

THERE'S MORE THAN RUGGED INDIVIDUALISM IN COPING. PART 2: CONSTRUCT VALIDITY AND FURTHER MODEL TESTING

JEANNINE MONNIER^a, STEVAN E. HOBFOLL^{b,*},
CARLA L. DUNAHOO^b, MICHAEL R. HULSIZER^c
and ROBERT JOHNSON^b

^a*Medical University of South Carolina, Crime Victims Research
and Treatment Center, 171 Ashly Ave., Charleston, SC 29425;*

^b*Kent State University, Applied psychology center, 106 Kent Hall,
Kent, OH 44242-0001, USA;* ^c*Webster University,
Department of Behavioral and Social Sciences, 470 East Lockwood Ave.,
St. Louis, MO 63119*

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We examined the multiaxial model of coping using the dispositional or general version of the Strategic Approach to Coping Scale (SACS) and the situational version of the SACS, in Part 2 of this two-part series. We found both dispositional and situational measures to be reliable and that dispositional coping was a strong predictor of situational coping 12 weeks later. Dispositional coping was a better prospective predictor of emotional outcomes, and situational coping was a better predictor of current emotional outcomes. Women were found to be more prosocial and less antisocial in their coping than men, but no less active. Prosocial coping tended to be related to better emotional outcomes for both men and women. Aggressive coping was also an effective strategy as long as it did not move into the outright antisocial forms of coping. The multiaxial model of coping appears to balance individualistic and collectivist notions of coping in a way that successfully predicts coping outcomes under stressful conditions and that does not disfavor women as do many individualistically-oriented measures of coping that ignore copings' pro- and antisocial aspects.

Keywords: Coping; Gender; Stress; Ethnicity; Collectivism

* Corresponding author.

There has been much interest in how coping behavior mitigates the negative sequelae of stressful circumstances (Zeidner and Endler, 1996). However, coping has been found only to have a modest influence on the stress process and its outcomes (Aldwin, 1994). One reason for this shortcoming may be that coping has been conceptualized using individualistic models, whereas stress often occurs in social context. As such, coping models have deemphasized both competition and cooperation, two potentially central areas of coping behavior. This paper, the second of a two-part series, explores how coping, conceptualized within a model that combines individualistic and communal models, impacts people faced with stressful circumstances.

Prior coping theories and empirical work (Amirkhan, 1990; Carver *et al.*, 1989; Endler and Parker, 1990; Lazarus and Folkman, 1984) have been directed at examining the active-passive dimension of coping, dividing coping between problem-focused (active) and emotion-focused (passive) domains. These models explore, and perhaps even idealize, individual action aimed at problem solving through direct means, as consistent with the ideology of rugged individualism. Although not necessarily by intent, Sampson (1983) and Riger (1993) suggest that the theoretical underpinnings of such individualistic models result in prosocial forms of coping being depicted as passive and ineffectual (Endler and Parker, 1990). Antisocial forms of coping, in contrast, may be ignored, as individualistic models are concerned with individual adjustment and goal achievement, not the social consequences of individual action. Antisocial forms of coping may be particularly related to an angry-hostile style, but anger has been a relatively ignored emotion in coping research.

Carver *et al.* (1989) theorized that coping's purpose is to regulate behavior toward people's goals, particularly when faced with stressful circumstances. However, people do not face stress only, and perhaps not primarily, through solo action, but instead tend to incorporate other individuals in their attempts to solve problems. Moreover, because social relationships are often intertwined with people's problems or the solutions to their problems, how people cope influences those around them.

THE MULTIAXIAL MODEL OF COPING

The multiaxial model of coping was developed to examine coping within a framework that incorporated the active-passive dimension of coping, and two additional coping dimensions.[†] These include an active-passive dimension, a prosocial-antisocial dimension, and a direct-indirect dimension (Hobfoll *et al.*, 1994; Dunahoo *et al.*, 1998). The active-passive dimension depicts the degree to which individuals are active in seeking their goals or passive-avoidant. The social dimension depicts the degree to which individuals act in terms of their social interactions while seeking their goals, with pro- and antisocial behavior defining the two ends of the continuum.

Directness is a more difficult concept to define because Western culture equates indirectness with dishonesty, manipulateness, and ineffectiveness (Hobfoll, in press). The opposite view is held in many Asian cultures, wherein directness is seen as boorish, inconsiderate of others, and likely to lead to social rejection (Fukuyama, 1995; Triandis, 1995). Rather, Confucian based cultures tend to favor indirect action, or what might be termed stage-setting. Indirect action reduces the likelihood of dishonoring others, is equated with a more humble posture, and allows for a sharing of success with others (Triandis, 1995). When acting antisocially, indirectness also shields individuals from blame and personal dishonor. Indirect action may also be adopted by those with less power, because they are denied avenues of direct power (Martin, 1993). This may be the case for women in traditional settings and for employees in authoritarian work situations. The direct-indirect dimension of coping may not so much predict coping outcomes as it does describe cultural and gender

[†]The multiaxial model does not explore emotion-focused coping. First, emotion-focused coping has been found consistently to be related to greater not less distress, raising questions as to whether it is a measure of coping. Second, the timing of when emotion-focused coping occurs may indicate that it is a response to distress, rather than a way to cope with distress. This has led to questions being raised about emotion-focused coping being confounded with stress outcomes (Aldwin, 1994; Dohrenwend *et al.*, 1984). We chose to instead explore the behaviors people exercise in the service of coping, rather than their attempts to regulate their emotions. Further exploration of emotion-focused coping may require direct inquiry on this dimension alone to disentangle issues of causality and its precise role.

differences in coping style and circumstantial constraints versus allowances for direct action.

In Part 1 of this series (Dunahoo *et al.*, 1998) and earlier research (Hobfoll *et al.*, 1994; Monnier and Hobfoll, 1997; Wells *et al.*, 1997) we have found the multiaxial model of coping and the companion Strategic Approach to Coping Scale (SACS) have reasonable empirical support. Consistent with prior work on gender differences that suggest that women's coping may differ from men's principally on their tendency to employ socially inclusive adaptational patterns (Kessler *et al.*, 1985; Thoits, 1991) we found that men tend to be more antisocial copers and women more prosocial copers. As such, when seen in social context, what has often been heralded as men's more active, problem-focused approach to coping may often be harmful or at least inconsiderate of others.

