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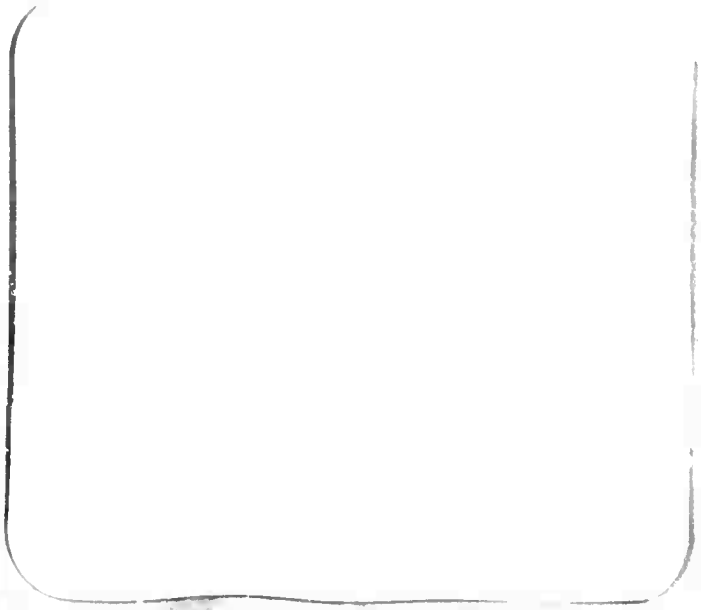

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INDIVIDUAL DIFFERENCES IN COGNITIVE INTERACTION

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Abstract

Subjects rated a set of attitude profiles on four behavior differential scales--"like," "accept as an intimate friend," "gossip with," and "criticize." Each profile represented a hypothetical person's attitudes toward church, capital punishment, drinking and college fraternities. The subjects' attitudes toward the same four objects were measured. Several models of cognitive interaction were used to predict each subject's responses. No single model was adequate to account for the judgments of all subjects. The results suggest that there are important individual differences in style of cognitive interaction.

INDIVIDUAL DIFFERENCES IN COGNITIVE INTERACTION[1]

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The general problem of predicting the response to a compound given responses to its elements has been investigated under various labels including stimulus pooling, impression formation and cognitive interaction. Models of the relationship between a compound and its components have been proposed by Osgood and his associates (Osgood & Tannenbaum, 1955; Osgood, Suci, & Tannenbaum, 1957), Fishbein (1963), Manis, Gleason and Dawes (1966), Rokeach and Rothman (1965), Dustin and Baldwin (1966) and Feldman (1968). Theorists have implicitly assumed that a single model of cognitive interaction can account for the responses of all subjects. In empirical studies this assumption is reflected in the use of designs which make it impossible for individual differences in cognitive interaction to appear. In a typical design, the evaluation of the elements of the compound is an average of many subjects' evaluations, often a group of subjects separate from the main study. The mean response of the subjects in the sample is predicted or entered into an analysis of variance. In the present study individual differences in cognitive interaction were explored by comparing predictions of various models on a subject-by-subject basis.

Method

Subjects

The subjects were 24 paid volunteers from an introductory course in social psychology. Ten of the subjects were male and 14 were female.

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Task

Subjects were asked to make judgments about a set of 70 attitude profiles. Each profile consisted of four scales, each taking on a value from 1 to 6. The scales, or cues, were labeled Church, Capital Punishment, Drinking, and College Fraternities. Each profile represented a different "hypothetical" person's attitudes toward these institutions and practices. Attitudes ranged from "strongly against" (position 1) to "strongly for" (position 6). As an aid to interpreting the profiles, subjects were provided with a set of statements that might be endorsed by persons holding extreme (1 or 6) attitudes on each of the scales. The set of four attitudes represented on the profiles was chosen to be somewhat representative of the spectrum of issues facing the college student and about which there is not general agreement among students.

Subjects indicated their judgments of each profile by checking a number from 1 to 9 on each of four criterion scales, indicating how likely they would be to (1) accept the "hypothetical" person as an intimate friend, (2) admire him, (3) gossip with him, and (4) criticize him. The criterion scales were chosen because they represented a wide range of behavior (Triandis, 1964).

The first four of the 70 profiles were intended as warm-ups to familiarize the subjects with the task and were not included in the analysis. The cue values for 50 of the remaining profiles were taken from a random number table, the only conditions being that each cue was restricted to values from 1 to 6 and that all the profiles would be different. The remaining 16 profiles included all possible combinations of extreme (1 or 6) cue values. The 50 random and 16 extreme valued profiles were combined and the order of presentation was randomized.

