

Coping: A Multidimensional, Hierarchical Framework of Responses to Stressful Consumption Episodes

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This research explores a phenomenon that pervades many realms of consumer behavior—the various ways that consumers cope with stress and negative emotions. In study 1, I generate and test a multidimensional scale to measure the coping construct, revealing a more diverse set of strategies than accounted for in the consumer literature on coping. I test competing theories about the hierarchical structure of the coping construct. Study 2 validates these findings and begins to establish theoretical links between the coping dimensions and their antecedent relationships with discrete emotions. In contrast to extant research linking emotions and coping, which has only investigated main effect hypotheses, I conceptualize and find empirical evidence for a model in which emotions interact with appraisals jointly to enact coping strategies. This research contributes to the emerging consumer coping literature by enriching existing theoretical conceptualizations of consumer coping processes and by validating a scale that should prove useful in consumer research.

Imagine the following consumer vignettes:

When a customer learns that the automobile repairs will be twice as much as the original estimate, the customer reacts with anger and demands to speak to the shop manager. The customer is confident that the repair amount is excessive and sternly expresses displeasure to the manager, insisting the price be reduced.

Saddled with credit card debt, a young couple is fearful that they will not be able to make ends meet. The couple shares their mutual feelings of anxiety with each other, and they try to assure each other that their fortunes will turn.

These vignettes are examples of consumer experiences that may induce stress and negative emotions. Stressors and their emotional manifestations have been studied extensively by psychologists (e.g., Carver, Scheier, and Weintraub 1989;

Folkman and Lazarus 1985). The anger experienced by the consumer in the service encounter is an example of an emotional response to what Lazarus (1991) terms a stress of harm or loss. The anxiety experienced by the couple in the scenario is an example of threat emotions, all of which are negative affective reactions to stressors (Lazarus and Folkman 1984). While stress and emotion have long been the domain of psychologists, the vignettes and the consumer behavior literature indicate the prevalence of emotions and the need to cope with consumer stress. In fact, a recent National Institute of Mental Health study reported that consumption decisions (i.e., financial expenditures) were the primary source of stress among Americans (Almeida, Wethington, and Kessler 2002). Thus, consumer researchers may have a vested interest in shedding light on these complex processes.

People cope with stress differently; some consumers may be inclined to express their feelings outwardly, others may reconstrue the stress-inducing event in a positive way so that it seems less stressful, and so on. Coping is a pervasive and complex psychological process, embedded in a network of cognitive, attitudinal, and behavioral correlates (Carver and Scheier 1994; Lazarus and Folkman 1984), and this complexity should be reflected in a coping model capable of accounting for the multitude of strategies consumers enact. In this research, I formulate a multidimensional model of consumer coping and delineate processes through which consumers engage in particular patterns of coping in response to consumption stress.

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This research reports on two studies to address several gaps in the literature. Study 1 is conducted to test empirically a measurement model of the dimensions of coping strategies derived from an exhaustive search of the extant coping literature. This study is the first in the coping literature to use stringent tests of measurement, including confirmatory and higher-order factor analysis, to establish both convergent and discriminant validities. A recent review of coping recommends state of the art measurement modeling, strategies employed in this article (Skinner et al. 2003). In addition, I test competing hierarchical structures currently found in the psychological coping literature and present the first test for consumer coping processes. Study 2 is conducted to enrich extant theorizing by postulating hypotheses relating emotional and cognitive appraisal antecedents that together give rise to particular coping strategies.

The flow of the article is as follows: (1) I begin by pointing to shortcomings in the current literature, areas in which I build conceptually and empirically. (2) I derive eight dimensions of coping from study 1. (3) I review the conceptual hierarchical relationships posed in the coping literature and test these competing theories, the first such tests reported in the literature. (4) My intended contributions are not solely focused on providing a psychometrically sound eight-dimensional coping scale to consumer behavior researchers—I also begin to examine the dimensions in use. Thus, I offer a model of coping, in which the coping dimensions are embedded, and pose hypotheses in which emotions and appraisals together affect coping strategies. (5) I test these relationships in study 2.

THE COPING CONSTRUCT IN THE LITERATURE

Coping research constitutes a prolific area of study, attracting researchers from clinical, social, and personality psychology as well as sociology and anthropology. A recent *Social Citations Index* literature search on “coping” produced in excess of 17,000 articles published over the past 25 yr. In contrast, a similar search of consumer research publications produced only six articles (which I shall describe). Thus, there is still untapped potential for theoretical contributions where consumer behavior intersects with coping.

Several definitions of the coping construct exist. Drawing on their common essence, I define the construct of coping as “the set of cognitive and behavioral processes initiated by consumers in response to emotionally arousing, stress inducing interactions with the environment aimed at bringing forth more desirable emotional states and reduced levels of stress.” This definition reveals several key properties of coping: coping emerges as a consequence of emotion, and the process is dynamic, spanning cognitive, behavioral, and emotional domains of consumer response.

In synthesizing the extant literature in consumer research on coping, four key premises emerge, each of which represents a deficiency in the understanding of coping in consumer behavior. The first two premises relate to extant

knowledge of coping structures, an issue of considerable debate in the literature (see Skinner et al. 2003), and the last two premises relate to coping’s relationship to antecedent emotional and cognitive factors. My empirical evidence will support my theoretical extensions, thereby articulating a broader framework.

Premise 1: The literature on coping, particularly the consumer behavior coping literature, tends to conceptualize coping strategies as being predominantly either “problem-focused” or “emotion-focused.” My data will demonstrate that this representation may be both theoretically problematic and empirically inaccurate.

Lazarus and Folkman (1984) first introduced this distinction in the literature, arguing that all coping efforts are either problem-focused (i.e., an attempt to manipulate the environment to reduce stress) or emotion-focused (i.e., a reappraisal of the environmental stimuli). Recent coping research has shown that consumers frequently rely on both problem-focused and emotion-focused coping strategies within a single stress episode (Luce 1998; Luce, Bettman, and Payne 2001; Mick and Fournier 1998; Sujan et al. 1999).