Women may appear more passive, because prosocial coping entails more cautious action so as to consider one's own needs and the needs of others simultaneously. Consistent with this thesis, we found that for most cohorts, women and men did not differ on the active-passive dimension of coping, when the social aspects of their coping were considered. We further noted that when women become more prosocial they tend to become more indirect, whereas when men become more antisocial they tend to become more indirect.

Most major personality theorists depict an active, prosocial coping stance as fundamental to positive mental health (Adler, 1927; 1933; Allport, 1961; Erikson, 1968; Horney, 1937; Rogers, 1957). In line with these theorists, the multiaxial model of coping depicts active, prosocial coping as the generally most adaptive. Moreover, in contrast to recent work that tends to emphasize personal control (Bandura, 1982; 1997) the multiaxial model of coping depicts shared-reliance, rather than self-reliance as a healthier mode of behavior, especially when the comingled consequences of coping for the self and significant others are considered. Our prior work (Hobfoll *et al.*, 1994) found that both men and women who used active, prosocial forms of coping to be highest in mastery, to receive more social support, and to have lower depression and anxiety. Those who used antisocial coping were more likely to have greater depression and anger. Passive, asocial copers were also found to have poorer outcomes.

DISPOSITIONAL VERSUS SITUATIONAL COPING

Our view of coping in terms of the multiaxial model implies that coping can be conceptualized dispositionally as well as situationally. This presupposes an assumption that cannot be taken for granted. Specifically, whether coping may be viewed both dispositionally and situationally has been a controversial question. Lazarus and Folkman (1984) construed coping as situational and theorized that coping was not stable enough to be seen as dispositional or a general style. Although not exactly traitlike, findings of Compas *et al.* (1988) support a distinction between dispositional and situational coping. They found adolescents used a stable set of coping approaches within similar situations, but found lower, albeit significant, stability in their coping across situations. Evidence on this question among adults is lacking.

Focusing on the collectivist aspect of coping suggests additional reasons to expect some temporal stability in coping, because people often take others in their social network into account (Coyne and Smith, 1991; Triandis *et al.*, 1990) and people have fairly stable networks (e.g., family, colleagues). Nevertheless, people may modify their strategy given environmental exigencies (Compas *et al.*, 1988). Indeed, coping flexibility has been viewed as a strength (Wheaton, 1983). We defined dispositional or general coping as the general tendency to approach problems with a characteristic set of behaviors. We defined situational coping as a specific set of coping behaviors chosen to address a given situation. We theorized that dispositional coping would predict situational coping during stressful circumstances, which would provide evidence for the validity of a dispositional-situational coping distinction.

A situational coping measure also allowed us to examine whether dispositional differences in coping could be replicated when looking at men and women's approach in situational context. Again, this would allow us to evaluate whether men and women reported behaving in a manner consistent with our predicted gender differences when confronted with stressful circumstances, as opposed to evaluating their general style.

HYPOTHESES

We tested a number of hypotheses:

First, we predicted that dispositional coping would predict situational coping at a later time. Second, we predicted that women would cope more prosocially than men and men more antisocially than women in the particular coping situations that they reported.

Regarding emotional distress, we predicted that active, prosocial coping would be related to lower depression and anxiety because these would be effective modes of addressing stressful circumstances. Passive coping was predicted to be related to greater anxiety and depression. We further predicted that active, antisocial coping, in particular would be related to greater anger, because it is consistent with an angry, hostile way of seeing the world. Based on prior research on stress buffering, we predicted that the effects of coping strategies would be most strongly evidenced under high stress circumstances. Under low stress circumstances there is little need for enacting coping strategies and so the predicted relationships should be more limited under low stress conditions (although modest main effects are likely). Further, we predicted that dispositional coping would better predict prospective emotional outcomes because it would reflect fairly stable patterns of adaptation that therefore should be effective over time. Situational coping, in contrast, should have a more simultaneous effect on emotional outcomes because it characterizes coping at that time. Situational coping should not predict prospective outcomes because circumstances should change over time, making the coping in a prior situation less relevant over time.

METHOD

Participants

Participants were 116 undergraduate students attending a predominantly white, midwestern university, of whom 94% were retained at follow-up. The majority of the participants were between the ages of 17 and 21 (91%). Women comprised 74% and men 26% of the sample. Participants were enrolled in an introductory psychology

course and received experimental credit for their confidential, voluntary participation in this study.

Procedure

Participants were administered questionnaire packets after providing informed consent in groups of approximately 10–15 people. Completion required approximately one hour. Twelve weeks later, we mailed a second questionnaire with a self-addressed, stamped envelope to participants, and we prompted them by phone to complete and return questionnaires.

We examined the influence of coping strategies on the subscale level as we were not interested in the underlying theoretical structure of coping at this juncture. As in other research on coping, subscales scores are almost uniformly the level utilized in predicting coping outcomes.

Instruments

The following instruments, were administered: a demographic questionnaire, stressful events/worries questions, the SACS-D, CES-D, STAI, and the SACS-S.

Strategic Approach to Coping Scale – Dispositional Form (SACS-D)

The SACS-D was developed by Hobfoll *et al.* (1993). The scale originally had eight subscales (Hobfoll *et al.*, 1994). A new subscale was added (Dunahoo *et al.*, 1998) to measure indirect action. Items were added and deleted based on prior research to increase reliability. Currently the scale has nine subscales: assertive action and avoidance (primarily loading on the active–passive dimension), social joining, seeking social support, and cautious action (primarily loading on the prosocial–antisocial dimension), instinctive action, antisocial action and aggressive action (primarily loading on the antisocial–prosocial dimension), and indirect action (the single scale loading on the direct–indirect dimension).

