actual trial outcomes, that is, in the model to the jury's finding of the guilt or innocence of the defendant. Outcome variables, or the behavior of the jurors after interaction with the judge, may themselves be affected by other variables in the model, e.g., defendants with a criminal history may be more likely to receive guilty verdicts.[140]

In a forthcoming article, we extend our working model to include two othertrial process and outcome variables.

("E") *Judge/Jury Agreement/Disagreement Variables.* These refer to the judges' behavior or attitudes about the trial process after the jury reaches its verdict. For purposes of our model, this variable also refers to the magnitude of the agreement or disagreement between the judge and jury in terms of their views about trial outcome. The "E" variable is similar conceptually to Kalven and Zeisel's classic research in The American Jury. This seminal work sought to answer two basic questions. First, what is the magnitude and direction of the agreement/disagreement between judge and jury? Second, what are the sources and explanations of such agreement/disagreement?[141] The "E" variable in our model represents an attempt to integrate the learning of the Kalven and Zeisel study, that is, their agreement/disagreement findings, into our working model of judges' behavior. The goal is to provide additional insight into the groundbreaking work evidenced in The American Jury.

("F") *Sentence Imposed.* This variable, the final temporal link in the decision-making chain in our model, refers to the sentence imposed by the judge. The "F" variable assesses the magnitude of the sentence imposed relative to the maximum possible sentence under the charge. It is predicted, for example, that the degree of the judge's agreement/disagreement with the verdict ("E" variable) will be reflected in the sentence imposed by the judge ("F" variable).[142]

The forthcoming article in this series thus provides more detailed analysesof the chains of the variables in our working model. For example, our analysesdescribe the simple relationship and impact of background variables, such asthe defendants' criminal history, on trial outcome, e.g., the "A-D"relationship. Similarly, the model describes the relationship betweendefendant's criminal histories and judges' subsequent style of micro and globalverbal and nonverbal behavior in relating to their juries, e.g., the "A-C"relationship.

It is hypothesized and tested that the model will be most powerful, that is,most predictive, when

---

[139] Appearance of Justice, supra note 2, at nn. 37-48.
[140] Id. at 112-13.
[141] H. Kalven & H. Zeisel, supra note 2, at 55.
[142] Blanck, Rosenthal, Hart & Krafka, The Measure of the Judge II: Predicting Trial Outcomes (forthcoming); see also Rosenthal, Interpersonal Expectations, Nonverbal Communication and Research on Negotiation, 4 Negotiation J. 267, 271-74 (1988).

examining the "chains" of variables taken together. Oneexample of a cumulative chain is the extent to which background, expectancy,communicative, and judges' post-verdict attitudes ("A-B-C-E" chain) togetherpredict trial outcome ("D" variable) or the ultimate sentence imposed by thejudge ("F" variable).[143]

We also expect, as obvious as it might sound, that the strength ofthe evidence itself will be an important predictor of trial outcomes.[144] In this additional line of study, we assess the relative impact of the factual evidence (for example, in terms of its support of a guilty or innocent verdict) and of the six variables in the model. We believe that in marginal or "close cases," the judges' beliefs, global behavior, and the participants' background variables will play an increasingly important role in predicting trial outcomes and the sentence imposed.[145]

V. CONCLUSION

This study is a first attempt at exploring systematically the behavior oftrial judges as assessed from "live" trials. Despite relatively small sampleof judges in our study, all of whom knew they were being videotaped, reliableand externally valid dimensions of judges' behavior emerges. The resultingfour global dimensions--judicial, directive, confident, and warm--provide anempirically-based description of judges' behavior, and are consistent withprior researchers' clinically-oriented attempts to describe such behavior.This article then presents new findings which suggest that these fourdimensions or styles may be effectively and economically studied by other"micro" behaviors of these same judges. The implications of the empiricalframework and of the working theoretical model for courts, judges, legalpractitioners, scholars, and social scientists are discussed. The article nexthighlights our continuing program of research that examines further the extentto which global and micro behaviors can be used as predictors in our model ofjudges' and juries' behavior.

It is interesting to underscore that over twenty-five years ago,Kalven and Zeisel ended their classic study of The American Jury with apostscript emphasizing the importance of what they referred to as theexploration of "non-vocal judicial behavior."[146] The phrase refers notto the judges' opinions, but the way or "manner" in which they decide cases.[147] Although The American Jury research emphasized the "non-vocal behavior of juries," Kalven and Zeisel conclude that "the tracing of connections between [their] study of jury behavior and various theories of judicial behavior, however tempting, will have to await another day." We hope our efforts begin to evidence that day has arrived.

---

[143] Our preliminary results for these analyses suggest that trial outcome is predicted by knowledge of the "A-B-C-E" chain; that is ("A") the defendants' criminal histories, ("B") judges' beliefs for trial outcome, ("C") the behaviors of the judge, and ("E") the degree to which the judges agree with their juries' verdicts after the trial. See Blanck, Rosenthal, Hart & Krafka, supra note 138; see also Blanck, Hart & Rosenthal, The Impact of Legal and Extra-Legal Factors on Jury Decisionmaking (unpublished manuscript 1991).

[144] Strength of evidence variable could be viewed as another type of background ("A") variable.

[145] Cf. Kalven & Zeisel, supra note 2, at 134-35 (analysis of evidence in terms of "close" and "clear" cases).

[146] Kalven & Zeisel, supra note 2, at 490.

[147] Id. (quoting Harvard Professor Herman Oliphant who claimed that such non-vocal judicial behavior "will be the dominant subject-matter of any truly scientific study of law"). See A Return to Stare Decisis, 6 Am.L.Sch.Rev. 215 (1927).