Psychological Reports, 1978, 42, 1139-1145.

COMPARISON OF FOUR INSTRUMENTS MEASURING CONFLICT BEHAVIOR[1]

KENNETH W. THOMAS AND RALPH H. KILMANN

Temple University *University of Pittsburgh*

Summary.—Test-retest reliabilities, internal consistencies, and convergent test validities were examined for four measures of interpersonal behavior in handling conflict. Subjects were 86 graduate students in management. Instruments were those developed by Blake and Mouton, Lawrence and Lorsch, Hall, and by Thomas and Kilmann. Reliabilities were in the low-to-moderate range, with more recent instruments somewhat superior. Some problems with the first two measures were observed. The two most recent instruments, by Hall and by Thomas and Kilmann, show some convergence across all five modes of handling conflict. Convergence among other instruments varies by mode of handling conflict. Inspection of items suggests some reasons for the limited convergence.

Since the mid-1960s, variations of a five-category scheme for classifying interpersonal conflict-handling behavior have gained prominence in organizational research. Thomas (1976) interprets this newer classification system as combining two independent dimensions: cooperation, or attempting to satisfy the other party's concerns, and assertiveness, or attempting to satisfy one's own concerns. Five conflict-handling modes are plotted along these two dimensions: *competition* is assertive and uncooperative, *collaboration* is assertive and cooperative, *avoiding* is unassertive and uncooperative, *accommodation* is unassertive and cooperative, and *compromise* is intermediate in both assertiveness and cooperativeness. Semantic differential studies (Ruble & Thomas, 1976) have indicated this scheme's close correspondence to subjective dimensions used by individuals in situations of conflict. Terminology for the two underlying dimensions and the five modes of handling of conflict has varied somewhat among researchers (e.g., Blake & Mouton, 1964; Hall, 1969; Thomas, 1976).

Studies investigating the five modes of handling conflict in organizations have almost exclusively used self-report instruments. However, there has been no systematic attempt to measure important psychometric properties of these instruments. Accordingly, this study assessed test-retest reliabilities, internal consistencies, and the intercorrelations or convergent test validities of four instruments currently available for measuring behavior in handling conflict. The instruments were those designed by Blake and Mouton (1964), Lawrence and Lorsch (1967), Hall (1969), and Thomas and Kilmann (1974).

[1]Portions of this research were supported by the Institute of Industrial Relations, UCLA. The authors are also indebted to Anne Lamb, Gib Akin, and David Jamieson for their help with the study.

METHOD

Subjects

Subjects were 86 students in three sections of a graduate course in Behavioral Science for Management at the University of Pittsburgh. Each subject completed a package of instruments containing the four instruments arranged in random order, followed by three measures of response style not relevant to this study. Four weeks later these subjects again completed the instruments measuring mode of handling conflict; these were re-randomized for individual subjects.

The Conflict Instruments

In order to make the results of the four instruments comparable, some changes were made in the instructions of two of the instruments. Although these changes did not in any way alter the items of the instruments and seemed necessary to more directly compare the four instruments, it is conceivable that these changes have in some way affected the results. Perhaps this possibility could be investigated in the future.

The Blake-Mouton instrument on conflict consists of five statements, each describing one mode of handling conflict. As used in Managerial Grid labs, subjects had been asked to select the single statement which best described them. For this study, subjects were asked to rank the five statements from most to least typical, as descriptions of their own behavior.

The Lawrence-Lorsch instrument consists of 25 proverbs describing the five modes of handling conflict. Subjects rate these proverbs on how well they describe the behavior of the people within their organization. This study used Burke's (1970) modification of the Lawrence-Lorsch response categories and asked subjects to rate each proverb on the extent to which it described their own approach to disagreements. The response categories ranged from "(1) not at all—this behavior never occurs" to "(5) to a very great extent—this behavior usually occurs."

The Hall instrument has 12 groups of statements. Preceding each group of five statements, there is a general introductory sentence about conflict phenomena followed by a question about the subject himself. The subject is required to rate each of the five statements from 1, "completely uncharacteristic," to 10, "completely characteristic." Moreover, subjects are not allowed to assign the same ratings to any two of the statements, so that subjects in effect both rate and rank the statements. The instructions required no changes for the present study.

The Thomas-Kilmann instrument has 30 pairs of statements describing modes of handling conflict. Each mode is paired with the other four modes an equal number of times. Subjects are asked to choose the statement in each pair that best describes their behavior in a conflictful situation. A profile of behavior

for handling conflict is obtained by summing for each mode the number of statements the subject endorses. This instrument is specifically designed to minimize the effect of social-desirability response bias (Kilmann & Thomas, 1977).