The 49 items on the SACS-D are answered on a five-point Likert scale from “not at all what I would do” to “very much what I

would do." The scale is presented in Appendix A. The SACS-D was revised in this study to include three additional items for the assertive action subscale in order to raise this subscale's reliability. These three items for the SACS were: (1) "Be assertive and get your needs met," (2) "Be strong and forceful, but avoid harming others," and (3) "Directly address the situation; don't back away from problems." The same three items were added to the SACS-S (situational) except they were rephrased into past tense and framed for a given situation (e.g., "I was assertive and got my needs met."). The standardized item α 's for the SACS-D ranged from 0.61 to 0.86 (detailed in results).

Strategic Approach to Coping Scale – Situational Form (SACS-S)

The situational version of the SACS was employed at time one and two. The 49 items from the SACS-D were rephrased in order to indicate an action that took place in the past rather than a general response. Participants were asked to recall a particular, salient stressful event that happened to them within the last three months. They were then asked to indicate how much they relied on each item as a coping strategy in order to cope with that situation. The range of the standardized item α 's was 0.65 to 0.90 (detailed in results).

Stressful Events/Worries

After being asked to recall stressful events over the previous three-month period, including interpersonal, professional, financial, health, and "other" areas, participants rated whether they were worse off due to these stressful events (item 1) and worries (i.e., events that never materialized, e.g., worried about losing your job, e.g., worried about a breast lump)[†] (item 2). The mean of the scores from these

[†] Worries are seldom assessed in stress research, where most investigations study events. However, many life circumstances never materialize to the stage where they would be called an "event." For example, a woman may have a lump in her breast that is after 3 weeks of intense worry found to be benign. Or rumors of job layoffs at a factory may cause worries that do not come to fruition. Our debriefing of study participants in the past revealed that worries that do not materialize into their negative outcomes are usually not considered events. Hence we added a probe question for worries.

two items was computed (the items were based on a four-point scale ranging from "no" to "very much so"). These two items were used because we found them to be strong indicators of distress and because worries about circumstances that never materialize to be events (e.g., financial worry) are stressful but are not normally assessed because they never become "events" (Dunahoo, 1993). The standardized item α for the items was 0.77.

Center for Epidemiologic Studies – Depression Scale (CES-D)

The CES-D depression scale (Radloff, 1977) is a widely used twenty-item scale in which participants rate how often they have felt a certain way during the past week. Participants rated such statements as "I thought my life had been a failure" and "I felt lonely." Items were rated on a four-point Likert scale from "rarely or none of the time" to "most or all of the time" ($\alpha = 0.89$).

State–Trait Anxiety Inventory (STAI)

The STAI (Spielberger *et al.*, 1970) consists of two forms, each twenty items in length. In the present study, only the State Anxiety scale was used, but keyed to the past week rather than the moment. The items included statements such as "I felt calm" and "I was worried." Ratings were made based on a four-point Likert scale ranging from "not at all" to "very much so." The STAI is a widely used measure of anxiety ($\alpha = 0.95$).

State–Trait Anger Scale (STAS)

The STAS (Spielberger *et al.*, 1983) consists of both a state and trait measure of anger. In the present study, only the Trait Anger Scale was used. Responses to the 10-item scale were based on a four-point Likert scale ranging from "almost never" to "almost always" (e.g., "I have a fiery temper" and "When I get frustrated I feel like hitting someone"). Spielberger *et al.* (1983) found the trait anger scale to be a valid measure of anger ($\alpha = 0.81$).

TABLE I Means and standard deviations of variables used in analyses

<i>Variable</i>	<i>M</i>	<i>SD</i>
Assertive action		
Dispositional	32.94	4.82
Situational	32.84	4.96
Avoidance		
Dispositional	14.84	4.12
Situational	13.91	4.78
Social joining		
Dispositional	16.97	3.31
Situational	16.64	3.63
Seeking social support		
Dispositional	24.94	6.15
Situational	25.64	6.69
Cautious action		
Dispositional	17.54	3.16
Situational	17.52	3.51
Instinctive action		
Dispositional	19.41	4.06
Situational	18.81	4.83
Antisocial action		
Dispositional	12.43	3.90
Situational	11.50	4.42
Aggressive action		
Dispositional	14.86	3.78
Situational	14.22	4.34
Indirect action		
Dispositional	11.57	2.94
Situational	11.01	3.54
Stressful events/worries	3.17	1.33
CES-D depression scale	21.50	10.68
State-trait anxiety inventory	46.22	13.35
State-trait anger scale	21.58	5.66

RESULTS

The Reliability of Dispositional and Situational Coping and Their Relationship

Means and standard deviations for all variables are presented in Table I. We calculated internal reliability for the dispositional and situational versions of the SACS (see Table II). Adding additional items raised the internal reliability of the assertive action subscale in both dispositional and situational measures to 0.66 and 0.65 respectively. Internal reliability ranged on the SACS-Dispositional (SACS-D) form from 0.61 to 0.86 and on the SACS-Situational (SACS-S) form from 0.65 to 0.90. We also examined the relationship of the

TABLE II Cronbach's α reliability and correlations for the dispositional and situational SACS

<i>SACS subscales</i>	<i>SACS-D</i> α ($n=116$)	<i>SACS-S</i> α ($n=116$)	<i>SACS-D</i> with <i>SACS-S</i> r ($n=109$)	<i>SACS-S</i> with gender r ($n=109$)
Assertive action	0.66	0.65	0.55	0.14
Social joining	0.67	0.70	0.57	-0.02
Aggressive action	0.74	0.83	0.66	-0.11
Seeking social support	0.86	0.90	0.71	0.18
Cautious action	0.62	0.69	0.43	-0.08*
Avoidance	0.76	0.83	0.57	-0.11
Antisocial action	0.76	0.82	0.61	-0.24**
Instinctive action	0.76	0.83	0.58	0.04
Indirect action	0.61	0.79	0.54	-0.15

* $p < 0.05$, one-tailed, ** $p < 0.01$, one-tailed.