Although intuitively appealing, several weaknesses of this conceptualization have been discussed in the literature, and the exclusive reliance on this distinction in consumer research has precluded additional conceptual development of additional coping strategies. For example, coping behaviors can conceptually satisfy both problem-focused and emotion-focused coping goals; for example, consumers might calm themselves (emotion-focused coping) in preparation to returning a defective item at a store (problem-focused coping). Thus, mutually exclusive problem- and emotion-focused coping categories can be problematic. Further, as I will demonstrate in study 1, additional coping strategies are empirically observable in consumer contexts, and these dimensions cannot be subsumed in this dichotomy. Although previous research has also identified limitations inherent in the problem-focus–emotion-focus dichotomy, these concerns have not been widely acknowledged. By answering the recent call for such research (Skinner et al. 2003) and conducting comparative model testing of multiple higher-order coping structures, the present research contributes to both the consumer and psychological literature on coping. More will be said of the various higher-order coping conceptualizations in the reporting of study 1.

Premise 2: The current approach to studying coping, particularly in the consumer behavior literature, tends to be overly context specific, yet consumer stressors and the need for coping are more generally observable.

The preponderance of coping studies delimit a specific application area or focal stressor with implications of limited generalizability. Early consumer research examined four domains of stress: financial, ego, safety, and time (Bettman 1973; Roselius 1971). Similarly, the recent coping research

in consumer behavior has focused on application areas, including decision making and choice (Luce 1998; Luce et al. 2001), retail stress (Sujan et al. 1999), and technological adoption stress (Mick and Fournier 1998). For these scholars' particular research needs, it is sufficient to focus on the context-level phenomenon, for example, "asking a sales clerk for help," rather than focusing on the construct level, for example, problem-focused coping strategies. Yet distinctions drawn across contexts can be more readily explained at a higher level of analysis, lending swifter theoretical progress (e.g., Krohne 1993; Skinner et al. 2003). Congenial with this philosophy, my perspective distinguishes eight dimensions of coping but simultaneously emphasizes similarities between those strategies in hierarchical analyses, hopefully providing a more general structural theory of coping.

Premise 3: To date, coping in consumer behavior has been studied in response to a single emotion. Instead, multiple negative, and even positive, emotions are likely to have unique relationships to specific consumer coping strategies.

Research linking coping to more emotional antecedents beyond threat or anxiety (Luce et al. 2001) would enrich extant understanding of coping processes. This extension also conforms to the conceptualization of influential coping scholars. Lazarus (1991) argues that the study of coping and emotion are inextricably linked, that coping processes emerge as a result of changing environmental circumstances that directly affect emotional states. The current research contributes to both the extant literature on coping and that on discrete emotions by expanding the set of emotions and specifying their inherent interrelationships to coping.

Premise 4: The literature tends to posit direct functional relationships between emotions and coping processes. I demonstrate that emotional and cognitive appraisals interact to influence consumers' choice of coping strategies.

The consumer literature has identified both emotional and cognitive precursors to coping. Research in the decision-making literature has identified links between threat emotions and coping (Luce et al. 2001) and links between consumer efficacy and coping (Sujan et al. 1999). However, no research to date has integrated these distinct findings into a comprehensive cognitive-emotional framework. The present research posits that emotions and appraisals conjunctively affect consumers' decisions to engage in particular ways of coping. I will say more on the nature of these emotion-cognition interactions shortly.

To summarize the intended contributions of this research in terms of the four key theoretical premises, I conceive of an enriched definition of multiple dimensions of coping, investigate synergies among these strategies via hierarchical models, expand the set of emotions under consideration, and formulate and test new interactive hypotheses that link emotions and cognitive appraisal factors to coping. I turn now

to study 1 to delineate and measure coping as a multidimensional construct.

LOOKING FOR THE STRUCTURE OF COPING: MOTIVATIONS FOR STUDY 1

I previewed the argument that coping in its simplest, most abstract form contrasts "problem-focused" and "emotion-focused" means of coping. The former subsumes attempts to change the nature of a stressor directly; for example, a consumer may cope with a rude sales clerk by reporting the behavior to a store manager. Conversely, emotion-focused strategies are initiated to regulate one's emotional response; for example, a consumer may vent their emotions to "let off steam" or "cool down."

Several studies have suggested that the problem-focused versus emotion-focused distinction oversimplifies coping phenomena. Many scholars have conceptualized coping with far greater specificity, examining more nuanced facets (see Carver et al. 1989). Other scholars have argued for dichotomies based on alternative conceptualizations (e.g., motivation theory's suggestion of an approach vs. avoidance dichotomy; Krohne 1993). Opinions diverge as to the ideal number of facets necessary to balance the scientific tension between parsimony and theoretical richness, resulting in models with as few as two and as many as 30 distinct coping strategies. Thus, issues of breadth and structure still remain. Toward the objective of forming a fairly comprehensive coping theory for consumer research, I extracted from the literature the most widely used coping instruments, representing a variety of theoretical perspectives. These 10 inventories included those by (1) Amirkhan (1990), (2) Carver et al. (1989), (3) Endler and Parker (1990), (4) Holohan and Moos (1987), (5) Lazarus and Folkman (1984), (6) McCrae (1984), (7) Pearlin and Schooler (1978), (8) Stanton et al. (2000), (9) Stone and Neale (1984), and (10) Sujan et al. (1999).

These 10 instruments, in turn, captured over 85 dimensions of coping strategies. These 85 dimensions, operationalized using multi-item scales, further yielded a universe of more than 250 potential coping items. Not surprisingly, the 85 dimensions (or 250 items) contained a great deal of redundancy. For example, 17 of the 85 dimensions referred to "action coping," a form of coping whereby an individual either takes action or strategizes about potential actions in response to a stressor. These 17 dimensions might presumably reflect a similar, common underlying factor (more will be said of this process in presenting the findings of study 1). I extracted items from the original scales to represent these 17 dimensions, and the factor analyses that I will present shortly confirmed that these dimensions did indeed share a high degree of common variance, supporting a single factor interpretation.

The process in which I engaged was classic measurement: through content analyses, I first deleted redundant items by examining the original construct definitions provided by the authors, reducing the set of 250 items to 53, which still

reflected the domains represented in the literature. I began with exploratory factor analyses on these 53 items; had my a priori classification of some facets been similarly inaccurate, the data would have led me to refine the dimensionality. The confirmatory analyses in both studies 1 and 2 concur; the empirical results suggest eight dimensions of coping. I will elaborate on this process in presenting the results of study 1.