RESULTS

Test-retest Reliability

The test-retest reliabilities of mode scores on the four instruments are shown in Table 1. Mean reliabilities are also shown to facilitate over-all comparisons between instruments. Instruments are arranged from left to right in the table according to increasing reliability for this sample. Reliabilities range from low to moderate on individual scales. The Blake-Mouton items for competition and compromise are especially unstable in this sample. Table 1 might also show the tendency for instruments with more items to have higher reliabilities than shorter or single-item measures.

TABLE 1
TEST-RETEST RELIABILITIES OF SCORES ON FOUR INSTRUMENTS FOR MODE OF HANDLING CONFLICT ($N = 76$)

Modes of Handling Conflict	Instruments			
	Blake-Mouton (1964)	Lawrence-Lorsch (1967)	Hall (1969)	Thomas-Kilmann (1974)
Competition	.27	.59	.66	.61
Collaboration	.57	.53	.54	.63
Compromise	.14	.33	.41	.66
Avoiding	.47	.42	.61	.68
Accommodation	.49	.63	.53	.62
M	.39	.50	.55	.64

Internal Consistency

The internal consistencies of items measuring each of the five modes of handling conflict were calculated for the Lawrence-Lorsch, Hall, and Thomas-Kilmann instruments using coefficient alpha (Cronbach, 1951). These appear

TABLE 2
INTERNAL CONSISTENCIES (COEFFICIENT α) ON ITEMS FOR MODE OF HANDLING CONFLICT ON LAWRENCE-LORSCH, HALL, AND THOMAS-KILMANN INSTRUMENTS ($N = 86$)

Modes of Handling Conflict	Instruments		
	Lawrence-Lorsch (1967)	Hall (1969)	Thomas-Kilmann (1974)
Competition	.37	.61	.71
Collaboration	.40	.73	.65
Compromise	.46	.45	.58
Avoiding	.45	.39	.62
Accommodation	.59	.57	.43
M	.45	.55	.60

in Table 2. Coefficients are in the low-to-moderate range. The ordering of these instruments by mean internal consistency of scales is the same as for test-retest reliability.

Convergent Test Validity

Table 3 contains intercorrelations among the four instruments on each of the five modes of handling conflict. The competition, collaborating, and avoiding scores of the four instruments are moderately correlated, while the intercorrelation of accommodation scores is low, and compromising almost negligible.

TABLE 3

INTERCORRELATION OF SCORES FOR MODE OF HANDLING CONFLICT AMONG FOUR INSTRUMENTS ($N = 86$)

Modes of Handling Conflict	Instruments		
	Blake-Mouton	Lawrence-Lorsch	Hall
Competition			
Lawrence-Lorsch	.34‡		
Hall	.49‡	.36‡	
Thomas-Kilmann	.59†	.35‡	.41‡
Collaboration			
Lawrence-Lorsch	.37‡		
Hall	.37‡	.47‡	
Thomas-Kilmann	.23*	.21*	.22*
Compromising			
Lawrence-Lorsch	−.07		
Hall	.13	.02	
Thomas-Kilmann	.11	.02	.24*
Avoiding			
Lawrence-Lorsch	.15		
Hall	.37‡	.40‡	
Thomas-Kilmann	.09	.32†	.39‡
Accommodation			
Lawrence-Lorsch	.02		
Hall	.20*	.26†	
Thomas-Kilmann	.16	.17	.27†

*$p < .05$, one-tail. †$p < .01$, one-tail. ‡$p < .001$, one-tail.

DISCUSSION

Over-all reliability coefficients for the four instruments fall within the low-to-moderate range, with most scales showing moderate reliabilities. In the present sample both test-retest reliability and internal consistencies show a tendency to improve with the chronological order of instrument development, with more recent instruments somewhat superior to earlier ones.

With respect to convergent validity, the two most recent instruments, the Hall and Thomas-Kilmann instruments, are correlated across all five modes ($p \leq .05$). Convergence between remaining pairs of instruments varies markedly by mode of handling conflict.

There is moderate convergence among all four instruments on collaboration,

competition, and (to a somewhat lesser degree) avoiding. All pairwise correlations between instruments are significant on these modes, except for two correlations involving the Blake-Mouton item on avoiding. Those three modes resemble Horney's (1945) familiar classification of interpersonal behavior into movement "toward," "against," and "away from" the other person, respectively. Convergence among the instruments on these three modes may stem in part from the instrument designers' greater familiarity with these behavioral concepts, which are somewhat more established in the behavioral literature.