In addition to making profile judgments, subjects completed four 24-item attitude scales designed to measure their attitudes toward the church, capital punishment, drinking, and college fraternities. The "church" scale was developed by Thurstone and Chave (1929). The "capital punishment" scale was developed by Thurstone (1932). The "college fraternities" scale included the 20-item scale developed by Banta (1961) plus four additional items written by the author. The "drinking" scale was derived from a generalized scale for measuring attitude toward any practice which was developed by Bues (1934). The above-mentioned scales can be found in Shaw and Wright (1967) along with

validity and reliability data. Subjects responded to each item on a 5-point scale ranging from "strongly disagree" to "strongly agree" with a neutral value of 3 signifying "neither agree nor disagree."

Subjects also were given a blank profile which was identical to the profiles they judged except that each scale was a 7-point scale, allowing for a neutral point at 4. Subjects were asked to construct their own attitude profiles by circling a number between 1 and 7 to indicate their attitude toward each of the four objects.

Procedure

Subjects completed the task in groups of four. Each subject was given a set of profiles and worked at his own speed. The first four profiles were the same for all subjects. Two subjects in the group were presented the remaining profiles in one randomized order and the other two subjects were presented the profiles in the reverse of that order. Half the groups were given the attitude scales at the beginning of the session and the other half completed the attitude scales after making profile judgments. The "own profile" sheet was always completed at the end of the session. Subjects required usually between 1 and 1 1/2 hours to complete all phases of the study.

Analysis

Scale values were derived for each subject on each attitude by first assigning a +1 or -1 to each item according to whether it was pro or con the issue in question. Then subjects' responses to the items were transformed into -1, indicating disagreement with the item; 0, indicating neutrality; or +1 indicating agreement. The sum of the products of subjects' transformed responses and the item weights was used as the scale value. The resulting scale values had a possible range from -24 to +24.

Prior to the analyses, the criterion ratings were rescaled to range from -4 to +4. The basic analysis in this situation consists of using various systems of combining the four cue variables in order to predict the criterion variables. The various models, utilizing multiple regression techniques and the information provided by the subject about his own profile and scale values are described in detail in the "Results and Discussion" section.

Results and Discussion

Descriptive Analyses

Linear multiple regression. In order to determine the types of judgment rules that subjects used, a multiple regression analysis was performed with the cue values as predictors and the four criterion scales, in turn, as criteria. The algebraic formulation of the model is Model A in Table 1. The mean multiple correlations are given in the first column of Table 2. One subject chose a constant value for the last two criteria, indicating apparently that he never gossips or criticizes. Since the multiple correlation for him was indeterminant, he was dropped from the sample for the Gossip and Criticize criteria. Thus, the means for those criteria are based on an N of 23.

Individual differences are reflected in the variation in the multiple correlations which indicate that the linear model is quite adequate to account for the judgments of some subjects and inadequate for others.[2] There is also wide variation in the beta weights. These weights are an indication of the relative importance of the cues in judging the profiles. In view of these differences, it would be unreasonable to expect a single set of predictions to predict well for all subjects.

Dichotomization of the cue values. In most studies of cognitive interaction the components of the compound stimuli to be judged are not quantitative variables, as are the cues in the present study. For example, in the Triandis and Fishbein (1963) study the race of the stimulus person was either Negro or white and the occupation was either coal miner or bank manager. The use of components which vary by steps raises the question of what type of information the subject actually uses in making his judgments. Specifically, does the subject consider the entire range of cue values in making his judgments or does he simplify the task by disregarding the actual cue value and base his judgment only on the indicated direction of the attitude (positive or negative)? In order to determine if this was the case, a new set of stimuli

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[2] A table giving each subject's beta weights for the "Accept" criterion and tables giving the correlations between each subject's responses and the predictions of the various models has been deposited with the American Documentation Institute.

