Consistency and Variability in Causal Attributions and Coping with Stress[1]

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Temporal and cross-situational consistency in causal attributions and coping were examined in reference to two ongoing stressors over a period of 4 weeks. Patterns of coping were characterized by moderate consistency in response to the same stressor over time and low consistency across two different types of stress (academic and interpersonal stressors). Causal attributions were moderately to highly consistent in response to the same stressor over time, but levels of consistency in attributions were low across the two stressors. There were individual differences in the degree of coping consistency, with some individuals displaying more stability in coping than others. Higher levels of consistency in coping were associated with higher levels of negative affect; negative emotions predicted significant portions of the variance in subsequent consistency in coping, but consistency in coping did not predict later emotions.

KEY WORDS: stress; coping; attribution; consistency.

The ways in which individuals perceive the causes of, and cope with, psychosocial stress are critical factors in determining the effects of stressful events on psychological and physical well-being. Causal attributions are assumed to reflect an important aspect of individuals' cognitive appraisals of stressful situations, whereas coping refers to the efforts individuals make to manage

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or master stressful encounters (e.g., Hammen, 1985; Lazarus & Folkman, 1984). However, considerable debate has centered around the degree to which individuals are consistent or variable in the ways they perceive and respond to stressful situations, and the relation between emotional distress and the level of consistency in individuals' attributions and coping.

A number of conceptualizations of the coping process have emphasized flexibility or variability in the way a person copes with different stressors as a hallmark of effective adaptation (e.g., Cohen, 1984; Lazarus & Folkman, 1984; Meichenbaum, 1985; Moos & Billings, 1982). Flexibility is characterized by changing the coping strategies one uses in response to the demands of different stressors and/or in response to the same stressor as demands change over the course of a stressful encounter. For example, an individual may use active problem-solving strategies in one situation but rely on more avoidant strategies in a situation that presents different demands. In contrast, high levels of consistency or rigid patterns of responding across different stressful episodes and overreliance on certain strategies are characteristics supposedly associated with less competent individuals or maladaptive responses to stress (e.g., Mischel, 1984; Shapiro, 1965). The consistent use of the same set of coping strategies is presumed to be inadequate to meet the varying demands presented by different types of stressful situations.

In spite of the importance given to the roles of flexibility and consistency in coping, research examining consistency or change in the coping process as a function of temporal and contextual factors, although increasing of late, has been relatively rare (Folkman & Lazarus, 1980, 1985; Folkman, Lazarus, Gruen, & DeLongis, 1986; Menaghan, 1982; McCrae, 1984; Pearlin & Schooler, 1978; Stone & Neale, 1984). The results of these studies are difficult to integrate because they have defined consistency in coping in various ways. For example, Folkman and Lazarus (1980) operationalized consistency in coping on the basis of the proportion of problem- and emotion-focused coping used in dealing with several different stressful encounters over a period of 1 year. Folkman and Lazarus concluded that "although a degree of consistency was present, this population was characterized by more variability than consistency in its patterns of coping" (p. 227). Taking a different approach, Stone and Neale (1984) defined consistency in terms of the particular coping strategy used most often in coping with the same stressful event on 2 or more days during a 21-day period. On average, subjects used their "most frequent" strategy on 70% of the days they coped with the same stressor, leading Stone and Neale (1984) to conclude that "when the same problem is coped with on several occasions, subjects tend to be consistent in their manner of coping with it" (p. 902).

Researchers concerned with consistency and variability in the more general study of personality have emphasized the importance of distinguish-

ing between situational and temporal stability, with greater consistency found over time in similar situations than across different contexts (e.g., Mischel, 1968, 1973, 1984; Mischel & Peake, 1982). Perhaps this distinction accounts for the different findings reported by Folkman and Lazarus (1980) and Stone and Neale (1984). Folkman and Lazarus (1980) examined consistency in coping with stressful episodes reported once a month over a period of 1 year. Since it is unlikely that subjects were reporting on their coping with the same stressor over this extended time period, the low degree of consistency found in this study may have been a result of both situational changes and temporal changes. By contrast, Stone and Neale (1984) were concerned with temporal consistency only.

In addition to failing to distinguish adequately between temporal and cross-situational consistency, prior studies also have not examined the relation between consistency in coping and psychological or physical well-being. Thus, the clinical implications of consistency or variability in coping remain unclear. This is a particularly important question, given that many stress-management interventions are implicitly based on the assumption that the consistent use of relaxation techniques is an effective way to cope with stress (see Woolfolk & Lehrer, 1984, for examples of such approaches).

