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Personality and Individual Differences 41 (2006) 273–284

PERSONALITY AND
INDIVIDUAL DIFFERENCES

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The COPE inventory: Dimensionality and relationships with approach- and avoidance-motives and positive and negative traits

Jordan A. Litman

*Center for Research in Behavioral Medicine and Health Psychology, Department of Psychology,
University of South Florida, Tampa, FL 33620-8200, United States*

Received 20 June 2005; received in revised form 1 November 2005; accepted 29 November 2005
Available online 3 April 2006

Abstract

Two studies evaluated the dimensionality of the COPE inventory (Carver, Scheier, & Weintraub, 1989) and examined its relationships with approach- and avoidance-motives and positive and negative traits. In Study 1, four coping factors emerged, three of which reflected either self-sufficient or socially-supported coping strategies, along with an avoidant-coping factor. Correlations of scales from the self-sufficient and socially-supported coping factors with behavioral activation and positive traits suggested these factors involved approach-oriented coping, while the avoidant-coping scales correlated with behavioral inhibition and negative traits. In Study 2, similar self-sufficient, socially-supported, and avoidant-coping factors emerged; highly similar correlations were found between the scales that defined these factors with approach- and avoidance-motives and positive and negative traits.

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Keywords: COPE; Approach-motivation; Avoidance-motivation; Stress; Problem-focused coping; Emotion-focused coping

E-mail address: jlitman@shell.cas.usf.edu

0191-8869/\$ - see front matter © 2006 Published by Elsevier Ltd.
doi:10.1016/j.paid.2005.11.032

1. Introduction

Coping refers to a variety of cognitive and behavioral strategies individuals use to manage their stress (Folkman & Moskowitz, 2004). Folkman and Lazarus (1980, 1985) differentiated between two major styles of coping: *Problem-focused* and *emotion-focused*. The former involves dealing with the source of stress, whereas the latter reflects attempts to handle thoughts and feelings associated with the stressor. To measure individual differences in these two dimensions of coping, Folkman and Lazarus (1988) developed the ways of coping scale, a checklist of problem- and emotion-focused coping strategies that might be used in a variety of stressful situations.

Carver et al. (1989) noted that these two coping-style dimensions were important, but felt further differentiation was needed. To assess a broader variety of useful coping-styles, as well as several “less useful” strategies, Carver et al. (1989) developed the COPE inventory (see Table 1). Carver et al. (1989) factored the individual COPE scale scores and identified four dimensions, summarized in Table 2: The first factor corresponded closely with problem-focused coping; a second factor was defined primarily by scales designed to assess emotion-focused strategies, but restraint, originally considered a problem-focused strategy, also loaded on this factor. A third factor reflected seeking social support to obtain advice or express emotions, and a fourth factor corresponded with attempts to avoid dealing with either the problem or the associated emotions.¹

Findings from nine other studies in which the COPE scales have been factored are also reported in Table 2, where it may be noted that highly similar factors have repeatedly emerged.² However, as may also be noted in this table, the emotion- and problem-focused scales have often loaded on the same factor. One reason for the high degree of overlap among the problem- and emotion-focused scales is that when stressed, individuals may use *both* kinds of strategies depending on their unique experiences (Tennen, Affleck, & Armeli, 2000).

Although problem- and emotion-focused strategies have not always defined separate factors, previous research has consistently identified factors that differentiate between coping with or without the aid of social support. These findings suggest it may be more meaningful to distinguish between “socially supported” and “self-sufficient” coping styles rather than whether the corresponding strategies are directed towards managing either problems or emotions. Moreover, it should be noted that the socially-supported factor is almost always comprised of scales that assess both problem- and emotion-focused strategies (see Table 2).

Another factor that has been found across a range of studies involves coping through avoidance, defined by scales that describe ignoring or withdrawing from the stressor or associated feelings. Avoidance-oriented coping may be contrasted with coping styles that are more approach-oriented i.e., directed towards dealing with either the problem or related emotions (Roth & Cohen, 1986). Avoidant-coping styles are associated with personality characteristics and outcomes that are negative, whereas approach-oriented styles are linked to positive traits and results (Abbott, 2003; Moos & Holahan, 2003; Stowell, Kiecolt-Glaser, & Glaser, 2001).

