

- Levy, P., & Pugh, D. Scaling and multivariate analysis in the study of organizational variables. *Sociology*, 1969, 3(2), 193-213.
- Litwin, G. H., & Stringer, R. A., Jr. *Motivation and organizational climate*. Boston: Harvard University Press, 1968.
- Mohr, L. B. Determinants of innovation in organizations. *American Political Science Review*, 1969, 63, 111-126.
- Palumbo, D. Power and role specificity in organization theory. *Public Administration Review*, 1969, 29, 237-248.
- Paolillo, J. G. *Technological innovation in organizational R&D subsystems*. Unpublished Ph.D. dissertation, University of Oregon, 1977.
- Paolillo, J. G., & Brown, W. B. How organizational factors affect R and D innovation. *Research Management*, 1978, 7, 12-15.
- Pritchard, R. D., & Karasick, B. W. The effects of organizational climate on managerial job performance and job satisfaction. *Organizational Behavior and Human Performance*, 1973, 9, 126-146.
- Rogers, E. M., & Eveland, J. D. Diffusion: Communication and innovation in organizations. In P. Kelly & M. Kranzbert (Eds.), *Aspects of technological innovation*. Atlanta: Advanced Technology and Science Studies, Georgia Institute of Technology, 1975, 301-368.
- Sapolsky, H. M. Organizational structure and innovation. *The Journal of Business*, 1967, 40, 497-510.
- Vegso, R. W. *Organizational characteristics that influence innovative behavior*. Unpublished Ph.D. dissertation, University of Cincinnati, 1976.
- Zaltman, G., Duncan, R., & Holbeck, J. *Innovations and organizations*. New York: Wiley, 1973.

Augustus Abbey is Assistant Professor of Management in the Department of Management and Marketing at the University of Wisconsin, LaCrosse.

John W. Dickson is Associate Professor of Management in the Department of Management, College of Business and Public Administration, University of Arizona.

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A MEASURE OF STYLES OF HANDLING INTERPERSONAL CONFLICT¹

M. AFZALUR RAHIM
Youngstown State University

Blake and Mouton (1964) first presented a conceptual scheme for classifying the modes (styles) for handling interpersonal conflicts into five types: problem-solving, smoothing, forcing, withdrawal, and sharing. Their scheme was reinterpreted by Thomas (1976).

In the present research a conceptualization similar to that of Blake and Mouton and Thomas was used to differentiate styles of handling interpersonal conflict on two basic dimensions: concern for self and for others.

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The first dimension explains the degree (high or low) to which a person attempts to satisfy his/her own concern. The second dimension explains the degree (high or low) to which a person wants to satisfy the concern of others (Rahim & Bonoma, 1979). A combination of the two dimensions results in five specific styles of handling interpersonal conflict as shown in Figure 1.

Figure 1
The Styles of Handling Interpersonal Conflict

		Concern for Self	
		High	Low
Concern for Others	High	Integrating	Obliging
	Low	Dominating	Avoiding

Compromising

Four instruments currently are available for measuring the modes. These were designed by Blake and Mouton (1964), Hall (1969), Lawrence and Lorsch (1967), and Thomas and Kilmann (1974). Thomas and Kilmann's study with 86 MBA students concluded that the "overall reliability coefficients for the four instruments fall within the low-to-moderate range" (1978, p. 1142). The Thomas-Kilmann and Hall instruments showed somewhat higher reliabilities and some degree of convergent validity for all the five modes of handling conflict.

The study by Thomas and Kilmann (1978), which used a small and non-random sample of students to test the reliability and validity of the four instruments, has several limitations. First, generalizing results from a non-random sample of college students to a more experienced, older, and much less educated general population is questionable (Robinson, Athanasion, & Head, 1969). Second, tests of the reliability and validity of an instrument require large, not small samples.

Although factor analysis probably is the most powerful method of construct validation (Kerlinger, 1973), the four instruments did not provide evidence for the factorial independence of the five scales of conflict modes. Factor analysis of Lawrence-Lorsch conflict items, for example, resulted in three instead of five factors. A study by Fry, Kidron, Osborn, and Trafton (1980) cast serious doubts on the construct validity of the Lawrence and Lorsch questionnaire.

The Study

The objective of this study was to construct factorially independent scales to measure the five styles of handling conflict, as presented in Figure 1, and to provide evidence of their reliability and validity. The factors that

affect the styles of handling conflict with superiors, subordinates, and peers have not been thoroughly studied. In this study the empirical validity of the scales were tested against measures of role status and sex.