Similar issues have been raised regarding cognitive appraisals of stressful events, particularly causal attributions. It has been hypothesized that some individuals display a maladaptive attributional style of perceiving the causes of negative events as the result of internal, stable, and global factors (Abramson, Seligman, & Teasdale, 1978). Specifically, Metalsky and Abramson (1981) define attributional style as "the consistency in attributional content across situations and time, such as making 'ability' attributions for one's success" (p. 38). However, evidence for the existence of cognitive styles in causal attributions for stressful events has been mixed. Cutrona, Russell, and Jones (1984), for example, found that individuals were only moderately consistent in their attributions for hypothetical negative events on the original version of the Attributional Style Questionnaire (ASQ; Peterson et al., 1982; Seligman, Abramson, Semmel, & von Baeyer, 1979). Further, subjects were inconsistent in their attributions for actual stressful events. Cutrona et al. (1984) conclude that to the extent that attributional styles do exist, they are limited to only certain highly specific classes of events (e.g., "being late to an appointment" or "coming down with a cold"). One implication of their findings is that, at least in making attributions for the causes of stressful events, individuals are more variable than consistent across different stressful situations. However, more recent studies (e.g., Metalsky, Halberstadt, & Abramson, 1987), using a revised and more reliable form of the ASQ, show that individuals may be consistent in their attributions within content domains (e.g., social, academic). Further, the relation of causal attributions for stress-

ful events with psychological distress remains unclear (see reviews by Brewin, 1985; Hammen, 1985; Sweeney, Anderson, & Bailey, 1986).

The present study was designed to examine consistency and flexibility in causal attributions for, and coping with, stressful events, and the relation of consistency on these two variables with emotional distress. Individuals' causal attributions and coping with two ongoing stressors in two domains, interpersonal relationships and academic achievement, were assessed over a period of 4 weeks. This design allowed for the direct comparison of temporal and cross-situational consistency in attributions for, and coping with, two different types of stress during the same time period. First, it was hypothesized that both attributions and coping would be more consistent over time in response to the same event than across two different stressors. Second, it was hypothesized that higher emotional distress would be associated with greater consistency in coping, while lower levels of consistency (i.e., greater flexibility) would be associated with lower distress. Third, emotional distress was expected to be related to a particular pattern of consistency in attributions — i.e., attributing the causes of stressful events to internal, stable, and global factors. The prospective design used in this study allowed for preliminary examination of the temporal relation of attributions and coping with emotional distress.

METHOD

Subjects

Subjects were 65 undergraduates (15 male and 50 female), with a mean age of 19.6 years, enrolled in an undergraduate psychology course at a public university in the northeast. Subjects were predominantly white and of middle to upper socioeconomic status. All subjects were volunteers and received extra course credit for their participation in the study.

Measures

Stressful Events. Subjects were presented with two lists of chronic daily stressors that have been identified as typical for this age group (Compas, Davis, & Forsythe, 1985), one entitled "Academic Events" and the other "Interpersonal Events." Examples of academic events included "problems with studying or doing homework," "having a bad class or teacher," and "making decisions about a career or major." Examples of interpersonal events included "problems with roommates," "problems with friends," and "being

around people who are inconsiderate or offensive." Subjects were instructed to select one negative academic event and one negative interpersonal event that they had experienced at least once during the previous week and that they expected to continue for the next 3 weeks. They rated each event on a scale of frequency of occurrence during the previous week ("only one day" to "more than once each day").

Causal Attributions for Stressful Events. Subjects were instructed to provide a brief description of the cause of each event and to evaluate this cause on three dimensions: (a) locus (1 = something about you, 7 = something about the situation or other people), (b) stability (1 = something changing, 7 = something unchanging), and (c) globality (1 = does not affect other events, 7 = affects other events to a great extent) (see Hammen, 1985). Reliability of these scales has been found to be adequate (Gong-Guy & Hammen, 1980; Hammen & DeMayo, 1982).

Coping. Subjects completed the Measure of Daily Coping developed by Stone and Neale (1984) in reference to each of the academic and interpersonal events they selected. The measure uses a semistructured format in which subjects are presented with the names of eight types of coping and brief definitions of each: (a) Distraction: diverted attention away from the problem by thinking about other things or engaging in some activity; (b) Situation Redefinition: tried to see the problem in a different light that made it seem more bearable; (c) Direct Action: thought about solutions to the problem, gathered information about it, or actually did something to try to solve it; (d) Catharsis; expressed emotions in response to the problem to reduce tension, anxiety, or frustrations; (e) Acceptance: accepted that the problem had occurred, but that nothing could be done about it; (f) Seeking Social Support: sought or found emotional support from loved ones, friends, or professionals; (g) Relaxation: did something with the implicit intention of relaxing; (h) Religion: sought or found spiritual comfort and support. For each stressful event, subjects were instructed to indicate with a check mark whether or not they had used each of the eight types of coping during the past week, and to describe the particular thoughts and actions they employed for each category actually used. Scores on the measure were based on the number of types of coping used for each event on each occasion. Reliability of this instrument has been shown to be adequate (Stone & Neale, 1984).

