JOURNAL OF EXPERIMENTAL SOCIAL PSYCHOLOGY 24, 88–104 (1988)

Leader Prototypes and Prototype-Contingent Consensus in Leader Behavior Descriptions

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Received November 29, 1986

A categorization model of leader perception suggests that people process and retrieve social information in terms of preexisting cognitive schemata. As a result, memory-based descriptions of leader behavior are thought to be systematically biased by individual prototypes of leadership. While direct evidence of schematic retrieval is difficult to show unequivocally, a corollary hypothesis derived from the model suggests that a collection of behavioral descriptions of different leaders should be very similar due to the common intrusion of leader prototypes. The results of the present study, in fact, revealed a significant tendency for individuals (N = 60) with similar prototypes of leadership to describe the leader behavior of their supervisors in a similar fashion, even though none of the subjects interacted with the same supervisor. Moreover, consensual agreement in leader behavior descriptions was evident only when the subjects shared a common prototype (good or poor) which was consistent with the evaluative label (good leader/poor leader) ascribed to the supervisors. These results appear to be in full accord with the effects of cognitive categorization processes.

This study specifically explores whether individuals with similar prototypes of leadership tend to describe the leader behavior of their supervisors in a similar fashion. The issue of leadership, however, is really secondary to the central thrust of the study. Of central interest is the long-standing concern over the relative influence of the perceiver and the perceived in determining social perceptions (cf. Dornbusch, Hastorf, Richardson, Muzzy, & Vreeland, 1965). It has long been thought that the perceiver may play a highly significant role in determining the nature

Portions of this paper were presented at the 30th Annual Meeting of the Southeastern Psychological Association (March 1984), New Orleans, LA. We acknowledge the early efforts of B. P. Kosevski in data preparation and preliminary analyses. We also extend our gratitude to two anonymous reviewers for their helpful comments on an earlier draft of this paper, particularly those pertaining to points of discussion. Inquiries and requests for reprints should be sent to Michael C. Rush, 418 Stokely Management Center, The University of Tennessee, Knoxville, TN 37996.

0022-1031/88 $3.00

of person perceptions, largely due to the effects of certain cognitive processes endemic to perception. Recent work in the area of social cognition, in particular, suggests that person perception may be highly influenced by the effects of a process called "cognitive categorizaton."

Categorization, in brief, is the cognitive process of identifying a particular stimulus (e.g., a material object with four legs) as a member of a certain class of stimuli (e.g., chairs). Theoretically, the stimulus object is identified as a potential member of a category on the basis of how well the attributes of the stimulus are perceived to match the attributes of other similar objects comprising the category (Fiske & Pavelchak, 1986). Knowledge about the attributes of the members of a category, as well as knowledge of the relation among attributes, is thought to reside in a cognitive structure known as a schema. Category schemata, thus, serve a central function of organizing knowledge and expectations about the type of stimuli that fall into particular cognitive categories (Rumelhart & Ortony, 1977). Recent research (e.g., Rosch, 1978; Rosch & Mervis, 1975) has shown that categorization and social schemata can significantly influence how objects, events, and social roles are perceived. Schematic processing may also significantly influence a person's perception, memory, and expectations of others (Cantor & Mischel, 1979; Fiske & Pavelchak, 1986).

A recently proposed model of leader perception (Lord, Foti, & Phillips, 1982), for example, argues that perceiving someone as a leader essentially involves a process of determining whether or not the person resembles, in any way, the expected qualities of a leader. That is, does the person resemble, in character or behavior, any preexisting cognitive categories of leadership, such as a business leader, a military leader, a political leader, and so on? The theory draws heavily on the work of Rosch (1978) and others (e.g., Cantor & Mischel, 1979; Hastie, 1981; Rosch & Mervis, 1975) and presupposes that person perception, like object perception, involves a relatively simple process of recognizing a stimulus person as a possible member of preexisting cognitive categories of persons. Specifically, observers are thought to perceive and classify someone as belonging to one of several preexisting leader categories based on the perceived similarity of the stimulus person to a category prototype (Foti, Fraser, & Lord, 1982; Lord et al., 1982).

Prototypes are easily accessed schemata which serve as abstract representations of the most representative (stereotypic) member of a particular category (Rosch, 1978). They are thought to not only facilitate the task of recognition and interpersonal understanding as suggested above, but also to provide an essential and highly efficient means for assimilating (i.e., encoding and storing) new information pertaining to a particular person/leader once categorized (Lord et al., 1982). Cognitive prototypes are also thought to simplify subsequent retrieval of leader-related information due to the ease with which prototypes are accessed, and to the

fact that all the general knowledge and expectations associated with the category can be applied to the categorized person without having to verify that the features in fact apply (Fiske & Pavelchak, 1986). Essentially, an observer may simply recall an ascribed category label (e.g., leader/follower) and the associated prototype in order to represent or describe the person at a later time (Lord et al., 1982).

