The two-dimensional model of conflict introduced by Blake and Mouton in 1964 remains the basis for much of today's research on interpersonal conflict styles. The dimensions - (a) concern for self-interests (assertiveness) and (b) concern for the other party or the relationship (cooperativeness) - have been incorporated into a variety of questionnaires, the best known of which are Hall's (1969) Conflict Management Survey, the Thomas-Kilmann (1974) Conflict MODE Instrument, and Rahim's (1983) Organizational Conflict Inventory. In each case, the two dimensions are interpreted in terms of five modes or styles: (a) collaborating (high assertiveness, high cooperativeness), (b) competing (high assertiveness, low cooperativeness), (c) accommodating (low assertiveness, high cooperativeness), (d) avoiding (low assertiveness, low cooperativeness), and (e) compromising (medium assertiveness, medium cooperativeness).

Recently, doubts have been raised concerning the Blake and Mouton (1964) model and the questionnaires derived from it. Although these instruments measure preferences or intentions, it is unclear what effect, if any, preferences have on behavior in specific conflict situations (Kabanoff, 1987; Knapp, Putnam, & Davis, 1988). Knowing the implications of assertiveness - cooperativeness preferences during an initial encounter and over the course of an unfolding conflict would be valuable to both parties, as well as to confederates and neutrals. The present study was undertaken to analyze those relationships.

Researchers who have sought a simple and direct link between attitudes and behaviors have often found inconclusive results; thus, more sophisticated models of planned behavior have been developed. Ajzen (1988, 1991) provided a summary of the more recent research and suggested that intentions are often the best indicators of behaviors. Attitudes can affect intentions, but so can subjective norms and perceptions of behavioral control. When an individual has control over behavioral performance, intentions alone are sufficient to predict actions (Ajzen, 1988, 1991; Canary & Seibold, 1984; Sheppard, Hartwick, & Warshaw, 1988).
Traditionally, studies of intentions and behaviors have focused on predicting a single action or behavior (e.g., brand purchase, method of birth control, vote in an election; Ajzen, 1991). In contrast, research on conflict behaviors has shown that for any given interpersonal conflict (with few exceptions) there are multiple behaviors. Because these behaviors are generally within the range of personal control (e.g., physical capabilities), the variety of behaviors used must be reflected in a multi-intentioned questionnaire.

The Thomas-Kilmann Conflict MODE Instrument measures strategic intentions (Thomas, 1992) and, arguably, so do the other instruments based on the Blake and Mouton model. Although the Thomas-Kilmann Conflict MODE Instrument, Rahim's Organizational Conflict Inventory, and Hall's Conflict Management Survey are being used extensively in American academic research, training seminars, and organizational intervention and development, few studies have linked the intentions measured by these instruments with actual behaviors. Those studies that do exist have produced mixed results. Kabanoff (1987) asked a group of 78 students in a master of business administration program to complete the MODE instrument and, about 1 year later, to rate their classmates' behaviors on the observed use of each of the five conflict styles. He found little association between MODE scores and peer-rated conflict behavior, and he acknowledged an intercorrelation of peer ratings that suggested a halo effect.

A more serious limitation, also mentioned by Kabanoff (1987), is the difficulty of translating styles into their behavioral equivalents. In Kabanoff's own study, each participant subsequently was given a general description of the five styles and was asked to rate each of the other participants. In effect, conflict style as measured by self using the MODE instrument was compared with style as perceived by others. It would be valuable to know how a style preference might be played out in terms of specific behaviors in an actual conflict.

Goering, Rudick, and Faulkner (1986) sought to secure such information with a sample of 20 undergraduates and a conflict simulation involving a confederate. Their analysis of tape recordings of these simulations revealed that the MODE instrument predicted avoidance (low assertiveness, low cooperativeness), but not competitive behavior (high assertiveness, low cooperativeness). Clearly, the size of this sample and the use of a simulated conflict raise doubts about the study's generalizability.

Psenicka and Rahim (1989) studied 70 graduate students placed in dyads and forced to negotiate differences in contributions to a course assignment. Their analysis suggested that a dominating conflict style predicted conflict behavior. Although interaction was mandated in this study, and such a framework might restrict the use of avoidance behaviors, the situations examined apparently involved real conflicts.