STUDY 1

One hundred seventy-six undergraduates (99 women, 77 men) were solicited for participation in this study from a subject pool at a large public university. Respondents first read the brief description below, per instructions in other coping studies, modified for the consumer behavior context (Carver et al. 1989): "Imagine that you just had a stressful encounter with a service company. It could be a distressing event related to your bank, phone/cellular service, hotel, airlines, car/appliance repair, medical care provider, etc. The event could be related to poor handling of a complaint, a lapse in service, rude or negligent treatment by a service employee or any other event that caused you to feel stress. Think about this event and respond to the following questions." After reading the scenario, respondents were asked to record the extent to which they would cope with their stress via each of the 53 coping items.

RESULTS

Exploratory Factor Analyses

I conducted factor analysis using an oblique (promax) rotation and extracted 4–10 factor structures. The models varied in predictable ways, with the four-factor model nested in the five, the five nested in the six, and so on. To illustrate, compared with the eight-factor model, the seven-factor solution exhibits the same overall pattern of loadings, except that the "instrumental support" and "emotional support" factors were combined. These factors are indeed correlated in the eight-factor solution ($\phi = .5$), but I elected to keep them distinct, given that they have been differentiated in the literature. The nine-factor solution differs from the eight in that a single item from the instrumental support dimension breaks from this factor and loads independently on the ninth factor, yet factor analysis requires at least two variables loading per factor, so this solution showed signs of having extracted too many factors. In the 10-factor model, the final factor had no significant loadings. Thus, I conclude that a solution with eight coping factors best describes the data.

In scale purification, I retained items that had a loading of .5 or higher on the factor that defined it (a conservative strategy intended to provide optimal psychometric properties), with negligible loadings on other factors. The resulting 36 items were subjected to a confirmatory factor analysis using LISREL to assess their internal consistency and construct validity.

Confirmatory Factor Analyses

As table 1 attests, all items loaded significantly on their respective coping dimensions, and the overall model fit was good, as determined by the standard four fit indices. In each case, the fit indices surpass the levels recommended by Hu and Bentler (1998), except for the CFI, which approaches the .95 threshold they advocate: SRMR = .075, RMSEA = .05, and the CFI = .93, indicating strong model fit. (There was a significant chi-square: $\chi^2(566) = 729.87$, $p < .001$, likely because of the sample size.)

To verify my conclusion that an eight-factor solution best fits the data, I comparatively assessed the fit of 4–10 factor solutions. Using the eight-factor solution as a benchmark, I conducted chi-square difference tests of the models and found that each alternative solution represented a worse fit to the data except the seven- and nine-factor solutions. For six factors, $\Delta\chi^2(12) = 82.02$, $p < .001$, and extracting fewer factors yielded even larger chi-squares. The $\Delta\chi^2$ for seven factors was $\Delta\chi^2(6) = 5.18$, $p > .18$, and for nine factors it was $\Delta\chi^2(8) = 13.38$, $p > .11$. Although the data did not establish the statistical superiority of the eight-factor model vis-à-vis the seven- and nine-factor models using overall model fit indices, Hu and Bentler (1998, 429) discuss how underparameterization (specifying too few factors) is likely to result in model bias, so empirically eight factors should be more robust than seven. Furthermore, note again that the seven-factor model was a subset of the eight-factor model, theory and the literature support the eight-factor model, and the nine-factor model extracts a factor with only a single item, not a defensible factor. The resulting eight coping factors are described as follows.

I. Action: action coping consists of "direct, objective attempts to manage a source of stress," for example, "I concentrated on the ways the problem could be solved." My results are consistent with the view that action coping is important in the literature—of the 10 surveys mentioned previously, seven of them tapped this aspect of coping, altogether representing 17 of the 85 dimensions. Thus, across the 17 dimensions and seven instruments, while the particular coping behaviors may seem somewhat differentiable (e.g., "taking direct action," "seeking information," and "engaging in problem solving"), they share conceptual similarity in that they all constitute taking action involving direct attempts to assuage sources of stress. (Details on the surveys are available from the author.)

II. Rational thinking: this form of coping is defined as "deliberate attempts to prevent subjective emotions from directing behavior." Consumers attempting to cope by being rational are trying to control their feelings. Typical items reflect the extent to which the coping person "tries to step back from the situation and be more objective."

III. The next two types of coping are related, yet functionally distinct: I define emotional support-seeking coping behaviors as "attempts to marshal social resources to improve one's emotional and/or mental state." Consumers coping in this manner "seek out others for comfort."

IV. In contrast to emotional support seeking, instrumental

TABLE 1

STUDIES 1 AND 2: CONFIRMATORY FACTOR LOADINGS OF COPING ITEMS

	Action	Rational thinking	Emotional support	Instrumental support	Emotional venting	Avoidance	Positive thinking	Denial
Concentrate on ways the problem could be solved	.79, .71							
Try to make a plan of action	.86, .74							
Generate potential solutions	.86, .78							
Think about the best way to handle things	.66, .59							
Concentrate my efforts on doing something about it	.72, .69							
Do what has to be done	.59, .62							
Follow a plan to make things better—more satisfying	.68, .48							
Analyze the problem before reacting		.67, .35						
Try to step back from the situation and be objective		.66, .50						
Try to control my emotions		1.00, .87						
Try to keep my feelings from controlling my actions		1.00, .88						
Would use restraint to avoid acting rashly		.69, .44						
Seek out others for comfort			.98, .95					
Tell others how I feel			1.00, .87					
Rely on others to make me feel better			.80, .88					
Share my feelings with others I trusted and respected			.91, .87					
Ask friends with similar experiences what they did				.82, .81				
Try to get advice from someone about what to do				.89, .83				
Have a friend assist me in fixing the problem				.66, 1.00				
Take time to express my emotions					.76, .66			
Let my feelings out somehow					.63, .61			
Delve into my feelings to understand of them					.56, .79			
Would take time to figure out what I am feeling					.70, .80			
Would realize that my feelings are valid and justified					.76, .67			
Would acknowledge my emotions					.86, .73			
Try to take my mind off of it by doing other things						.86, .99		
Distract myself to avoid thinking about it						1.00, 1.00		
Avoid thinking about it						.89, .93		
Find satisfaction in other things						.65, .71		
Try to look at the bright side of things							.89, .94	
Focus on the positive aspects of the problem							.98, 1.00	
Look for the good in what happened							.93, .94	
Try to make the best of the situation							.79, .79	
Deny that the event happened								.58, .84
Refuse to believe that the problem had occurred								.66, .92
Pretend that this never happened								.35, .78

NOTE.—Study 1 loadings appear first in each cell, study 2 loadings appear second. All loadings significant, $p < .001$.