Emotional Distress. The Multiple Affect Adjective Checklist (MAACL; Zuckerman & Lubin, 1965) was used to assess subjects' current (in the past week) levels of emotional distress. The MAACL is a self-report checklist of 132 adjectives describing a vareity of positive and negative emotions; it has been found to be sensitive to transitory mood states (e.g., Gotlib, 1984). A recent factor-analytic study of the measure indicates that responses reflect two general factors, negative and positive affect (Gotlib & Meyer, 1986).

Coefficient alphas in the present sample averaged across the four data collections were .94 for negative affect and .95 for positive affect.

Procedure

Volunteers were recruited from an undergraduate psychology course and instructed to report in small groups (approximately eight students each) for an initial session. Subjects completed the appraisal and coping measures separately in reference to one social and one academic stressful event selected from the lists provided by the experimenter, followed by the MAACL. Subjects were then provided with three additional sets of these measures, identified by subject code numbers. The experimenter instructed subjects to write the names of the academic and interpersonal events they selected on a cover page of each of the three blank sets of questionnaires. Subjects were instructed to complete one set of questionnaires each week for the following 3 weeks and to leave them for the experimenter in a designated location on the Friday of each week. Subjects received experimental credit only for completing all four sets of questionnaires. As a consequence, all subjects who began the study completed all questionnaires.

RESULTS

Descriptive Analyses

Mean causal attributions for academic and interpersonal stressful events were averaged across the four data collections. Causes of academic events were attributed more to internal factors ($M = 3.84$, $SD = 2.00$) than were causes for interpersonal events ($M = 4.62$, $SD = 1.65$; $t(64) = 3.30$, $p = .002$). There were no differences between the two events on stability (means were 4.32 for academic and 3.85 for interpersonal events) or globality (means were 4.98 for academic and 4.93 for interpersonal events) of attributions.

The percentages of subjects using each type of coping in response to each event at each of the time points are presented in Table I. These frequencies indicate that six of the eight strategies were used at least once by 70% or more of the sample in handling academic stressors, and five of the eight strategies were used at least once by 70% or more of the sample in response to interpersonal stressors. Religion was used the least with both events (by 29.2% of the subjects with academic stress and 21.5% with interpersonal stress). Considerably fewer subjects used any one strategy at any given time than used it at least once. For example, although 60% used catharsis at least once in dealing with an academic stressor, the portion of subjects

Table I. Percentage of Subjects Using Each Coping Strategy by Event and Week

	Academic event					Interpersonal event				
	Week					Week				
Coping strategy	1	2	3	4	Total	1	2	3	4	Total
Distraction	72.3	81.5	69.2	58.5	89.2	73.8	76.9	69.2	58.5	93.8
Situation redefinition	64.6	56.9	43.1	49.2	83.1	64.6	60.0	63.1	49.2	93.8
Direct action	69.2	56.9	53.8	61.5	87.7	64.6	49.2	47.7	56.9	86.2
Catharsis	40.0	32.3	34.4	22.2	60.0	58.5	45.3	40.6	35.4	75.4
Acceptance	49.2	43.1	43.8	36.5	72.3	40.0	42.2	42.2	32.3	64.6
Social support	63.1	53.8	42.2	38.1	78.5	80.0	65.6	57.8	49.2	90.8
Relaxation	49.2	58.5	53.1	49.2	76.9	46.2	39.1	40.6	40.0	67.7
Religion	20.0	21.5	10.9	11.1	29.2	13.8	14.1	9.4	7.7	21.5

using catharsis at any given time ranged from only 22.2 to 40.0%. Thus, different subjects used this strategy at different times. Analyses of changes over the four time points in the use of each coping strategy with each event were conducted (Cochran's Q). For academic stressors, the use of distraction ($p = .005$), situation redefinition ($p = .021$), social support ($p = .002$), and religion ($p = .015$) decreased over time; for social stressors the use of catharsis ($p = .009$) and social support ($p = .001$) decreased over time. These changes may reflect fatigue in completing the measure or the tendency for the stressors to be resolved over time and thus to require fewer coping efforts. Subjects used catharsis ($t(64) = 2.57, p = .012$) and social support ($t(64) = 3.02, p = .004$) more often with interpersonal than with academic events, and relaxation ($t(64) = 2.56, p = .013$) and religion ($t(64) = 2.44, p = .017$) more often with academic than with interpersonal events.