Thomas's (1992) contention that conflict styles reflect strategic (large-scale, enduring) rather than tactical (small-scale, episodic) intentions argues for multiple behaviors proportional to the strength of an intention. (This contention apparently was used as a hypothesis in the aforementioned studies.) Thus, we might hypothesize a correspondence between the assertiveness and cooperativeness of style preferences and the mean levels of
assertiveness and cooperativeness of behaviors. From a tactical perspective, however, one's conflict styles could be manifested in a first behavior (designed to set a tone for negotiations), a second or fall-back behavior (after an initial attempt at collaboration), or an exaggerated or extreme behavior (designed to gain advantage or change the course of a conflict).

As the results of the preceding studies suggest, tactical employment has been largely ignored in research on conflict styles, despite the evidence that individuals in conflict can alter their behavior over time (Bergmann & Volkema, 1989). In the present study we tested the hypotheses that there are significant relationships between conflict styles, as measured in terms of assertiveness and cooperativeness, and the strategic and tactical use of behaviors in interpersonal conflicts.

Method

Participants

The participants were 202 students enrolled in a graduate organizational theory and behavior course at a university in the eastern United States. Their mean age was 26.0 years, and 57.7% were male. Mean time with their organizations was approximately 3 years, and mean time in their current positions was approximately 2 years at the time of this study. Thus, the participants had a moderate amount of real business experience and were professionally employed at the time.

Procedure

Participants were asked to complete two questionnaires during the first class meeting. One was the Thomas-Kilmann Conflict MODE Instrument, which is based on the Blake and Mouton (1964) conceptual model and reports scores for the five modes or styles mentioned previously. The MODE instrument has been used by managers and nonmanagers in educational, technical, health care, and religious organizations, among others (Womack, 1988). The most widely used questionnaire of its type in both research and training in North America (Putnam, 1988, p. 321), it is easy to administer and is relatively uncontaminated by social desirability effects (Womack, 1988). For each of 30 questions, an individual is asked to choose between two statements, indicating which approach or response he or she would be more likely to use (e.g., "I am usually firm in pursuing my goals," "I try to do what is necessary to avoid useless tensions"; "I try to find a position that is intermediate between his/hers and mine," "I assert my wishes"; "I try not to hurt the other's feelings," "I always share the problem with the other person so that we can work it out"). Scores for each of the five conflict styles range from 0 to 12, with a high score indicating a style preference.

With the second (situational conflict) questionnaire, selected for its wide range of behaviors and use in prior research (Bergmann & Volkema, 1989; Volkema & Bergmann, 1989), each participant was asked to describe a single interpersonal conflict at work. This approach, the critical incident method, has been used to gather behavioral data
concerning organizational conflicts (Nicotera, 1993; Tjosvold, 1990; Tjosvold & Chia, 1989). The questionnaire begins with a definition of conflict ("a disagreement or controversy in interests, values, goals or ideas") followed by questions about the other party to the conflict and the issues. The individual then is asked to indicate which specific behaviors he or she used in this conflict and the order in which they were used. Twenty-four behaviors are listed, along with an "Other" category (for a complete list, see Table 2). The participants indicated which behavior was their first response to the conflict, then their second response, and so on. Because behaviors sometimes are used more than once, instructions were given for allowing multiple use. The participants were encouraged to think about the sequence carefully and to avoid the temptation of reporting behaviors as simultaneous. After the participants had completed the sequencing of behaviors used, they were asked to indicate which of the numbered responses they were currently using. This procedure forced a review of numbered (ordered) responses and a check for errors of commission. The participants then were asked which behaviors they would never use, followed by which behaviors they might use in the future. This procedure ensured two reviews of unnumbered responses (a check on errors of omission). To avoid distortion resulting from passage of time, each participant was asked to describe a current or recent (past 2 months) interpersonal conflict.

Cronbach (1951) alpha coefficients were calculated for the MODE instrument. Coefficients for the five styles ranged from .36 to .67, with a mean of .55, comparable to prior results (for a review, see Womack, 1988). In addition, to ensure that completion of the MODE instrument was not influenced by the situational conflict questionnaire, which was completed first, a test-retest analysis was conducted for the MODE instrument (8 weeks apart). Pearson correlations showed positive coefficients for the five conflict styles, each significant at the .01 level. Thus, it seems that the MODE instrument's completion was little affected by completion of the situational conflict questionnaire.

Participation in the study was optional, but it was encouraged because the Thomas-Kilmann Conflict MODE Instrument would be scored and both questionnaires later returned. Because no names or affiliations were requested on either questionnaire, the participants were assured anonymity. A number on the front of each questionnaire, recorded by each participant, was used to return the questionnaires to participants.