TABLE 2
STUDY 1: INTERCORRELATION AMONG DIMENSIONS OF COPING

	Action	Rational thinking	Instrumental support	Emotional support	Positive thinking	Avoidance	Emotional venting	Denial
Action	.87 ^a							
Rational thinking	.43	.81 ^a						
Instrumental support	.18	.17	.84 ^a					
Emotional support	.05	.01	.50	.83 ^a				
Positive thinking	.33	.50	.20	.05	.85 ^a			
Avoidance	-.20	-.04	.09	.10	.07	.83 ^a		
Emotional venting	.11	.12	.28	.50	.20	.12	.78 ^a	
Denial	-.25	-.22	-.05	-.03	-.09	.14	.02	.67 ^a

NOTE.—Results above based on factor analysis with 36 items.
^aAlpha reliabilities.

support seeking is defined as “attempts to marshal social resources to take action towards ameliorating a stressor,” coping that involves co-opting the assistance of others with the intent of ameliorating the stress situation directly. This coping is differentiated from emotional support by its focus on bringing objective change. The consumer tries to “get advice from someone about what to do.”

V. Positive thinking strategies are those “attempts to psychologically reconstrue a source of stress in order to make it more tolerable.” Positive thinking is coping marked by efforts to reconstrue stressors so that they are less damaging. The consumer tries to “look on the bright side of things.”

VI. The coping behavior of avoidance is defined as “attempts to create psychic or physical distance between oneself and a stressor.” The person coping using avoidance tries to take their mind off the problem and distracts themselves by doing other things.

VII. I define emotional venting coping as “attempts to recognize and express one’s emotions.” Consumers express their emotions, for example, “I let my feelings out.”

VIII. Finally, denial coping consists of “attempts to completely close off oneself mentally from a source of stress.” Denial consists of complete abnegation of stressors so that their negative effects on the consumer are reduced.

These eight dimensions are both conceptually and empirically distinct, as well as interrelated. I first demonstrate their discriminability.

Tests of Discriminant Validity

While the average intercorrelation among the coping dimensions was only $r = .16$, thus supporting the relative independence of the factors and their discriminant validity, a few are rather high (see table 2). To rigorously examine alternative factor specifications in more detail, I conducted tests of discriminant validity by collapsing the most conceptually and empirically related dimensions to see if model fits improved. For example, by setting the factor intercorrelation between the two social support dimensions (instrumental and emotional support) to 1.0 in LISREL and refitting the model, I find that the model fit is significantly worse ($\Delta\chi^2(1) = 15.65, p < .0001$). Thus, while these aspects of

support-seeking coping are related, they are not redundant, and like the literature, the data indicate that the factors are distinct. I conducted two additional tests using the same procedure, collapsing the active coping and rational thinking dimensions ($\Delta\chi^2(1) = 20.45, p < .0001$) and the emotional venting and emotional support factors ($\Delta\chi^2(1) = 15.34, p < .0001$). These tests provide additional support for the position that the eight dimensions are empirically distinct.

At the same time, the clusters of correlations are interesting, particularly given that they occurred in conceptually meaningful pairs, because of the implication that they might reveal superordinate factors. Several theories exist as to the most accurate means of conceptualizing coping hierarchically to account for co-occurrence of specific strategies. In the next section, I comparatively test these theories and formulate my own hierarchical theory of consumer coping.

HIERARCHICAL COPING STRUCTURES

Despite hundreds of studies by dozens of researchers over the past 30 yr., there is still considerable debate as to the theoretical structure underlying coping processes (Skinner et al. 2003). Coping scholars have argued for an approach that blends a detailed, lower-order taxonomy with a higher-order structure that draws on shared theoretical abstractions (Skinner et al. 2003). Thus far, no research has yet assessed the performance of the conceptualizations empirically, as I now do. Figures 1 and 2 contain a depiction of the hierarchical factor structures that I tested, along with their fit indices. To classify the lower-order coping dimensions into one of the two, three, or four higher-order factors delineated in various theories, I relied on the original scholars’ own higher-order construct definitions and assigned my lower-order factors according to the level of congruity with these definitions. The general, thematically consistent nature of construct specification present in these higher-order theories facilitated the assignment of lower-order factors to their appropriate higher-order construct.¹

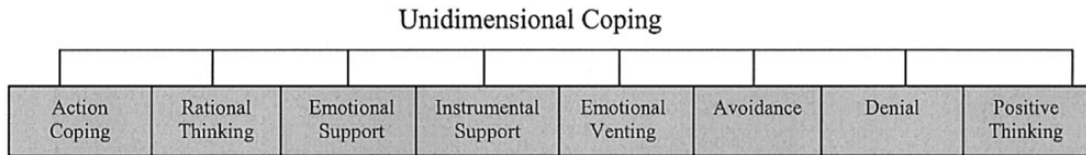
As a baseline, before fitting the substantive models, I fit

¹Complete details of this process, including the original higher-order construct definitions, are available from the author.