Role Status. In superior-subordinate communication, subordinates frequently say what is acceptable rather than what they know is true. Therefore, an individual may use a more obliging style with superiors than with a subordinate or peer. Because subordinates are likely to withdraw from a conflict situation (Kahn, Wolfe, Quinn, Snoek, & Rosenthal, 1964), it is expected that individuals will more likely use the avoiding style with superiors than with peers, and more with peers than subordinates. A study by Phillips and Cheston (1979) reported that a forcing approach is more common in handling differences with subordinates than with peers and much less common with superiors. Finally, a compromising approach is expected when both parties in a conflict situation have equal power (peers).

Sex. There is evidence that males are more dominating and less compromising than females in conflict situations (Imler, 1980; Kilmann & Thomas, 1977). Therefore sex was employed for validation purposes.

Method

Seven nonrandom samples were used to generate and select suitable items for the measurement of conflict styles. From a national sample, five factorially independent and reliable scales for conflict styles were constructed and used to test further validities of these scales against the measures of role status and sex. Also used were two convenience samples to test the scales' repeat reliability and to check whether the scales were free from social desirability and response distortion bias.

Instrument Development. The Rahim Organizational Conflict Inventory-II (ROCI-II, Rahim, 1983a) was designed on the basis of lengthy and repeated feedback from the subjects and factor analyses of various sets of items. Each item was cast on a 5-point Likert scale (a higher value represented greater use of a conflict style). This was filled out by MBA and undergraduate students ($N=60$) and managers ($N=38$). After the subjects filled out the questionnaire, an item-by-item discussion was initiated by the researcher. The items that were reported to be difficult, ambiguous, or inconsistent were either replaced or revised.

The data from successive administrations of the instrument were factor analyzed (N s: students = 184, 351, 133; teachers and principals = 380; hospital management personnel = 185). After each factor analysis, the items that loaded $< .40$ and/or loaded on an uninterpretable factor were discarded or rewritten. About 105 items were considered for inclusion in the instrument. On the basis of the above procedures a final instrument was prepared, which contained 35 items, 7 items for measuring each style of handling conflict. The order of items was randomized.

The ROCI-II contains three separate forms—A, B, and C—differing only in reference to conflict with a boss, subordinate, or peer, respectively.

The ROCI-II also solicits information such as tenure, sex, functional areas, organizational level, and education.

National Sample. About an equal number of Forms A, B, and C of ROCI-II were sent to 4,000 executives randomly selected from the Penton/IPC list of 1.3 million executives. These executives represented 25 different industries. A cover letter explaining the purpose of the study accompanied the instrument. Usable responses were received from 1,219 executives, a response rate of about 31 percent.

The respondents represented top ($N=176$), middle ($N=501$), and lower ($N=515$) organizational levels (excluding 27 nonrespondents), more than eight functional areas, and different levels of educational attainment, such as high school ($N=145$), 2-year college ($N=233$), bachelor's degree ($N=572$), master's degree ($N=202$), and other (including 3 nonrespondents) ($N=67$). There were 50 female respondents. Average tenure of the top, middle, and lower level executives was more than 22, 18, and 17 years, respectively.

Analysis and Results

Construct Validity. Responses to the 35 conflict items from the national sample of 1,219 executives were factor analyzed, using principal factoring with iteration and varimax rotation. The analysis extracted eight factors with eigenvalues ≥ 1.00 (Rahim, 1979). The first five factors were consistent with a priori expectations. Retained in the final instrument were 28 items with factor loadings $\geq .40$. Factor loadings for the selected items are underlined in Table 1.

Table 1
Factor Structure Matrix for Varimax Rotated Factor Solution
($N=1,219$)

Item No.	Items	Factors ^a				
		IN I	AV II	DO III	OB IV	CO V
01.	I try to investigate an issue with my ____ ^b to find a solution acceptable to us	<u>.53</u>	-.02	-.05	.01	.09
04.	I try to integrate my ideas with those of my ____ to come up with a decision jointly	<u>.55</u>	.02	-.08	.04	.20
06.	I try to work with my ____ to find solutions to a problem which satisfy our expectations	<u>.56</u>	.01	-.07	.08	.07
15.	I exchange accurate information with my ____ to solve a problem together	<u>.61</u>	-.07	-.01	.10	.01
28.	I try to bring all our concerns out in the open so that the issues can be resolved in the best possible way	<u>.58</u>	-.12	-.00	-.06	.01
29.	I collaborate with my ____ to come up with decisions acceptable to us	<u>.49</u>	-.05	.04	.14	.11
35.	I try to work with my ____ for a proper understanding of a problem	<u>.60</u>	-.02	-.01	.03	.03

^aIN = integrating; AV = avoiding; DO = dominating; OB = obliging; CO = compromising.

