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Emotional Information Management: Concept Development and Measurement in Public Service Announcements

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ABSTRACT

Research on emotion as information in persuasive communication and ad response has created a need for a measure of individual abilities in the management of emotional information. Previous measures (e.g., emotional intelligence measures) lack adequate validity and reliability for use in persuasion and advertising contexts. Four studies iteratively refine a parsimonious Emotional Information Management scale that corresponds to theoretical dimensions of the construct and interrelationships between those dimensions—recognition of emotion, regulatory processes of optimistic utilization and management of emotions, as well as cognitive and emotional empathy. Reliability and construct validity are demonstrated, and scale norms are established. Although gender does not affect recognition of emotions or cognitive empathy, females exhibit greater emotional empathy ability, whereas

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males exhibit greater emotion regulation ability. Measuring emotional information management should contribute to greater understanding of responses to emotion-laden or emotion-eliciting persuasive communication (e.g., public service announcements).

A growing body of research suggests that affect (e.g., moods or emotions) exists for its informative value (e.g., Basil, Ridgway, & Basil, 2008; Chang & Chou, 2008; Rotzell, Pettijohn, & Parker, 2004; Soscia, 2007; Scarabis, Florack, & Gosejohann, 2006; Wetzer, Zeelenberg, & Pieters, 2007). Affect as information theory holds that emotions are innate adaptive processes concerned with survival and well-being and are essential to personal and social functioning (Kramer & Yoon, 2007; Pham, 2004; Schwarz & Clore, 2007).

Emotion is also increasingly seen as a pivotal driver of buyer behavior and ad responses. Emotions can influence perceived risk in on-line shopping experiences (Ha, 2005), word-of-mouth communication (Wetzer, Zeelenberg, & Pieters, 2007), decision processes and strategies (Lerner & Keltner, 2000; Pham, 2004), and responses to emotionally framed persuasive appeals, particularly in prosocial markets (Bagozzi & Moore, 1994; Basil, Ridgway, & Basil, 2008; Chebat, Vercollier, & Chebat, 2003; Dillard & Peck, 2000). While the literature has described the role of specific emotional appeals, such as guilt appeals (Basil, Ridgway & Basil, 2006, 2008; Hibbert et al., 2007) or fear appeals (Arthur & Quester, 2004; Mowen, Harris, & Bone, 2004), some (e.g., Escalas, Moore, & Britton, 2004; Kidwell, Hardesty, & Childers, 2008) have pointed out the need to account for the great variability in individual responses to emotional advertising.

Therefore, this article's purpose is to develop an instrument to measure and explain individual differences in response to emotional appeals or stimuli in ads or public service announcements (PSAs). Churchill's (1979) iterative process is adopted for development of an Emotional Information Management (EIM) measure. First, the literature on individual emotional competencies that may be useful in understanding responses to emotional appeals is reviewed to specify the domain and develop a conceptual definition of EIM. Second, a sample of items is generated from prior non–domain-specific scales. Third, an experiment (Study 2) illustrates the identified dimensions and their influence on responses to emotional appeals. Fourth, to purify the measure, scale items are iteratively refined to improve reliability and construct validity (Study 3). Finally, a more definitive test of the conceptual and measurement models using confirmatory factor analysis (Study 4) demonstrates that the EIM construct can account for differences in response to emotional appeals in persuasive marketing communications, such as those in public service announcements (PSAs).

EMOTIONAL COMPETENCIES

Howard Gardner (1983, 1993) is largely credited with conceptualizing multiple intelligences. However, some aspects of social intelligence, such as relationship management and social skills, have been studied at least since Thorndike (1920). Social intelligence is conceived as an individual ability to facilitate problem

solving and promote adaptive, effective responses to social environments (Kihlstrom & Cantor, 2000). Some popular and academic publications have conceptualized one aspect of social intelligence, often termed "emotional intelligence," as particularly important and far reaching.

Emotional intelligence is an individual ability to process emotional information, generate and use emotion to aid information processing, and self-regulate emotions to assist in decision optimization. Whereas emotional intelligence has become well established in psychology, the particular emotional competencies (i.e., skill sets, learned proficiencies, personality traits, and capacities) that form emotional intelligence remain contentious. Goleman (1995) held a broad view of emotional intelligence as aiding motivation, persistence, impulse control, regulation of one's moods, empathy, hope, and character. Similarly, Bar-On (1997, 2000) proposed that five emotional competencies or dimensions compose the emotional intelligence construct: intrapersonal competence, interpersonal competence, impulse control, adaptability, and general mood.

Early academic research conceptualized emotional intelligence as three dimensional, consisting primarily of the ability to recognize emotions, to discriminate among them, and to use this information (Salovey & Mayer, 1990). Later research altered this conceptualization to form a matrix with regulation and control of emotions on one axis and the distinction between the self and others along the other axis (Mayer & Salovey, 1997). Other researchers have conceptualized emotional intelligence primarily as intrapersonal competencies: (1) appraisal and expression of emotions, (2) recognition of others' feelings and emotions, (3) the capacity to regulate emotions, and (4) utilization of emotions (Brackett et al., 2006; Mayer, Salovey, & Caruso, 2000; Tapia, 2001). Goleman's (1998) current synthesis adds a social skill set to the aforementioned intrapersonal competencies to form five essential dimensions: (1) self-awareness (i.e., ability to recognize emotions), (2) self-regulation, (3) motivation, (4) empathy, and (5) social skills.

Reviews of the field have, however, consistently labeled the broad conceptualizations of emotional intelligence (e.g., Bar-On, 1997; Goleman, 1995) as indistinguishable from other personality characteristics and measures (Brackett et al., 2006; Davies, Stankov, & Roberts, 1998; Tapia, 2001; Zeidner, Mathews, & Roberts, 2001). Critics find the construct and its dimensions poorly defined (Brackett et al., 2006; MacCann et al., 2003; Mathews, Zeidner, & Roberts, 2002). Also, conceptualizations of emotional intelligence have bifurcated into models of performance ability or mixed personality/ability (Brackett et al., 2006; Kidwell, Hardesty, & Childers, 2008; Mayer, Salovey, & Caruso, 2000). To distinguish performance ability from the mixed model emotional intelligence construct, this article will apply the term "Emotional Information Management" (or EIM) to the ability to recognize, regulate, and use one's emotional reactions as well as to empathize or understand others' emotions in persuasive communications (e.g., PSAs, advertisements, sales encounters, or political speeches).

Development efforts for self-report measures by Tapia (2001) and Schutte et al. (1998) have been criticized as inconsistent and lacking theoretical support (Deeter-Schmelz & Sojka, 2003; Petrides & Furnham, 2000). Therefore, the theoretical underpinnings of the EIM construct itself with particular attention to the component dimensions and their interrelationships must be examined before embarking upon scale development.

THEORETICAL BASIS FOR EMOTIONAL INFORMATION MANAGEMENT

To specify the domain of the EIM construct in the persuasion and ad-processing context, a review of prior theory suggests consideration of the following dimensions: one's ability to recognize emotions, regulate emotions (i.e., optimistic utilization and management of emotions), and experience empathy. Personality and more interpersonal aspects (aka social skills) included in mixed models of emotional intelligence are less relevant to persuasive communication and, thus, are omitted from the EIM construct.

