DOCUMENT RESUME

ED 136 167 CG 011 209

AUTHOR	Kaplan, Martin F.; And Others
TITLE	Courtrooms, Politics, and Morality: Information Integration Theory is Theoretically Integrative.
SPONS AGENCY	National Inst. of Mental Health (DHEW), Rockville, Md.
PUB DATE	3 Sep 76
GRANT	NIMH-23156
NOTE	16p.; Best copy available.
AVAILABLE FROM	Martin F. Kaplan, Department of Psychology, Northern Illinois University, DeKalb Illinois, 60115
EDRS PRICE	MF-$0.83 HC-$1.67 Plus Postage.
DESCRIPTORS	Cognitive Processes; *Concept Formation; *Court Litigation; *Decision Making; *Information Theory; *Moral Development; *Political Attitudes; State of the Art Reviews; Thought Processes
IDENTIFIERS	*Information Integration Theory

ABSTRACT

The application of information integration concepts to judicial, political and moral judgments is discussed. The authors describe how the information integration theory can provide a unitary treatment of judgement on both conception and quantitative levels. The decision-making processes involved in the courtroom setting, political choice, and judgements of morality are compared. The comparison implies that information integration theory provides the conceptual and methodological tools which draw disciplines together into the realm of unitary social judgement. (MPJ)

Cognition, Affect, and Motivation: Integration of Theory to Interdisciplinary Integration

Martin F. Kaplan, Jeffrey Greenhoff, and Annette Lepeline

Northern Illinois University

Paper presented at Symposium: "Models of Information Integration: Theory and Application" Annual Meeting of the American Psychological Association, Washington, D.C., September 3, 1976.

The bulk of the research reported here was supported by Grant No. 23516 awarded by the National Institute of Mental Health to the senior author.

Copies may be obtained from the senior author at the Department of Psychology, Northern Illinois University, DeKalb, Illinois 60115.

Comments and suggestions are invited.

Courtrooms, Politics, and Morality: Information Integration Theory is Theoretically Integrative[1]

Martin F. Kaplan, Larry Steindorf and Annette Tervolino

Northern Illinois University

Humans form judgments in a variety of diverse contexts. The search for a common means of describing these judgments has not gotten far due to apparent but superficial differences in the diverse paradigms, judgments asked for, and sorts of information available to the judges. Accordingly, theories have been limited to specific judgmental realms, e.g., risk taking, person perception, morality, etc. Information integration theory (IIT) provides a unitary treatment of judgment, on both conception and quantitative levels. This paper describes the application of information integration conceptions to juridical, political, and morality judgments, three areas which have been largely populated by totally separate theoretical traditions.

Conceptually, IIT begins with the straightforward assertion that judgment is based on an integration of the relevant information about the judged object. While any belief about an object may convey information along several dimensions (for example, a person's appearance may give information about his/her trustworthiness, likableness, attractiveness or whatever), judgment is based on the information value for the particular judgment dimension. This value may be represented quantitatively as a <u>scale value</u>, which gives its position on the dimension of judgment. And so, a defendant's sexy appearance may possess high scale value for a judgment of likableness, but low scale value for judging innocence of a charge of prostitution. Perhaps the prime assumption behind IIT is that any attribute, action, or information of an object which affects judgment has scale value for that judgment (Kaplan & Anderson, 1973). This suggests the first of two

processes in judgment-- [illegible] piece of information is assigned some value on the judgment dimension.

Information also has weight, [illegible] for the judgment. For example, greater weight is given to information which is more reliable, consistent, and highly correlated with the criterion ("[illegible]").

In understanding any judgment, [illegible] and essential task is to identify and decompose the informational determinants of the response. Since for some judgments this may be a near impossible task (consider the enormous amount of effective information in judging a person you've known for years), the identification of components might best proceed on a molar level. And so, we may categorically consider the considerable array of information in a criminal trial to consist of but three molar components: ability, motive, and opportunity.