Mean scores for each of the MAACL subscales were moderately stable over the four data collections, with mean correlations of .63 for negative emotions and .62 for positive emotions. No norms are available for the positive and negative emotion subscales. However, means for the depression (17.04), anxiety (9.38), and hostility (11.43) subscales averaged across the 4 weeks for the present sample are comparable with those of other college student samples (e.g., Gotlib, 1984).

Temporal and Cross-Situational Consistency of Causal Attributions

The temporal consistency of causal attributions for academic and interpersonal stressful events was determined using Pearson correlations among scores for each attribution at each of the four time points (e.g., locus of cause of academic stressor at time 1 with locus of cause at time 2, time 1 with time

Table II. Consistency in Attributions: Mean Bivariate Correlations Over Time with Same Event and Across Events

Attribution	Academic event	Interpersonal event	Across events
Locus of cause	.463[a]	.516[a]	.049
Stability of cause	.455[a]	.450[a]	.112
Globality of cause	.615[a]	.654[a]	.176

[a]$p < .01$.

3, time 1 with time 4, time 2 with time 3, etc.), resulting in a total of 18 correlations. These correlations were transformed to Fisher's (1921) z statistic, and the mean z for each attribution was calculated separately for each event and then transformed back to r's. These mean correlations are presented in Table II. The coefficients are moderate to high in magnitude, ranging from .450 to .654, with all of the correlations significant at $p < .01$.

Cross-situational consistency was determined by calculating the bivariate correlations of each attribution for the two different events at each of the four time points (e.g., locus of cause of academic stressor with locus of cause of interpersonal stressor at time 1, time 2, time 3, etc.), generating a total of 12 correlations. These correlations were then averaged for each attribution, again using the Fisher's z transformation, and are presented in Table II. The coefficients are low in magnitude, ranging from .049 to .176, with none of the correlations reaching significance at $p < .05$. The coefficients of temporal and cross-situational consistency for academic and interpersonal stressors were compared, using procedures for testing for differences between nonindependent correlations (Howell, 1987), and the temporal correlations were found to be significantly greater than the coefficients of cross-situational consistency for each of the three attributions ($p < .05$). Thus, consistent with the hypotheses, temporal consistency of attributions for a single event was greater than cross-situational consistency in attributions for events.[3]

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[3]It is possible that the cross-situational and temporal correlations of the attribution dimensions are constrained owing to low reliability resulting from using a single item to measure each dimension for each event at each time point. When the data were reanalyzed using a composite attribution score for each event at each time point (the sum of the internality, stability, and globality items; cf. Cutrona, 1983; Cutrona et al., 1984), the same pattern of results was obtained, with temporal stability exceeding cross-situational stability. However, since it is not possible to determine internal consistency on only three items, these data could not be used to address the reliability of the attribution scores. Further, attributions made for the same event at four time points could not be aggregated and used simultaneously as an index of reliability and as a test of the degree of temporal stability in the attributions. However, if low reliability of the individual attribution items did indeed constrain the magnitude of the correlations obtained, these constraints would affect the temporal and cross-situational correlations equally.

Table III. Consistency in Coping: Mean Biserial Correlations of Coping with Events Over Time and Across Events

Coping strategy	Academic events	Interpersonal events	Across events
Distraction	.367[b]	.222	.101
Situation redefinition	.315[a]	.213	.147
Direct action	.343[b]	.328[b]	.144
Catharsis	.351[b]	.331[b]	.191
Acceptance	.362[b]	.413[b]	.190
Social support	.318[a]	.280[a]	.186
Relaxation	.484[b]	.431[a]	.399[b]
Religion	.566[b]	.607[b]	.652[b]

[a] $p < .05$.
[b] $p < .01$.