Recognition of Emotions

Researchers in several fields support the recognition of emotions as central to the adaptive value of emotions and as the primary emotional competency (Brackett et al., 2006; Izard, 2001; Mayer & Salovey, 1995; Salovey & Mayer, 1990). Recognition of emotions implies perception of internal emotional responses and comprehension of emotional content in verbal and nonverbal communications, including visual stimuli. To detect the reason for an emotion (e.g., "I understand why I react the way I do") implies recognition of one's emotional reaction; the action, event, or source triggering it; and causal responsibility.

Recognition of emotion is a learned competency with progress likened to stages of cognitive development in children and adolescents (Lane et al., 1990; Mayer & Salovey, 1997). Ability to recognize emotions begins with basic emotions and increases as one learns to detect subtle blends of feelings or mixed emotions (Lane et al., 1990; Mayer & Salovey, 1997), which are more complex (Aaker, Drolet, & Griffin, 2008). Therefore, greater ability suggests improved awareness of emotional content, appraisal of that content in a persuasive message, and differential approach or avoidance behaviors based on that understanding (Salovey & Mayer, 1990). Conversely, those with lower ability should respond involuntarily to emotional stimuli given their difficulty perceiving internal emotional responses, detecting nonverbal cues to emotional content, assessing emotional valence and intensity, and diagnosing the source of their feelings. Recognition of emotions should, therefore, be foundational to EIM.

Regulation of Emotions

As an emerging field of investigation, emotion regulation refers to the processes by which one influences one's emotional reactions and their timing, experience, and expression. Those skilled at emotion regulation use cognitive (e.g., attention to or interpretation of emotion-eliciting stimuli) and behavioral (e.g., suppressing expression) means to initiate or alter a specific emotional reaction or its latency, rise time, magnitude, or duration (Ochsner & Gross, 2005). Elster (1998) argued that negative emotions are actually costs in life. Thus, improved ability to avoid, limit, and manage these costs should directly benefit an individual. In marketing, regulatory competencies have been shown to moderate the relationship between emotions and subsequent evaluations of a retail environment (Babin & Darden, 1995).

Most emotion regulation theories argue for two distinct dimensions: (1) management or suppression of negative emotions and (2) ability to utilize emotions

to remain optimistic (Salovey & Mayer, 1990; Schutte et al., 1998; Tapia, 2001). Optimistic utilization of emotions broadens one's thought–action repertoire, allowing disengagement from automatic or scripted behaviors and promoting novel and creative responses that build one's physical, intellectual, and social resources (Fredrickson & Branigan, 2005). Consistent with prior emotion regulation (Ochsner & Gross, 2005) and emotional intelligence (Schutte et al., 1998; Tapia, 2001) research, the current conceptualization suggests that regulation immediately follows recognition of emotions and consists of the dual ability to optimistically utilize and manage emotions.

Empathy

The capacity to recognize emotions also supports a separate dimension of understanding emotions in others or empathy (Salovey, Woolery, & Mayer, 2001). Empathy has been defined as one's ability to vicariously experience another's state in a given situation and that individual's cognitive and/or emotional reactions to that situation (Basil, Ridgway, & Basil, 2008) Thus, empathy has both cognitive and emotional facets and involves the identification and understanding of another's feelings, ideas, perspective, point of view, or situation (Bagozzi & Moore, 1994; Chebat, Vercollier, & Chebat, 2003; McBane, 1995; Pilling & Eroglu, 1994). A highly empathetic person should be able to understand another's cognitive assessment of a situation as well as another's real or anticipated emotional reactions. Empathy is a worthy ability in the marketing dyad (Pilling & Eroglu, 1994) and is especially important in prosocial marketing, in which emotions promote prosocial behavior (Bagozzi & Moore, 1994; Basil, Ridgway, & Basil, 2008; Chebat, Vercollier, & Chebat, 2003; Dillard & Peck, 2000).

PRIOR MEASURES

Researchers suggest that existing self-report measures of emotional intelligence, such as the Schutte et al. (1998) and Tapia (2001) scales, lack reliability and validity across samples (Brackett et al., 2006; MacCann et al., 2003; Mathews, Zeidner, & Roberts, 2002). These scale development efforts did not report all items used, factor loadings, cross-loadings, and other issues that may limit validity (Gerbing & Anderson, 1988). Each also contains reverse-scored items, which may obscure true dimensionality (Herche & Engelland, 1996). Researchers attempting to use these scales in other contexts also found inconsistencies in dimensional descriptions and factor loadings (Deeter-Schmelz & Sojka, 2003; Petrides & Furnham, 2000). Thus, an improved measure with applicability to persuasive communication, consumer response, and choice contexts is needed.

The EIM scale developed herein is intended to be a general measure in the persuasive communication context of individual emotional information management ability. This differs from Kidwell, Hardesty, and Childers' (2008) Consumer Emotional Intelligence Scale (CEIS), which is domain-specific to consumer decision quality (e.g., caloric intake of food choices from a local restaurant or utility-maximizing choice between familiar and unfamiliar camera brands).

The present research begins with a review and analysis of items from existing measures of the following emotional competencies: recognition of emotions, regulation (i.e., optimistic utilization and management of emotions), and empathy.

STUDY 1: ITEM GENERATION AND REDUCTION

Generation of a sample of items and reduction of the number of scale items through factor analysis and coefficient alpha improvement as recommended by Churchill (1979) and Gerbing and Anderson (1988) follows. Seventy-four items from prior scales (Schutte et al., 1998; Tapia, 2001) were administered to 354 students in introductory psychology classes at a major southwestern university. A scree plot of the data revealed four factors with eigenvalues greater than 1, accounting for an initial 45% of the variance extracted. These factors, as determined by their constituent items, correspond to the dimensions identified by theory as: (1) recognition of emotions, (2) optimistic utilization of emotions, (3) management of emotions, and (4) empathy. By examining loadings on these four factors, exploratory factor analysis suggested a more parsimonious and reliable EIM measure consisting of 23 items (see Table 1).

STUDY 2: TEST OF FACTOR STRUCTURE AND THEORY-CONSISTENT EFFECTS

Study 2 had two objectives. First, it examined how the more parsimonious measure developed in Study 1 would perform in a persuasion/advertising context (i.e., the generate data step of Churchill's paradigm). Based on Study 1, five items reflect the recognition of emotions dimension. Six items reflect optimistic utilization. Eight items describe management of emotions. Four items portray empathy (see Table 1). Consistent with prior development efforts, the five-point scale items were anchored by "never like me" and "always like me." This set of items eliminated extraneous items and delineated a theoretically consistent four-dimensional factor structure with fewer cross-loadings than the initial 74 items.

Second, Study 2 investigated whether the EIM construct and its dimensions act in a manner consistent with theory. Recognition of emotions should form the basis for EIM (Brackett et al., 2006; Izard, 2001), but it is not expected to directly impact advertising response. Instead, the literature on response to negative emotional framing suggests that, upon recognition of an emotion, an individual copes with or manages his or her responses (Arthur & Quester, 2004; Mowen, Harris, & Bone, 2004; Rossiter & Thornton, 2004). Thus, recognition of emotions should inform the regulatory functions of optimistic utilization and management of emotions.

The emotional intelligence literature casts those with greater optimistic utilization as able to remain hopeful and expect good things to happen. Therefore, optimistic utilization is expected to positively affect ad response. Alternatively, because those with a competency in managing emotions can suppress negative emotional responses, management of emotions is expected to negatively affect response. In PSAs or ads with negative emotional appeals (e.g., fear, sadness, or regret), empathy for the cause or victim(s) mediates the emotional impact (Bagozzi & Moore, 1994; Chebat, Vercollier, & Chebat, 2003). Thus, a direct influence of regulation (i.e., optimistic utilization and management of emotion) on ad response will be compared to an indirect influence on ad response of regulation through empathy.