Thus, one way of interpreting the findings of previous research on the dimensionality of the COPE inventory is that these studies have typically identified two or three factors that are

¹ Different authors have offered different factor-labels; mine were based on those suggested by Carver et al. (1989).

² These studies do not reflect an exhaustive listing, but were considered highly representative based on a review of the literature.

Table 1
The 15 Scales of the COPE Inventory

Developed to assess	Scale	Typified by
Problem-focused	Active-coping	Taking steps to eliminate the problem
	Planning	Thinking about dealing with the problem
	Suppression of Competing Activities	Focusing only on the problem
	Restraint-coping	Waiting for the right moment to act
	Instrumental Social Support	Seeking advice from others
Emotion-focused	Positive reinterpretation	Reframing the stressor in positive terms
	Acceptance	Learning to accept the problem
	Denial	Refusing to believe the problem is real
	Turning to Religion	Using faith for support
	Emotional social support	Seeking sympathy from others
“Less useful”	Focus on & venting emotions	Wanting to express feelings
	Behavioral disengagement	Giving up trying to deal with the problem
	Mental disengagement	Distracting self from thinking about the problem
Recently developed	Substance use	Using alcohol or drugs to reduce distress
	Humor	Making light of the problem

relatively approach-oriented and positive that involve self-sufficient and socially-supported styles of coping, along with a single factor that reflects negative, avoidance-oriented forms of coping.

2. Study 1

The major goal of Study 1 was to investigate the dimensionality of the COPE, and to evaluate the number, composition, and relationships between these dimensions. It was expected that two or more approach-oriented coping factors that reflect self-sufficient and socially-supported coping styles would emerge, along with a single avoidant-coping factor. Furthermore, it was hypothesized that the approach-oriented factors would be more highly correlated to each other than to the avoidant-coping factor. A second major goal was to examine the relationships of the COPE scales with approach- and avoidance-motives and positive and negative traits; approach-motives and positive traits were expected to be positively related to approach-oriented coping, but negatively related or unrelated to avoidance-oriented coping, whereas the avoidance-motives and negative traits were expected to correlate positively with avoidant-coping but be negatively correlated or unrelated to approach-oriented coping.

2.1. Method

2.1.1. Participants

The participants were 230 (149 women, 81 men) students who ranged in age from 18 to 51 ($M = 20.84$, $SD = 4.84$), recruited from undergraduate psychology courses at a large southeastern university. All students received extra credit for taking part in this study.

Table 2
Dimensionality of COPE scales in ten studies

	Carver et al. (1989)	Fontaine et al. (1993)	Phelps and Jarvis (1994)	Deisinger et al. (1996)	Sica et al. (1997) ¹	Kallasmaa and Pulver (2000) ²	Lyne and Roger (2000)	Stowell et al. (2001)	Fortune et al. (2002)	Connor and Connor (2003)
Active	a	a	a	<u>b/a</u> ³	a	a	a	a	a	a
Planning	a	a	a	a	a	a	a	a	a	a
Suppression	a	a	a	a	a	a	a	a	a	a
Behavioral disengagement	b	b	b	b	b	b	<u>c</u>	b	b	b
Denial	b	b	b	b	b	b	b	b	b	b
Mental disengagement	b	b	<u>d</u>	b	b	b	b	b	X	b
Substance use	X	b	b	<u>e</u>	b	0	X	X	X	b
Emotional social support	c	c	c	c	c	c	<u>b/c</u> ⁴	c	c	c
Instrumental social support	c	c	<u>a</u>	c	c	c	c	c	c	c
Venting emotions	c	c	c	c	c	c	0	c	c	c
Positive reinterpretation	d	d	d	d	d	a	a	a	a	d
Restraint	d	d	d	a	d	<u>b</u>	a	a	a	a
Acceptance	d	d	d	d	d	<u>b</u>	a	a	a	d
Turning to religion	d	0	0	d	f	X	f	0	f	0
Humor	X	b	0	<u>e</u>	b	<u>a</u>	X	X	<u>f</u>	0

a = Problem-focused; b = Avoidant-coping; c = Social-support; d = Emotion-focused; e = Substance use and humor; f = Religion; X = Not included and 0 = No information given.