Analysis of Individual Differences in Attributional Style

Depressive attributional style was operationalized as consistently attributing the cause of a stressor to internal, stable, and global factors (see Abramson et al., 1978). Subjects' ratings of the internality, stability, and globality of the cause of each event at each time point were dichotomized by splitting each scale at the midpoint. Thus, attributions of each event were scored as internal versus external, stable versus unstable, and global versus specific. A subject was identified as displaying a maladaptive attributional style for a stressor if he or she attributed the cause of the event to internal, stable, and global factors on at least three of the four occasions. With regard to academic stressors, no subjects displayed a maladaptive attributional pattern on all four occasions, and only three subjects did so on three of the four occasions. No subjects displayed a maladaptive attributional pattern on either three or four occasions for interpersonal events. Thus, the tendency to attribute the cause of stressful events to internal, stable, and global factors was not present in this sample. As a result, emotional distress could not be analyzed as a function of depressive attributional style.[4]

Temporal and Cross-Situational Consistency of Coping

The temporal consistency of coping with academic and interpersonal stressful events was determined using biserial correlations among coping

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[4]Prior studies of attributional style have shown that a particular pattern of attributions (i.e., attributing causes of negative events to internal, stable, and global factors), rather than the stability of attributions per se, is related to emotional distress. Thus, although the relation between the overall stability of coping and emotions is reported below, it was not possible to conduct a similar set of analyses for attributions and emotions.

scores for each strategy at each of the four time points (e.g., direct action at time 1 with direct action at time 2, time 1 with time 3, time 1 with time 4, time 2 with time 3, etc.), resulting in a total of 96 correlations. These correlations were then averaged for each coping strategy for each event using Fisher's z transformation and are presented in Table III. The correlations were moderate (.607) to low (.213) in magnitude, with 14 of the 16 correlations significant ($p < .05$).

To determine the degree of cross-situational consistency in the use of each strategy, biserial correlations of each coping strategy for the two events were calculated at each time point(distraction with academic event correlated with distraction with interpersonal event at time 1, time 2, time 3, etc., resulting in a total of 32 correlations), and average correlations for each strategy were calculated using Fisher's z transformation (see Table III). These correlations tended to be low, with six of the eight coefficients at .191 or low and only two of the eight significant ($p < .01$). Mean correlations for temporal consistency in coping with the same events were greater than correlations for cross-situational consistency for seven of the eight coping strategies (religion was the lone exception). Although temporal and cross-situational consistency correlations were not significantly different from one another for any of the coping strategies, the pattern is supportive of the hypothesis that temporal consistency exceeds cross-situational consistency.

Individual Differences in Consistency of Coping. A second approach to analyzing consistency in coping is to determine the degree to which each individual is consistent or variable in pattern of coping. A criterion was established that a subject was consistent over time in the use of a strategy if she or he used the strategy on three or four out of four occasions in coping with the same event (strategies used less than three times were considered to have been used inconsistently or flexibly).[5] The number of strategies each subject used consistently (three or four times) in coping with each event are summarized in Table IV. Most subjects used at least one strategy on a consistent basis with either type of stress (93.8% with academic events and 95.4% with interpersonal events). Further, the majority of subjects used be-

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[5]No subjects were consistent in the sense of using only one strategy on a repeated basis to the exclusion of all other strategies. Subjects typically sampled from other strategies at least once during the 4 weeks and thus used these other strategies in a "flexible" manner. Therefore, the subjects who displayed the highest levels of consistency were those who repeatedly used the greatest number of strategies. Coping consistency was significantly correlated with total amount of coping for both academic events ($r = .86, p < .001$) and interpersonal events ($r = .89, p < .001$). Subjects with lower levels of negative affect sampled from a large number of strategies but used each of them on fewer occasions (i.e., during only 1 or 2 of the 4 weeks of the study) and so did less coping overall. This pattern is similar to other studies that have found an association between emotional distress and amount of coping (e.g., Coyne, Aldwin, & Lazarus, 1981).

Table IV. Percentage of Subjects Using Strategies Consistently
with Academic and Interpersonal Stressors

Number of strategies used consistently	Percent of subjects used with academic events	Percent of subjects used with interpersonal events
0	6.2 ($n = 4$)	4.6 ($n = 3$)
1	20.0 ($n = 13$)	18.5 ($n = 12$)
2	15.4 ($n = 10$)	20.0 ($n = 13$)
3	20.0 ($n = 13$)	23.1 ($n = 15$)
4	21.5 ($n = 14$)	12.3 ($n = 8$)
5	7.7 ($n = 5$)	9.2 ($n = 6$)
6	7.7 ($n = 5$)	9.2 ($n = 6$)
7	1.5 ($n = 1$)	3.1 ($n = 2$)
8	0.0	0.0

tween one and four strategies on a consistent basis with either event (76.9%
with academic events and 73.9% with interpersonal events).

When consistency was examined across the two situations, it was found
that only six individuals were highly stable in both situations; i.e., six sub-
jects utilized five or more coping strategies three of four times for both events.
Twenty individuals were moderately consistent in both situations, using three or
four coping strategies three or four times for both situations, or consistently
using three or four strategies with one event and five or six strategies with
the other event. Thirty-two subjects were low in consistency, since they used
one or two strategies three or four times for each event or used one or two
strategies for one event and three or four for the other.