Table 1. Initial 23-Item EIM Measure in Study 1: Alpha Coefficients, Item Wording, and Standardized Loadings from Principal Component Analysis with Varimax Rotation.

Factor	Alpha	Items	Item Wording	Loading
Recognition of emotions (RE)	0.756	RE 1	I am aware of even subtle feelings as I have them.	0.599
		RE 2	When I have offended someone, I am aware of it almost immediately.	0.479
		RE 3	I easily recognize my emotions.	0.526
		RE 4	I understand why I react the way I do in situations.	0.599
		RE 5	I know why my emotions change.	0.528
Optimistic utilization of emotions (OE)	0.779	OE 1	I present myself in a way that makes a good impression on others.	0.466
		OE 2	I keep myself focused on my goals.	0.639
		OE 3	I expect that I will do well on most things I try.	0.481
		OE 4	I expect good things to happen.	0.523
		OE 5	I motivate myself by imagining a good outcome to tasks I take on.	0.521
		OE 6	I am able to stay motivated when things do not go well.	0.576
Management of emotions (ME)	0.702	ME 1	When I am faced with a challenge, I give up because I know I will fail.*	0.466
		ME 2	My moods are easily influenced by those around me.*	0.455
		ME 3	Having car trouble causes me to feel stressful.*	0.417
		ME 4	It is too stressful to stop unwanted personal habits such as overeating, smoking, or nail biting.*	0.443
		ME 5	I avoid responsibility whenever I can.*	0.545
		ME 6	Being expected to take charge of a group is upsetting to me.*	0.444
		ME 7	I lose control when I do not win a sporting contest.*	0.540
		ME 8	Traffic jams cause me to lose control.*	0.571
Empathy (EMP)	0.708	EMP 1	Other people find it easy to confide in me.	0.559
		EMP 2	I help other people feel better when they are down.	0.643
		EMP 3	I can sympathize with other people when they have problems.	0.646
		EMP 4	I can tell when other people's feelings are hurt.	0.461

* Reverse coded.

Method

Advertising response is measured directly as attitude toward the ad (A_{ad}) and behavioral intentions [i.e., intention to donate (INT) to a charity]. A_{ad} has been conceptualized in many different ways (Nan, 2006), but most research has used semantic differential scale items to measure a global evaluation of the ad (e.g., Chang, 2006, 2008; Coulter, 1998; Huang, 2004; Wheatley & Oshikawa, 1970). Similar A_{ad} items are used in Study 2 and anchored with *favorable/unfavorable*, *liked a lot/no liking*, and *attractive/unattractive*. INT was also measured with three semantic differential scale items established through prior research (e.g., Bagozzi & Moore, 1994; Lacher & Mizerski, 1994; Pham, 1998). Subjects rated their likelihood of donating to the advertised charity on items with endpoints of *likely/unlikely*, *definitely/definitely not*, and *probably/improbably*.

Print PSAs evoking positive, negative, and neutral emotional appeals, respectively, were obtained from the Save the Children Fund® and given to shoppers intercepted at a shopping mall in the Southwest.[1] Each PSA depicted potential victims requiring support from the organization. In the positive condition, copy indicated potential (positive) benefits for families and children if support was forthcoming. The negative condition suggested dire circumstances that children would be subjected to if support was not forthcoming. The informational PSA replaced emotional copy with information about the organization's activities.

Data were collected from 163 volunteers intercepted at a local shopping mall. First, subjects responded to a paper-and-pencil version of the developed measure and then randomly received a PSA. After exposure, subjects completed the A_{ad} and INT measures. Between-subjects analyses evaluated differences in advertising response against the independent dimensions of emotional recognition, optimistic utilization, management of emotions, and empathy.

Demographics of the sample were consistent with the population of the Southwest. Of the 159 respondents completing the demographic information, 70 (44%) were male. Age ranged from 18 to over 60 years. Most participants were young: 59.7% were 18–29, 17.6% were 30–39, 10.1% were 40–49, 5.7% were 50–59, and 6.9% were in the 60+ group. Respondents included 10.1% African Americans, 34% Caucasians, 46.5% Hispanics, 1.9% Native Americans, and 7.5% who listed themselves as other. As potential shoppers engaged in consumption behaviors in a shopping environment, the sample was representative of a heterogeneous group of individuals confronted with ad evaluation and response decisions.

Results

Factor analysis indicated that some items that were supposed to load on one underlying dimension were actually measuring another dimension, such as recognition of emotions (RE), optimistic utilization (OE), management of emotions (ME), or empathy (EMP). Specifically, some items of optimistic utilization (e.g., OE 6), management of emotions (e.g., ME 1, ME 4, ME 5, ME 6, ME 7, and ME 8), and empathy (e.g., EMP 3) loaded on different factors. However, most items were indicative of the purported dimensions, as shown in Table 2.

Structural equation modeling compared two models of the theoretical relationships among EIM dimensions and ad response (see Table 3). In both,

[1] Used by permission.

Table 2. Factor Structure in Study 2: Principle Components Analysis with Varimax Rotation.

	Standardized Loadings Greater than 0.400 on the Components						
Items	1	2	3	4	5	6	7
OE 1 (Present)	0.706		0.411				
OE 2 (Focus)	0.706						
OE 3 (Expect)	0.679						
ME 1 (Faced)	0.612						
OE 4 (Good)	0.549						
OE 5 (Motivate)	0.495						
RE 1 (Aware)		0.728					
RE 2 (Offend)		0.723					
RE 3 (Recognize)		0.656					
RE 4 (React)	0.401	0.537					
RE 5 (Why)		0.457					
EMP 1 (Confide)			0.710				
EMP 2 (Better)			0.709				
EMP 3 (Sympathy)			0.610	−0.427			
EMP 4 (Feelings)			0.541				
ME 2 (Easily)				0.798			
ME 3 (Trouble)				0.789			
ME 4 (Habits)							
ME 5 (Avoid)					0.737		
ME 6 (Group)					0.682		
ME 7 (Control)						0.770	
OE 6 (Able)						0.571	
ME 8 (Traffic)							0.769

RE = Recognition of emotions; OE = Optimistic utilization of emotions; ME = Management of emotions; EMP = Empathy.

recognition of emotions forms the basis for EIM. The preliminary model tests whether the regulatory functions of optimistic utilization and management of emotions influence response. Analysis suggests that both regulatory components (i.e., OE and ME) function separately to influence response. Next, empathy was added to the model. Results show the theoretically consistent path from RE to OE to EMP, but not RE to ME to EMP. Also, contrary to theory, EMP did not influence ad response (i.e., A_{ad} or INT). However, problems with items as identified in Table 2 may have concealed the true effect of EMP on ad response. A follow-up analysis of variance showed that EMP affected INT [$F(1, 113) = 3.823$, $p < 0.05$], but not A_{ad} [$F(1, 113) = 1.793$, $p < 0.183$]. Of the EIM dimensions, only ME affected both INT [$F(1, 113) = 6.595$, $p < 0.01$] and A_{ad} [$F(1, 113) = 7.495$, $p < 0.01$].