^bThe word boss, subordinates, or peers appeared in each blank space in Forms A, B, and C, respectively.

Table 1 (continued)

Item No.	Items	Factors ^a				
		IN I	AV II	DO III	OB IV	CO V
03.	I attempt to avoid being "put on the spot" and try to keep my conflict with my ____ ^b to myself	.05	.60	.06	.07	.12
07.	I usually avoid open discussion of my differences with my ____	-.09	.58	-.04	.03	.03
22.	I try to stay away from disagreement with my ____	-.13	.53	.00	.22	.09
23.	I avoid an encounter with my ____	-.21	.48	-.03	.25	.08
32.	I try to keep my disagreement with my ____ to myself in order to avoid hard feelings	-.05	.61	.04	.12	.03
33.	I try to avoid unpleasant exchanges with my ____	.10	.42	-.00	.16	.06
34.	I generally avoid an argument with my ____	.02	.36	-.11	.16	.08
08.	I usually hold on to my solution to a problem	-.15	.13	.32	.02	-.02
10.	I use my influence to get my ideas accepted	-.00	-.03	.64	.06	.11
11.	I use my authority to make a decision in my favor	-.12	.01	.69	.01	.02
18.	I argue my case with my ____ to show the merits of my position	.07	-.06	.33	.06	.04
24.	I use my expertise to make a decision in my favor	.00	.04	.54	.11	.01
27.	I am generally firm in pursuing my side of the issue	.12	-.06	.44	-.02	-.03
31.	I sometimes use my power to win a competitive situation	-.03	-.03	.64	-.02	.02
02.	I generally try to satisfy the needs of my ____	.19	.12	-.03	.48	.08
12.	I usually accommodate the wishes of my ____	-.02	.11	.11	.68	.18
13.	I give in to the wishes of my ____	-.13	.26	.06	.59	.09
16.	I sometimes help my ____ to make a decision in his favor	.27	.02	.21	.27	-.01
17.	I usually allow concessions to my ____	.02	.11	.07	.42	.14
25.	I often go along with the suggestions of my ____	.14	-.03	-.02	.42	-.03
30.	I try to satisfy the expectations of my ____	.14	.06	.07	.57	.02
05.	I give some to get some	.11	.02	.04	.07	.31
09.	I try to find a middle course to resolve an impasse	.06	.14	.02	.16	.59
14.	I win some and I lose some	.03	-.01	.09	.13	.18
19.	I try to play down our differences to reach a compromise	.08	.22	.06	.08	.39
20.	I usually propose a middle ground for breaking deadlocks	.07	.07	-.00	.06	.82
21.	I negotiate with my ____ so that a compromise can be reached	.14	-.03	.07	.03	.49
26.	I use "give and take" so that a compromise can be made	.14	-.04	-.00	.09	.50
Eigenvalue		4.10	3.00	2.26	1.52	1.09
Percent of variance explained		30.5	22.4	16.9	11.4	8.2
Cumulative percent of variance		30.5	52.9	69.8	81.2	89.3

^aIN = integrating; AV = avoiding; DO = dominating; OB = obliging; CO = compromising.

^bThe word boss, subordinates, or peers appeared in each blank space in Forms A, B, and C, respectively.

The selected factors represent the five independent dimensions of conflict styles and were named integrating, avoiding, dominating, obliging, and compromising styles, respectively. In order to test the stability of the five factors in different subsamples, the data from the first batch of 609

questionnaires, the remaining batch of 610 questionnaires, and Forms A, B, and C, were factor analyzed separately. In each of the five cases, the factor structure was very similar to the one shown in Table 1. Other orthogonal rotation methods (e.g., quartimax, equimax, and oblique) yielded five interpretable factors consistent with the factors shown in Table 1.

Five scale scores were constructed by adding item responses in a factor and dividing by the number of items. The intercorrelations among the five scales ranged between $-.03$ and $.33$ (Rahim, 1983b).