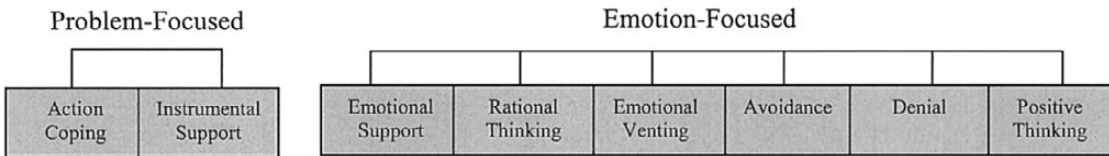
FIGURE 1

COMPETING MULTIDIMENSIONAL HIERARCHICAL LATENT STRUCTURES

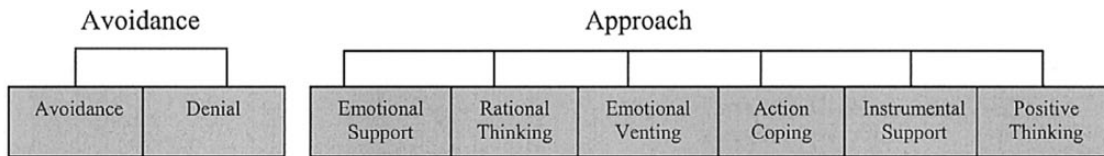
Model 1: Null Model: Unidimensional Coping Construct
 $X^2 = 129.63$, $df=20$, $CFI = .49$, $SRMR = .14$, $RMSEA = .19$



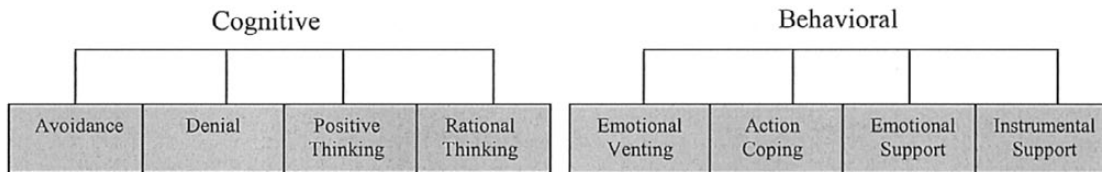
Model 2: Lazarus and Folkman (1984) Problem vs. Emotion-Focused Coping
 $X^2=129.64$, $df=19$, $CFI = .51$, $SRMR = .14$, $RMSEA = .20$



Model 3: Krohne (1993) Approach vs. Avoidance Coping
 $X^2 = 123.30$, $df=19$, $CFI = .51$, $SRMR = .13$, $RMSEA = .19$



Model 4: Holohan and Moos (1987) Behavioral vs. Cognitive
 $X^2 = 79.09$, $df=19$, $CFI = .73$, $SRMR = .13$, $RMSEA = .13$



a null hypothesis test positing no multidimensional, hierarchical coping structure, that is, I examine unidimensional coping (model 1). This model did not fit the data, suggesting that coping's higher-order structure is indeed more complex.

There has also been considerable support for a dichotomous hierarchical coping model. If emotions and coping are causally related, as Lazarus's theorizing suggests (1991), then I might expect to observe a latent structural isomorphism (e.g., a dichotomous structure for both emotions and coping; Russell 1980). Lazarus and Folkman's problem-

focused versus emotion-focused distinction suggests the presence of two higher-order factors (see fig. 1, model 2). As influential as this typology has been, this model fits the data as poorly as the null model.

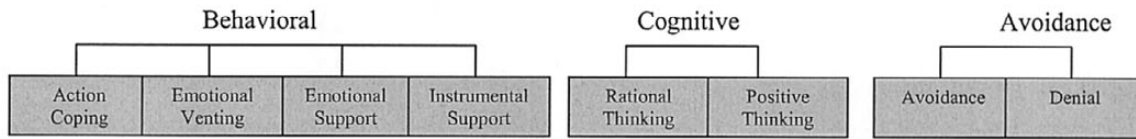
A competing conceptualization advocates an approach versus avoidance distinction, drawing from motivation research (Krohne 1993). This view avers that coping processes are best distinguished by those that draw consumers toward a source of stress as opposed to those that impel consumers away. This model (fig. 1, model 3) also exhibits poor fit.

Another two-dimensional higher-order theory differenti-

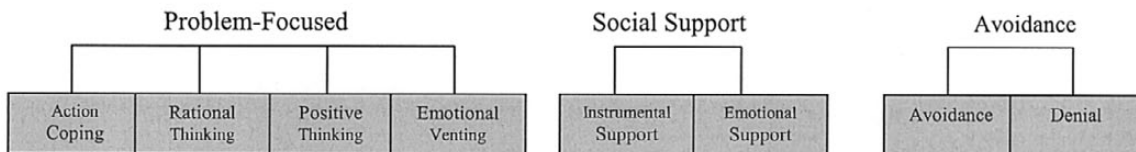
FIGURE 2

A MULTIDIMENSIONAL MODEL OF CONSUMER COPING

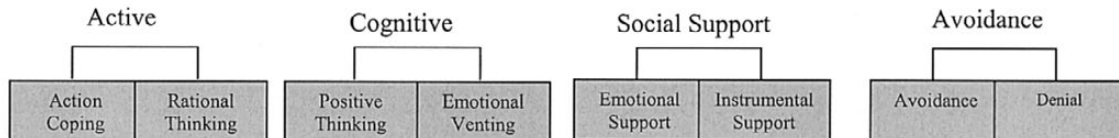
Model 5: Holohan and Moos (1987) Behavioral vs. Cognitive vs. Avoidance
 $X^2 = 76.01$, $df=19$, $CFI = .73$, $SRMR = .12$, $RMSEA = .13$



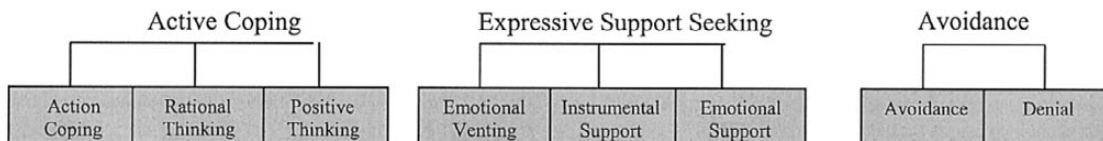
Model 6: Amirkhan (1990) Problem-Focused vs. Social Support vs. Avoidance
 $X^2 = 72.19$, $df=17$, $CFI = .74$, $SRMR = .10$, $RMSEA = .13$



Model 7: Carver et al. (1989) Active vs. Cognitive vs. Social Support vs. Avoidance
 $X^2 = 63.62$, $df=14$, $CFI = .79$, $SRMR = .097$, $RMSEA = .13$



Model 8: Resultant, Best-Fitting, Consumer Coping Model
 $X^2 = 36.07$, $df=17$, $CFI = .92$, $SRMR = .07$, $RMSEA = .04$