Discussion

From the factor analysis results, it can be presumed that the items used in Study 2 were less than conclusive indicators of the underlying EIM dimensions. Problems with the factor loadings of some items taken from prior measures weakened the results. For example, only differences in management of emotions

Table 3. Model Estimation in Study 2: Confirmatory Factor Analysis.

Model	Path	Standardized Path Coefficients	*t*-statistic	Chi-Square	*df*	Goodness-of-Fit Indices			
						RMSEA	NNFI	CFI	IFI
Model without empathy: RE → OE and ME → RES				514.33	320	0.072	0.838	0.852	0.855
	RE → OE	0.739	4.24*						
	RE → ME	0.317	1.559						
	OE → RES	0.271	2.717*						
	ME → RES	−0.337	−2.234*						
Model incorporating empathy: RE → OE and ME → EMP → RES				712.911	429	0.077	0.784	0.801	0.806
	RE → OE	0.786	4.49*						
	RE → ME	0.310	1.463						
	OE → EMP	0.711	4.85*						
	ME → EMP	0.058	0.614						
	EMP → RES	0.165	1.355						

Note: Goodness-of-fit indices are the root mean square error of approximation (RMSEA), non-normed fit index (NNFI), comparative fit index (CFI), and incremental fit index (IFI).

RE = Recognition of emotions; OE = Optimistic utilization of emotions; ME = Management of emotions; EMP = Empathy; RES = Advertising response.

* These *t*-statistics are significant ($p < 0.05$) with a one-tailed test ($t_{crit} = 1.658$).

affected both INT and A_{ad}. As shown in Table 3, the relationship was negative, which implies that ability to control emotional responses did reduce intentions to donate and attitude toward the ad as expected. Empathy positively affected INT, but not A_{ad}, which suggests that empathy does not affect attitude toward the ad but does affect behavioral intentions. Individual EIM differences, thus, do account for some differences in ad response. However, a better EIM measure should more precisely determine those effects.

Examination of the theoretical relationship among EIM dimensions found the two regulatory components—optimistic utilization and management of emotions—separately influenced response. However, problems with the initial measure of empathy obscured its expected theoretical impact on ad response (see Table 3). Thus, further scale refinement, especially in regard to empathy, appeared necessary.

STUDY 3: PURIFYING THE EIM MEASURE

Study 3 evaluated the current set of items to determine why specific items did not extract sufficient variance. Consistent with accepted scale development paradigms (Churchill, 1979; Gerbing & Anderson, 1988), items were further refined. Scale development efforts on multiple samples expanded the variance explained and improved convergent and discriminant validity. The samples for these successive efforts to purify the measure consisted of separate administrations of the whole measure or one component to 137, 83, 109, and 162 students at an intermediate-size southwestern university. The response format was also changed from a five-point scale anchored by "never like me" and "always like me" to a 7-point Likert scale format. Resulting measures more clearly define the dimensions of the EIM construct.

Item Refinement Within Each Dimension

Recognition of Emotions. Recognition of emotions is the foundation for higher emotional competencies, such as emotion regulation and empathy (Brackett et al., 2006; Mayer & Salovey, 1995; Salovey & Mayer, 1990). Successive scale development efforts found that individuals clearly discriminate between recognition of emotions in the self and others to the degree that recognition of emotions in others forms a separate dimension that cannot be reliably separated from the empathy construct. Therefore, the two items from prior measures reflecting recognition of emotions in others were eliminated to focus on internal recognition of emotions. The revised scale items had a pretest reliability estimate (i.e., coefficient alpha) of 0.83.

1. I easily recognize my emotions.
2. I am aware of even subtle emotions as I have them.
3. I know why my emotions change.
4. I understand why I react the way I do in situations.

Optimistic Utilization of Emotions. The successive purification efforts indicate that when items reflect general use of emotions, subjects cannot accurately

distinguish between the suppression of negative emotions and the desired positive utilization factor, as such items did not consistently load on either factor or extensively cross-loaded. However, subjects more reliably conceptualize items that describe positive internal motivation and optimistic utilization of any emotion, regardless of valence. This is consistent with the theoretical roots of emotional intelligence and the most recent working definitions (Brackett et al., 2006; Goleman, 1998; Mayer & Salovey, 1995; Ochsner & Gross, 2005). The revised items had a coefficient alpha of 0.78.

1. I never give up when I am faced with a challenge.
2. I keep going in the face of adversity.
3. I keep trying in the face of obstacles.
4. I don't let anxiety keep me from accomplishing my goals.
5. I have the will to win.
6. I continue to try even when it seems hopeless.

Management of Emotions. Scale refinement efforts found that items drawn from prior measures introduced restrictive contexts (e.g., "in a sporting contest" or "in traffic") that limited the applicability in persuasion or advertising situations and, thus, reduced the variance explained. Successive scale refinement avoided such domain- or context-specific item wording. The refined scale, therefore, exhibits enhanced performance and generalizability (Finn & Kayande, 2004). Management of emotions is concerned with self-regulation. An item to measure ability to self-regulate mood is included, because mood can affect responses to persuasive stimuli (for reviews, see Chang, 2006; Pham, 1998). Thus, mood regulation ability should impact processing of emotion-laden or emotion-inducing stimuli. Also, mood influences evaluations. For example, Walther and Grigoriadis (2004) report that a sad mood negatively influences product evaluations, whereas consumers in a happy mood judge products more favorably. Thus, the EIM scale has six emotion regulation items reflecting management or suppression of negative emotions, achieving a coefficient alpha of 0.84.

1. I do not let bad moods ruin my day.
2. I can soothe or contain distressing feelings so they don't keep me from doing things I need to do.
3. I do not get upset or frustrated when inconvenienced.
4. I am able to maintain my composure when things do not go well.
5. I maintain control when I feel threatened.
6. I have control over my emotions.

Empathy. Efforts to illustrate empathy as separate from recognition of emotions using items drawn from the Schutte et al. (1998) and Tapia (2001) scales were largely unsuccessful. Items used in these prior measures did not achieve face validity or exhibit convergent and divergent reliability in the samples used to purify the EIM measure. Thus, prior research on empathy in marketing was consulted for items indicative of cognitive and emotional empathy (McBane, 1995). When pretested, these ten items achieved a coefficient alpha of 0.84 ($n = 162$) and did not exhibit significant cross-loadings, as evidenced with items utilized in prior emotional intelligence scales. Analyzed separately, the first five items illustrating the cognitive dimension of empathy have a coefficient alpha

of 0.81, and the last five items illustrating the emotional dimension of empathy have a coefficient alpha of 0.82.

1. I try to look at everybody's side of a disagreement before I make a decision.
2. When I am upset at someone, I usually try to "put myself in their shoes" for a while.
3. I believe there are two sides to every question and try to look at both sides.
4. Before criticizing somebody, I try to imagine how I would feel if I were in their shoes.
5. Even if I'm sure I'm right about something I spend the time to listen to others' arguments.
6. I would describe myself as a pretty soft-hearted person.
7. Other people's misfortunes disturb me a great deal.
8. I often have tender, concerned feelings for people less fortunate than me.
9. When I see someone being taken advantage of, I feel kind of protective toward them.
10. I am often quite touched by things I see happen.

Factor Analysis Results

Of primary interest, the scales supported the theoretical dimensions of the EIM construct in four successive item-refinement samples. The revised EIM measure performed better than prior scales (Schutte et al., 1998; Tapia, 2001) in theoretical identification, efficiency, reliability, and variance extracted in these samples. Next, this 26-item measure will be used in Study 4 to assess the overall EIM construct and the five (now including two aspects of empathy) component dimensions useful in persuasion and advertising contexts: recognition of emotions in the self, optimistic utilization, management of emotions, and both cognitive and emotional empathy.