Scales with the same letter had their dominant loading on the same factor. Unique loadings (i.e., without at least one match across studies) are underlined.

Labels (a)–(d) correspond with factors reported by Carver et al. (1989); (e) refers to a factor reported by Deisinger et al. (1996) that included substance use and humor; (f) refers to a factor defined by a single loading for turning to religion reported by Sica et al. (1997).

¹ Italian translation.

² Estonian translation.

³ This scale had a dominant negative loading on the avoidant-coping factor and a secondary positive loading of nearly equal magnitude on the problem-focused factor.

⁴ This scale had a dominant loading on the avoidant-coping factor and a secondary loading of nearly equal magnitude on the social-support factor.

2.1.2. Instruments

The *COPE inventory* is comprised of 15 four-item scales that assess a variety of coping strategies. Using the dispositional response format, participants indicated how frequently they used each coping strategy on a four-point scale anchored by “usually do not do this at all” and “usually do this a lot”. Alpha coefficients for Study 1 ($Mdn = .73$) were similar to those reported by Carver et al. (1989).

The *Behavioral Activation/Inhibition Scales* (BAS/BIS: Carver & White, 1994) were designed to assess approach and avoidance tendencies. Three approach-oriented motives are assessed by the BAS, which includes four-item Fun Seeking, five-item Reward Responsiveness, and four-item Drive scales. The seven-item BIS scale assesses avoidance-motivation associated with concerns about unpleasant outcomes. Participants responded to each item on a scale anchored by “strongly disagree” and “strongly agree”. Alphas for the BAS and BIS were ≥ 0.71 .

The *International Personality Item Pool Extraversion Scale* is a 10-item measure of this positive, “big five” trait developed by Goldberg (1999). Participants indicated how well each item described themselves using a five-point scale that ranged from “very inaccurate” to “very accurate”. Alpha for the extraversion scale was 0.83.

The *Trait Scales of the State Trait Personality Inventory* (STPI: Spielberger, 1979) are 10-item measures of anxiety, depression, anger (negative traits), and curiosity (positive trait). Respondents indicated how frequently they experienced the corresponding emotions described by each item using a four-point scale anchored by “almost never” and “almost always”. Alphas for the STPI scales were ≥ 0.78 .

2.1.3. Procedure

The questionnaires were administered in group-testing sessions, and required approximately 35 min to complete. After responding, participants received additional information about the study.

2.2. Results

COPE scale scores were submitted to iterated principal axis factor analysis with oblique (pro-max) rotation, using the squared multiple correlation as the initial communality estimate. Four main criteria were considered in determining the number of factors to extract: The scree test; parallel analysis of the eigenvalues; the amount of common variance explained by the factors; and the meaningfulness of the rotated factors (Russell, 2002). The scree plot suggested four factors, while parallel analysis indicated up to five (2.96, 1.94, 1.18, 0.50, 0.28, etc.). As five factors did not converge to a feasible solution, four factors were extracted, which accounted for >79% of the common variance (see Table 3).

Factor I emphasized self-sufficient, problem-focused coping strategies, with loadings ≥ 0.61 for planning, active, and suppression of competing activities. Interestingly, suppression also had a weaker, salient loading on the second factor. Factor II was a clear avoidant-coping factor, with loadings ≥ 0.46 for denial, substance use, and both disengagement scales. Factor III corresponded with socially-supported coping, and had loadings ≥ 0.62 for the two social support scales and venting. The fourth factor involved self-sufficient, emotion-focused strategies, defined by loadings ≥ 0.38 for restraint, positive reinterpretation, acceptance, and humor. Religion had a dominant,

Table 3
Factor loadings of the COPE scales after oblique rotation ($N = 230$)