IIT searches for a "cognitive algebra" (Anderson, 1974b) to describe the integration or informational components. It is asked: what algebraic rules capture the policy of judges in combining the weighted scale values of components? This is the second process in judgment: the integration process. Consequently, the next step in an integration inquiry is to vary several levels of the salient components to discover the weighting strategies and algebraic rules governing judgment formation. It is often instructive to vary also situational constraints which act upon weight parameters, such as component credibility, consistency, and redundancy. While IIT need not be tied to a particular algebra, weighted average models have proven most general in social judgments (Anderson, 1974a; Kaplan, 1975a). The beauty of a policy-capturing rule whereby values are <u>effectively</u> weighted by their <u>relative</u> importance (as in such a model) is that both linear and nonlinear data can be easily handled (Kaplan, 1975a). An averaging rule does imply additivity of elements, but violations of additivity are rare, and may reflect scale or response language artifacts (Dawes & Corrigan, 1974; Kaplan, 1975a).

We now turn to three related lines of research conducted in our labs at N.I.U. In all, an integration theory model is applied. It is worthwhile here to reiterate that previous treatments of juridical, political, and moral judgments have been fragmented, with little generality or communication between theoretic approaches. Equity theory (Berkowitz & Walster, 1976; see also Journal of Social Issues, 1975, 31, No. 3), for example, seeks to explain judgments with a moral or "ought" flavor by invoking a central equity motive. But, the theory is limited to describing how scale values are fixed, and says nothing about integration proceses. Moreover, equity theory cannot account for other social judgments where equity or other similar norms (e.g., "justice motives") are not engaged. By treating morally flavored judgments as though they involved the same cognitive processes as any other judgments, IIT promises to unite a field characterized, at best, by separate and unrelated sets of theories, and at worst, by atheoretical anarchy.

Judgments in the Courtroom

One line of investigation has considered jury decision-making. Most of these studies are described in a chapter in an upcoming book (Kaplan, 1976) and will be briefly characterized here. In each, several elements of the juridical process are covaried, and the integration process is studied.

The major elements in a jury trial include the evidence, the defendant, the principal actors in the drama (attornies, judge, witnesses), and of course, the juror. Each of these, in any instance, possesses a scale value for the judgment dimension of concern, guiltiness. Each, too, can be decomposed to molecular levels. For example, we may study the integration of molecular pieces of evidence relating separately to motive, capability, and opportunity. In the following studies though, a molar anlaysis was followed, wherein the totality of evidence in a case, for example, was manipulated to represent higher or lower levels of guiltiness.

Consider, first, the defendant's identity. While substantial evidence exists, both experimental and anecdotal, that judgments of guilt and sentencing are influenced by the personal attributes of the defendant, it remained for one of our first studies (Kaplan & Kemmerick, 1974) to investigate the integration of evidential and personal information. In an integration analysis, both sets of information have scale value for guiltiness, though the former should possess greater weight. Variation of both components, two levels for evidence (high/low guilt) and three for personal (positive/mixed/neutral) disclosed a constant-weight averaging rule. That is, while evidence was weighted more than personal information, the weights for one type of information remained constant across levels of the other type. In this study, then, Ss did not adjust the importance of personal attributes on the basis of evidential incrimination value. A third, situational, variable was posed: Ss were instructed either that defendant attributes are valid indicators of culpability, or that such attributes are useless as indicators, or were told nothing either way. Curiously, these instructions had no effect on the weight of personal information.

Now consider the juror. Again, observation and experimentation tells us that jurors often are biased in their judgments. These biases may be specific to the defendant (e.g., racial prejudice) or issue (e.g., right-to-work-laws), or may be general (e.g., conviction-proneness). To an integrationist, such biases or dispositions too possess scale value and weight. The integrationist asks: how is the bias value integrated with informational and other component values? Two experiments are instructive. In both, Ss were identified as either harsh or lenient in their conviction and punishment tendencies by means of an established attitude scale. In the first, jurors received evidence either high or low in incimination value, with a scenario providing three levels of evidential reliability. Unreliable condition Ss were told that the case summary was provided by an inept clerk; reliable condition Ss were told that the summary was written by a respected judge; and control condition

Ss were not informed of the source. Harsh Ss were more stringent in their judgments, and equally so at both levels of evidential incrimination. This is evidence of constant-weight averaging of dispositions and evidence. Biasing effect were diminished, however, by instructions stressing the reliability of information; that is, group differences due to preexisting biases were minimized when evidence was reliable. Aside from the applied import, this gives evidence that effective weighting of components (disposition and evidence) is relative, as in an average, and not independant, as in a summation. Increasing the weights of one component decreases the effective weight of the other.