Analyses

As Kabanoff (1987) acknowledged, translating styles into their behavioral equivalents can be difficult. Consequently, we chose to use common dimensions for styles and behaviors - assertiveness and cooperativeness. These two dimensions are based on the Blake-Mouton conceptual model, from which the Thomas-Kilmann Conflict MODE Instrument was developed. According to Chanin and Schneer (1984), assertiveness and cooperativeness indices can be calculated from conflict-styles scores for competing, collaborating, avoiding, and accommodating as follows:

Assertiveness index = (Competing + Collaborating) - (Avoiding + Accommodating)
Cooperativeness index = (Collaborating + Accommodating) - (Competing + Avoiding).

To assist us with the task of evaluating behaviors, we asked conflict/negotiation/mediation academics and practitioners from many fields (e.g., psychology, communication, law, management) to rate the 24 behaviors from the situational questionnaire in terms of assertiveness and cooperativeness. Forty-four professionals participated in this process; they rated each behavior on a 0 to 10 scale. Cronbach's alpha was .88 for the assertiveness ratings and .76 for the cooperativeness dimension.

We calculated regression analyses to determine if the levels of assertiveness or cooperativeness, as measured by the Thomas-Kilmann instrument, were indicative of the assertiveness or cooperativeness of first behaviors, second behaviors, final behaviors, extreme behaviors, or mean behaviors in reported interpersonal conflicts. An individual's extreme behavior was the response that reached the highest level of assertiveness or cooperativeness in the reported conflict. A relationship with specific responses (first, second, last, extreme) suggested tactical implications, whereas a relationship with mean assertiveness or cooperativeness supported Thomas's (1992) contention that the Thomas-Kilmann instrument reflects strategic intentions.

Results

Mean scores for the five styles from the Thomas-Kilmann Conflict MODE Instrument are shown in Table 1; they are comparable to results reported elsewhere (Kabanoff, 1987). The range of scores for the assertiveness index calculated from these scores was -17 to +17, with a mean of -0.58 and a standard deviation of 6.97. For cooperativeness, the range was -11 to +12, with a mean of 0.21 and a standard deviation of 4.87. The assertiveness and cooperativeness indices are based on the formulas developed by Chanin and Schneer (1984), discussed earlier.

For the situational conflict questionnaire, the most frequently used responses were "Discuss conflict with co-workers" and "Discuss the issue with the person" (see Table 2). All behaviors listed on the questionnaire were used by at least one person on some occasion except "Push, strike or punch the person." Overall, the mean level of assertiveness for the behaviors was 5.51 (SD = 1.81), and the mean for cooperativeness was 4.74 (SD = 2.15). These statistics were derived from the data in Table 2. For example, the mean level of assertiveness of behaviors was calculated by multiplying the number of uses of a behavior by the behavior's mean value as determined by the experts, adding these products for the 24 behaviors and dividing by the total number of behaviors used. "Discuss the issue with the person" was by far the most common first response (81, 40.1%). The mean level of assertiveness of first behaviors was 6.27 (SD = 1.59), and the mean level of cooperativeness was 6.38 (SD = 1.96) (derived from the data in Table 2, as described earlier).

Overall, the mean number of behaviors that participants reported using in these conflicts was 6.95 behaviors (SD = 3.06). "Ignore or accept the conflict" was the most common
last response (41, 20.3%). For last behaviors, the mean level of assertiveness was 4.68 (SD = 2.11), and the mean level of cooperativeness was 4.18 (SD = 1.79) (derived from the data in Table 2, as described earlier).

The mean value of the most (extreme) assertive behavior was 7.48 (SD = .70), and the mean level for the most (extreme) cooperative behavior was 7.70 (SD = 1.10). Further analysis revealed that only 11% of the most assertive behaviors were last behaviors and that only 8% of the most cooperative behaviors were last behaviors. Thus, these two measures (extreme and last) were indeed distinct.

Regression analyses revealed that the assertiveness index for the Thomas-Kilmann MODE Instrument was significantly associated with three behavioral responses - the mean response, the last response, and the extreme response. In each case, the relationship was positive: the greater the level of assertiveness, as measured by the Thomas-Kilmann instrument, the greater the level of assertiveness of the behaviors in interpersonal conflicts. The most significant was for mean response, p [less than] .001, although the amount of variance explained by the Thomas-Kilmann scores was very small, adjusted [R.sup.2] = .06, followed by extreme response, p [less than] .05, adjusted [R.sup.2] = .02, and last response, p [less than] .05, adjusted [R.sup.2] = .02.