Consistency of Coping and Emotional Distress

The relation between consistency of coping and emotional distress was
examined in regression analyses using consistency of coping with each event
as the predictor variable and mean positive and negative affect on the
MAACL averaged over the four time points as the criterion variables. Both
consistency of coping with academic events ($R = .30$, $R^2 = .09$, $F = 6.41$,
$p = .014$) and coping with interpersonal events ($R = .26$, $R^2 = .07$, $F =
4.59$, $p = .036$) were related to negative affect. That is, greater consistency
in coping was related to higher levels of negative emotions. Neither consisten-
cy score was significantly related to the positive affect dimension of the
MAACL.

A second set of regressions were run to explore temporal relations be-
tween coping and emotions. First, consistency in coping was used to predict
affect. The degree of consistency in coping over the first three time points

(calculated using the procedure described above) was used as the predictor variable and positive and negative emotions on the MAACL at the fourth time point were used as the criteria. Neither the degree of consistency in coping with academic or interpersonal stressors significantly predicted subsequent negative or positive emotions. Second, emotions were used to predict consistency in coping (negative and positive emotions at the first time point were used as predictors and consistency in coping with academic and interpersonal stressors over the second, third, and fourth time point were the criterion variables). Negative affect significantly predicted both consistency in coping with academic stress ($R = .243$, $R^2 = .06$, $p = .051$) and consistency in coping with interpersonal stress ($R = .261$, $R^2 = .07$, $p = .036$). Positive affect did not significantly predict coping with either type of stress.

DISCUSSION

Prior research concerning the degree of consistency in causal attributions for stressful events and the ways in which individuals cope with stressors has yielded conflicting findings. Results of some studies have indicated that attributions and coping are characterized by high levels of consistency (e.g., Stone & Neale, 1984), while others have found that these processes are more variable than stable (e.g., Folkman & Lazarus, 1980). The present study sheds some light on the reasons for the apparent conflict in these results. The findings reported here indicate that attributions and coping are *both* consistent and variable, depending on the context in which they are studied.

Some evidence was found for the existence of consistent patterns in coping when subjects reported on their efforts to manage the same stressful circumstances on repeated occasions. First, low to moderate levels of consistency in coping were found in individuals' responses to an ongoing stressor over a period of 4 weeks, and the majority of these correlations (14 of 16) were statistically significant. Second, using an approach similar to that taken by Stone and Neale (1984), the present sample was highly consistent in coping in that subjects used at least one strategy on a repeated basis in response to an ongoing stressor. Almost all subjects reported one or more strategies that they used during at least 3 of the 4 weeks of the study (93.8% with academic stressors and 95.4% with interpersonal stressors). Thus, when consistency is defined in terms of the use of one or even several strategies on a repeated basis in response to the same event, most subjects displayed high levels of consistency.

However, levels of consistency were low when examined across two different stressors, since six of the eight correlations reflecting cross-situational consistency were nonsignificant. With the exception of religion, levels of tem-

poral consistency were higher than levels of cross-situational consistency for all of the coping strategies, although these differences were not statistically significant. Thus, the hypothesis that temporal consistency in coping would exceed cross-situational consistency was only partially supported.

Cross-situational differences in coping may be due to several factors. First, and most obvious, different patterns of coping may be due to the different demands of these two types of stressors. For example, completing homework assignments or preparing for an exam may require different methods of coping than solving interpersonal problems with roommates or friends, as indicated by differences in the use of several coping strategies with these two types of events. Second, differences in coping may be due to differences in the ways the stressors were perceived by individuals. Subjects may have selected coping strategies that fit or matched their appraisals, selecting those strategies that seemed best suited to their perceptions of the situation (cf. Forsythe and Compas, 1987). Third, the resources available to individuals for coping with academic achievement stress may be different from those available for interpersonal stressors. For example, the greater use of social support in coping with interpersonal as opposed to academic stress may indicate that emotional support received from friends, loved ones, or professionals is a more appropriate resource for coping with interpersonal than academic stressors.

Religion was the one coping strategy that achieved relatively high levels of both temporal and cross-situational consistency. This may be because of the unique qualities of this as opposed to the other coping strategies included on the measure devised by Stone and Neale (1984). Rather than representing a strategy that individuals use on certain occasions and not on others, religion may reflect a more constant set of values and beliefs held by the individuals. As such, it may be more accurately conceptualized as a "person variable" that influences the coping process at a general level, rather than a coping strategy per se, and may exert a more stable influence on coping behavior (Lazarus & Folkman, 1984).