	Coping-style factor			
	I	II	III	IV
Planning	0.83	0.08	0.02	0.01
Active	0.80	–0.11	0.01	0.06
Suppression	0.61	(0.35)	0.01	0.05
Behavioral disengagement	–0.17	0.78	0.06	0.12
Denial	0.02	0.68	–0.08	0.00
Substance use	0.21	0.47	0.03	–0.21
Mental disengagement	–0.07	0.46	0.14	0.08
Emotional social support	–0.14	–0.13	0.94	0.08
Instrumental social support	0.21	0.06	0.70	0.05
Venting emotions	0.07	0.24	0.62	–0.17
Restraint	0.04	0.25	–0.04	0.57
Positive reinterpretation	0.26	–0.19	–0.01	0.51
Acceptance	0.14	0.00	0.10	0.45
Humor	0.09	0.09	–0.12	0.38
Religion	–0.06	–0.08	0.04	<u>0.24</u>

Scales are listed in descending order of magnitude of dominant loadings on each factor.

Dominant loadings ≥ 0.30 are in bold; dominant loadings < 0.30 are underlined; secondary loadings ≥ 0.30 are in parentheses.

but non-salient loading on factor IV as well. These factors were clearly similar to ones identified in previous research (see Table 2). As hypothesized, inter-factor correlations suggested that the self-sufficient (I and IV) and socially-supported (III) coping factors were more similar to each other ($r_{13} = 0.26$; $r_{14} = 0.43$; $r_{34} = 0.27$) than to avoidant-coping ($r_{12} = -0.16$; $r_{23} = 0.06$; $r_{24} = 0.17$).

Correlations of the COPE scales with the approach- and avoidance-motives and positive and negative traits are reported in Table 4. As expected, the three self-sufficient/problem-focused scales correlated positively with the BAS measures, but were unrelated to the BIS. Correlations of these scales with curiosity and extraversion were small and positive, but only significant for planning and active. However, the nature of the relationships between these scales and the negative traits was not clear, given that the correlations varied in sign when significant. Six of the twelve correlations between the avoidant-coping scales and the BAS scales, were significant, of which four were negative in sign. Both disengagement scales correlated positively with the BIS. All four avoidant scales had negative correlations with the positive traits, and correlated positively with the negative traits; most of these correlations were significant. Most of these findings were consistent with expectations.

The three social support measures were essentially uncorrelated with the BAS drive and Fun Seeking scales. However, positive correlations were found with BAS Reward Seeking. Unexpectedly, all three scales correlated positively with the BIS, especially Venting, which suggests that seeking social support may be motivated by desires to approach the problem as well as fear of negative consequences. The two Social Support scales had mostly nonsignificant correlations with the traits, except for Extraversion, presumably because all three of these measures refer to social interaction. Venting had small positive correlations with the negative traits suggesting that tendencies to experience negative emotions are associated with coping through emotional expression.

Table 4
Correlations of COPE scales with other measures (*N* = 230)

COPE factor and scales		Approach and avoidance motives				Positive and negative traits				
		BAS-D	BAS-F	BAS-R	BIS	Cur	Ext	Ang	Anx	Dep
Self-sufficient (Problem-focus)	Planning	0.35	0.21	0.30	0.05	0.26	0.26	0.08	-0.06	-0.10
	Active	0.42	0.24	0.33	0.01	0.27	0.31	0.01	-0.13	-0.19
	Suppression	0.23	0.13	0.13	0.11	0.09	0.05	0.16	0.16	0.12
Avoidant-coping	Behavioral disengagement	-0.24	-0.12	-0.22	0.20	-0.19	-0.29	0.23	0.40	0.37
	Denial	-0.10	-0.09	-0.22	0.02	-0.14	-0.17	0.17	0.26	0.24
	Substance use	0.13	0.12	-0.18	0.04	-0.13	-0.06	0.28	0.26	0.24
	Mental disengagement	0.07	0.13	0.09	0.27	-0.10	-0.08	0.22	0.25	0.27
Socially-supported	Emotional social support	-0.03	0.01	0.20	0.36	-0.06	0.13	0.01	0.07	0.00
	Instrumental social support	0.11	0.07	0.20	0.29	-0.04	0.16	0.08	0.04	0.00
	Venting	0.12	0.11	0.23	0.54	-0.12	0.02	0.31	0.33	0.19
Self-sufficient (Emotion-focus)	Restraint	-0.05	-0.03	0.04	0.07	-0.01	-0.14	0.08	0.09	0.05
	Positive reinterpretation	0.18	0.23	0.23	-0.04	0.32	0.29	-0.06	-0.17	-0.22
	Acceptance	0.15	0.19	0.21	0.04	0.10	0.09	0.08	-0.04	0.00
	Humor	0.13	0.21	0.03	-0.14	0.18	-0.01	0.10	-0.07	-0.13
	Religion	-0.09	-0.07	-0.02	0.03	-0.02	0.05	-0.05	0.00	-0.04