One practical consequence of this process, however, is that observers frequently experience difficulty in distinguishing between information particular to a person and prototypic information (Tsujimoto, 1978). Under difficult or unexpected memory conditions, schematic processing may introduce a deceptively coherent bias in memory-based behavioral descriptions of others (cf. Lamiell, 1980; Shweder, 1980). That is, an observer may produce an apparently consistent description of another without being aware of which pieces of information are factual and which pieces are simply prototypic for that kind of person. It is this effect that has drawn the most research attention.

For example, it has been shown recently that observers' recall of particular leader behaviors can be significantly altered by the type of leader prototype initiated. Specifically, Lord et al. (1982) found that the behaviors independently judged to be most indicative of a "good" and "poor" leader (prototypic items) on a common leadership scale (the Leader Behavior Description Questionnaire; Stogdill, 1963) were also the ones most susceptible to the effects of bogus performance information. That is, subjects rated the incidents of leader behavior prototypic of a poor leader as occurring significantly more frequently than the incidents of nonprototypic behavior when the leader was thought to be associated with a "poor" performing group. Similarly, incidents of prototypic good leader behavior were rated significantly higher when the leader was associated with "good" performance, even though the exhibited/observed behavior of the leader was exactly the same in all conditions (cf. Rush et al., 1981). These results suggest that a performance cue acts as a label which influences ratings of prototype-consistent behavioral items by triggering a particular leader prototype (good or poor) among raters.

Other studies (Phillips, 1984; Phillips & Lord, 1982) have shown similar effects; i.e., subjects tend to report having observed more label(cue)-consistent prototypic behavior, even thought the leader did not exhibit the behavior, when provided with a bogus performance cue. Interestingly, the subjects were also relatively accurate in reporting the occurrence of prototypically neutral and good leader behavior which the leader did exhibit, and less so in reporting the occurrence of prototypically ineffective behavior (cf. Phillips, 1984). That is, the subjects were not very good at recalling observed incidents of ineffective leadership, which suggests that a "good" leader prototype may be more salient than a "poor" leader prototype.

Though not extensive, these results seemingly support some of the hypothesized effects of a categorization model of leader perception. According to the model (Lord et al., 1982), observers should be able to recall the occurrence of specific behavioral incidents which are prototypic of leadership in a fairly accurate fashion due to the assimilative role of the categorization process and prototypes. Observers should also tend to bias recall of leader behavior toward label-consistent prototypic behavior triggered by a salient label (or performance cue). The seeming paradox over accuracy and distortion stems from the fact that exhibited prototypic behavior should be easy to recall because it has been assimilated within an existing prototype. However, the prototype may also augment recall with additional label-consistent, nonfactual information.

Despite the intuitive appeal of these arguments, it should be noted that it is extremely difficult to show direct evidence of the type of schematic retrieval described here in an unequivocal fashion. It should be possible, however, to demonstrate a corollary effect derived from the model in a relatively unambiguous fashion. Specifically, if the process of labeling, categorization, and retrieval operates as suggested, memory-based descriptions of leader behavior offered by individuals with similar prototypes of leadership should be very similar due the biasing effect of the common prototype. Prototype-contingent agreement among individuals in their leader behavior descriptions (particularly if the descriptions are of different leaders) would be fairly compelling, albeit indirect, evidence for the proposed role of categorization and social schemata in determining social perceptions. As Dornbusch et al. (1965) noted several years ago, "If each person employs a rather consistent set of categories for the interpretation of his (or her) social world, the same general categories should be present in descriptions of other people who vary considerably in their characteristics" (p. 434). The present study, based on a proposed categorization process (Lord et al., 1982), extends this line of reasoning to suggest that a collection of behavioral descriptions of many different leaders, provided by *different* individuals, should be very similar due to the intrusion of common leader prototypes.

METHOD

Subjects

Sixty full- or part-time employed individuals (55 and 45%, respectively) enrolled in sections of a graduate business course at the University of Tennessee provided complete data necessary for the study. The participants, 49% of whom were women, ranged in age from 23 to 55 years (M = 33.9, SD = 8.8) with organizational tenure of less than 1 year to over 34 years (M = 4.8, SD = 5.3) and position tenure of less than 1 year to over 19 years (M = 2.6, SD = 3.2).