STUDY 4: VALIDATION AND CONFIRMATORY FACTOR ANALYSIS

Study 4 sought to assess the EIM measure's construct validity through examination of each component dimension's internal consistency, convergent validity, and discriminant validity (Churchill, 1979). As shown in Study 3, scale items had been revisited to improve face validity and reliability of the measure. Study 4 also tests seven structural relationships among the five theoretical factors, including the two distinct dimensions of empathy (McBane, 1995).

In addition, Study 4 directly addressed limitations of Study 2. Whereas Study 2 used print ads, Study 4 used television commercials. To determine if emotional appeal valence alters the relationship among EIM dimensions and ad response, the commercial with the strongest positive appeal and the one with the strongest negative appeal were chosen from a set of emotionally framed 30-second PSAs for television obtained through the Ad Council.[2] Third, Study 4's sample was large enough to independently model response to each emotional appeal.

[2] Used by permission.

Because recognition of emotions is posited to occur prior to regulation of emotional arousal or empathy, this dimension begins the ordered EIM model. Emotional theorists suggest that emotions and emotional responses form a chain from autonomic emotional arousal to cognitive appraisal to coping responses (Arthur & Quester, 2004; Ellsworth & Scherer, 2003; Rossiter & Thornton, 2004). Further, regulatory functions are thought to be of two types: management or suppression of negative emotions and optimistic utilization of emotions in the service of goal attainment (Ochsner & Gross, 1998; Tapia, 2001). This theoretical background suggests that regulatory functions are activated after recognition of aroused emotions.

H1: Recognition of emotions will directly influence optimistic utilization of emotions.

H2: Recognition of emotions will directly influence the management of emotions.

H3: Recognition of emotions will directly influence the regulation of emotions (i.e., optimistic utilization and management of emotions combined).

The emotional coping literature (Arthur & Quester, 2004; Ellsworth & Scherer, 2003; Rossiter & Thornton, 2004) and the preliminary models developed in Study 2 suggest recognition of emotions is followed by or directly informs the regulatory processes. Empathy, as a cognitive or emotional coping response, should follow the more autonomic regulatory mechanisms. Bagozzi and Moore (1994) modeled empathy as a mediator between emotions and prosocial behavior. Therefore, as a cognitive and emotional connection to potential victims as well as expected beneficiaries portrayed in a PSA, empathy should be informed by the regulatory functions, both separately and in combination, and should directly impact ad response.

H4: Optimistic utilization of emotions will directly influence emotional empathy.

H5: Management of emotions will directly influence cognitive empathy.

H6: Regulation of emotions will directly influence emotional empathy.

H7: Regulation of emotions will directly influence cognitive empathy.

The EIM measure assesses ability to connect with and use as information any emotional appeals in persuasive communications or one's internal emotional reactions. However, emotional appeals are typically considered to be window-dressing to rational arguments in most information processing models (Heath & Feldwick, 2008), such as the Elaboration Likelihood Model (ELM), in which emotion is characterized as a peripheral cue (Petty & Cacioppo, 1986). To create the most stringent test for the EIM measure, the PSAs' self-relevance was enhanced by selecting ads that involved the sample more directly than Study 2's stimuli. PSAs involving drinking and driving were used with a sample of college students at a major

southwestern university where several recent, high-profile student traffic deaths involving alcohol had occurred. This should lessen subjects' use of peripheral cues (e.g., emotional appeals) and increase use of the rational arguments' quality and strength in determining advertising response (e.g., attitudes and behavioral intentions). For PSAs from the same ad campaign with similar rational arguments but different emotional appeals, the null hypothesis based on traditional information processing assumes that the relationship between EIM and advertising response would be the same regardless the emotional appeal used.

H8: The EIM–ad response relationship does not differ across the emotional appeals.

Method

The stimuli were chosen from six 30-second PSAs created by the Ad Council in a campaign to discourage Generation Y from drinking and driving. Although the subject matter of drinking and driving is inherently negative, advertisers may use negative appeals to encourage avoidance of an unwanted behavior or positive appeals to encourage approach tendencies toward a message. For example, humorous TV commercials for MetLife featuring Snoopy and Woodstock are used to overcome the inherently negative subject matter of accidents or death.

Pretests used MacInnis and Stayman's (1993) four 7-point Likert-type scale items that measure positive versus negative emotional appeals in advertising. These pretests determined whether respondents could recognize the differential use of ostensibly positive emotional appeals (e.g., warmth, humor) and negative emotional appeals (e.g., guilt, fear, remorse) to promote resistance to drinking and driving. Pretests found that the PSAs designated as "Karaoke" and "Jeff Peckler" evoked the largest difference in valence of emotions [$t(1,89) = 16.475$, $p < 0.001$].

For the positive (humor) condition, the "Karaoke" PSA featured an obviously intoxicated young man on stage with the microphone staggering, stumbling, and gargling his way through a routine. Two patrons are watching; one finishes a drink and gets up to leave apparently only slightly inebriated. The targeted audience is left with the message: "Buzzed Driving **is** Drunk Driving." In the negative condition, the "Jeff Peckler" PSA features a young man tearfully eulogizing his recently deceased classmate. The young man is clearly distraught over the death of his friend and finishes the eulogy with "I love you, Jeff." The PSA ends with the familiar admonition against drinking and driving.

Generation Y students at a major southwestern university were this study's subjects. Upper-class college students are often prone to experimenting with alcohol and several high-profile drinking and driving deaths had occurred in this population during the period just prior to the study. Additionally, subjects should have identified with the Generation Y characters portrayed in the two 30-second PSAs, as Generation Y was the target audience for this anti–drinking and driving campaign. Thus, issue involvement was expected to be high. Students from upper-division Business Management classes received additional course credit for completing the EIM measure, then separately viewing each PSA. Following exposure to a PSA, subjects completed a three-item semantic differential A_{ad} scale with endpoints of *favorable/unfavorable*, *liked a lot/no liking*, and *attractive/unattractive* (Coulter, 1998; Wheatley & Oshikawa, 1970).

Then they indicated intention to comply with the PSA's requested behavior (INT) on a three-item semantic differential scale with endpoints of *likely/unlikely, definitely/definitely not*, or *probably/improbably* following the stem "Based solely on the PSA reviewed, please indicate the likelihood of complying now, or in the future, with the recommended behavior" (Bagozzi & Moore, 1994; Lacher & Mizerski, 1994; Pham, 1998). The data collection Web site received 232 responses over a several-week period for an 80% response rate.

Results

Factor Structure. Factor analysis illustrated a much-improved conceptualization of EIM dimensions in Study 4 than was found in Study 2. The five-factor model converged in six iterations and captured 69.58% of the variance. Table 4 presents the rotated factor matrix.

Scale Reliability. In addition to the clarified factor structure, scale reliabilities (i.e., coefficient alpha) for all five dimension constructs ranged from 0.85

Table 4. Factor Structure in Study 4: Principle Component Analysis with Varimax Rotation.