Prediction Models

A.	$\hat{Y}_{ik} = \sum_{j=1}^{4} b_{ij}x_{kj} + c$	Multiple linear regression
B.	$\hat{Y}_{ik} = \sum_{j=1}^{4} b^{*}_{ij}x'_{kj} + c$	Multiple linear regression with dichotomized cue values
C.	$\hat{Y}_{ik} = \sum_{j=1}^{4} s_{ij}x_{kj} + c$	Adaptation of Fishbein's model
D.	$\hat{Y}_{ik} = \frac{m\sum_{j=1}^{4}\lvert s_{ij}x_{kj}\rvert \ (s_{ij}x_{kj})}{\sum_{j=1}^{4}\lvert s_{kj}x_{kj}\rvert} + c$	Adaptation of Osgood's model
E.	$\hat{Y}_{ij} = m\sum_{j=1}^{4} 1'_{ij}s'_{kj} + c$	Suggested by Byrne's law of attraction
F.	$\hat{Y}_{ij} = m\sum_{j=1}^{4} o_{ij}x_{kj} + c$	Own profile responses used as weights
G.	$\hat{Y}_{ij} = m\sum_{j=1}^{4} x_{kj} = c$	Unweighted sum of cue values

where,

$\hat{Y}_{ik}$ = predicted response of subject i to profile k

x_{kj} = cue value on profile k for cue corresponding to attitude j

s_{ij} = scale value for subject i on attitude j

b_{ij} = regression weight for x_{kj} in predicting responses of subject i

$$x'_{kj} = \begin{cases} 1, & \text{if } x_{kj} = 4, 5, \text{ or } 6 \\ -1, & \text{if } x_{kj} = 1, 2, \text{ or } 3 \end{cases}$$

b^{*}_{ij} = regression weight for x'_{kj} in predicting responses of subject i

o_{ij} = own profile response for subject i on attitude j

$$1'_{ij} = \begin{cases} -1, & \text{if } o_{ij} = 1, 2, \text{ or } 3 \\ 0, & \text{if } o_{ij} = 4 \\ 1, & \text{if } o_{ij} = 5, 6, \text{ or } 7 \end{cases}$$

m and c are constants which minimize the squared errors of prediction.

were constructed according to the following rule: If the original cue value was 1, 2, or 3, then the new cue value was -1. If the original cue value was 4, 5, or 6, then the new cue value was +1. These "dichotomized" cues were substituted for the original cues in the multiple regression analysis. Such a transformation would necessarily lead to a decrease in the multiple correlation if the subject actually did take into account whether a hypothetical person was, say, strongly pro or just moderately pro church. On the other hand, such a transformation would lead to an increased multiple correlation in case the subject only took into account whether the profile was pro or anti church, regardless of the degree.

The results of this analysis are presented in the second column of Table 2. The transformation to dichotomized cue values resulted in little loss of predictability, on the average. In fact, for several of the subjects the multiple correlation actually increased when dichotomized cues were used. The number of subjects for whom the multiple correlation with dichotomized cues was equal to or greater than the multiple correlation with continuous cues is as follows: Accept, 7; Admire, 6; Gossip, 11 (out of 23); Criticize, 7 (out of 23). In addition there were several subjects for whom the multiple correlation with dichotomous cues was nearly as great as the multiple correlation with continuous cues and several subjects for whom there was a considerable loss of predictability with dichotomous cues.

The conclusion is that some subjects took into account only which side of the neutral point a cue was on and not how far from the center it was. Other subjects did not simplify the profiles in this way. It is also possible that some subjects dichotomized some of the cues and not others.

Cluster Analysis. A method developed by Tucker (1967) was applied in an attempt to discover the underlying structure of individual differences in this judgment task. A 200 x 24 matrix, called X, was formed by stringing out the 200 judgments (ratings of 50 profiles on 4 scales) for each of the 24 subjects. The characteristic roots and unit length vectors of the matrix k^2 X' X were computed, where k^2 is the number of subjects divided by the sum of the diagonal values of X' X. The roots show that the subjects have little variance in common. The first three components account for only 47 per cent of the variance. To account for 85 per cent of the variance, 11 components would be required. A plot of the subjects in the three-space determined by

the first three components showed a wide dispersion of subjects, with no cluster of more than two subjects, and few of those.

The lack of common variance among subjects is not surprising. The subjects differ on their beta weights (even within a subject there will be different beta weights for different criteria), their degree of consistency, which cues they use, and what cue information they use. Variations on these factors could easily produce a wide dispersion among 24 subjects. The fact that subjects were so widely dispersed may be an indication of the number of factors that influence human judgment.

Theoretical Prediction Models

Osgood's congruity model and Fishbein's summation model provide alternative formulae for predicting judgments of the attitude profiles. In addition, Byrne's law of attraction suggests a simple model for predicting judgments.