Biographical information also indicated that the sample varied substantially in academic interest (11 different programs; e.g., MBA, Education, Engineering, Nursing), and occupational involvement (38 different organizations, 43 different occupations; e.g., administrators,

accountants, clerks, professors, secretaries). Content analysis further indicated that none of the participants employed by the same organization worked in the same department or held the same job title. In effect, none of the subjects reported to the same supervisor.

Procedure

The data for the study were collected in several stages. Participants completed two surveys on their own time outside of class, administered approximately 2 weeks apart. Each survey was administered under the auspice of a different course exercise, and on each occasion subjects understood that the data would be used for class discussion and possible research purposes. Participation and release of the data was voluntary. Surveys were collected immediately after each class discussion.

Measures

On the occasion of the first survey, subjects were asked to consider their current job or position and then complete several standard descriptive measures of job characteristics and job satisfaction. At the end of the survey, they were also asked to describe their idea of what an effective (good) and ineffective (poor) leader would be like for them using instruction-modified versions of the Leader Behavior Description Questionnaire (LBDQ; Stogdill, 1963) in a counterbalanced design. The LBDQ measure consisted of 10 items for each of the dimensions of Initiating Structure, Consideration, Role Assumption, and Production Emphasis. These four scales reflect incidents of behaviors oriented toward letting the followers know what is expected, the comfort and well-being of followers, the active exercise of the leadership role, and pressure for productive output, respectively (Stogdill, 1963). It is important to note that no mention was made of these prototype measures during or after the class discussions.

On the second occasion, nearly 2 weeks later and without reference to the first survey, the participants were asked to describe their current supervisor using a 40-item version of the LBDQ, again measuring Initiating Structure, Consideration, Role Assumption, and Production Emphasis. While labeling these responses as a behavioral measure of leadership may be somewhat of a misnomer, since the instrument requires memory-based judgments about the incidents of leader behavior, many of which lack a specific behavioral referent (e.g., "s/he is friendly and approachable"), the scale nevertheless is the most widely used and validated measure in the area of leadership (cf. Bass, 1981). Coefficient alpha reliabilities for the scale dimensions of the leader behavior descriptions and leader prototype measures obtained in the present study ranged from .78 to .96. As expected, moderate interscale correlations within measures were also evident for all three measures.

In addition to completing the scales noted above, the subjects also provided specific evaluations of their supervisor in terms of his/her contribution to group and personal effectiveness, degree of exerted influence, amount of exhibited leadership, and degree of control over group activities. These evaluations were measured on five 5-point scales (*none* to *extreme amount*), and are similar to the measures described by Lord (1977) and Rush et al. (1981). Two additional items were used to assess the participants' global evaluation of their supervisor ("Generally, how well do you evaluate your supervisor?" *very good* to *very poor leader*) and their affective reaction to their supervisor ("What is your general feeling towards your supervisor?" *very negative* to *very positive*). All seven of the evaluation items were answered after the subjects had completed the leader behavior description measure.

RESULTS

The task of determining whether individuals with similar prototypes of leadership also tend to offer similar descriptions of their supervisors

begins with an attempt to establish that the measures employed in the study were not redundant assessments of the same entity. This is a fairly important starting point, since the subjects provided the measures under a common format. The expected overlap of prototypes and behavioral descriptions would be of little theoretical interest if the measures were found to be near replicas of each other, as might occur if common method (response) bias were operating during the collection of data, or if gathering the prototype measures had primed those prototypes for later use in the behavioral descriptions. As described below, analyses strongly suggest that this was not the case.

Table 1 presents the scale means and intercorrelations among the measured variables, as well as an analysis of the intercorrelations. The analysis represents a form of an analysis of variance described by Kavanagh, MacKinney, and Wolins (1971) as appropriate for evaluating the degree of convergent and discriminant validity exhibited by the pattern of intercorrelations among a set of multiscale measures. As reported, this analysis strongly suggests that the prototype measures and the leader behavior measures were viewed as separate and distinct measures. The significant person(profile) $\times$ measure interaction [$F(118, 354) = 3.34$, $p < .01$] obtained for the full matrix is taken as evidence of discriminant validity and specifically suggests that the profiles differed significantly depending on whether the subjects were describing their good leader or poor leader prototype or describing their supervisor's behavior. The small and nonsignificant person(profile) $\times$ scale interaction [$F(177, 354) = 0.80$, ns] further suggests a lack of consistent response to the scales across measures. Analyses of the partial matrices were virtually the same. In each case, the person $\times$ measure interaction was significant, suggesting that the respective sets of measures (e.g., good/poor prototype and leader description) were conceptually distinct and independent (i.e., they exhibit significant discriminant validity). Thus, any consensus in leader descriptions and prototypes revealed in subsequent analyses cannot be attributed solely to common method (response) bias or priming.