	Standardized Loadings Greater than 0.400 on the Components				
Items	1	2	3	4	5
OE 1	0.803				
OE 2	0.802				
OE 3	0.794				
OE 4	0.722				
OE 5	0.710				
OE 6	0.655	0.428			
ME 10		0.787			
ME 8		0.765			
ME 9		0.730			
ME 7		0.697			
ME 11		0.653			
ME 12		0.605			
CEMP 18			0.817		
CEMP 19			0.781		
CEMP 21			0.737		
CEMP 17			0.722		
CEMP 20			0.699		
EEMP 24				0.907	
EEMP 23				0.818	
EEMP 26				0.805	
EEMP 25				0.721	
EEMP 22				0.589	
RE 14					0.770
RE 16					0.763
RE 15					0.763
RE 13					0.719

OE = Optimistic utilization of emotions; ME = Management of emotions; CEMP = Cognitive empathy; EEMP = Emotional empathy; RE = Recognition of emotions.

and 0.93. This indicates that each underlying EIM dimension consisted of internally consistent items (see Table 5). As suggested by Hair et. al. (1998), construct reliability was also calculated. Results indicated construct reliabilities above 0.84 for all five EIM dimensions. Thus, all items were at least marginally reliable measures of their underlying dimension (Robinson, Shaver, & Wrightsman, 1991). Table 5 shows the constructs, the items measuring each construct, the standardized loading estimates, the reliability (i.e., internal consistency and construct/composite reliability), and average variance extracted for the five EIM dimensions.

Unidimensionality. Bollen (1990) states that unidimensionality is established when measured items load above 0.50 on their respective constructs. Table 5 indicates that all the items had loadings in the range of 0.589 and 0.907 on their measured dimension. Thus, the unidimensionality threshold was met for all five EIM dimensions.

Table 5. Measurement Model, Reliability, and Average Variance Extracted (AVE) in Study 4.

Construct	Items	Standardized Loadings*	Coefficient Alpha	Construct Reliability	Average Variance Extracted (AVE)
Recognition of emotions (RE)	RE 1	0.719	0.852	0.84	0.57
	RE 2	0.770			
	RE 3	0.763			
	RE 4	0.763			
Optimistic utilization of emotions (OE)	OE 1	0.803	0.928	0.88	0.56
	OE 2	0.802			
	OE 3	0.794			
	OE 4	0.722			
	OE 5	0.710			
	OE 6	0.655			
Management of emotions (ME)	ME 1	0.697	0.882	0.86	0.50
	ME 2	0.765			
	ME 3	0.730			
	ME 4	0.787			
	ME 5	0.653			
	ME 6	0.605			
Cognitive empathy (CEMP)	CEMP 1	0.722	0.877	0.87	0.57
	CEMP 2	0.817			
	CEMP 3	0.781			
	CEMP 4	0.699			
	CEMP 5	0.737			
Emotional empathy (EEMP)	EEMP 1	0.589	0.861	0.88	0.61
	EEMP 2	0.818			
	EEMP 3	0.907			
	EEMP 4	0.721			
	EEMP 5	0.805			

* All factor loadings are significant at $p = 0.05$.

Composite reliability = $(\Sigma \text{ Std Loading})^2/(\Sigma \text{ Std Loading})^2 + \Sigma(\text{Std Error})$; $\Sigma(\text{Std Error}) = \Sigma(1 - \text{Std Loading}^2)$; AVE = $\Sigma(\text{Std Loading}^2)/\Sigma(\text{Std Loading}^2) + \Sigma(\text{Std Error})$

Convergent and Discriminant Validity. Reliability does not ensure validity. Hence, the Multitrait-Multimethod Matrix (MTMM), which determines convergent and discriminant validity, was used in this study for the validation process (Campbell & Fiske, 1959). Convergent validity helps ensure that concepts that theoretically *should* be related are interrelated in reality, whereas discriminant validity conveys the degree to which concepts that should *not* be related theoretically are, in fact, *not* interrelated (Campbell & Fiske, 1959). According to Fornell and Lacker (1981a, 1981b), convergent validity is supported if the average variance extracted (AVE) estimates exceed 0.50. Discriminant validity is shown when the shared variance (squared correlation) between any two constructs is less than the square root of the AVE by the items measuring the construct. Study 4 results indicated that both convergent and discriminant validity are achieved by the underlying EIM dimensions. As shown in Table 6, the five EIM dimensions are related but distinct from one another. Further evidence of convergent and discriminant validity will be derived from the measurement model in the confirmatory factor analysis.

Norms for EIM. The final step of Churchill's (1979) paradigm for scale development is to make scale norms explicit, which allows comparisons of individual raw scores with the norms of how others have scored previously. Using the mean and standard deviation for each EIM dimension presented in Table 6, future researchers will know if the score of a particular respondent or group is within one or two standard deviations of the mean. As the EIM measure is used with additional populations, norm stability can be heightened.

Gender Differences. Additionally, the means and standard deviations for each EIM dimension by gender are also presented in Table 6 to provide more

Table 6. Convergent and Discriminant Validity Matrix and EIM Scale Norms.

EIM Dimension	RE	OE	ME	CEMP	EEMP
Recognition of emotions (RE)	**0.75**	0.50**	0.48**	0.49**	0.37**
Optimistic utilization of emotions (OE)		**0.75**	0.71**	0.47**	0.38**
Management of emotions (ME)			**0.71**	0.52**	0.24**
Cognitive empathy (CEMP)				**0.75**	0.41**
Emotional empathy (EEMP)					**0.78**
Overall					
Mean	5.24	6.56	4.78	4.99	5.13
SD	1.00	0.99	1.06	1.03	1.02
Male					
Mean	5.33	6.93	5.04	4.99	4.29
SD	1.19	1.14	1.26	1.27	1.29
Female					
Mean	5.13	6.48	4.57	5.04	5.35
SD	1.26	1.12	1.31	1.24	1.22

** Correlation is significant at the 0.01 level (2-tailed).

Note: Diagonal elements represent the square root of the average variance extracted (AVE) between the constructs. The numbers above the diagonal elements are the correlations between the constructs. For discriminant validity, diagonal elements should be larger than off-diagonal elements.

detailed scale norms. Analyses of factor means showed significant differences between males and females in both emotion regulation dimensions, optimistic utilization of emotions [$F(1,279) = 12.078, p < 0.001$] and management of emotions [$F(1,279) = 15.568, p < 0.001$], as well as emotional empathy [$F(1,279) = 13.306, p < 0.001$]. The differences in means suggest that males are more likely to use regulatory competencies in response to PSAs than females. On the other hand, females respond emotionally to empathetic actors more than males through vicarious experience of another's emotions (i.e., emotional empathy). Mean factor scores did not differ between males and females on recognition of emotions [$F(1,279) = 1.314, p > 0.25$] or cognitive empathy [$F(1,279) = 0.255, p > 0.60$]. This latter finding is consistent with theory in that recognition of emotions in the self or others is the fundamental EIM competency. Thus, males and females do not differ in this basic ability to recognize one's own or another's emotions.

Confirmatory Factor Analysis. The literature review and the espoused theory suggest that EIM dimensions are separate but highly related. A series of confirmatory models was therefore examined and estimated using EQS (Bentler, 1992). Recognition of emotions is purported to be the foundation for all emotional competencies. Without this ability there should be no emotional responses to utilize or manage, and empathizing with others should be impossible without understanding emotional signals. The literature also suggests that emotion regulation almost spontaneously follows such recognition. Empathy, a higher-order competency, follows the immediate regulation of emotional signals with an ambivalence that betrays the conflict between heart and mind. All models were thus ordered recognition : regulation : empathy, with successive models decomposing the latter two. As indicated in Table 7, the five-factor model provides the best fit for the data. As the model moves from the simple (three-factor model) to the more complex (five-factor model), the fit indices steadily improve. This indicates that these factors are more readily interpreted as separate, functionally identifiable dimensions that act together to manage emotional information.