SACS-D at time-1 to the SACS-S at time-2 to separate the effects of common mood. Correlations are presented in Table II. As may be noted, the SACS-D and SACS-S subscales were substantially correlated, suggesting that dispositional coping is a strong predictor of situation-specific coping 12 weeks later.

We were not interested in all of the bivariate correlations among the SACS subscales (see Table II). However, given puzzling results from our earlier study that found assertive action to be independent of social forms of coping, whereas we had theorized that it would be an active strategy linked to prosocial coping (Dunahoo *et al.*, 1998), we examined the correlations among the SACS-S subscale to determine the relationship between situational assertive action and pro- versus antisocial dimensions of coping. Assertive action was significantly positively related to support seeking ($r=0.25$, $p < 0.01$) and cautious action ($r=0.35$, $p < 0.01$), two dimensions of the prosocial factor found in our earlier study (Dunahoo *et al.*, 1998). Further, situational assertive action was strongly related to aggressive action ($r=0.55$, $p < 0.01$), but not antisocial action ($r=0.10$, ns).

Gender relationships are also noted in Table II. Women were more likely than men to use situational support seeking. Men, in turn, were more likely to use situational antisocial action. It is also notable that men and women did not differ on situational employment of assertive action or avoidance, indicating gender differences are on the social dimension rather than the activity dimension as it has been previously construed in individualistic coping models.

The Influence of Stress and Coping on Emotional Outcomes

In order to examine the direction of the coping-emotion relationship we conducted hierarchical regression analyses. In each analysis we entered the outcome variable at time-1 in the first regression step (e.g., depression-1 in the analysis of effects of coping on depression-2). We also wished to control for gender (so we could increase our test power), so we entered this also on the first regression step. Next stress scores were entered along with each of the coping scales (one coping scale per analysis). Finally, on the last regression step, the stress \times coping scale interaction was entered (again, one coping scale per analysis). We were particularly interested in the direct and interaction effects of coping strategies on outcomes. We did not have sufficient power to reliably analyze for three-way interactions with gender. In the few cases where multicollinearity was noted we centered scores (Cohen and Cohen, 1983). Zero-order correlations for the SACS-D and SACS-S with emotional distress are presented in Table III.

Dispositional Coping Should Predict Subsequent Emotions

In the first series of analyses (Table IV) we examined the effects of coping on depression. Main effects were found for avoidance and instinctive action. Greater avoidance and greater instinctive action were each related to increases in depression. Significant interaction effects were found for stress with each of the three active, prosocial strategies: social joining, seeking social support, and cautious action. Representative regression lines for these interactions were graphed in order to examine their nature (see Figs. 1-3).

TABLE III Correlations between the dispositional and situational SACS

SACS subscales	Dispositional			Situational		
	Depression	Anxiety	Anger	Depression	Anxiety	Anger
1. Assertive action	-0.28**	-0.29**	0.07	-0.27**	0.30**	0.15
2. Social joining	-0.16*	-0.07	0.04	-0.15	-0.20*	0.17*
3. Aggressive action	-0.04	-0.07	0.42**	-0.06	-0.08	0.39**
4. Seeking social support	-0.20*	-0.03	-0.09	-0.17*	-0.03	-0.04
5. Cautious action	-0.03	-0.10	0.14	0.03	-0.08	0.16*
6. Avoidance	0.26**	0.31**	0.02	0.15	0.23**	-0.04
7. Antisocial action	0.06	0.02	0.44**	0.07	0.04	0.44**
8. Instinctive action	-0.04	-0.07	0.03	-0.03	-0.02	0.11
9. Indirect action	0.01	0.02	0.10	-0.03	-0.07	0.25**

* $p < 0.05$, one-tailed, ** $p < 0.01$, one-tailed.

TABLE IV The effects of stress and dispositional coping at time-1 on three emotional outcomes (regressed on SACS-D subscales) at time-2

Predictor variables	Assertive action		Social joining		Aggressive action		Seeking social support		Cautious action		Avoidance		Antisocial action		Instinctive action		Indirect action		
	Beta	R ² ch	Beta	R ² ch	Beta	R ² ch	Beta	R ² ch	Beta	R ² ch	Beta	R ² ch	Beta	R ² ch	Beta	R ² ch	Beta	R ² ch	
<i>Depression-2^a</i>																			
SACS	-0.10	0.01	-0.07	0.00	0.09	0.01	-0.12	0.01	-0.08	0.01	0.22*	0.04*	0.08	0.01	0.26**	0.07**	0.01	0.00	
Stress x SACS	0.01	0.00	-0.19*	0.04*	0.12	0.01	-0.19*	0.03*	-0.21*	0.04*	-0.09	0.01	0.01	0.00	-0.06	0.00	-0.13	0.02	
<i>Anxiety-2^b</i>																			
SACS	-0.16	0.02	0.02	0.00	-0.08	0.01	-0.05	0.00	-0.02	0.00	0.20*	0.03*	0.04	0.00	0.13	0.02	-0.01	0.00	
Stress x SACS	-0.07	0.00	-0.14	0.02	0.03	0.00	-0.16*	0.02*	-0.17*	0.03*	-0.09	0.01	0.01	0.00	-0.13	0.01	-0.03	0.00	
<i>Anger-2^c</i>																			
SACS	0.01	0.00	-0.04	0.00	0.16*	0.02*	-0.06	0.00	0.08	0.01	0.09	0.01	0.15	0.02	0.07	0.00	0.03	0.00	
Stress x SACS	-0.08	0.01	0.03	0.00	-0.08	0.01	0.02	0.00	-0.08	0.01	0.05	0.00	-0.17*	0.03*	-0.12	0.01	-0.11	0.01	

Note: Beta refers to beta in.

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

^aResults have controlled for the effects of gender ($\beta = -0.07$, ns), depression at time 1 ($\beta = 0.35$, $p < 0.001$), and stress ($\beta = 0.16$, ns).

^bResults have controlled for the effects of gender ($\beta = 0.02$, ns), anxiety at time 1 ($\beta = 0.56$, $p < 0.001$), and stress ($\beta = 0.07$, ns).