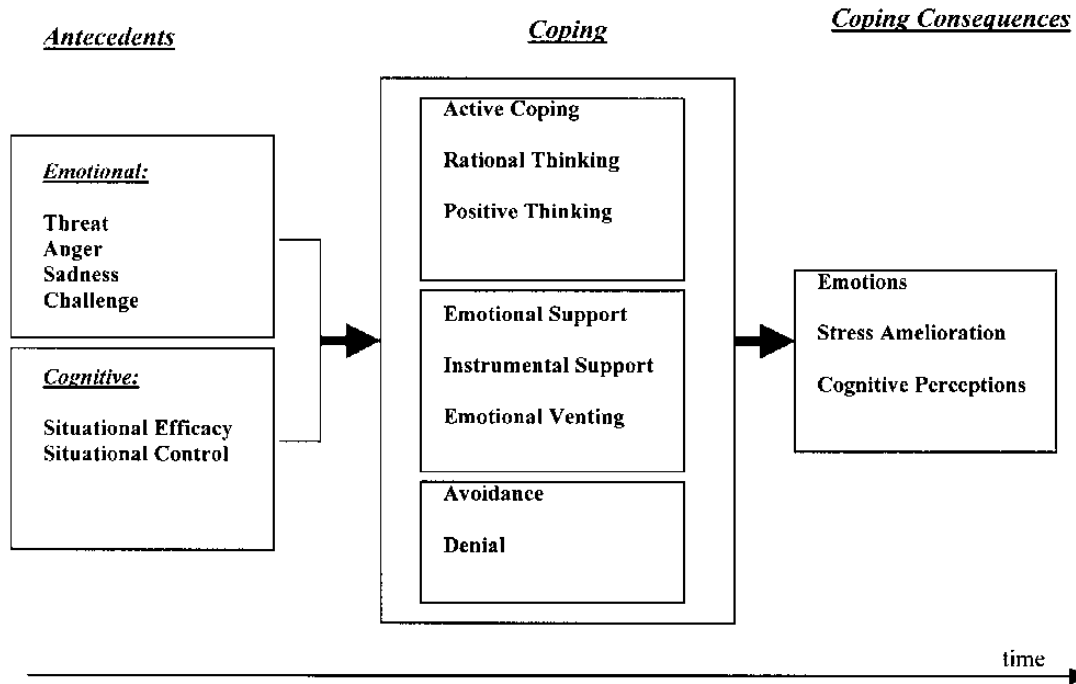
ates coping strategies that are cognitive from those that are behavioral (Billings and Moos 1984). This model (fig. 1, model 4) fit the best of all the two-factor higher-order models. Although parsimonious, the fit indices nevertheless suggest that an alternative model is needed.

Two rival three-factor hierarchical structure models were also tested. Figure 2, model 5 posits distinct cognitive coping, behavioral coping, and avoidance coping factors (Holohan and Moos 1987). Figure 2, model 6 distinguishes among problem-focused coping, support-seeking strategies, and avoidance (Amirkhan 1990). Finally, a four-factor solution suggested by Carver et al. (1989) was fit to the data (fig. 2, model 7) and also was found to be inadequate.

I constructed a model better suited to consumer behavior

as a distinct form of coping. The model I inducted was a three-factor variation of the four-factor Carver model. My three-factor model consists of active coping, expressive support-seeking, and avoidance factors, shown as model 8, the final model in figure 2. This model classifies consumers' coping according to (1) cognitively or behaviorally taking action, including engaging in rational thinking; (2) marshaling social support resources and engaging in emotional venting; or (3) avoiding or denying the stressor altogether. This conceptualization may well illustrate unique aspects of coping in consumer contexts. Each dimension in the resulting tripartite hierarchical model is sufficiently abstract that it holds great promise for generalizability to other coping contexts.

FIGURE 3
A MULTIDIMENSIONAL MODEL OF CONSUMER COPING



DISCUSSION OF STUDY 1

Study 1 yields several key insights. First, it establishes a scale to measure multiple dimensions of coping, including a number of dimensions not yet reported in the consumer literature. The scale has sound psychometric properties, as tested by current state-of-the-art modeling procedures for establishing measures (steps heretofore not taken in the psychological or consumer coping literatures). The items are provided in table 1, and consumer behavior researchers can use these scales or a subset, depending on the relevance to their particular research. I also found evidence in support of a novel three-dimensional hierarchical coping model that proves superior in explaining the structure of consumer coping, thereby casting doubt on the prevailing, problem-focus–emotion-focus higher-order structure.

Study 1 begins to establish the measurement properties of the multidimensional coping construct. These facets had to be established before testing their validity in a larger nomological network. In the section that follows, I develop theorizing regarding how emotional and cognitive factors influence coping. In study 2, I validate the measurement model using an independent sample and proceed to test the interactive hypotheses discussed next.

AN EMOTIONAL-COGNITIVE MODEL OF COPING: DEVELOPING HYPOTHESES

Figure 3 presents the eight coping dimensions, embedded in three boxes to depict their hierarchical relationships. This

multidimensional coping construct is further embedded in a model that posits emotional and cognitive appraisal antecedents to coping, along with a depiction of coping’s ultimate aim, the subsequent amelioration of stress. In study 2, I will test the interactive effects on coping of the cognitive factor of self-efficacy, in conjunction with two key consumption emotions—threat and anger. As the figure suggests, other emotions and cognitive factors may certainly affect coping. The focal contributions of study 2 are intended to be an extension to discrete emotions (advancing extant literature to emotions other than threat) and the interactive nature of the hypotheses on coping (beyond the literature’s focus on main effects). To begin to explore these interactive relationships, I test one relationship for each of the three hierarchical factors.

My model offers a theoretical framework for investigating the dynamic effects of coping. Many coping theorists believe that coping is a highly reflexive process, evolving iteratively over time (Folkman and Lazarus 1985). As individuals process stressful stimuli, the strategies they use for coping affect the nature of their subsequent emotional reactions and also their subsequent cognitive appraisals. Figure 3 displays the overarching hypothesis that initial coping responses are affected by an interplay of emotions and cognitions and that these coping responses affect successive emotions and cognitions, which in turn affect subsequent coping, and so forth. Although Lazarus (1991) posits cognitions as precursors to emotions and perceived stress, I acknowledge the ongoing debate regarding the preeminence of affect versus cognition

(e.g., Zajonc 1984); thus, I make only the claim that both cognitions and emotions presage coping. My focal emphasis is on coping, and I investigate the influence of both emotional and cognitive factors on coping, but not the relationships between emotion and cognitions themselves.