Osgood's congruity model. In order to make predictions from congruity theory in the present context, it is assumed that the polarity of a cue on a particular profile for a particular subject is the cue value for that cue (rescaled to range from -2.5 to +2.5) multiplied by the subject's scale value on the attitude corresponding to that cue. Given this assumption, the predictions for Osgood's model are computed by formula D in Table 1.

Fishbein's summation model. In order to apply Fishbein's model, the above assumption is made and the polarities are simply summed to arrive at a prediction. The belief strengths are assumed to be 1 for all components since the subject was supplied with definite information. The prediction formula is C in Table 1. Model F in Table 4, hereafter called the "own profile" model, could be considered as an alternative expression of Fishbein's summation model. It is identical to Model C except that own profile responses are used as weights instead of scale values. The exact nature of the difference between these two types of weights is unknown. The attitude scales are presumably more reliable, since they are based on 24 items of information.

Byrne's model. Although Byrne's law of attraction (Byrne and Nelson, 1965) is not a stimulus pooling model, it suggests a prediction model for this data which has an appealing simplicity. The law of attraction can be stated simply: Attraction toward Y is a positive linear function of the proportion of positive reinforcements received from Y. This law can be used to predict responses in this experiment if "proportion of positive reinforcements" is interpreted as

"the proportion of dichotomized profile cue values that are alike in sign to the subject's own profile response on the corresponding attitude." Dichotomized cue values are used because Byrne's law of attraction gives equal importance to all positive reinforcements. The subjects' own profile responses are trichotomized for the same reason, e.g., the Church dimension must be weighted equally whether the subject is moderately pro-church or strongly pro-church. Model E in Table 1 results from this interpretation of Byrne's law of attraction.

Differences among the models. In models C and D in Table 1 the relative importance of the cues in making predictions depends upon the relative numerical sizes of the scale values for the subjects. Thus, if a subject has a high scale value for Church--indicating a positive attitude toward the church--the cue value for Church will be weighted positively in predicting his responses. If he has, say, a low positive scale value for drinking, then this component will not add much to the predictions, regardless of the cue value. It is apparent that the predictions from model D (Osgood's) include two "extremity effects." First, the cues corresponding to extreme attitudes of the subject will be given more weight, and second, a given cue will have a higher weight when it takes on an extreme value than when it takes on a moderate value. The Fishbein model (C) provides no extra weight for either extreme scale values or extreme cues. This is the essential difference between the Osgood and Fishbein models in this study. Since the models are compared in a correlational context and all profiles have four components, this study does not bear on the summation vs. averaging aspects of the models (Anderson, 1965; Fishbein & Hunter, 1964).

The application of Byrne's model to these data is not completely straightforward. Byrne's studies generally employ more than four statements on which there is agreement or disagreement. Furthermore, a high degree of agreement between a profile dimension and a subject's attitude might indicate more positive reinforcements, i.e., statements to which both agree, than just moderate agreement. Model E should, therefore, be considered as a model suggested by Byrne's work and not as a model which will provide a test of Byrne's law of attraction.

The unweighted sum predictions (model G) are identical for all persons. This model is included as a control since the usefulness of any model that could not predict better than the unweighted sum of the cue values would be suspect. Since no assumption is made as to direction of correlation, a high negative correlation is just as important as a high positive correlation. For this reason means of the absolute values of the correlations are reported.

It is obvious from the above discussion that the differences between the models applied to these data are essentially differences in weights for the cue values--own profile weights vs. scale value weights; extra weight for extreme elements vs. no extra weight for extreme elements vs. equal weights for all elements; weights specific to each individual vs. same weights for all individuals.

Empirical comparison of the models. Table 2 presents the mean correlations of the predictions from the models with actual responses. Overall, the theoretical models predicted worse than the multiple regression equation, as would be expected, but better than the unweighted sum model, as would be hoped. The individual correlations range from nearly as high as the multiple correlation to nearly zero and even negative. Judging from the mean correlations, it might be concluded that the own profile predicts best and it is followed by Byrne's model with Fishbein's and Osgood's models predicting least well. Such a conclusion assumes that deviations from this pattern are due to chance variations. However, the order observed in the means of the four theoretical models (F-E-C-D) is reflected in the correlations for only four subjects on the Accept criterion, four subjects on the Admire criterion, five subjects on the Gossip criterion and one subject on the Criticize criterion. Moreover, Table 3 shows that each model predicts best for at least one subject. Although, for each criterion, the own profile model (F) gives the highest correlations for more subjects than any of the other models, there is no reason to conclude that the own profile model is the best model of cognitive interaction since this model does not predict best for more than half the subjects on any criterion. Furthermore, if the models are compared pair-wise on a subject-by-subject basis, it is possible to find subjects for whom either model is consistently better. For example, for subjects 18 and 21, the own profile model predicts consistently better for all criteria than Fishbein's model. For subjects 04 and 05, the reverse is true. The exception to this is