Reliability. Reliability estimates for the five scales of conflict styles and Pearson's correlations between these five scales and SD and Lie scales are shown in Table 2. Test-retest reliabilities, computed from data collected from 119 part-time MBA and undergraduate students of Youngstown State University, who filled out ROCI-II twice at an interval of one week, ranged between $.60$ and $.83$ ($p < .0001$).

Table 2
Scale Analyses

Scales of Conflict Styles	Test- Retest	Cronbach Alpha	Reliability			Social Desirability	
			Spearman- Brown Reliability	Guttman Lambda	Kristof's Unbiased Reliability	SD	Lie
Integrating	.83	.77	.73	.77	.77	.29	.14
Obliging	.81	.72	.71	.73	.72	.00	.01
Dominating	.76	.72	.71	.73	.72	-.09	-.05
Avoiding	.79	.75	.71	.76	.76	-.11	-.08
Compromising	.60	.72	.67	.73	.73	.06	.03

Internal consistency reliability estimates were satisfactory. Coefficient alphas ranged from $\alpha = .72$ to $\alpha = .77$.

The test-retest correlations and Cronbach alpha reliabilities compare quite favorably with those of the existing instruments. The test-retest correlations for the four existing instruments range between $.14$ and $.57$ for Blake-Mouton; $.41$ and $.66$ for Hall; $.33$ and $.63$ for Lawrence-Lorsch; and $.61$ and $.68$ for Thomas-Kilmann instruments. The Cronbach alpha for Hall, Lawrence-Lorsch, and Thomas-Kilmann instruments range between $.39$ and $.73$, $.37$ and $.59$, and $.43$ and $.71$, respectively (Thomas & Kilmann, 1978).

Social Desirability Response Set. Social desirability contamination was checked using the Personal Reaction Inventory (Crowne & Marlowe, 1960) and the Lie scale from the Eysenck Personality Inventory (Eysenck & Eysenck, 1968). Data on ROCI-II and these two questionnaires were collected from part-time MBA and undergraduate students of Youngstown State University.

There was a marginal but significant positive correlation between the social desirability (SD) and integrating scales ($r = .29$, $p < .001$, $N = 264$) and between the Lie and integrating scales ($r = .14$, $p < .05$, $N = 279$). Other conflict scales did not significantly correlate with the SD and Lie scales. The correlation between the SD and Lie scales was $.46$ ($p < .0001$, $N = 249$).

If SD becomes a serious problem in the measurement of conflict styles, it may be appropriate to control SD according to the procedures suggested by Eysenck and Eysenck (1968) or Smith (1967).

Discrimination of Known Groups. An attempt was made to check whether the five scales could discriminate among the three parties involved in conflict with an organizational member (respondent): boss, subordinates, and peers. As suggested by Hull and Nie (1981), a stepwise multiple discriminant analysis was performed on the total sample. The stepwise selection criterion used was Mahalanobis distance. In addition, the canonical discriminant functions were rotated, using varimax criterion and Kaiser's normalization, to improve their interpretation (Hull & Nie, 1981).

The discriminant analysis resulted in two significant canonical discriminant functions that discriminate among the three parties. The first discriminant function (chi-square = 246.00, $p < .0001$) has a positive coefficient for obliging (.97) and negative coefficients for integrating (-.21) and compromising (-.52). The coefficients of dominating and avoiding are negligible. The group with a positive centroid is boss (.45), and the groups with negative centroids are subordinates (-.18) and peers (-.34). Respondents were more obliging with their bosses and integrating and compromising with their subordinates and peers.

The second discriminant function (chi-square = 52.79, $p < .0001$) has positive coefficients for obliging (.28), dominating (.57), and compromising (.72) and negative coefficients for integrating (-.35) and avoiding (-.28). The groups with positive centroids are boss (.28) and peers (.09), and the group with a negative centroid is subordinates (-.45). These indicate that the respondents were obliging with their bosses and integrating with their subordinates on both functions. To a lesser extent, the organizational members were compromising and dominating with their bosses and peers. The functions correctly classified about 51 percent of the respondents into the three groups.

A second discriminant analysis was performed with the five scales as independent variables and sex as a dependent variable. As there were only 50 females in the sample, 50 males were randomly selected from the remaining sample and combined with the females for the analysis. The analysis resulted in a significant canonical discriminant function (chi-square = 14.79, $p < .01$). The centroids of males and females were -.40 and .40, respectively, and the discriminant coefficients were .32, -.41, .82, and .56 for the integrating, obliging, avoiding, and compromising scales, respectively. The dominating scale could not discriminate between the two groups. Females were more integrating, avoiding, and compromising and less obliging than males. The function correctly classified 62 percent of the respondents into the two groups.