In the second experiment, cases of mixed evidential value (some facts incriminating, some exonerating) were judged. Juror bias exerted a powerful effect when it was suggested that some facts might be innacurate, but biasing differences were almost nonexistant when facts were alleged to be uniformly accurate. Again this suggests that evidence and bias are inversely weighted. Interestingly, but disconcerting from a justice standpoint, in both experiments the decrease in subject group differences with increased reliability was due largely to lenient Ss discounting their bias.

The preceding deals with residual or personalogical biases in jurors, put there by past experience, toilet-training, or whatever. Biases may also be instilled by situational conditions in the courtroom, though they will be of a shorter-term nature. For example, in a recently completed study, jurors participated in a mock trial in which either the defense attorney, prosecutor, or judge acted in an annoying and obnoxious manner, deliberately delaying the trial and frustrating the jurors. For trials conveying either high or low incrimination, judgments of guiltiness were greatest where the defense was obnoxious, and least where the prosecutor was offensive, or where the trial was conducted in a "straight" manner (control trial). And so, temporary dispositional states, induced by courtroom behavior, provide scale value which are integrated with trial evidence. Again, disposition and evidence

appear to combine by a constant-weight averaging rule--the effect of courtroom behavior was not significanlty different for trials high vs. low in guilt appearance.

Finally, jurors deliberate the case. In discussion, information is reintroduced. This should increase the amount and/or weight of information relative to preexisting disposition. This was so in the preceding experiment where biasing effects of lawyers behavior were almost totally absent in post-discussion judgments. If preexisting dispositions are near neutral, or at least less polar than the presented evidence (as would most commonly be expected), a polarization effect should occur, whereby response to a trial should shift to greater extremity following discussion. If, for example, a trial gives a predominant appearance of innocence, discussing information consistent with trial appearance will increase the information pool relative to the less polar dispositional bias, leading to a more innocent judgment following discussion. This "discussion-polarization" effect has been demonstrated in juries (Kaplan, 1975b; Myers & Kaplan, 1976). Moreover, several implications of this analysis have been confirmed. First, polarization occurs when the information shared during discussion is in the same guilt/innocence proportion as was the facts in the trial, but post-discussion responses become more moderate when shared information is in the opposite proportion (Kaplan, 1975b). Second, when shared information is highly redundant, reducing informativeness and weight, polarization is less than when nonredundant (Kaplan, 1975b). Finally, polarization is greater when the shared information covers a broader spectrum of facts in the case, where breadth was induced by manipulating the facts recalled by jurors through varying the order of presentation between jurors (Kaplan & Miller, 1976).

The foregoing indicates that major components of courtroom judgments, including discussion effects, are amenable to an integration analysis. Moreover, the conclusions permitted by an integration analysis, such as those relating biasing effects, evidential information, and weighting conditions, have considerable ecological validity and practical import.

Political Choice

In order to apply an integration analysis to political judgment it is necessary to identify the relevant informational components. Political scientists Downs (1957) and Converse (1964) suggest that citizens base political choices on candidates' goals, professed means of reaching those goals, and the probable consequences of the alternative means. In striking parallel, social attribution (Jones & Davis, 1965; Kelley, 1967) and moral judgment theorists (Kohlberg, 1969; Piaget, 1932) consider actors' intentions, acts, and the consequences of the acts as central to causal and moral attributions. It therefore appears that social, political, and moral judgments rely on the informational components of intentions (goals), acts (means), and consequences of actions (outcomes).

The primary purpose of some preliminary research (Steindorf, 1975) was to qualitatively compare the effects of information describing hypothetical candidates' goals, means, and the unintended outcomes of earlier legislative efforts. Accordingly, political desirability ratings of the informational stimuli were obtained in a pilot study so that extreme positive (H) and extreme negative (L) statements were selected for each information category. Subjects judged candidates generated by the complete factorial matrix (2^3) of the three information categories (G,M,O), high or low values (H,L) for each. For example, the following statements describe a negative goal and a positive outcome:

> G_L The candidate believes that in order to control Communism, the CIA should be instructed to infiltrate and disrupt foreign governments leaning toward Socialism.
>
> O_H The candidate enacted legislation which allowed the elderly to utilize the state's mass transit facilities for a reduced cost. Consequently, this bill served as a model for later municipal legislation which created free public transportation.