As expected, the analysis of the full matrix also revealed a small but significant main effect for "person" ($F = 4.82$, $p < .01$). The main effect suggests that the subjects' assessments of a good leader prototype and a poor leader prototype were somewhat related, and that leader descriptions converged with a good prototype for some subjects and a poor prototype for other subjects. Although these findings indicate some convergence among the measures, and may seem consistent with a categorization model, they should be interpreted cautiously, since the findings pertain to relationships among variables rather than consensus among individuals.

In order to examine specifically the consensual agreement hypothesis, the present sample of leader prototypes and leader descriptions were separately clustered into subsets of relatively similar (homogeneous) profiles

TABLE 1

MULTISCALE-MULTIMEASURE CORRELATION MATRIX OF LEADERSHIP RATINGS WITH SUMMARY ANALYSES OF VARIANCE OF SOURCE COMPONENTS

Measure	Scale	M	SD	1	2	3	4	5	6	7	8	9	10	11
Lead	IS (1)	33.60	6.28											
	C (2)	33.37	7.99	31										
	RA (3)	36.90	8.32	74	56									
	PE (4)	30.57	6.89	60	−11	46								
Good	IS (5)	39.32	3.93	28	−11	09	26							
	C (6)	41.32	4.47	33	01	22	28	49						
	RA (7)	42.50	4.68	26	19	34	23	60	50					
	PE (8)	33.62	4.40	05	−08	−09	35	55	32	41				
Poor	IS (9)	24.11	7.97	07	−33	04	27	−18	18	01	−09			
	C(10)	16.52	6.07	−04	−26	−05	10	12	−18	07	09	19		
	RA(11)	21.43	8.85	19	−39	06	26	08	28	02	01	51	42	
	PE(12)	28.27	8.74	17	−16	18	22	−01	34	09	−27	65	02	35

	Summary analysis of variance													
					Partial matrices									
	Full matrix				Lead-good				Lead-poor			Good-poor		
Source	df	MS	F	VCI	df	MS	F	VCI	MS	F	VCI	MS	F	VCI
Person (P)	59	2.92	4.82	.24	59	2.99	6.70	.42	2.33	4.03	.27	2.17	2.97	.20
P × scale	177	0.47	0.80	−.08	177	0.67	1.50	.20	0.59	1.01	.01	0.41	0.55	−.29
P × measure	118	2.02	3.34	.37	59	1.67	3.74	.41	2.18	3.76	.41	2.42	3.30	.37
Error	354	0.61			177	0.45			0.58			0.73		

Note. Measures represent described leader behavior (Lead), prototypic good leader behavior (Good), and prototypic poor leader behavior (Poor) on Initiating Structure (IS), Consideration (C), Role Assumption (RA), and Production Emphasis (PE). Decimal points were omitted in the matrix ($N = 60$, $r_{.05} = .25$, $r_{.001} = .41$). The Variance Component Index (VCI) was computed by dividing the specific variance component by variance component plus error variance (Kavanagh et al., 1971, pp. 39–40). Negative indices are assumed to be zero.

so that the degree of overlap between prototype and leader description clusters could be determined. A significant overlap (nonindependence) between clusters would support the hypothesis by showing that individuals with similar prototypes of leadership also tend to describe their supervisors in a similar fashion. The clusters of similar good leader, poor leader, and described leader profiles were identified separately by means of a profile classification/clustering procedure (linear typal analysis, Overall & Klett, 1972, pp. 201–230) designed to reveal the nature (profile pattern) and number of pure person factors which underscore a set of heterogeneous profiles. The procedure essentially factor analyzes a matrix of adjusted between-person (as opposed to between-variable) correlations ranging from 0 to 1 to reflect the multivariate similarity in response profile among all pairs of individuals comprising the sample. Unlike many other clustering procedures, the present procedure adjusts the similarity indices to take into account differences in profile elevation, range of response, and pattern of response. The maximum number of factors (clusters) that can be identified in the procedure is constrained by the sample size and the number of input variables, whichever is least (four in the present case).