PA = Positive affect, NA = Negative affect (PANAS),
 Cur = Curiosity, Anx = Anxiety, Dep = Depression,
 Ang = Depression (Trait scales of STPI),
 BAS = Behavioral activation system,
 D = Drive, F = Fun, R = Reward; BIS = Behavioral inhibition system,
 Ext = Extraversion.

Three of the four self-sufficient, emotion-focused measures correlated positively with the BAS scales, but were unrelated to the BIS, except for a small negative correlation with Humor. These scales had only very small or nonsignificant correlations with any of the traits with two exceptions: The Positive Reinterpretation scale correlated positively with both positive traits and negatively with two of the negative traits, and Humor correlated positively with Curiosity and negatively with Depression. In general, these findings were consistent with expectations.

3. Study 2

In Study 2, the dimensionality of the COPE inventory was further examined. Relationships between the COPE scales and tendencies to either approach or avoid academic success were also investigated; these variables were expected to be related, given that the sample consisted of university students. Correlations of the COPE scales with several conceptually similar positive traits and trait anxiety were also evaluated.

3.1. Method

3.1.1. Participants

The study participants were 357 (279 women, 78 men) students ranging in age from 18 to 53 ($M = 20.41$, $SD = 4.10$), who were recruited from the same university in Study 1. All students received extra credit for taking part in this study.

3.1.2. Instruments

The *COPE inventory* as described in Study 1 was administered; participants rated themselves using the dispositional response format, and indicated how frequently they engaged in each coping behavior on a 4-point scale anchored by “usually do not do this at all” and “usually do this a lot”. Alphas for the Study 2 sample were adequate ($Mdn = 0.75$).

The *Achievement Orientation Inventory* (Elliot & Church, 1997) consists of two six-item approach-oriented scales that assess desires to outperform others in school (performance goals) or develop a deeper understanding of course material (mastery goals), and a six-item avoidance scale that measures concerns with academic failure. Alphas for these three scales were ≥ 0.74 . To assess these motives as general, “trait-like” attitudes, the content of several items were altered slightly (e.g., “I desire to completely master the material presented in this class” was changed to “. . . in my classes”). Participants reported how true each item was for them on a four-point scale anchored by “very false” and “very true”.

The *Trait Anxiety Scale* (Spielberger, 1979) was the same 10-item scale from Study 1. Participants reported how frequently they experienced feelings of anxiety on a four-point scale anchored by “almost never” and “almost always”. Alpha for the Study 2 sample was 0.84.

The *Values in Action Inventory of Strengths* (VIA-IS; Peterson & Seligman, 2004) was designed to measure 24 positive traits, each with a 10-item scale. Six traits were included: Social intelligence, Prudence, Hope, Humor, Spirituality, and Perspective, for which alphas were ≥ 0.73 . Participants reported how characteristic each VIA-IS item was of them on a five-point scale anchored by “very much unlike me” and “very much like me”.

3.1.3. Procedure

Questionnaires were administered in group-testing sessions, and required approximately 35 min to complete, after which participants were provided with additional information.