In the first study, each subject evaluated all twenty-eight possible pairings of the weight candidates. For each election the subjects cast a vote, ranked the importance of the candidate description statements, and rated the political desirability of each candidate. The central hypothesis was that the subjects would judge the candidates by averaging the descriptive information, and base their choice decisions on subtractive comparisons of the integrated impressions (Levin, Schmidt, & Norman, 1971). The results indicated that rather than simply adding the information, averaging was apparent in the preference orderings i.e., although candidates $G_HM_HO_L$, $G_HM_LO_H$, and $G_LM_HO_H$ all were described by two positive attributes, the former candidate was preferred significantly more than the latter two. Also, unequal weighting of the components was reflected in both the preference orderings and the component importance rankings. The hierarchical ordering of components showed that goals were more important than means and outcomes and means more important than outcomes. This pattern accords with attribution theory which maintains that intentions and actions are more informative and therefore influential than unanticipated outcomes. In addition, configural integration was revealed by several interactions showing that the magnitude of the effect of any one component depended on the valence of the remaining two components. In a second study, with the candidates described singly, the same ordering of candidates an and interdimensional salience patterns were obtained. This implicates a subtractive averaging choice rule (see also Levin, et. al., 1971) wherein the political desirability of each candidate is evaluated by differentially weighting each component according to the configuration of other component values, and the desirability of one candidate is then subtracted from the other. This is contrary to simple counting rules common in Political Science (Kelley & Mirer, 1974) whereby positive and negative attributes of candidates are weighted equally, the candidate with the greatest net number of positive attributes "winning".

Integration theory provides a conceptual and methodological analysis of political choice. Applications should illuminate political theory, and produce rigorous knowledge that relates to problems encountered by political decision-makers.

Judgments of Morality

The study of political choice proceeds naturally to the more general study of morality judgment. Both have in common a flavor of morality or "oughtness". Moreover, both possess a common component structure of intentions, acts, and consequences. So, it is natural to expect that both are amenable to a common theoretical analysis.

Theoretically, a component is represented by two qualities: scale value and weight. One represents the value assigned to informational entities, the other is the basis for the integration of these values. Traditional treatments of moral judgment have made a somewhat parallel distinction between the judgment itself (integrated component values) and the reasoning leading to that judgment (the integration process). Developmental (Piaget, 1932) and hierarchical (Kohlberg, 1969) approaches locate individual and maturational differences in the reasoning process. However, traditional treatments cloud the distinction between reasoning and valuation processes: close scrutiny of the "reasoning" purported to differentiate between stages shows criteria to be highly value-laden. It is unclear, for example, whether conventional and postconventional reasoning differ in the values or the weight assigned to various determinants of a moral choice. For integration theory, though, the distinction is clear. Individuals may differ in judgment processes though valuation of informational components or through integration (weighting) strategies (Kaplan, 1975a). It is proposed that developmental stages reflect a progressive change in the latter. That is, the "moralness" values assigned to discrete components are, within cultural limits, fairly universal (this is, in fact, the reason for the highly compelling flavor of morality in the first place), and learned early in life (here we are in agreement with psychoanalytic principles). However, people progress

through learned and maturational stages in how the values of relevant components are integrated into judgment of a moral case. Progress may take two forms. First, following Piaget's landmark findings, weights of various components may change. Younger children, for example, weight consequences more heavily than intentions, and the reverse for older persons. Second, integration strategies or weighting patterns may become increasingly more complex with greater maturity. For example, a progression from simple averaging to differential weighted averaging, or even to conjunctive or noncompensentory rules. The latter, too, was anticipated by Piaget. He suggested that mature reasoning relied on relativism (in our terms: configural) whereas immature reasoning is absolute (simple, constant weighting)

In an exploratory study (Iervolino, 1976) college students high or low in moral development according to Rest's (1973) Defining Issues Test judged the morality of persons described by an act, intention, and consequence of the act. Eight stimulus persons were constructed from a complete factorial design of high and low prerated component values. In addition, the design was repeated for a second set of Ss, who were asked for a decision on whether they'd do the same as the stimulus person, and degree of liklihood. Consistent with expectations, Ss low in moral development were less affected by intentions than those with high moral development in forming judgments of the actors. However, low moral Ss were as influenced as highs when asked to make a personal decision. So, within college students, differences in moral levels are associated with differences in the importance of intentions. Moreover, the task, whether judgment of others or decisions for self, has implications for assigning component weights. A number of interactions between components suggested the use of differential and complex weighting. For example, low moral levels of acts were weighted more than high, while high levels of intentions and consequences were weighted more than low. These results are illustrative; the point is that an

integration analysis can illuminate the integration processes of people at various stages, and can identify the differences in policies when the task is judgmental compared to decisional. In this experiment, both low and high moral stages Ss used complex judgmental rules--use of populations divergent in age as well (e.g., young children vs. adolescents vs. college students) should uncover a more noticable progression in complexity.