Table 2 provides a summary of the results of applying the procedure to the present sample of leadership profiles. As indicated, four homogeneous clusters were identified separately for the good leader, poor leader, and described leader profiles. Subjects who were identified as subscribing to a similar profile were assigned to the same cluster with the assistance of a Bayesian (discriminant) classification analysis. For example, the Bayesian analysis of the initial good leader clusters suggested that four of the subjects (6.67%) were probably misassigned to a cluster. These four subjects were thus reassigned to their most probable cluster suggested by the Bayesian analysis to construct the final clusters for analysis. Membership in the poor leader prototype clusters and the leader description clusters was determined in the same fashion. These final clusters were then subjected to a direct discriminant analysis based on the original leader behavior dimensions in order to determine whether the clusters were in fact different. Although this procedure may seem circular, the analysis should produce three significant discriminant functions for each set if each of the four clusters within a set are really statistically different. As reported at the bottom of Table 2, three significant functions were identified for each set.

In sum, these preliminary analyses, while somewhat involved, simply establish that the measures collected for the present study were not excessively contaminated by common method bias, and that relatively homogeneous and statistically independent clusters of leader prototypes and leader descriptions had been successfully identified within the sample. Interestingly, the latter analyses also tend to argue against the notion of a "universal" prototype of leadership; i.e., the notion that all persons

TABLE 2

SUMMARY RESULTS OF PROFILE CLUSTERING/CLASSIFICATION (LINEAR TYPAL) ANALYSES OF LEADER DESCRIPTION AND GOOD/POOR LEADER PROTOTYPE MEASURES

	Good prototype clusters				Described leader clusters				Poor prototype clusters			
	I	II	III	IV	I	II	III	IV	I	II	III	IV
Initial cluster profile means												
IS	39.45	39.95	40.31	33.60	31.45	34.05	39.43	39.50	19.48	24.00	34.00	28.29
C	43.77	38.25	42.69	39.20	37.55	27.41	33.43	38.00	20.39	12.91	16.75	14.86
RA	44.50	43.30	39.08	39.40	36.69	35.82	41.14	37.00	21.30	17.55	37.00	16.29
PE	31.09	35.35	35.54	32.80	25.93	36.32	30.71	34.00	21.48	34.23	34.88	24.29
Cluster size(n)	22	20	13	5	29	22	7	2	23	22	8	7
Classification												
(I)	22	0	0	0	29	1	3	0	23	0	0	0
(II)	0	18	1	1	0	21	0	0	0	22	1	0
(III)	0	2	12	0	0	0	3	0	0	0	7	0
(IV)	0	0	0	4	0	0	1	2	0	0	0	7
% misclassified			6.67(4/60)				8.33(5/60)				1.67(1/60)	

Final cluster												
Profile means												
IS	39.45	39.25	40.93	33.25	31.45	34.67	41.67	41.67	19.48	24.19	34.86	28.29
C	43.77	37.70	43.07	39.75	36.76	24.48	30.33	40.33	20.39	13.17	16.43	14.86
RA	44.50	42.80	39.79	39.50	36.30	36.52	41.67	41.33	21.30	17.91	38.57	16.29
PE	31.09	34.08	36.00	33.25	25.97	36.86	31.67	37.00	21.48	34.13	35.29	24.29
Cluster size(n)	22	20	14	4	33	21	3	3	23	23	7	7
Cluster centroids												
Function												
I	1.78	−1.34	−0.77	−0.41	−1.56	2.27	0.68	0.55	−2.00	1.61	1.69	−0.40
		($\chi^2 = 118.25$, $p < .001$)				($\chi^2 = 104.17$, $p < .001$)				($\chi^2 = 154.30$, $p < .001$)		
II	−0.18	−0.95	1.77	−0.46	−0.12	−0.26	1.75	1.41	0.02	−1.03	3.30	0.02
		($\chi^2 = 56.91$, $p < .001$)				($\chi^2 = 22.46$, $p < .001$)				($\chi^2 = 76.80$, $p < .001$)		
III	0.10	0.25	0.06	−2.00	−0.01	−0.01	−1.09	1.32	0.30	0.18	0.19	−1.77
		($\chi^2 = 15.01$, $p < .001$)				($\chi^2 = 7.99$, $p < .001$)				($\chi^2 = 20.25$, $p < .001$)		

Note. Profile means are for Initiating Structure (IS), Consideration (C), Role Assumption (RA), and Production Emphasis (PE). Classification analysis based on a prior cluster size (Bayesian adjustment) was performed in conjunction with a direct multiple discriminant analysis of the clusters on originating profile variables. Cluster centroids were obtained from a direct discriminant analysis of the final profile means.