TABLE 2

Mean Correlation of Predicted Responses with

Actual Responses for all Prediction Models

	Model						
Criterion Scale	A	B	C	D	E	F	G
1. Accept	69	67	48	46	54	58	31
2. Admire	70	68	49	47	53	59	35
3. Gossip	59	58	43	40	47	48	29
4. Criticize	58	56	35	33	37	41	31

TABLE 3

Number of Subjects for hich Each

Theoretical Model Predicted Best

	Model				
Criterion Scale	C	D	E	F	G
1. Accept	5	1	4	12	2
2. Admire	7	2	1	11	3
3. Gossip	5	3	6	8	1
4. Criticize	4	2	1	9	7

the Osgood-Fishbein comparison where the Fishbein model predicts consistently better or nearly the same as the Osgood model for all subjects. This is evidence that the weighting of the elements by their polarity does not increase accuracy of prediction.

Tables 2 and 3, combined with the results of the descriptive analyses, lend strong support to the hypothesis that there are individual differences in cognitive interaction. It should be possible to relate these differences to other variables. In fact, it could be argued that the failure to find a relationship between style of cognitive interaction and some other variables would be evidence that the differences referred to are simply due to chance variations. Unfortunately, the evidence for a relationship between style of cognitive interaction and other variables in this study is very weak. The variables considered were (a) linearity of response, as measured by the magnitude of the multiple correlations (Model A); (b) dichotomization of cues, as measured by the difference between correlations for models A and B; (c) sex; (d) fraternity membership; (e) the experimental manipulations of order of presentation of profiles and measurement of attitudes before or after the judgment task. The only significant relationship between any of the above variables and the models is that the linearity of the responses correlated highly with the correlations for all the models. That is, the higher the linearity of a subject, the higher will be his correlations for all of the theoretical models. This is not very revealing.

The failure to find any meaningful relationships between the above variables and cognitive style is disappointing but not totally unexpected. It is difficult to hypothesize what the relationships among the above variables should be. A finding that, say, the own profile model is best for subjects with highly linear judgment patterns, while very interesting, would be difficult to interpret.

A characteristic of the subjects' responses not included above is the beta weights from model A. The correlations between the beta weights for predicting responses on the Accept criterion and the attitude scale values and own profile responses of the subjects is presented in Table 4 as a multitrait-multimethod matrix (Campbell & Fiske, 1959). The beta weights for the profile cues do correlate with the corresponding own profile responses and attitude scale values. Thus, it appears that while the differences in accuracy of prediction

TABLE 4

Multitrait-Multimethod Matrix

		Beta Weights[a]				Scale Values				Own Profile			
	Attitudes[b]	1	2	3	4	1	2	3	4	1	2	3	4
Beta Wgts	2	10											
	3	-20	33										
	4	10	08	10									
Scale Values	1	80	27	12	25								
	2	07	72	32	11	22							
	3	-23	36	69	12	10	12						
	4	17	02	11	76	31	07	18					
Own Profile	1	86	08	-20	05	80	04	-11	12				
	2	-19	80	28	08	03	79	31	00	-19			
	3	-43	21	71	21	-10	04	63	15	-37	20		
	4	09	-00	18	80	32	14	14	83	15	00	27	

[a] The beta weights used were those for predicting the "Accept as an intimate friend" criterion scale.

[b] 1 - Church

2 - Capital Punishment

3 - Drinking

4 - College Fraternities

of the various models are not predictable, the differences in the optimal weights are, to some degree, predictable.

Conclusion

There seems to be general agreement among theorists that some combination of weighted characteristics of a compound stimulus will predict the response to that stimulus. The characteristics may include the evaluation of the elements of the compound, the redundancy of the elements, the products of the scale values of pairs of elements, or any other quantitative characteristic of the compound. The weights may imply averaging or summation, or may be related to importance or polarity or number of components, or some other characteristic of a subject, group of subjects, or the element itself. In addition, the present study has shown that a transformation of the quantitative characteristics of the elements of the compound (dichotomization of cue values) may be useful in prediction.