Causal attributions for stressful events displayed a pattern similar to that observed for coping, with moderate to high levels of consistency in attributions for the same stressor over time and low consistency in attributions for two different stressors. Correlations reflecting temporal consistency in attributions were significantly greater than the cross-situational correlations of attributions. Thus, similar to recent findings of Metalsky et al. (1987), to the extent that attributional styles do exist, they may be limited to consistency with the same class of stressful situations and may not generalize across different types of stressors.

With regard to emotional distress, the use of a greater number of coping strategies on a consistent basis in response to each type of stress was posi-

tively associated with reporting more negative emotions over the course of 4 weeks. However, analyses of the temporal relations between coping and emotions indicated that negative affect led to greater consistency in coping, whereas consistency in coping did not lead to more negative emotions. These findings suggest that emotional distress may constrain individuals' coping by decreasing the flexibility in their coping patterns. Counter to our expectations, these results do not suggest that emotional distress is a consequence of a high degree of consistency in coping. Further, because of the strong correlations between consistency and amount of coping, these findings may also reflect the tendency of individuals to use more coping strategies in association with the distressing emotions they were experiencing rather than in response to the stressor per se. This relation seems plausible given that seven of the eight coping strategies on the Stone and Neale (1984) measure were emotion-focused strategies. Temporal relations between coping and emotional distress warrant further investigation.

The present data indicate that causal attributions and coping with stress are characterized by consistency in responses to the same stressful circumstances over time and variability in reactions to different stressful situations. Individuals appeared to maintain at least moderate levels of continuity and coherence in their appraisals and ways of coping in a single situation. However, consistency was not maintained at the expense of the need to adapt to the alternative demands and requirements associated with different environments. These findings are similar to those of studies of other facets of behavior and personality in which temporal consistency typically exceeds cross-situational consistency (e.g., Mischel & Peake, 1982). Thus, as Bandura (1986) has noted more generally, the debate regarding the specificity versus generality of thoughts and actions will not be resolved clearly in favor of one position or the other. Subsequent research needs to recognize the importance of both of these features of stress and coping processes.

Several limitations of the present study need to be addressed in subsequent research. First, the sample was limited to college students and was predominantly female. Whether these findings are equally characteristic of males and females, and of more diverse populations, is unclear. Second, attributions and coping were assessed with regard to only one event in each social and academic domain, and, as a result, the possibility of greater consistency in coping across events in the same domain could not be addressed in this study. Finally, the reliability of the attribution and coping measures were difficult to determine in the present study, necessitating caution in interpreting these findings.

REFERENCES

Abramson, L. Y., Seligman, M. E. P., & Teasdale, J. (1978). Learned helplessness in humans: Critique and reformulation. *Journal of Abnormal Psychology, 87,* 49-74.

Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory.* Englewood Cliffs, New Jersey: Prentice-Hall.

Brewin, C. R. (1985). Depression and causal attributions: What is their relation? *Psychological Bulletin, 98,* 297-309.

Cohen, F. (1984). Coping. In J. Matarazzo, S. Weiss, J. Herd, N. Miller, & S. Weiss (Eds.), *Behavioral health: A handbook of health enhancement and disease prevention.* New York: Wiley.

Compas, B. E., Davis, G. E., & Forsythe, C. J. (1985). Characteristics of life events during adolescence. *American Journal of Community Psychology, 13,* 677-691.

Coyne, J. C., Aldwin, C., & Lazarus, R. S. (1981). Depression and coping in stressful episodes. *Journal of Abnormal Psychology, 90,* 439-447.

Cutrona, C. E. (1983). Causal attributions and perinatal depression. *Journal of Abnormal Psychology, 92,* 161-172.

Cutrona, C. E., Russell, D., & Jones, R. D. (1984). Cross-situational consistency in causal attributions: Does attributional style exist? *Journal of Personality and Social Psychology, 47,* 1043-1058.

Fisher, R. A. (1921). On the probable error of a coefficient of correlation deduced from a small sample. *Metron, 1,* 3-32.

Folkman, S., & Lazarus, R. S. (1980). An analysis of coping in a middle-aged community sample. *Journal of Health and Social Behavior, 21,* 219-239.

Folkman, S., & Lazarus, R. S. (1985). If it changes it must be a process: Study of emotion and coping during three stages of a college examination. *Journal of Personality and Social Psychology, 48,* 15-170.