^cResults have controlled for the effects of gender ($\beta = -0.05$, ns), anger at time 1 ($\beta = 0.73$, $p < 0.001$), and stress ($\beta = -0.06$, ns).

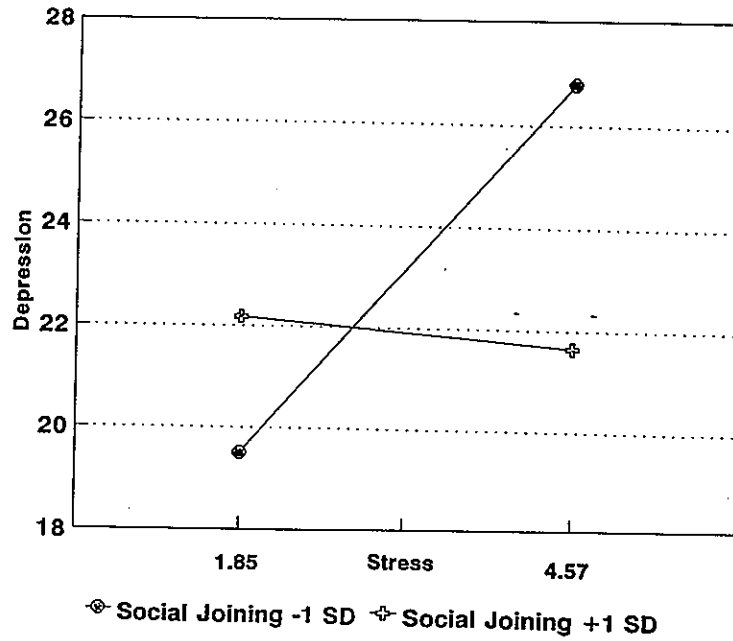


FIGURE 1 Time-2 depression regressed on stress and social joining (dispositional) at time-1.

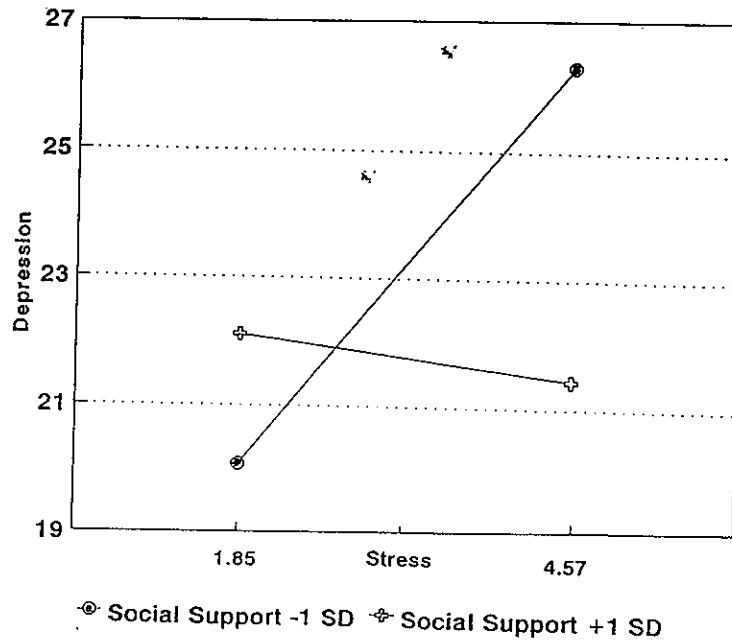


FIGURE 2 Time-2 depression regressed on stress and seeking social support (dispositional) at time-1.

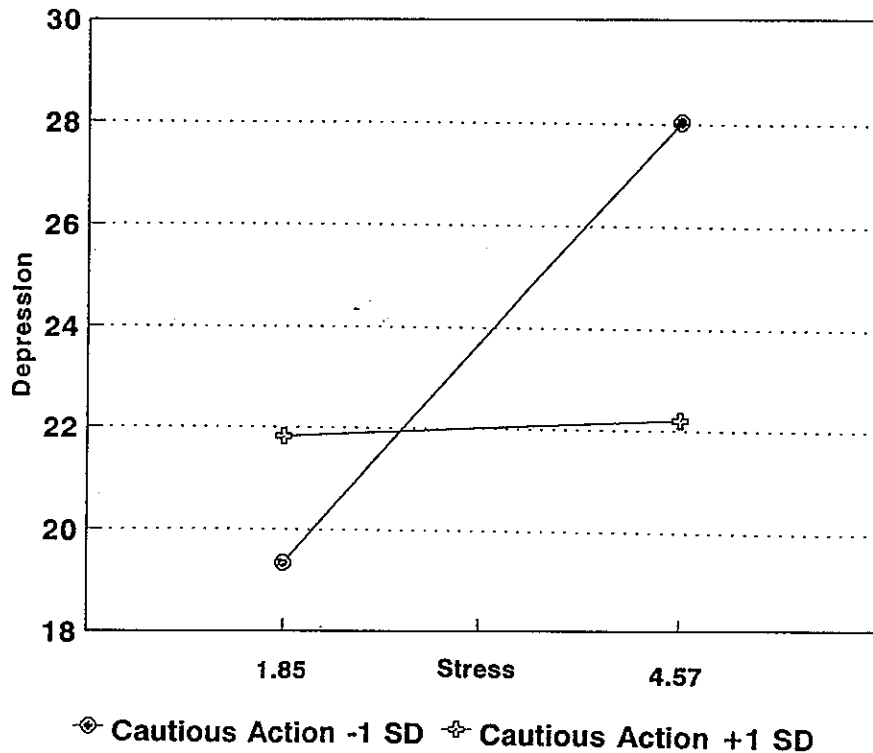


FIGURE 3 Time-2 depression regressed on stress and cautious action (dispositional) at time-1.

As may be noted in Figs. 1-3, a similar pattern was noted. In each case, individuals who did not employ social joining, seeking social support, or cautious action were more depressed as stress levels increased. In contrast, those who did employ these coping resources were not increasingly negatively affected as stress increased.