The appraisal process unfolds rapidly and dynamically, with appraisal perceptions generated in response to changing aspects of the stressful environment. I consider emotional reaction in conjunction with self-efficacy, which is defined as the perceptions regarding one's ability to cope and bring forth desirable results given their perceived transactional relationship with the environment (Bandura 1977; Lazarus and Folkman 1984). Despite an early recognition that relevant emotional and cognitive appraisal perceptions operate in a complex interactive manner, the nature of these interactions and their relationship to coping has not been examined.

Folkman and Lazarus (1985) have suggested that an individual's negative affective reactions to stress fall into two basic categories: threat and harm. Threat assessments signal potential danger to one's well-being (Skinner and Brewer 2002). When individuals experience high levels of threat, there is a tendency of avoidance or flight. Previous consumer research has established parts of these links, for example, between the experience of threat-related emotions and the use of avoidant coping strategies (Luce, Payne, and Bettman 1999). Yet other research has linked threat experiences to social support-seeking strategies (Carver and Scheier 1994; McCrae 1984); thus, threat on its own, that is to say as a main effect, is insufficient to activate a unique form of coping.

Instead, I hypothesize that the influence of threat on coping is moderated by cognitive perceptions of one's coping efficacy. When situational self-efficacy perceptions suggest a strong likelihood that the consumer is capable of coping with the stressor, the avoidance tendency is mitigated. Conversely, when situational self-efficacy perceptions suggest that the consumer is not capable of effectively bringing forth the desired changes to the stress environment, the avoidance coping tendency is enhanced. Analogously, consumers who experience threat (e.g., anxiety) and believe themselves capable of affecting change (i.e., high self-efficacy) will more likely seek social support than those anxious consumers who feel ineffective, who will likely cope by avoiding the stressor. Based on these interactions, I explore the possibility of these unique influences on coping; thus, hypotheses 1 and 2:

H1: When consumers experience threat emotions in conjunction with high self-efficacy, they will be more likely to engage in expressive support-seeking coping strategies.

H2: When consumers experience threat emotions in conjunction with perceptions of low self-efficacy, they will be more likely to engage in avoidant coping strategies.

At this point, I begin to note the inherent incongruity associated with mapping two-dimensional theories of emotion (approach vs. avoidance) onto three-dimensional coping structures. Returning to the approach-avoidance theorizing, note that hypothesis 2 is a scenario in which both the emotion and appraisal are functioning consistently toward a goal of avoiding the stressor. The interaction suggests that the natural tendency for threat being met by avoidance would be further exacerbated by feelings of an inability to affect the stressor, hence, reinforcing a motivation to avoid the stressor. Hypothesis 1 is more complex. The emotion, threat, is driving an avoidance strategy, while at the same time, feelings of situational competence and mastery would implore an active coping strategy. This mixed approach-avoidance scenario induces a compromise—the stressed consumer would not avoid the stimulus (as the emotion on its own might suggest), but neither would the consumer garner sufficient resources to affect environmental change (as a prediction for efficacy alone would predict). The most effective coping strategy is thus venting and gathering network support, rather than active coping.²

These predictions about threat may be contrasted with predictions about harm emotions, such as anger (Lerner and Keltner 2001; Raghunathan and Pham 1999; Richins 1997; Tiedens and Linton 2001), toward the goal of formulating unique hypotheses that conceptually distinguish the coping strategies. Anger is characterized by a sense “of being slighted or demeaned” (Lazarus 1991, 826) and appears to be a fairly pervasive consumption phenomenon (e.g., having been linked to complaint behavior; Singh 1990). For anger, the unique coping tendency impels individuals toward the source of stress in efforts to reduce it (Smith and Ellsworth 1985). Like hypothesis 2, hypothesis 3 is a prediction about a synergistic set of motives. Where hypothesis 2 predicted outcomes for an avoidance-avoidance scenario, hypothesis 3 predicts an action-oriented strategy given the double propulsion toward approach. That is, both the impetus of anger and the feelings of efficacy conjointly encourage active coping behaviors. Thus, I posit the interaction between the emotion and focal cognition, hypothesis 3:

H3: When consumers experience anger in conjunction with perceptions of high self-efficacy, they will be more likely to engage in active coping strategies.

Beyond hypothesis 3, the combination of anger and low efficacy may lead to reactions of active coping (if the anger emotion is particularly intense), avoidance coping (if the low efficacy is salient), or expressive support strategies (if these influences are roughly equally present). One might also argue that anger and low efficacy combinations are potentially quite rare because of the fact that the onset of anger may imply a moderate level of efficacy. Taken together, these hypotheses distinguish coping strategies by of-

²The significant correlation between active and expressive support suggests consumers in threat and high-efficacy conditions tend to rely on more approach-oriented coping strategies (i.e., not avoidant).

fering unique predictions between antecedent cognitive and emotional appraisal factors and a tendency to engage in specific coping behaviors. These hypotheses also conceptually differentiate the three higher-order coping dimensions. I now test these relationships.

STUDY 2

Using the same scenario as in study 1, 276 student respondents recorded the extent to which they felt threat and anger emotions (e.g., 1 = not angry, 7 = very angry). Four of the items corresponded with feelings of threat (anxious, worried, fearful, and threatened; $\alpha = .70$), and two tapped anger (angry and frustrated; $\alpha = .79$). Respondents then reported on their levels of efficacy (e.g., ability to affect outcome and confidence in situation; $\alpha = .84$) and finally completed the 36 coping items.

Measurement Replication Results

The first objective in study 2 was to replicate the measurement findings of study 1 using confirmatory factor analysis. I concluded, with independent data, that the eight-factor solution was optimal. Note the high similarities between the confirmatory factor loadings across the two samples in table 1.