The results of this study suggest that there are differences among individuals in the applicability of the various models of cognitive interaction. These differences were not related to any of the variables included in the study. However, there were also wide individual differences in the optimal weighting systems (beta weights) between individuals. These differences were related to the subjects' attitude scale values and own profile responses.

These considerations lead to the conclusion that the important variables in cognitive interaction are not pre-packaged models but are transformations of input, terms in the prediction equation, and weighting systems. Past research has concentrated on finding which model predicts best for a group of subjects. A more fruitful line of research would deal with finding ways to determine the following characteristics of the best prediction model for each subject, a priori:

a) Transformations of the input characteristics (e.g., dichotomizing cue values, sine transformation of cue values),
b) Terms involving the component elements (e.g., cue values, products of cue values, redundancy of elements, affect of each element, credibility of elements in combination),
c) The optimal weighting for these terms (e.g., unities, importance, belief strength, attitude scale value, polarities).

In other words, the goal of research on cognitive interaction should be to be able to measure certain variables for an individual and on the basis of these measurements construct a formula that predicts responses to compound stimuli.

The particular characteristics singled out here as important in prediction equations may be a result of the content and method of the present study. Research is needed in other content areas with other tasks with an eye to determining the important variables of cognitive interaction rather than verifying a universal prediction equation.

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APPENDIX

Tables for the

American Documentation Institute

TABLE A

Beta Weights and Multiple Correlation for Predictions of the "Accept as an Intimate Friend" Criterion Scale

Subject Number	Profile Cue				Multiple Correlation
	Church	Capital Punishment	Drinking	College Fraternities	
01	.60	-.10	-.29	.43	.82
02	.69	.19	-.02	.23	.82
03	.10	-.40	-.12	-.35	.55
04	.57	.31	.10	.23	.76
05	.11	.28	.41	-.46	.63
06	.66	.01	-.18	-.07	.69
07	.20	-.31	-.09	-.51	.61
08	.08	-.22	-.30	-.27	.49
09	.42	-.05	.22	.65	.88
10	.13	-.17	-.04	.00	.20
11	.30	.12	.30	.62	.85
12	-.67	.15	.09	-.21	.73
13	.66	.18	.03	-.56	.84
14	.34	-.50	.22	.06	.59
15	.04	.23	.26	-.69	.72
16	.56	.07	.03	.08	.61
17	.28	-.10	-.07	.62	.71
18	.41	-.40	-.46	-.35	.81
19	.75	-.22	.01	-.40	.78
20	.18	-.26	.50	-.08	.56
21	.55	-.36	.01	-.37	.66
22	-.13	-.70	.17	.17	.78
23	.08	.21	.64	.37	.84
24	.12	-.22	-.52	.24	.59
Mean	..29	-.09	.04	-.03	.69

TABLE B

Correlation of Predicted Responses with Actual Responses on the "Accept as an Intimate Friend" Criterion Scale

S No.	Model A	B	C	D	E	F	G	Best Model[a]
01	32	80	71	67	68	78	41	F
02	82	84	76	76	72	80	64	F
03	55	55	41	38	48	47	43	E
04	76	84	73	67	65	52	70	C
05	63	60	59	58	57	54	16	C
06	69	70	57	48	48	61	27	F
07	61	59	-56	-52	33	29	39	G
08	49	45	27	26	32	35	38	G
09	88	87	78	72	73	84	71	F
10	20	21	05	09	19	17	04	E
11	85	80	80	77	65	73	76	C
12	73	64	65	68	52	69	40	F
13	84	78	79	77	76	82	18	F
14	59	62	58	48	54	56	06	C
15	72	58	22	21	48	44	13	E
16	61	66	47	50	22	34	44	D
17	71	78	52	49	48	54	43	F
18	81	79	70	57	77	81	40	F
19	78	74	62	66	62	67	10	F
20	56	47	-26	-2?	41	40	16	E
21	66	57	36	34	48	56	08	F
22	78	76	51	49	60	75	29	F
23	84	82	77	73	76	72	69	C
24	59	56	48	49	49	50	16	F
Mean	69	67	48	46	54	58	31	

[a] i.e., the model with the highest correlation, to the third decimal place, excluding models A and B.