3.2. Results

As in Study 1, COPE scale scores were evaluated using iterated principal axis factor analysis with promax rotation;³ the communality estimate was the squared multiple correlation. Criteria for factor extraction included the scree test, parallel analysis, the amount of common variance explained by the factors, and the meaningfulness of the factors. Although the parallel analysis suggested up to six factors could be extracted, the scree plot indicated only three (4.95, 1.71, 0.81, 0.36, 0.30, 0.14, etc.). Rotation to six factors failed to converge, while four and five factor solu-

³ Given that the underlying dimensionality of the COPE inventory is not yet clearly defined, exploratory analysis was considered more appropriate than confirmatory.

Table 5
Factor loadings of the COPE scales after oblique rotation ($N = 357$)

COPE inventory scale	Coping-style factor		
	I	II	III
Planning	0.88	0.17	0.02
Active coping	0.79	0.02	0.06
Positive reinterpretation and growth	0.77	0.12	0.04
Suppression of competing activities	0.64	0.18	0.00
Acceptance	0.59	0.10	0.03
Restraint	0.53	0.24	0.13
Humor	0.42	(0.34)	0.14
Religious coping	<u>0.26</u>	0.01	0.13
Denial	0.00	0.78	0.05
Behavioral disengagement	0.02	0.76	0.07
Substance use	0.05	0.60	0.07
Mental disengagement	0.17	0.37	0.24
Emotional social support	0.02	0.05	0.95
Instrumental social support	0.28	0.09	0.67
Focus on & vent emotions	0.02	0.17	0.57

Scales are listed in the descending order of magnitude of their dominant loadings on each factor.

Dominant loadings ≥ 0.30 are in bold; dominant loadings < 0.30 are underlined; secondary loadings ≥ 0.30 are in parentheses.

tions were difficult to interpret, having few salient loadings beyond the third factor. The results of the three factor solution, which accounted for $>70\%$ of the common variance, are reported in Table 5.

Factor I consisted of all eight scales that defined the two self-sufficient factors from Study 1; all but one of these scales (religion) had loadings ≥ 0.42 . Factor II was comprised of the same four scales that defined the avoidant-coping factor from Study 1, with loadings ≥ 0.37 . Factor III was identical to the socially-supported factor from Study 1, with loadings ≥ 0.57 . As with Study 1, these three factors closely matched those identified in previous research (see Table 2). The first and third factors were substantially related ($r_{13} = 0.58$), while the second factor had small correlations with the other two ($r_{12} = 0.18$, $r_{23} = 0.16$), providing further evidence that the self-sufficient and socially-supported strategies were more closely related to each other than to avoidant-coping.

Correlations of the COPE scales with the approach- and avoidance-motives and positive and negative traits are reported in Table 6. Small to moderate positive correlations were found for most of the self-sufficient strategies with the two approach-motives; very small positive correlations were also found with failure-avoidance. The eight self-sufficient strategies had positive correlations with nearly all six positive traits. Not surprisingly, Religion had a very high correlation with Spirituality, while Humor correlated most highly with the VIA-IS scale of the same name. Correlations between all of the self-sufficient strategies with Anxiety were negative, and most were significant.

Of the avoidant-coping strategies, behavioral disengagement was positively related to failure-avoidance, which was consistent with expectations. Interestingly, Denial correlated positively with

Table 6
Correlations of COPE scales with other measures ($N = 357$)