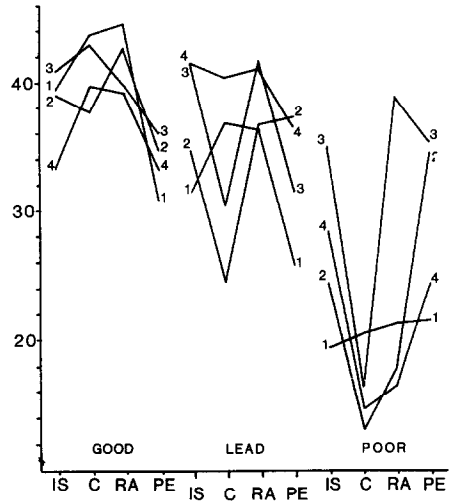

FIG. 1. Plot of cluster profile means for good leader prototypes (Good), leader descriptions (Lead), and poor leader prototypes (Poor) on dimensions of Initiating Structure (IS), Consideration (C), Role Assumption (RA), and Production Emphasis (PE).

generally subscribe to the same idea of what an effective or ineffective leader is like. As illustrated in Fig. 1, and confirmed by the prior analyses, the subjects who comprised the present sample clearly did not all subscribe to the same prototype of leadership for either a good leader or a poor leader. Though labeling the prototypes may be premature at this point, the patterns reflected in Fig. 1 seem to suggest that the first good leader prototype may represent a leader pattern of high prominence and interpersonal support (i.e., high Role Assumption and high Consideration). Similarly, the second profile suggests a pattern of high prominence, while the third suggests a pattern of high support, and the fourth, another minor composite of prominence and support.

Interestingly, studies of leader role differentiation have suggested three underlying dimensions of the leadership role (cf. House & Baetz, 1979): prominence (standing out from others), task ability (behaviors oriented toward goal achievement), and sociability or likability (establishing cordial and socially satisfying relationships). Further, these three dimensions in certain combinations tend to describe particular models of leadership. Accordingly, the good leader prototypes identified in the current study seem to represent variations of the "social specialist" model (i.e., a leader who essentially emphasizes prominence and sociability). The poor leader prototypes, in contrast, seem to represent variations of the "task specialist" model (i.e., a leader who essentially emphasizes task accomplishment). The second poor prototype, for example, reflects relatively high emphasis on Production Emphasis, while the fourth reflects relatively

high emphasis on Initiating Structure, both without much attention to the prominence issue (i.e., Role Assumption) or the sociability issue (i.e., Consideration). In comparison, the third poor prototype seems to represent the classic "task specialist" model with high emphasis on Initiating Structure, Role Assumption, and Production Emphasis (again without much attention to Consideration), while the first poor prototype seems to represent the classic laissez-faire leader (i.e., a lack of emphasis on any dimension).

These distinct leader prototypes (and leader descriptions) lend credence for a systematic examination of the degree of overlap among clusters in order to determine whether individuals who share a similar prototype of leadership also tend to describe the behavior of their supervisors in a similar fashion. The degree of overlap (or consistency in cluster assignment) was assessed with a χ^2 test of independence. As expected, an initial test revealed a significant relationship between the good leader prototypes and the poor leader prototypes ($\chi^2 = 28.56$, $p < .001$). Thus, subjects who subscribed to a particular good leader prototype also tended to agree in their prototype of a poor leader. The analyses also revealed that there was no initial relationship between the described leader patterns and either the good leader or poor leader prototype patterns ($\chi^2 = 12.15$, 6.53, ns., respectively). This latter finding is not surprising, however, since the supervisors described by the subjects were ascribed a full range of evaluations (i.e., some were evaluated positively and others were evaluated negatively). The underlying categorization process suggests that individuals would only describe their supervisors in similar fashion when they ascribed a similar label (i.e., good/poor leader) to their supervisor, and they shared a common label-consistent prototype of leadership.

The expected label-contingent consensus in prototypes and leader descriptions was assessed by separating the present sample into two groups: those who evaluated (labeled) their supervisor as a "very good"/"pretty good" leader and those who evaluated their supervisor as "very poor"/"pretty poor." The relationships between prototype patterns and described leader patterns were then examined for each group. These results are presented in Table 3. As expected, described leader patterns were significantly related to good leader prototypes for those who labeled their supervisor as "good" ($\chi^2 = 20.06$, $p < .05$). That is, subjects who labeled their supervisor as a good leader, and who subscribed to a similar good leader prototype, also tended to describe their supervisor in a very similar fashion. Similarly, described leader patterns were found to be significantly related to poor leader prototypes for those who labeled their supervisor as a "poor" leader ($\chi^2 = 14.36$, $p < .05$). Equally important is the finding that the relationships between prototypes and leader descriptions were nonsignificant when the specific prototype (good or poor)