Folkman, S., Lazarus, R. S., Gruen, R. J., & DeLongis, A. (1986). Appraisal, coping, health status, and psychological symptoms. *Journal of Personality and Social Psychology, 50,* 571-579.

Forsythe, C. J., & Compas, B. E. (1987). Interaction of cognitive appraisal of stressful events and coping: Testing the goodness of fit hypothesis. *Cognitive Therapy and Research, 11,* 473-485.

Gong-Guy, E., & Hammen, C. (1980). Causal perceptions of stressful life events in depressed and nondepressed clinical outpatients. *Journal of Abnormal Psychology, 89,* 662-669.

Gotlib, I. H. (1984). Depression and general psychopathology in university students. *Journal of Abnormal Psychology, 93,* 19-30.

Gotlib, I. H., & Meyer, J. P. (1986). Factor analysis of the Multiple Affect Adjective Checklist: A separation of positive and negative affect. *Journal of Personality and Social Psychology, 5,* 1161-1165.

Hammen, C. L. (1985). Predicting depression: A cognitive-behavioral model. In P. C. Kendall (Ed.), *Advances in cognitive-behavioral research and therapy* (Vol. 4). New York: Academic Press.

Hammen, C., & DeMayo, R. (1982). Cognitive correlates of teacher stress and depressive symptoms: Implications for attributional models of depression. *Journal of Abnormal Psychology, 91,* 96-101.

Howell, D. C. (1987). *Statistical methods for psychology* (2nd ed.). Boston: Duxbury.

Lazarus, R. S., & Folkman, S. (1984). *Stress, appraisal, and coping.* New York: Springer.

McCrae, R. R. (1984). Situational determinants of coping responses: Loss, threat, and challenge. *Journal of Personality and Social Psychology, 46,* 919-928.

Meichenbaum, D. (1985). *Stress innoculation training.* New York: Pergamon Press.

Menaghan, E. (1982). Measuring coping effectiveness: A panel analysis of marital problems and efforts. *Journal of Health and Social Behavior, 23,* 220-234.

Metalsky, G. I., & Abramson, L. (1981). Attributional styles: Toward a framework for conceptualization and assessment. In P. Kendall & S. Hollon (Eds.), *Assessment strategies for cognitive behavioral interventions* (pp. 13-58). New York: Academic Press.

Metalsky, G. I., Halberstadt, L. J., & Abramson, L. Y. (1987). Vulnerability to depressive mood reactions: Toward a more powerful test of the diathesis-stress and causal mediation components of the reformulated theory of depression. *Journal of Personality and Social Psychology, 52,* 386-393.

Mischel, W. (1968). *Personality and assessment.* New York: Wiley.

Mischel, W. (1973). Toward a cognitive social learning reconceptualization of personality. *Psychological Review, 8,* 252-283.

Mischel, W. (1984). Convergences and challenges in the search for consistency. *American Psychologist, 39,* 351-364.

Mischel, W., & Peake, P. K. (1982). Beyond déja vu in the search for cross-situational consistency. *Psychological Review, 89,* 730-755.

Moos, R. H., & Billings, A. G. (1982). Conceptualizing and measuring coping resources and processes. In L. Goldberger & S. Breznitz (Eds.), *Handbook of stress: Theoretical and clinical aspects* (pp. 212-230). New York: Free Press.

Pearlin, L. I., & Schooler, C. (1978). The structure of coping. *Journal of Health and Social Behavior, 19,* 2-21.

Peterson, C., Semmel, A., von Baeyer, C., Abramson, L. Y., Metalsky, G. I., & Seligman, M. E. P. (1982). The Attributional Style Questionnaire. *Cognitive Therapy and Research, 6,* 287-300.

Seligman, M. E. P., Abramson, L. Y., Semmel, A., & von Baeyer, C. (1979). Depressive attributional style. *Journal of Abnormal Psychology, 88,* 242-247.

Shapiro, D. (1965). *Neurotic styles.* New York: Basic Books.

Stone, A. A., & Neale, J. M. (1984). New measure of daily coping: Development and preliminary results. *Journal of Personality and Social Psychology, 46,* 892-906.

Sweeney, P. D., Anderson, K., & Bailey, S. (1986). Attributional style in depression: A meta-analytic review. *Journal of Personality and Social Psychology, 50,* 974-991.

Woolfolk, R. L., & Lehrer, P. M. (Eds.). (1984). *Principles and practices of stress management.* New York: Guilford Press.

Zuckerman, M., & Lubin, B. (1965). *The Multiple Affect Adjective Checklist.* San Diego: Educational and Industrial Testing Service.