The conceptual and methodological tools are available for studying the questions posed by jurists, political scientists, and developmentalists. The beauty of using the same tools across domains is that it draws these disciplines together into the unitary world of social judgment.

References

Anderson, N. H. Information integration theory: A brief survey. In D. Krantz, R. Atkinson, R. D. Luce, & P. Suppes (Eds.), Contemporary developments in Mathematical psychology, vol. 2., San Francisco: [illegible] 74. (a)

Anderson, N. H. Cognitive algebra: Integration t[illegible] social attribution. In L. Berkowitz (Ed.) Advances in experimental [illegible]sychology. vol. 7. New York: Academic Press, 1974. (b)

Berkowitz, L., & Walster, E. Equity Theory: Toward a General Theory of Social Interaction. N.Y.: Academic Press, 1976. (Volume 9 in series: Advances in Experimental Social Psychology)

Converse, P. The nature of belief systems in mass publics. In D. E. Apter (Ed.), Ideology and Discontent. New York: Free Press, 1964.

Dawes, R. M. & Corrigan, B. Linear models in decision making. Psychological Bulletin, 1974, 81, 95-106.

Downs, A. An Economic Theory of Democracy. New York: Harper, 1957.

Iervolino, A. Differential effects of intentions and consequences on moral judgment and decision-making. Unpublished PH.D. Dissertation, Northern Illinois University, 1976.

Jones, E. & Davis, K. From acts to dispositions. The attribution process in person perception. In L. Berkowitz (Ed.), Advances in Experimental Social Psychology, Vol. 2. New York: Academic Press, 1965.

Kaplan, M. F. Context-induced shifts in personality trait evaluations: A comment on the evaluative halo effect and the meaning change interpretations. Psychological Bulletin, 1974, 81, 891-895.

Kaplan, M. F. Information integration in social judgment: Interaction of judge and informational components. In M. F. Kaplan & S. Schwartz (Eds.) Human Judgment and Decision Processes. New York: Academic Press, 1975 (a)

Kaplan, M. F. Group discussion effects in a modified jury decision paradigm: Informational influences. Paper presented at Meetings of the Psychonomic Society, November, 1975. (b)

Kaplan, M. F. Judgments by juries. In M. Kaplan & S. Schwartz (Eds.) Human Judgment and Decision Processes: Applications on problem [illegible] [illegible]gs. N. Y.: Academic Press, 1976.

Kaplan, M. F. & Anderson, N. H. Information integration theory and reinforcement theory as approaches to interpersonal attraction. Journal of Personality and Social Psychology, 1973, 28, 301-312.

Kaplan, M. F. & Kemmerick, G. D. Juror judgment as information integration: Combining evidential and nonevidential information. Journal of Personality and Social Psychology, 1974, 30, 493-499.

Kaplan, M. F., & Miller, C. E. Juror judgments and discussion: Effects of variety of shared information on amount of polarization. Paper presented at Meetings of the Psychonomic Society, November, 1976.

Kelley, H. Attribution theory in social psychology. Nebraska Symposium on Motivation, 1967, 15, 192-238.

Kelley, S. and Mirer, T. The simple act of voting. American Political Science Review, 1974, 68, 951-972.

Kohlberg, L. State and sequence: The cognitive-development approach to socialization. In K. A. Goslin (Ed.) Handbook of Socialization Theory and Research. Chicago: Rank McNally, 1969.

Levin, I., Schmidt, C., and Norman, K. Person preference choices: Tests of a subtractive averaging model. Journal of Experimental Psychology, 1971, 90, 258-261.

Myers, D. G., & Kaplan, M. F. Group-induced polarization in simulated juries. Personality and Social Psychology Bulletin, 1976, 2, 63-66.

Piaget, J. The Moral Judgment of the Child. New York: Free Press, 1932.

Rest, J. The hierarchical nature of moral judgment: A study of patterns of comprehension and preference of moral stages. Journal of Personality, 1973, 41, 86-109.

Steindorf, J. Information Integration in [illegible] choice. Unpublished master's thesis, Northern Illinois University, 19[illegible].