A similar series of analyses were undertaken for anxiety (see Table IV). Controlling for earlier anxiety, avoidance had a significant main effect, greater avoidance being related to increased anxiety. A significant interaction was found for the effect of stress \times cautious action and stress \times seeking social support. As for depression, the lack of employment of cautious action and social support seeking were related to greater anxiety as stress increased. Those who employed cautious action or social support seeking, in contrast, were not negatively affected by more high stress conditions (since the interaction is so similar to depression, no figures are presented here).

Finally, this same analytic approach was applied to anger see Table IV. Only, aggressive and antisocial coping were predicted to affect anger. A significant main effect was found for aggressive action. People who used more aggressive action had higher anger. A significant interaction effect with stress was found for antisocial action (see Fig. 4). Antisocial action did not lead to greater anger in the presence of high stress. Instead, it was under conditions of low stress that those who used antisocial action strategies experienced higher anger.

Situational Coping Should Predict Concurrent Emotions

An identical series of analyses were conducted using the SACS-S at time-2, predicting time-2 emotions, controlled for time-1 emotions (Table V). Situational coping should be a good predictor of situational emotional responses (Carver *et al.*, 1989). For depression,

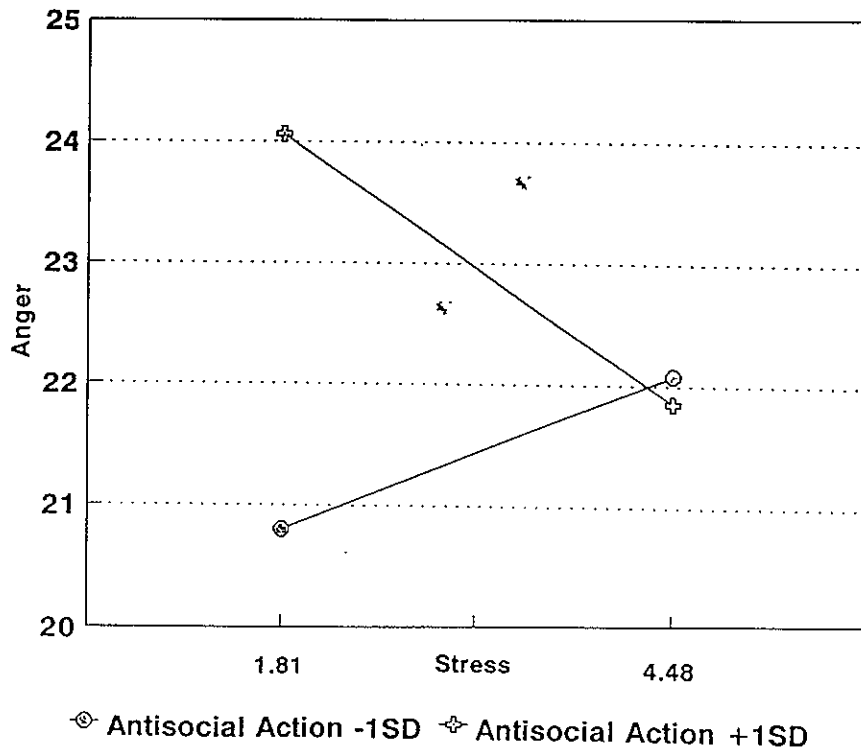


FIGURE 4 Time-2 anger regressed on stress and antisocial action (dispositional) at time-1.

TABLE V The effects of stress and situational coping at time-2 on three emotional outcomes (regressed on SACS-S subscales) at time-2

Predictor variables	Assertive action		Social joining		Aggressive action		Seeking social support		Cautious action		Avoidance		Antisocial action		Instinctive action		Indirect action	
	Beta	R ² ch	Beta	R ² ch	Beta	R ² ch	Beta	R ² ch	Beta	R ² ch	Beta	R ² ch	Beta	R ² ch	Beta	R ² ch	Beta	R ² ch
<i>Depression-2^a</i>																		
SACS	-0.22*	0.04*	-0.22*	0.05*	0.02	0.00	-0.24**	0.06**	-0.24**	0.06**	0.28**	0.07**	0.12	0.01	0.06	0.00	-0.03	0.00
Stress x SACS	-0.11	0.01	-0.06	0.00	-0.16	0.02	-0.13	0.02	-0.07	0.00	0.12	0.01	0.00	0.00	-0.16	0.03	-0.10	0.01
<i>Anxiety-2^b</i>																		
SACS	-0.23**	0.05**	-0.11	0.01	-0.11	0.01	-0.09	0.01	-0.16*	0.03*	0.20*	0.04*	-0.00	0.00	0.04	0.00	-0.08	0.01
Stress x SACS	-0.03	0.00	0.08	0.01	-0.16*	0.03*	*0.01	0.00	0.12	0.01	-0.02	0.00	-0.08	0.01	-0.16*	0.02*	0.00	0.00
<i>Anger-2^c</i>																		
SACS	-0.01	0.00	-0.10	0.01	0.14*	0.02*	-0.13	0.02	-0.01	0.00	0.05	0.00	0.27***	0.06***	0.12	0.01	0.07	0.01
Stress x SACS	-0.08	0.01	-0.00	0.00	-0.19**	0.03**	-0.01	0.00	-0.15*	0.02*	0.06	0.00	-0.16*	0.03*	-0.13	0.02	-0.13	0.02

Note: Beta refers to beta in.

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

^aResults have controlled for the effects of gender ($\beta = -0.06$, ns), depression at time 1 ($\beta = 0.33$, $p < 0.001$), and stress ($\beta = 0.27$, $p < 0.01$).

^bResults have controlled for the effects of gender ($\beta = 0.03$, ns), anxiety at time 1 ($\beta = 0.54$, $p < 0.001$), and stress ($\beta = 0.15$, ns).

^cResults have controlled for the effects of gender ($\beta = -0.05$, ns), anger at time 1 ($\beta = 0.72$, $p < 0.001$), and stress ($\beta = -0.07$, ns).

greater employment of assertive action, social joining, seeking social support, and cautious action, and less use of avoidance were related to lower depression.