TABLE C

Correlation of Predicted Responses with Actual Responses on the "Admire" Criterion Scale

S No.	Model A	B	C	D	E	F	G	Best Model
01	80	79	71	68	66	76	42	F
02	86	88	82	81	68	82	56	C
03	67	63	35	33	57	48	58	G
04	82	91	75	70	73	60	69	C
05	67	64	64	63	59	57	14	C
06	74	70	72	66	43	63	06	C
07	49	53	-12	-38	36	29	30	E
08	58	55	38	35	39	45	48	G
09	87	84	76	74	65	81	68	F
10	14	14	04	06	06	11	02	F
11	80	73	71	68	58	69	69	C
12	69	57	61	66	44	61	42	D
13	80	76	76	74	74	78	13	F
14	64	65	61	54	54	61	03	C
15	64	54	22	18	41	48	01	F
16	61	70	49	47	37	43	19	C
17	85	83	56	54	46	59	37	F
18	85	84	77	65	78	84	42	F
19	79	77	60	56	64	69	47	F
20	59	51	-35	-33	46	47	13	F
21	72	60	41	42	58	66	28	F
22	75	74	53	54	50	68	30	F
23	85	83	74	65	71	75	80	G
24	65	57	45	51	41	46	23	D
Mean	70	68	49	47	53	59	35	

TABLE D

Correlations of Predicted Responses with Actual Responses on the "Gossip With" Criterion Scale

S No.	Model A	B	C	D	E	F	G	Best Model
01	65	72	50	51	46	50	44	D
02	73	67	68	70	58	72	61	F
03	48	49	29	29	46	42	42	E
04	73	84	70	65	67	53	65	C
05	66	64	62	59	59	58	18	C
06	39	48	39	32	25	30	07	C
07	32	28	23	16	-24	-28	00	C
08	26	31	03	-01	21	09	14	E
09	86	80	68	60	65	73	62	F
10	27	23	04	08	20	21	04	F
11	81	70	75	78	62	75	66	D
12	56	48	55	53	36	51	37	C
13	73	77	72	65	72	68	10	E
14	53	59	46	35	57	44	13	E
15	68	56	46	47	55	52	09	E
16	36	39	21	23	29	33	26	F
17	70	72	44	41	45	51	58	G
18	84	84	75	62	82	84	42	F
19	66	59	54	51	57	65	32	F
20	55	59	-27	-27	57	45	06	E
21	38	30	23	21	25	33	04	F
22	65	65	25	20	57	60	04	F
23	76	71	59	61	58	52	50	D
Mean	59	58	43	40	47	48	29	

TABLE E

Correlations of Predicted Responses with Actual Responses on the "Criticize" Criterion Scale

S No.	Model A	B	C	D	E	F	G	Best Model
01	78	70	68	66	63	73	33	F
02	74	76	73	68	65	71	52	C
03	51	43	29	34	38	45	46	G
04	75	82	70	64	64	51	68	C
05	65	60	60	61	54	52	12	D
06	32	30	08	06	07	13	02	F
07	62	52	-48	-48	13	08	29	G
08	47	43	33	32	29	39	38	F
09	87	82	76	75	66	82	69	F
10	19	16	11	12	06	08	16	G
11	61	62	54	49	46	47	50	C
12	46	42	-29	-24	-26	-35	00	G
13	67	68	65	62	64	65	06	F
14	40	42	37	32	34	37	01	C
15	54	46	-09	-13	14	11	18	G
16	51	52	47	48	17	27	20	D
17	61	59	38	30	42	47	32	F
18	87	84	79	67	78	86	46	F
19	72	66	50	50	55	64	46	F
20	27	21	-14	-12	-03	07	14	G
21	60	63	30	31	57	52	27	E
22	65	62	55	52	37	55	40	F
23	63	58	26	23	24	31	34	G
Mean	58	56	35	33	37	41	31	

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13. ABSTRACT

Subjects rated a set of attitude profiles on four behavior differential scales--"like," "accept as an intimate friend," "gossip with," and "criticize." Each profile represented a hypothetical person's attitudes toward church, capital punishment, drinking and college fraternities. The subjects' attitudes toward the same four objects were measured. Several models of cognitive interaction were used to predict each subject's responses. No single model was adequate to account for the judgments of all subjects. The results suggest that there are important individual differences in style of cognitive interaction.

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