Concluding Remarks

ROCI-II was developed to measure five styles of handling interpersonal conflict. Factor analyses of data from a national sample of executives clearly

reflect the five a priori dimensions of conflict styles. The test-retest and internal consistency reliability coefficients for the five scales are satisfactory and compare favorably with other existing instruments. The discriminant analyses provided evidence of empirical validity of the scales. Further, four of the scales are free from social desirability or response distortion bias. In future studies additional evidence of validity of the scales should be investigated. As it stands now, the scales can be used in basic research, teaching, and in the diagnosis of styles of handling interpersonal conflict among the members of an organization.

References

- Blake, R. R., & Mouton, J. S. *The managerial grid*. Houston, Texas: Gulf Publishing, 1964.
- Crowne, D. P., & Marlowe, D. A new scale of social desirability independent of psychopathology. *Journal of Consulting Psychology*, 1960, 14, 349-354.
- Eysenck, H. J., & Eysenck, S. B. G. *Eysenck personality inventory*. San Diego: Educational and Industrial Testing Service, 1968.
- Fry, L. W., Kidron, A. G., Osborn, R. N., & Trafton, R. S. A constructive replication of the Lawrence and Lorsch conflict resolution methodology. *Journal of Management*, 1980, 6, 7-19.
- Hall, J. *Conflict management survey: A survey on one's characteristic reaction to and handling conflicts between himself and others*. Canoe, Texas: Teleometrics International, 1969.
- Hull, C. H., & Nie, N. H. *SPSS update 7-9*. New York: McGraw-Hill, 1981.
- Imler, J. R. The effects of occupational category, organizational level, organizational size, sex, and conflict opponent on the conflict-handling styles of hospital management personnel. Unpublished MBA thesis, Youngstown State University, 1980.
- Kahn, R. L., Wolfe, D. M., Quinn, P. R., Snoek, J. D., & Rosenthal, R. A. *Organizational stress: Studies in role conflict and ambiguity*. New York: Wiley, 1964.
- Kerlinger, F. N. *Foundations of behavioral research*. 2nd ed. New York: Holt, Rinehart, and Winston, 1973.
- Kilmann, R. H., & Thomas, K. W. Developing a forced-choice measure of conflict-handling behavior: The "MODE" instrument. *Educational and Psychological Measurement*, 1977, 37, 309-325.
- Lawrence, P. R., & Lorsch, J. W. *Organization and environment*. Homewood, Ill.: Irwin-Dorsey, 1967.
- Phillips, E., & Cheston, R. Conflict resolution: What works? *California Management Review*, 1979, 21(4), 76-83.
- Rahim, A. Managing conflict through effective organization design: An experimental study with the MAPS design technology. *Psychological Reports*, 1979, 44, 759-764.
- Rahim, A. *Rahim organizational conflict inventory—II: Forms A, B, & C*. Palo Alto, Cal.: Consulting Psychologists Press, 1983a.
- Rahim, A. *Rahim organizational conflict inventory I & II: Professional manual*. Palo Alto, Cal.: Consulting Psychologists Press, 1983b.
- Rahim, A., & Bonoma, T. V. Managing organizational conflict: A model for diagnosis and intervention. *Psychological Reports*, 1979, 44, 1323-1344.
- Robinson, J. P., Athanasion, R., & Head, K. B. *Measures of occupational attitudes and occupational characteristics*. Ann Arbor, Mich.: ISR, University of Michigan, 1969.
- Smith, D. Correcting for social desirability response sets in opinion-attitude survey research. *Public Opinion Quarterly*, 1967, 31, 87-94.
- Thomas, K. W. Conflict and conflict management. In M. D. Dunnette (Ed.), *Handbook of industrial and organizational psychology*. Chicago: Rand-McNally, 1976, 889-935.

Thomas, K. W., & Kilmann, R. H. *Thomas-Kilmann conflict mode instrument*. New York: XICOM, Tuxedo, 1974.

Thomas, K. W., & Kilmann, R. H. Comparisons of four instruments measuring conflict behavior. *Psychological Reports*, 1978, 42, 1139-1145.

M. Afzalur Rahim is Professor of Management at Youngstown State University.

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