For anxiety, greater use of assertive action and less use of avoidance were significantly related to lower anxiety. In addition, a significant interaction was found for instinctive action, such that those who did not employ instinctive action had less anxiety under low stress situations, but more anxiety under high stress situations, compared to those who did use instinctive action. A significant interaction was also found for aggressive action, such that those who did not use aggressive action became more anxious as stress increased, whereas those who employed aggressive action were unaffected by increased stress.

For anger, significant interactions were found for stress with aggressive action, cautious action, and antisocial action, and borderline ($p < .06$) interactions were found for instinctive action and indirect action. Only the effects for aggressive and antisocial action were predicted *per se*. A main effect was also found for antisocial action, but this is superseded by the significant interaction. As illustrated by Fig. 5 for aggressive action, those who used either active, antisocial strategies experienced more anger under low stress situations and less anger under high stress situations. Those who did not use the strategies experienced more anger under high stress than low stress situations.

Situational Coping Should Not Predict Subsequent Emotions

Finally, the same analytic strategy was used substituting time-1 SACS-S for time-2 SACS-S. This analysis tested for discriminant validity. Specifically, we expected poor predictive value for *situational* coping at an earlier time on emotional outcomes at a later time. In fact, about one-third of the significant findings (i.e., 5) were noted (results available on request) compared to the prior analyses for situational coping, and about one-half the significant analyses for dispositional coping strategies.

In other words, dispositional coping predicts subsequent emotions, situational coping is the best concurrent predictor of emotions, but situational coping does not predict well to a later time period; this being the intended discriminant pattern and evidence for the

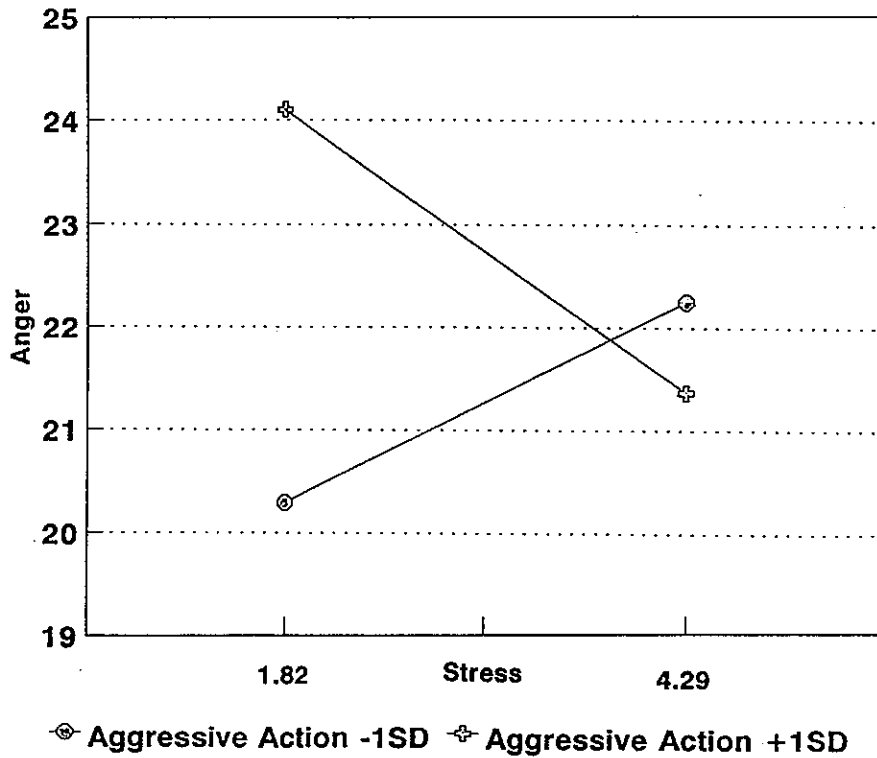


FIGURE 5 Time-2 anger regressed on stress and aggressive action (situational) at time-2.

dispositional-situational distinction. Finally, in each of the three cases (e.g., dispositional-subsequent, situational-concurrent, and situational-subsequent), the number of significant findings were significantly greater than chance alone ($p > .05$), which is notable given the number of tests.

DISCUSSION

The multiaxial model of coping suggested that active, prosocial coping would be linked with better psychological outcomes. This general hypothesis was born out in the findings, and there was good support for the prediction that active, prosocial coping was especially helpful under stressful conditions. Consistent with our scale development strategy, the SACS-D and the SACS-S also appear to

tap dispositional and situational coping strategies and have adequate internal reliability. As predicted, the situational measure was predictive of current emotional distress, but less strongly related to later emotional distress, whereas dispositional coping strategies significantly predicted outcomes over time. Dispositional coping, however, should not be confused with a stable personality trait, but may be considered a general style of approaching problems (Compas *et al.*, 1988).

Assertive action was found in our earlier studies (Dunahoo *et al.*, 1998) to mainly depict an active dimension of coping. In the current study, it was related to prosocial and somewhat aggressive forms of coping, but not outright antisocial coping. Those high on assertive coping may be able to adjust the social aspects of their coping to fit the situation, at times relying on more prosocial and at other times more aggressive stances.

Both active and social dimensions of coping were related as expected to anxiety, depression, and anger. An active, prosocial orientation was associated with lower anxiety and depression, and the antisocial coping strategies were related to greater anger. For purposes of model validation, we can say that the relationships were consistent with a model that views active, prosocial coping as associated with less psychological distress.

When coping strategies' effects on emotions were tested longitudinally, active, prosocial means of coping tended to be associated with better emotional outcomes. This was especially true in the presence of high stress conditions. This further supports our supposition that both active and social dimensions of coping are important in understanding the coping process. Although antisocial action tended to be counterproductive, there were instances where aggressive action (but not antisocial action) resulted in better emotional outcomes.