The confirmatory analysis supports the idea that emotional information management is a series of highly interrelated but separate competencies. Recognition of simple emotions begins in infancy and progresses through early childhood. This learning is augmented by emotion regulation as one is socialized to control emotional responses. In terms of regulatory skills, normative sanctions are internalized to manage displays of anger, jealousy, grief, and other negative emotions. On the other hand, learning to optimistically use emotions as internal motivation is appropriately viewed as a separate regulatory skill that acts to improve personal functioning. Consistent with theory, empathy follows the regulatory processes by informing the individual whether the victim, beneficiary, or proposed action is worthy of cognitive and emotional consideration. The hypothesized five-factor EIM model is fully functional, with all path correlation coefficients significant in the expected direction. Table 8 shows the standardized path coefficients and associated t-statistics derived from the hypothesized model.

Effects of EIM on Ad Response with Positive versus Negative Emotional Appeals. To simplify the estimation process and provide a single dependent variable for ad response (RES) in the model, the three items indicative of A_{ad} and the three-item measure of INT were combined. This does not imply that

Table 7. Confirmatory Factor Analysis Comparing Simpler to More Complex Models.

Model	Chi-Square	*df*	RMSEA	NNFI	CFI	IFI
3 component RE/REG/EMP	742.11	204	0.107	0.520	0.576	0.585
4 component RE/ME/OE/EMP	653.97	201	0.099	0.590	0.643	0.651
4 component RE/REG/EEMP/CEMP	493.88	202	0.079	0.737	0.770	0.775
5 component RE/ME/OE/EEMP/CEMP	398.16	199	0.066	0.818	0.843	0.847

Note: Goodness-of-fit indices are the root mean square error of approximation (RMSEA), non-normed fit index (NNFI), comparative fit index (CFI), and incremental fit index (IFI).

RE = Recognition of emotions; REG = Regulation of emotions without differentiating between management of emotions (ME) and optimistic utilization of emotions (OE); EMP = Empathy without differentiating between its emotional (EEMP) and cognitive dimensions (CEMP).

Table 8. Tests of Hypothesized Relationships Between EIM Dimensions in Study 4.

Hypothesis	Standardized Path Coefficients	*t*-statistic
H1: Recognition of emotions (RE) → Optimistic utilization of emotions (OE)	0.69	7.19*
H2: Recognition of emotions (RE) → Management of emotions (ME)	0.66	8.17*
H3: Recognition of emotions (RE) → Regulation of emotions (OE + ME)	0.67	6.66*
H4: Optimistic utilization of emotions (OE) → Emotional empathy (EEMP)	0.47	5.09*
H5: Management of emotions (ME) → Cognitive empathy (CEMP)	0.66	6.58*
H6: Regulation of emotions (OE + ME) → Emotional empathy (EEMP)	0.46	4.98*
H7: Regulation of emotions (OE + ME) → Cognitive empathy (CEMP)	0.59	7.81*

* These *t*-statistics are significant ($p < 0.05$) with a one-tailed test ($t_{crit} = 1.658$).

attitude toward the ad and behavioral intentions are one and the same. However, inasmuch as advertising research is concerned with both as indicative of response, results focus on the more parsimonious two models—one for each specific emotional appeal (i.e., regret/fear and humor)—rather than the unduly cumbersome four essentially identical models (i.e., two emotional appeals × two separate ad response dependent variables). Results are similar when A_{ad} and INT are modeled separately.

The null hypothesis tests the theoretical perspective of traditional information processing models, such as the ELM, which hold that emotional appeals are uninformative (Heath & Feldwick, 2008; Petty & Cacioppo, 1986). H8 posits that the relationship between EIM and RES will not differ across emotional appeals.

This hypothesis is rejected. The dimensions at the end of the EIM measurement model (CEMP and EEMP) have a significant relationship to RES for the PSA with a negative emotional appeal, but not for the PSA with a positive emotional appeal. In response to the tear-filled, sorrowful eulogy of "Jeff Peckler," the path coefficient from CEMP to RES is -0.264 ($t = 3.309, p < 0.01$), while the path coefficient from EEMP to RES is $+0.491$ ($t = 4.910, p < 0.01$). Exposure to the humorous antics of the actor in "Karaoke" produces a path coefficient from CEMP to RES of -0.107 ($t = 0.107$, n.s.) and EEMP to RES of $+0.124$ ($t = 0.152$, n.s.). The only significant relationship in the humorous (positive) manipulation is an inverse one between RE and RES [$F(1,230) = 6.70, p < 0.01$].

Thus, EIM accounts for individual differences in advertising response when subjects are exposed to PSAs with emotional appeals. When exposed to the intensely negative emotions elicited by one PSA, the emotional side of empathy positively relates to advertising response while the intellectual side of empathy inversely relates to advertising response. In other words, the heart says "yes" while the mind says "no." The "Jeff Peckler" PSA was most effective with subjects with greater ability to empathize, or recognize others' emotions, on an emotional level (i.e., feel what another feels), because its effectiveness depended on viewers relating to the main character's feelings after losing his close friend. It was not as effective with subjects who have a greater ability to empathize on a purely cognitive level, or recognize others' emotions (i.e., understand what another feels). On the other hand, the empathy with the main character, the singing drunk, in the "Karaoke" PSA was not important to the PSA's effectiveness. Instead, the emotion, humor, played an attention-getting role. Interestingly, the greater a respondent's ability to recognize his or her own emotions, the less favorable was the response to this PSA. Perhaps this increasingly negative reaction as emotional awareness grew was due to the humor appeal in the "Karaoke" PSA being at the expense of (i.e., making fun of) the main character.

GENERAL DISCUSSION AND IMPLICATIONS

Emotional information management (EIM) is an individual difference in emotional recognition, regulation, and use related to processing emotion-laden or emotion-eliciting persuasive communications (e.g., PSAs, advertisements and other forms of marketing communications, e-commerce sites, political speeches, propaganda, etc.). EIM differs from broader conceptualizations of emotional intelligence that include emotional competencies related to innate non–ability-related personality traits or with a focus beyond processing (e.g., maintenance of long-term relationships).

This article develops an EIM measure that evinces adequate reliability and construct validity through established procedures (e.g., Churchill, 1979; Gerbing & Anderson, 1988). Further, an experiment with PSAs featuring different emotional appeals illustrates how the various EIM dimensions relate to advertising response (i.e., attitudes and behavioral intentions) depending on the role, source, and object of the emotion in persuasive stimuli, as well as the specific emotion elicited. The EIM measure should aid researchers interested in studying the effects of this individual ability on response to emotional appeals in, appraisals of, or reactions to persuasive stimuli.

The EIM measure assesses individual ability in three related emotional competencies: recognition of emotions, regulation of emotions (i.e., optimistic utilization and management of emotions), and empathy (i.e., cognitive comprehension and vicarious emotional experience of another's expressed or elicited emotions). The current studies' conclusions support theorists who have advanced the adaptive nature of emotions (Brackett et al., 2006; Elster, 1999; Izard, 2001). They also support the work of Gross and colleagues (e.g., Ochsner & Gross, 2005), who show that emotion regulation is composed of two dimensions in the service of individual goals: optimistic utilization of emotions and management of negative emotions. Further, whereas Bagozzi and Moore (1994) found that empathy mediated response to negative emotions in appeals to help others, the current article suggests that empathy may function similarly with appeals to help oneself.