TABLE 3
EVALUATION-CONTINGENT χ^2 RELATIONSHIPS BETWEEN LEADER DESCRIPTION AND GOOD/POOR LEADER PROTOTYPE CLUSTERS

		Leader description good prototype				Leader description poor prototype			
				PRE				PRE	
(High leader evaluations)	n	df (D*G)	χ^2	G|D	D|G	df (D*P)	χ^2	P|D	D|P
Contribution—group	27	1,3	11.28**	.20	.36	1,3	6.19	.13	.20
Contribution—personal	24	2,2	13.39**	.56	.66	2,1	3.08	.19	.14
Influence	26	2,3	6.49	.19	.28	2,2	3.77	.15	.18
Leadership—amount	31	3,3	16.63*	.24	.28	3,3	7.50	.13	.14
Control	26	2,2	1.38	.04	.04	2,2	3.50	.06	.07
Leadership—evaluation	35	3,3	20.06*	.25	.30	3,3	9.08	.14	.15
Affective reaction	43	3,3	15.51	.16	.21	3,3	7.15	.09	.09
Low leader evaluations									
Contribution—group	21	1,2	2.26	.10	.15	1,3	6.29	.29	.57
Contribution—personal	28	2,2	8.33	.24	.31	2,3	12.41*	.32	.51
Influence	22	3,3	9.17	.42	.42	3,3	6.48	.22	.27
Leadership—amount	29	3,3	10.24	.15	.20	3,3	6.71	.10	.13
Control	12	2,3	3.56	.14	.24	2,2	7.44	.38	.43
Leadership—evaluation	17	2,2	7.14	.22	.27	2,3	14.36*	.37	.58
Affective reaction	12	2,2	9.13	.53	.53	2,3	11.30	.46	.67

Note. Table reports χ^2 tests of independence in cluster assignment and asymmetrical uncertainty coefficients (proportional reduction in error, PRE, for X given Y, $X|Y$) for subjects ascribing either positive (High) or negative (Low) evaluations to the described supervisor. Degrees of freedom (df) are determined by the product of 1 − the number of *D*escribed leader clusters and 1 − the number of *G*ood/*P*oor prototype clusters indicated in [D*G(P)] columns.

* $p < .05$.

** $p < .01$.

involved in the analysis was inconsistent with the ascribed evaluative label (e.g., positive evaluation and poor prototype).

Analyses based on the remaining supervisory evaluations are also reported in Table 3. The results of the analyses suggested similar label-consistent relationships between leader descriptions and leader prototypes. Specifically, those individuals who held a common prototype of a good leader were found to describe their supervisors in a similar fashion when they shared a common positive impression that their supervisor contributed to their group effectiveness ($\chi^2 = 11.28$, $p < .01$), contributed to their individual effectiveness ($\chi^2 = 13.39$, $p < .01$), and exhibited significant amounts of leadership ($\chi^2 = 16.63$, $p < .05$). Leader descriptions and poor leader prototypes were also related for those who thought their

supervisors did not contribute to their individual effectiveness (χ^2 = 12.41, $p < .05$).

DISCUSSION

The results of the present study are as predicted, and appear to offer further, albeit somewhat different, support for a categorization model of leader perception. As noted earlier, it can be reasoned that if prototypes intrude upon behavioral descriptions as suspected, and if several people share the same prototype, then by extension their descriptions of others should be very similar due to the intrusion of the common prototype. The present findings clearly demonstrate that there is in fact a significant tendency for individuals with similar prototypes of leadership to describe the leader behavior of their supervisors in a similar fashion, even though none of the subjects interacted with the same supervisor. Again, it is important to note that these results pertain to the consensus among subjects in their leader prototypes and supervisory descriptions, and not simply to the relationship (i.e., correlation) between prototypes and descriptions across subjects. As such, the results of the study, despite several limitations (sample size, generalizability of the prototypes, etc.) and the particular focus on leadership, offer strong support for a fairly stringent test of the categorization model.

The results also underscore the probable importance of evaluative labeling in prototypic/schematic retrieval. As noted, the prototype-contingent consensus among subjects in their leader behavior descriptions was evident only when the involved prototype was consistent with the label (type of evaluation) attributed to the supervisor being described. Analyses which either ignored the evaluative label ascribed to the supervisor, or involved a prototype inconsistent with the ascribed label (e.g., poor prototype and good label), failed to reveal any concordant relationship between behavioral descriptions and leader prototypes.