In essence, the five-category scheme identifies two forms of cooperation (or "movement toward the other") in addition to collaboration. The present results indicate divergences among instruments in operationalizing these modes of handling conflict. The unassertive form of cooperation is called "accommodation" by Thomas (1976), "smoothing" by Blake and Mouton (1964) and Lawrence and Lorsch (1967), and "yield-lose" by Hall (undated). Inspection of items for this mode indicates that the Hall instrument stresses the avoidance of conflict-related threats to a relationship, the Thomas-Kilmann items stress paying sole attention to satisfying the other person's concerns, the Lawrence-Lorsch items emphasize gentleness, and the Blake-Mouton item mentions both attempting to avoid conflicts and attempting to maintain harmony when conflict occurs. Some of these differences appear to reflect underlying design objectives. Both the Blake-Mouton and Hall instruments are designed to identify a basic motivation or style ("1, 9") which may be manifested in two major kinds of intentions—avoiding disruptive conflicts and maintaining harmony once conflict has arisen. The Lawrence-Lorsch instrument appears to equate this same "smoothing" orientation with simple gentleness of manner, although the underlying motivation or intent for this manner is not spelled out as it is within the Hall and Blake-Mouton items. In contrast, the Thomas-Kilmann instrument is designed to identify a more specific behavioral intention (accommodation) and to distinguish it from avoiding and other intentions.

The final mode, compromise, is intermediate in both assertiveness and cooperativeness, occupying the mid-point of the two-dimensional classification scheme. The present results show negligible convergence among the four instruments on this mode, with the exception of the small correlation between the Thomas-Kilmann and Hall measures. Again, both the Blake-Mouton and Hall instruments seem intended to identify an underlying style ("5, 5") which is hypothesized to be expressed in a mix of behavioral intentions. The Hall items mention a kind of moderated competition—pushing one's concerns but stopping for a compromise if there is a danger of damaging the relationship. Seven of the 12 Hall items mention the theme of pushing one's concerns short of the point of offending, while the remaining five items specifically mention compromise. The Blake-Mouton item appears double-barreled and abstract (. . . "I

try to be fair but firm and to get an equitable solution"), which may explain its very low test-retest reliability ($r = .14$). Again, the Thomas-Kilmann is designed in a contrasting manner to assess a specific behavioral intention, compromise, as distinct from competition and the other modes. Eight of the 12 Thomas-Kilmann items refer to seeking a compromise or middle-ground position, while the remaining four items refer operationally to the exchange of concessions. Finally, the Lawrence-Lorsch items focus primarily on the theme of exchange, e.g., "Tit for tat is fair play," but in all but one case do not specify either an exchange of concessions or the resulting combination of gains and losses which might more clearly identify this exchange as compromise.

With respect to an over-all comparison of instruments, this study and discussion indicate some problems with two of the instruments. The Blake-Mouton instrument had low test-retest reliabilities on two modes. The Lawrence-Lorsch instrument also has somewhat lower reliabilities than the Thomas-Kilmann and Hall instruments for this sample. Moreover, an inspection of items on accommodation (or smoothing) and compromise suggests that these two modes may not be sufficiently well identified or distinct from other modes of conflict. This impression is consistent with previous factor analyses of the Lawrence-Lorsch items (Lawrence & Lorsch, 1967; Ryan & Clemence, 1973), which have shown only three factors—collaboration, competition, and a third one which varies from accommodation (smoothing) items to a mixture of accommodation and avoiding items. The two remaining instruments, the Thomas-Kilmann and Hall instruments, show somewhat higher reliabilities and some degree of convergent test validity across all five modes of conflict. Internal analyses of items yields some divergence of content, however. The Hall instrument appears designed to identify styles—postulated patterns of motives, intentions, behaviors, etc.—while the Thomas-Kilmann is designed to differentiate between more specific intentions for handling conflict.

REFERENCES

BLAKE, R. R., & MOUTON, J. S. *The managerial grid.* Houston: Gulf Publ., 1964.

BURKE, R. J. Methods of resolving superior-subordinate conflict: the constructive use of subordinate differences and disagreements. *Organizational Behavior and Human Performance*, 1970, 5, 393-411.

CRONBACH, L. J. Coefficient alpha and the internal structure of tests. *Psychometrika*, 1951, 16, 297-334.

HALL, J. *Conflict management survey: a survey on one's characteristic reaction to and handling of conflicts between himself and others.* Conroe, Texas: Teleometrics International, 1969.

HALL, J. *How to interpret your scores from the conflict management survey.* Conroe, Texas: Teleometrics International, undated.

HORNEY, K. *Our inner conflicts.* New York: Norton, 1945.

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.* Boston: Graduate School of Business Administration, Harvard Univer., 1967.

RUBLE, T. L., & THOMAS, K. W. Support for a two-dimensional model of conflict behavior. *Organizational Behavior and Human Performance*, 1976, 16, 143-155.

RYAN, S. G., & CLEMENCE, J. B. Conflict resolution behavior, influence and organizational effectiveness: an integrative study. *Proceedings of the 10th Annual Meetings of the Eastern Academy of Management*, 1973.

THOMAS, K. W. Conflict and conflict management. In M Dunnette (Ed.), *Handbook of industrial and organizational psychology.* Chicago: Rand McNally, 1976. Pp. 889-935.

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

Accepted April 17, 1978.