An unexpected, but interesting, finding was noted for antisocial action. Those that employed this coping strategy experienced more anger under low stress conditions, but did not differ from others under high stress conditions. This suggests that antisocial action tended to backfire on those who employed it when there was no special need for active coping (i.e., they were not experiencing stressful circumstances). Perhaps their hostile actions were viewed as especially inappropriate by those around them under these conditions

and they, in turn, received negative feedback from others for their hostile responding (Lane and Hobfoll, 1992).

Our data revealed certain benefits of a more prosocial coping stance, as prosocial coping was related to better emotional well-being. Antisocial coping, in contrast, was related to worse emotional outcomes. This would seem to favor women, their being more prosocial. However, being more prosocial is not uniformly beneficial, especially from an individualistic perspective. Prosocial coping may be less likely to aid individuals' achievement of personal goals. Kessler *et al.* (1985) spoke about the cost of caring that women often pay by being more prosocial as they work to help others. Their analysis suggests that the more prosocial posture of women fully explains the gender ratio difference in women's greater depression. Our data suggests that aggressive coping may also be beneficial, if people do not adopt outright antisocial coping strategies. When these more antisocial coping strategies are adopted, they tend to have negative associations and consequences.

Limited significant effects were found for direct-indirect coping. Those who used indirect situational coping reported higher anger, which might suggest that for this sample that situations that force indirect action produce an angry response. Men were slightly more likely to use indirect coping than women ($p < 0.10$). Overall, however, the findings for indirect action suggest that indirect action may be less related to outcomes of coping than it is to gender and ethnic differences (see Part 1). We are also currently limited to a single subscale assessing this dimension, and may have too limited an item pool to more fully understand the impact of directness-indirectness in coping. In addition, it might be necessary to examine people in different cultures in order to effectively examine this coping dimension.

Given that this study used a student sample, generalizability to other populations is limited for any specific findings. We have successfully utilized the multiaxial model and the SACS with other populations (see Part 1), but both need to be applied in various stressful contexts and conditions among men and women. It is important that we not only develop new coping scales, but that we reexamine coping theory on a more basic level than has typically been the case. Early work by Lazarus and his colleagues (Lazarus

and Folkman, 1984; Folkman *et al.*, 1986) did just that, as they attempted to categorize rather than just describe coping. A next generation of theorists attempted to examine coping more multidimensionally (Carver *et al.*, 1989; Stone and Neale, 1984) We suggest that examining the individualistic versus communal nature of coping will further advance coping theory and offer a less gender and ethnic biased approach that will prove more applicable to a wider segment of the population.

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APPENDIX A. SACS SUBSCALES WITH ITEMS**(I) *Assertive Action* (active–passive dimension)**

1. Don't give up, even when things look their worst, because you can often turn things around.
10. Move on to other things; there's little hope for such situations getting better. (–)
15. Retreat; avoid contact until the problem blows over. (–)
25. You'll probably feel bad, but there is not much you can do about this sort of thing. (–)
26. Just work harder; apply yourself.
33. Get out of the situation, when problems arise, its usually a sign of worse to come. (–)
- *50. Be assertive and get your needs met.
- *51. Be strong and forceful, but avoid harming others.
- *52. Directly address the situation, don't back away from problems.

(II) *Social Joining* (prosocial–antisocial dimension)

17. Join together with others to deal with the situation together.
23. Try to help out others involved, as giving of yourself usually helps solve problems like this.
24. Think carefully about how others feel before deciding what to do.
25. Try hard to meet other's wishes as this will really help the situation.
26. Try to meet the needs of others who are involved.

(III) *Seeking Social Support* (prosocial–antisocial dimension)

2. Check with friends about what they would do.
9. Check with family about what they would do.
13. Turn to others for help.
18. Depend on yourself but at the same time rely on others who are close to you.
28. Go to someone for emotional support.
38. Talk to others to get out your frustrations.
46. Ask friends or family for their opinions about your plan of action.

- (IV) *Cautious Action* (*prosocial-antisocial* dimension)
12. Be very cautious and look very hard at your options (better safe than sorry).
 14. Go forward but don't use all your resources until you know full well what you're up against.
 29. Move very cautiously, there may be a hidden agenda.
 40. Break up the problem into smaller parts and deal with them one at a time.
 43. Do something to help you calm down and, only then, start problem solving.
- (V) *Instinctive Action* (*prosocial-antisocial* dimension)
5. Depend on yourself and your personal strengths; its not a good idea to depend on others.
 6. Trust your instincts, not your thoughts.
 11. Depend on your own gut-level reaction.
 35. Go with your intuition.
 42. Follow your first impulse; things usually work out best that way.
 48. Rely on your own judgement because only you have your best interests at heart.
- (VI) *Avoidance* (*active-passive* dimension)
7. Avoid dealing with the problem, things like this often go away on their own.
 20. Do something to help you avoid thinking about the problem.
 22. Back off and just let the smoke clear.
 27. Hold back, as it is better to wait until the smoke clears before any action is taken.
 32. If it doesn't get worse, just avoid the whole thing.
 47. Focus on something else and let the situation resolve itself.
- (VII) *Indirect Action* (*direct-indirect* dimension)
4. Try to be in control, but let others think they are still in charge.
 21. Others often need to feel they are the boss, so you have to work around them to get things done.
 34. Let others think they are in control, but keep your own hands firmly on the wheel.

37. Sometimes your only choice is to be a little manipulative and work around people.

(VIII) *Antisocial Action* (prosocial-*antisocial* dimension)

16. Counterattack and catch others off-guard.

19. Look out for your own best interests even if it means hurting others that are involved.

36. Assert your dominance quickly.

39. Act quickly to put others at a disadvantage.

44. Look for other's weaknesses and use them to your advantage.

(IX) *Aggressive Action* (prosocial-*antisocial* dimension)

3. Act fast; it is better to throw yourself right into the problem.

8. Mount an all-out attack: be aggressive.

31. Move aggressively; often if you get another off-guard, things will work to your advantage.

45. Take the bull by the horns; adopt a take-charge attitude.

49. Be firm; hold your ground.

* Items added in Study 3.

(-) Negatively keyed items.