In concert, these findings are strikingly consistent with Feldman's (1981) proposition that global evaluative judgments may trigger specific prototypes instrumental in recall and reconstructive memory. Seeing someone as a good leader, for example, may bring to mind all of the attributes of a good leader. Interestingly, previous research using evaluative (good or poor) performance cues (e.g., Phillips, 1984; Phillips & Lord, 1982) has implied the same effect in support of the categorization model, even though the model specifically suggests that prototypes are stored in nonevaluative form (e.g., leader/follower, leader/nonleader) at the superordinate, basic, and subordinate levels of categorization (see Lord et al., 1982 for details). The model also suggests that the label ascribed to someone (e.g., leader/nonleader) is ascribed on the basis of how well the person matches or resembles a prototype.

It is possible, however, that at the subordinate level of leader cate-

gorization (the level of specific social encounter) people may actually categorize or attach a label to a stimulus person simply on the basis of affect. That is, in addition to (or perhaps instead of) assessing the prototypic similarity of the leader with one of several potental categories, people may simply derive an evaluative label (e.g., good/poor) for the leader on the basis of their experience with the leader (e.g., satisfying/irritating). These salient, easily stored, and easily recalled evaluative labels could then serve as an aid in retrieving label-consistent prototypic information as proposed in the categorization model. While we cannot be sure of their exact role in categorization and schematic processing, our results, as well as recent theory (cf. Fiske & Pavelchak, 1986), suggest that evaluative labels (affect) may be crucial in understanding the categorization process and the relationship between prototypes and interpersonal descriptions.

Even though there is growing evidence that categorized individuals are perceived and remembered in biased ways, it is also important to recognize that observers can, at least in the short term, accurately recall the occurrence of both prototypically effective and prototypically neutral behavior (Larson, Lingle, & Scerbo, 1984; Phillips, 1984; Phillips & Lord, 1982). Our own analyses of the intercorrelation matrix, in fact revealed a significant degree of discriminant validity among behavioral descriptions and leader prototypes. That is, the subjects' descriptions of their supervisors were significantly different from their prototypes for an effective and ineffective leader. This finding is not surprising, nor is it inconsistent with the proposed categorization process. A modified schema-plus-correction hypothesis (Evans, 1967) would argue that the recall of a pattern of person-related attributes represents a specific evaluative schema (prototype) corrected for recently encountered information and other person-specific features. For example, someone may try to describe their supervisor. Even though they are trying to be accurate, the description that would result, according to the above hypothesis, should contain many pieces of prototypic information plus other pieces of salient information derived from short-term memory, which are particular to the supervisor. Thus, in the short term there may be only limited correspondence between behavioral descriptions and prototypic attributes.

It is also important to note that correspondence, limited or not, does not prove causation. Data, including our own, which establish some type of correspondence (relationship) between prototypes and behavioral descriptions may be consistent with underlying theory, but the data cannot be taken as definitive proof that prototypes intrude upon memory-based behavioral descriptions as suggested. Many alternative explanations exist, including one concerning the stability of prototypes. Specifically, prototypes may be malleable concepts, open to recent experiences, rather than permanent concepts. The prototypes identified in the present study, for

example, may represent the distinct experiences raters remember regarding their current supervisors.

Although the notion that prototypes accrue from experience is actually consistent with the categorization model, the alternative explanation points to the possibility that behavioral descriptions may precede prototypes in cognitive development. Thus, any correspondence between behavioral descriptions and prototypes may represent the intrusion of descriptions, rather than the intrusion of prototypes. Although feasible, recent work with leader perceptions and the categorization model (cf. Phillips, 1984; Phillips & Lord, 1982) strongly suggests that subjects tend to report label-consistent prototypic behavior even though the observed leader never exhibited the behavior. That is, prototypic information was found to intrude behavioral descriptions in a manner similar to that suggested by the schema-plus-correction hypothesis.

Obviously, further research is needed to investigate these and other issues. Our research, like other studies in the area of social perception, is limited. We can only offer circumstantial evidence for the effects of cognitive processes, which are not readily amenable to direct verification. However, the fact that individuals with similar, label-appropriate, prototypes of leadership tend to describe their supervisors in a similar fashion is intriguing. And, while we can not tell at what level the effect occurs (i.e., biased memory storage, biased retrieval, or the effect of concrete exemplars on prototypes), the effect is seemingly consistent with a categorization model of leader perception. Further research in the area offers the potential for a greater understanding of the categorization process, as well as a greater appreciation of the role of the perceiver in determining social perceptions.

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