TABLE 1

<table>
<thead>
<tr>
<th>Thomas-Kilmann Conflict Styles and Assertiveness-Cooperativeness</th>
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<tr>
<td><strong>Dimensions</strong></td>
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<td><strong>Style/Dimension</strong></td>
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<td>Compromising</td>
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<td>Avoiding</td>
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<td>Collaborating</td>
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<td>Accommodating</td>
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<tr>
<td>Competing</td>
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<tr>
<td>Assertiveness(a)</td>
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<td>Cooperativeness(a)</td>
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</table>


a Calculated based on Chanin and Schneer (1984) formulas for assertiveness and cooperativeness.

Only a single significant relationship was found for cooperativeness; its level as measured by the Thomas-Kilmann instrument was positively associated with the last response, p [less than] .05, adjusted [R.sup.2] = .03.

Discussion

Many conflict-style instruments currently in use in research and organizational development in North America owe their beginnings to the conceptual model of Blake
and Mouton (1964). Although these instruments undoubtedly have utility in fostering discussion of personalities and general preferences, a more valuable contribution would exist if an instrument were able to indicate what behaviors are likely to occur in a specific interpersonal conflict, and at what point.

The results of this study offer some support to the proposition that the level of assertiveness measured by the Thomas-Kilmann Conflict MODE Instrument is related to the strategic use of assertiveness in an interpersonal conflict, as well as some evidence that the assertiveness and cooperativeness dimensions of conflict styles are associated with the tactical use of behaviors in an interpersonal conflict. Specifically, another party might expect the assertiveness of an individual as measured by the MODE instrument to be reflected in behaviors overall (mean levels), as well as the most extreme level of assertiveness and one's last response. In addition, a second or third party might expect cooperativeness as measured by the MODE instrument to be reflected in the last response.

The significant relationships for both assertiveness and cooperativeness with last responses indicate that individuals were inclined to conclude with behaviors consistent with their Thomas-Kilmann style preferences. There may be a measure of comfort and satisfaction that comes from ending with levels of assertiveness and cooperativeness that reaffirm basic intentions or values, a way of winning or saving face by being true to self.

The dominant first response among participants was "Discuss the issue with the person" (see Table 2). Bergmann and Volkema (1989) also reported this behavior as a common first response; it may be a logical and socially accepted way of behaving at the beginning of a conflict, independent of one's style or general preferences, within the culture(s) represented in this sample. Consequently, this provides one possible explanation of why we did not find an association between assertiveness and cooperativeness as measured by the MODE instrument and first behaviors. In fact, the first and second responses in many such interpersonal conflicts may be "pre-programmed," the first response being one of constructive engagement and the second response reflecting the other party's reaction to this good-faith effort.

The responses reported as the first, second, and last behaviors (see Table 2) support the supposition that individuals will vary their behavior over the course of an interpersonal conflict. Future research on conflict needs to recognize this dynamic, which is not easily captured by style or mode instruments based on the Blake and Mouton conceptual model. Researchers might consider introducing a set of temporally oriented questions in

<table>
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<tr>
<th>Thomas–Kilmann Conflict Styles and Assertiveness–Cooperativeness Dimensions</th>
<th>Range</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compromising</td>
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<td>1.02</td>
<td>2.37</td>
</tr>
<tr>
<td>Avoiding</td>
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<td>6.23</td>
<td>2.50</td>
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<td>2.39</td>
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<td>5.56</td>
<td>2.23</td>
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<td>5.15</td>
<td>2.78</td>
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<tr>
<td>Assertiveness*</td>
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<td>6.97</td>
</tr>
<tr>
<td>Cooperativeness*</td>
<td>−11, 12</td>
<td>2.1</td>
<td>4.87</td>
</tr>
</tbody>
</table>


*Calculated based on Chanin and Schner (1984) formulas for assertiveness and cooperativeness.
testing future generations of conflict-style instruments to understand better the effects of timing on preferences (e.g., "At the beginning of the conflict . . .", "When the conflict is most intense . . .", "As your last response . . .").

On the basis of this sample only, the range of preferences measured by the Thomas-Kilmann Conflict MODE Instrument seems considerably broader for assertiveness (SD = 6.97) than for cooperativeness (SD = 4.87). This finding suggests that the instrument may differentiate more efficiently between assertive orientations than between cooperative orientations.

Finally, it is important to emphasize that this study was based on an urban American sample. Although there was no a priori reason to suspect that culture would mediate a relationship between the MODE instrument and strategic-tactical behaviors, cultural influences cannot be overlooked in the development of conflict-style instruments and the interpretation of behavior.

REFERENCES


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