As further tests of the stability of the coping scales across the studies, I conducted three additional analyses. First, the average correlation between corresponding factors (e.g., "active coping" in study 1 correlated with "active coping" in study 2) was strong and significant ($\bar{r} = .80, p < .001$), and the average correlation between the noncorresponding factors (e.g., "active coping" in study 1 with "rational thinking" in study 2) was significantly less ($\bar{r} = .17, p > .35$).

A second analysis indicates that the coping structure in study 1 maps closely onto that in study 2, explaining nearly all of the variance ($F(64, 93) = 31.58, p < .0001$; canonical $R^2 = .989$). A final, stringent test of the consonance of the factor structures across the two samples includes a multi-group analysis using LISREL. I conducted two tests of cross-validation. The first specified that the structural patterns among the items held across the two samples. This analysis revealed acceptable, although not perfect, fits (SRMR = .082, RMSEA = .07, CFI = .86).³ The second approach further constrained the model by specifying that the numerical values of the factor loadings be precisely invariant across samples. This austere standard did not significantly decrease the model fit (SRMR = .086, RMSEA = .078, CFI = .85). Tests across these models were not significantly different, indicating a high degree of stability. For final diagnostics, I studied the modification indices. The few, largest modification indices occurred for measurement errors (θ_{ϵ} 's). Had they occurred in the factor loading matrix, the results would have been diagnostic of a misspecification of the factor pattern. Instead, as is frequently encountered in LISREL, the indices suggested that I could improve my model fit by allowing my errors of measurement to be correlated.

However, I chose not to do so, keeping the measurement pure; I had no theoretical reason to allow for correlated errors, and without theoretical rationale, such actions are discouraged.

Multivariate Test of Interactive Hypotheses

I sought to test for the hypothesized interactive relationships among discrete negative emotions, appraisals, and coping. A rigorous test fits anger, efficacy, and their interaction as exogenous predictors in a model that allows for paths to "active coping" (as predicted in hypothesis 3) and also "expressive support" and "avoidance" (neither is predicted), with stronger support for the theorizing resulting if the active link were sustained and the unpredicted links not supported. That is, I used a multivariate modeling context to estimate emotion-efficacy effects on all three higher-order forms of coping and found that the relationships I predicted were supported and that the relationships I did not predict were not. This freer estimation context may well be more reflective of actual coping processes, given that there exists a portfolio of coping strategies from which to choose, and my empirical support suggests a mapping of certain emotions and appraisals to certain coping mechanisms.

To run these cumulative tests, I model three exogenous variables (threat, efficacy, and the product term) and three endogenous variables (the three higher-order coping factors) and predict that the interactive term would relate to social support and avoidance coping but not to active coping. I also specified the main effects of threat and efficacy on the coping factors as statistical controls. I indeed find that the threat \times efficacy interactive term relates significantly to expressive social support ($\beta = .57$) and avoidance coping ($\beta = -.61$), respectively, with no effect on active coping. Analogously, I examined hypothesis 3 regarding anger and found support for the theorized relationship (anger \times efficacy on active coping, $\beta = 1.26$) and no other paths. The correlation between anger and threat was $r = .32, p < .001$.

Study 2 provides independent support confirming the measurement and structure of the multidimensional coping construct in a larger, independent sample. Study 2 also successfully accomplished a more important theoretical goal, namely, the testing of hypotheses relating relevant cognitive and emotional precursors to the use of specific coping strategies in systematic ways in accordance with my theoretical development. I found support for these theorized predictions using a rigorous multivariate approach.

GENERAL DISCUSSION

This research contributes to consumer behavior theory in several ways. I offer a more comprehensive conceptualization of consumer coping than that in current literature by demonstrating eight rather than two coping strategies, generalizing from diverse consumer phenomena rather than context-specific studies, hierarchically relating the multiple facets, and relating those coping strategies to interactive emotional and cognitive precursors. Congenial with Luce et

³Hu and Bentler (1998) established single sample, not multigroup norms.

al. (2001), I find support for a nexus between the negative emotions of threat and avoidant coping behaviors. I elaborate this relationship by integrating the work of Sujan et al. (1999), conceptualizing the role of consumers' sense of self-efficacy and predicting links between negative consumption emotions and additional coping strategies. This theorizing also provides a framework for the divergent findings linking threat to both avoidance and social support forms of coping (Lazarus and Folkman 1984; McCrae 1984), predicting when these discrepant effects would occur. It is also possible that, in certain instances, threat may be associated with more approach, active-oriented coping because of the influence of appraisal factors other than efficacy. Future research could explore the possibility of such higher-order interactions.

My findings also speak to the growing literature on consumer emotions. Emotions such as anger and threat are endemic to consumption, so the links that I found between these emotions and specific coping strategies add attitudinal and behavioral consequences of emotion for consideration in subsequent work. Future research is needed to uncover relationships between additional emotions and coping (Yi and Baumgartner 2004) as well as to identify additional cognitive appraisal influences beyond efficacy.

My findings also contribute to the extant psychological literature on coping. The comparative hierarchical tests are the first reported in the literature. My results suggest distinctions in the accuracy of the specifications of these models, and my findings break conceptual ground by suggesting mechanisms behind the associations between emotions and coping through particular interactive emotion-efficacy patterns.

Another promising avenue relates to the investigation of consumers' dispositional coping tendencies. The current model emphasizes coping's situational determinants, but consumers likely also hold enduring coping predilections. Further research is needed to determine the nature of these tendencies in order possibly to derive a theoretically meaningful segmentation of consumers according to coping styles and to expound on the consequences of these styles for consumer theory (Duhachek and Iacobucci, forthcoming; Gross and John 2003). These research findings bear managerial implications beyond segmentation. Coping differences may explain some consumers' decisions not to complain. Further research could determine how the three hierarchical coping dimensions reticulate existing theories of customer response to dissatisfaction and conflict (Hirschman 1972), in particular customer complaint behaviors (i.e., active coping) and word of mouth (i.e., expressive social support).

In summary, these findings underscore the importance of inquiry into these processes and reveal the relative dearth of empirical coping studies to date in consumer research. As is the case with most behavioral processes, coping is highly complex and nuanced. I hope that the generation of a multidimensional coping scale and the support found for the emotional-cognitive hypotheses will impel additional research to complement my findings.

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