COPE factor and scales		Approach and avoidance-motives			Positive and negative traits						
		Mastery	Perform.	Failure	S. Int.	Prud.	Hope	Humr	Sprt	Persp	Anx
Self-sufficient	Planning	0.24	0.16	0.07	0.35	0.30	0.42	0.21	0.25	0.41	-0.25
	Active coping	0.28	0.23	0.05	0.36	0.33	0.32	0.23	0.16	0.37	-0.26
	Positive reinterpret.	0.32	0.13	0.10	0.31	0.27	0.45	0.25	0.29	0.34	-0.38
	Suppression of competing	0.12	0.19	0.16	0.18	0.21	0.24	0.08	0.15	0.21	-0.09
	Acceptance	0.09	0.07	0.05	0.20	0.19	0.22	0.17	0.09	0.25	-0.14
	Restraint	0.24	0.18	0.15	0.14	0.33	0.20	0.13	0.17	0.29	-0.14
	Humor	0.02	0.13	0.08	0.15	-0.02	0.15	0.34	0.02	0.00	-0.08
	Turning to religion	0.14	0.13	0.10	0.10	0.19	0.27	0.03	0.76	0.08	-0.13
Avoidant-coping	Denial	0.03	0.13	0.19	-0.09	-0.09	-0.07	-0.03	-0.02	-0.19	0.17
	Behavioral disengagement	-0.09	0.04	0.12	-0.11	-0.08	-0.19	-0.08	-0.09	-0.18	0.26
	Substance use	-0.09	0.07	0.09	-0.06	-0.27	-0.20	-0.01	-0.26	-0.21	0.18
	Mental disengagement	0.12	0.18	0.25	0.09	0.09	0.10	0.12	0.03	0.03	0.06
Socially-supported	Emotional social support	0.11	0.19	0.20	0.24	0.17	0.23	0.14	0.17	0.19	-0.15
	Instrumental social support	0.17	0.17	0.18	0.25	0.24	0.30	0.21	0.16	0.25	-0.21
	Focus on & vent emotions	0.12	0.20	0.24	0.09	0.02	0.05	-0.01	0.05	0.05	0.13

Correlations in bold are significant $p < 0.05$.

both performance-approach and failure-avoidance, and mental disengagement had very small positive correlations with all three achievement scales. Nearly all of the avoidant-coping strategies correlated negatively with the positive traits, and positively with anxiety, which was as expected.

The socially-supported strategies had small positive correlations with all three achievement motives, suggesting that use of social support may be motivated by both fear of negative consequences as well as desiring to approach the problem. The two Social Support scales correlated positively with all six positive traits and negatively with Anxiety, which was expected. However, Venting was unrelated to any of the positive traits, but had a small positive correlation with Anxiety.

4. Discussion

As hypothesized, in two studies factor analyses of the COPE scales identified self-sufficient, socially-supported, and avoidant-coping factors that were similar to those found in previous research. Importantly, even though the exact *number* of factors differed across samples, their

composition was essentially identical. As hypothesized, the self-sufficient and socially-supported coping factors were more highly correlated with each other than with avoidant-coping.

Generally consistent with expectations, most of the self-sufficient coping scales in both studies were positively related to approach-motives and positive traits, but primarily had lesser or negative relationships with avoidance-motives and negative traits. Also as expected, the avoidant-coping strategies were generally found positively correlated with avoidance-motives and negative traits, but tended to be unrelated or negatively related to the approach-motives and positive traits. Overall, these findings were consistent with previous theory and research on relationships between coping strategies, approach/avoidance motivation, and positive and negative traits (e.g., Moos & Holahan, 2003; Roth & Cohen, 1986).

Although as hypothesized, socially-supported coping strategies tended to be positively related to approach-motives and positive traits, unexpectedly they were also correlated with avoidance-motives and negative traits; perhaps in seeking social support, engaging in discussion with others about one's stress requires individuals to revisit unpleasant thoughts and emotions.

Thus, the findings of two studies provided evidence that the COPE inventory assesses self-sufficient and socially-supported styles of coping that are relatively approach-oriented and positive, along with a generally negative, avoidant-coping style; all three of these coping styles involved combinations of problem- and emotion-focused strategies, which it should be noted, did not consistently define separate factors. To clarify whether problem- and emotion-focused strategies are meaningfully distinct, it would be interesting to separately assess each strategy's impact on stressors and on associated emotions, which may be moderated by the type of stressor. Although certain stressors may be beyond the reach of problem-focused strategies, their application may nevertheless result in increased positive feelings of autonomy or reduced experiences of anxiety. For example, if waiting for the results of a HIV test is stressful, a problem-focused strategy might involve making a "to do" list to ensure remembering to call for results. While this strategy will not affect the problem per se it may make it easier to deal with the associated emotions. In future research, investigation of interactions between the impact of individual coping strategies and specific stressors will reveal more about the dimensionality of the COPE, as well the nature of coping in general.

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