Scale development efforts presented here follow iterative scale development paradigms (Churchill, 1979; Gerbing & Anderson, 1988). They produced a four-item measure of internal recognition of emotions, a skill accepted as the foundation for other intra- and interpersonal emotional competencies (Izard, 2001; Mayer & Salovey, 1995). In addition, two scales were developed to identify an individual's emotional regulatory capacity in terms of the optimistic utilization of emotions (i.e., expecting good things to happen and staying motivated) and the management or suppression of negative emotions (i.e., overcoming obstacles and frustrating circumstances). Such regulatory capacities enable a number of personal and social adaptive functions, as noted by many authors (e.g., Brackett et al., 2006; Deeter-Schmelz & Sojka, 2003; Izard, 2001). Following McBane (1995), the final EIM measure includes scales to assess two dimensions of empathy. Based on the confirmatory factor analysis, this cognitive and emotional dichotomy appears to embody both recognition and vicarious experience of another's emotions, which are inherent in highly personal and/or consequential emotional appeals or reactions.

Advertising research has focused primarily on conditioning, cognitive factors, and information processing to explain individual differences in response to persuasive appeals, even those relying on emotional framing of a message. For example, individual differences in ad response have typically been accounted for by differences in cognitive factors, such as degree of attention, processing ability, opportunity (e.g., presence or absence of distracting alternative task or time pressure), motivation (e.g., self-relevance, involvement, or need for cognition), attitude strength or confidence, prior knowledge, and so on (Heath & Feldwick, 2008; Petty & Cacioppo, 1986). The EIM measure, thus, begins the exploration of previously unaccounted-for variance in ad response based on ability to discern, cope with, inspire oneself with, and relate to emotions presented in a message or elicited in response to it.

In as much as emotions may be necessary for persuasive attempts, brand images, or service/product experiences (O'Shaughnessy & O'Shaughnessy, 2003), improved measures of and the application of emotional information management should aid understanding of many message-processing and consumer behavior outcomes. In addition, viewing emotions and emotional processing as instructive, rather than ancillary to or even an impediment to message processing and persuasion, follows a more holistic and contextual theory of human thought.

In terms of gender differences, Study 4 demonstrated that females possess greater emotional empathy ability than males, whereas males have greater

emotion regulation abilities than females. This finding has implications for the creation and targeting of PSAs and other emotionally persuasive advertising. Men, it seems, attempt to control their responses to emotional appeals. However, the greater the emotional arousal, the less likely such control will be effective. Thus, advertisers should use stronger emotional appeals when targeting males. Women concentrate on the character(s) in a persuasive communication and excel in establishing emotionally empathetic connections. Thus, advertisers should be able to effectively use vicarious learning or modeling to persuade women with emotional appeals.

Limitations

The studies described in the current article are a first attempt to define an individual ability in emotional information management for use in persuasive and advertising contexts. It is therefore incomplete and subject to improvement. Not only are observations confined to a few samples, but the context under investigation was PSAs. Thus, findings are limited to the prosocial environment. Use of a sample of adults in a typical shopping environment in Study 2 and of an involved student population in Study 4 provides some evidence of external validity; however, further study is required to determine if other contexts and samples confirm these results. The use of student samples has been controversial, but the involvement and concern with drinking and driving in this particular group and the targeting of this population by the PSAs in Study 4 justifies their use as subjects.

Some items from prior measures developed in the social and management sciences were adapted to measure emotional information management. However, eliminating context in the individual items does not guarantee generalizability to a vastly different research context. For example, the measure of recognition of emotion developed here focuses on the perception of internal emotions, with the assumption that this self-perception enables the recognition of emotional content in persuasive appeals as well as the basic recognition of one's own emotional responses to persuasive stimuli. Future research is needed to test the validity of this assumption.

Future Research

Future research will be required to determine the validity and reliability of these measures across samples and in different persuasive contexts. Also, the nomological context of the EIM is not fully established by the current research. Affect intensity, or the extent of felt emotions, influences response to advertising (Chang, 2006; Moore, Harris, & Chen, 1995), emotional intelligence in consumer decision quality (Kidwell, Hardesty, & Childers, 2008), and the state versus action orientation of individuals affects shopping behaviors (Babin & Darden, 1995); these constructs have obvious but currently unspecified relationships with the ability to manage emotional information. The conceptualization presented here, the first of its kind, could be placed within an expanded nomological context in future research.

The ubiquity of emotional overtones in advertising, brand images, and product positioning suggests that measuring the use of affective information is fertile ground for improving the understanding of consumer behavior. For example,

gift giving has been noted by marketing researchers as highly fraught with potential emotional pitfalls. Gift purchases and their emotional consequences are intrinsic to the maintenance or dissolution of relationships (e.g., Ruth, Brunel, & Otnes, 2004). EIM might consequently be a critical explanation of individual differences in response to ads or Web-based information promoting gift ideas (e.g., jewelry) for these important and frequent rituals. Similarly, according to Mellers (2000), hedonic purchases are shaped more by anticipated emotions than by subjective expected utility. Hence, a consumer's EIM ability may best predict responses to advertisements for hedonic goods or services.

CONCLUSION

Consumers are bombarded each day with multiple persuasive messages evoking a wide range of emotions. Much variance in individual responses to these appeals has been explained through theoretical developments in classical conditioning, information processing, and cognitive coping strategies. Emotional responses to these appeals and the information contained in those emotions have largely been considered extraneous or unknown (i.e., error) variance. Explaining more variance can improve the ability to discern the true effect of a given appeal on dependent variables, such as attitudes or intentions. Reducing error variance not only contributes to statistical reliability but also to the efficiency with which practitioners may conduct market research to determine the most accurate framing of messages for specific audiences.

The current article introduces EIM dimensions and measures that should increase reliability when studying effects of specific emotional appeals by reducing error variance. The manner in which consumers manage emotional information influences their response to persuasive messages. For example, when confronted with a sorrowful appeal to stop drinking and driving, attitudes toward the ad and behavioral intentions of target audience members vary with competency levels on the EIM dimensions. EIM competency differences can also be used in developing targeted messages as shown by gender differences in the relationships between EIM dimensions and ad response.

Empirical research is beginning to support theories of emotion, and affect in general, as a determinant of both buyer and seller behavior. Indeed, the EIM measure developed in the current studies offers a way to account for some individual differences in response to emotional appeals and other affective qualities of advertising, sales presentations, and emotion-laden persuasive attempts. Theory and prior research in the recognition, regulation, and use of emotions suggests that these are acquired competencies. As such, individual differences in EIM competencies are likely correlated with environmental and demographic variables that enhance segmentation, targeting, and positioning efforts across a wide range of retail, entertainment, and leisure markets.

Few consumption behaviors have no emotional overtones or consequences. In fact, much consumption occurs, directly or indirectly, as a result of evoked emotions. For more than 25 years, psychologists have understood that affect (i.e., moods, emotions, and feelings) provides useful information for consumer response, choice, and decision processes (Schwarz & Clore, 2007). This article is a further step in the development of the affect as information literature. It attempts to define, empirically assess, and conceptually integrate emotional information

management as a component of consumer response to emotionally persuasive communications. Continued improvement in the validity, reliability, and nomological network of this and other measures should contribute to further understanding across a variety of emotion-laden consumer behaviors.

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