Affective Responses Mediating Acceptance of Advertising

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This article argues that affective responses (ARs) should supplement the cognitive responses more often studied in communication research. ARs are not evaluative responses to an advertisement, but represent the moods and feelings evoked by the ad. The literature on ARs is reviewed, and a typology for such responses is presented. Three ARs are studied empirically; they appear to be antecedents of the attitude towards the ad ($A_{at}$) and to have a weak but significant impact on brand attitudes.

In 1973, Wright suggested that consumer acceptance of advertising was mediated by the cognitive responses generated by message recipients rather than by the content of the ad itself. This cognitive response paradigm (pioneered by Greenwald in 1968) has since been used frequently in persuasion research (see Petty, Ostrom, and Brock 1981 and Wright 1980 for reviews). However, although the number of persuasion-research studies has increased substantially, most researchers continue to analyze only three of the four kinds of thoughts that Wright (1973) coded—support arguments, counter arguments, and source derogations—while often relying on his coding guide.¹

Recently, the list of cognitive responses that have been studied has begun to expand. Some of the newer categories of responses consist of subclassifications of various kinds of support and counter arguments (Wright 1980, p. 153). Other new categories include simple affirmations and disaffirmations (Beaver 1975); neutral, irrelevant thoughts (Cacioppo and Petty 1979); ad-execution responses (Lutz and MacKenzie 1982); and source bolstering and study-specific "repetition-related evaluations" (Belch and Lutz 1982). Radically different coding schemes for ad response include Krugman's (1967) "connections" and the close-ended viewer-response categories developed by advertising agencies (Schlinger 1979; Wells, Leavitt, and McConville 1971).

Though it may appear to be a minor refinement, such an expansion of the types of cognitive responses coded and analyzed could, in fact, be very important. Studies now indicate that attitude toward the advertisement ($A_{at}$) itself leads to changes in brand attitudes (Gorn 1982; Lutz, MacKenzie, and Belch 1983; Mitchell and Olson 1981). Social and cognitive psychologists have produced two models of attitude-change processes—the heuristic and the peripheral (Chaiken 1980; Petty and Cacioppo 1979). These models show that "less involving" processing typically involves a limited elaboration of message arguments. In such situations, persuasive impact stems largely from execution cues and source likability. For this reason, many researchers have recently begun to pay greater attention to respondent evaluations of ad-execution style and to other responses pertaining to ad execution (e.g., Lutz and MacKenzie 1982; Lutz et al. 1983). Similarly, researchers in social psychology interested in studying the effects of source factors in persuasion (e.g., Chaiken 1980) have distinguished between "message-oriented" and "communicator-oriented" response categories.

This trend must be welcomed. However, while it is likely that such research will indeed show source derogation and bolstering to be important influences on $A_{at}$, the very complexity of advertising stimuli makes it unlikely that evaluations of ad execution (such as statements of praise for or criticism of the manner in which the ad was made) represent the only influences of interest. By combining attribute statements with music, humor, affectionate vignettes, story elements, role portrayals, and the like, ad-execution cues evoke moods and feelings that go beyond the evaluative re-

¹Wright (1974) used curiosity thoughts in addition to these three.
actions toward the commercial typically coded as source bolstering or source derogation statements. For example, in addition to making us like and admire the execution, "affective" ads can also make us happy, sad, warm, fearful, angry, and so on. A consumer may dislike an ad not only because s/he distrusts it (a reaction typically coded as source derogation), but also because it makes him/her feel afraid of the future or sad about some ad-evoked memory from the past.

As Lutz (1985, p. 47) points out, the determinants of $A_{ad}$ are not all cognitively based reactions to the advertising stimulus. Some $A_{ad}$ determinants, like the moods evoked by the advertisements, are simply the consumer’s affective state at the time of exposure (Lutz 1985, p. 54). Emotion theorists such as Arnold also argue that such moods and feelings are perceived not as qualities of the object but as states of the subject. These moods and feelings do not provide information about the external world; rather, they indicate how the external world affects us. “Because of this insistent self-reference implicit in feeling, it is perceived as a state of the subject.” (Arnold 1960, p. 31). Other theorists of affect have made similar distinctions between object and subject. Berlyne (1974, Ch. 1) distinguished between “evaluative” scales that measure the hedonic value of a stimulus (e.g., “pleasing–displeasing”) and those scales that simply describe the subjects’ reactions and moods (e.g., “no pleasure–extreme pleasure”). This distinction is also made by Mehrabian and Russell (1974, p. 18), while Dahl (1977) has distinguished between “it” emotions, which are directed towards others, and “me” emotions, which are feelings of pleasure–displeasure in subjects themselves. Clore and Ortony (1983) distinguish hedonic emotions having a state focus (pleased) from hedonic emotions having an object focus (pleased with). Stout and Leckebush (1984) distinguish inner directed emotional responses—I felt relaxed—from outer directed responses, where the eliciting stimulus is identified.

Thus, these feeling states go beyond cognitive appraisals of how good or bad a stimulus object is. Moreover, they cover a much wider emotional range. And while some of these feeling states may well be captured in the current categories of source derogation and source bolstering (depending upon the particular coding schemes used), their multidimensionality suggests that more refined categorization is probably necessary. Where, for example, would one currently classify the fear evoked by much insurance advertising (cf., Ray and Wilkie 1970)?

Reports of the many different kinds of moods and feelings evoked by an ad have not yet been widely researched; accordingly, these responses, which we call "affective responses," form the subject of this article. Reports of moods and feelings evoked by an ad are independent of respondent statements of praise for or criticism of the manner in which the ad was made, and deserve study in their own right. In recent reviews both Lutz (1985) and Gardner (1985) have called for an investigation of the effects of different kinds of moods on advertising processing. These effects seem particularly relevant to models of low-effort “peripheral processing,” since (as we will discuss) the evocation of moods and feelings by stimuli may be largely involuntary and automatic. This article describes the results of a study that examined the effects of three positive affective responses on (1) a consumer’s attitude to the ad, (2) a consumer’s attitude to the brand, and (3) the relative importance of each type of response. First, however, we will review the literature on a much wider range of moods and emotions and present our synthesis of that literature. Following our identification of types of affective response, we will present the collection procedure and coding categories used in our empirical study, and then the results of the study itself.

**AFFECTIVE RESPONSES: CONCEPTUALIZATION**

**The Typology Literature**

We will begin by synthesizing previous attempts to develop typologies of emotional, mood, and feeling responses. While theorists disagree on the specific definitions of these terms, the term “affect” is normally used to encompass all emotions, moods, feelings, and drives and so serves as our domain. (For some commonly accepted definitions of affect, see Gardner 1985; Izard 1977; and Kleinginna and Kleinginna 1981.) The development of these typologies of affect goes back at least to 1650, when Descartes declared that there were six “primary passions”: love, hate, desire, joy, sadness, and admiration. Much of the more recent work has used the approach of classifying facial responses that accompany emotions (e.g., Izard 1977; Osgood 1966; Tomkins 1962, 1963; see also the review in Ekman, Friesen, and Ellsworth 1982). Some typology-development efforts have used data-reduction techniques such as factor or cluster analysis (e.g., Frijda 1970; Osgood 1966), while others have used logical, deductive approaches (Arnold 1960; Clore and Ortony 1983; de Rivera 1977; Solomon 1976). While most of these studies analyzed emotions, others (e.g., Nowlis 1965) analyzed moods, which are defined as milder, more pervasive, and more transient than emotions (for a review of definitional differences between emotions and moods, see Gardner 1985). Some typologies have been based on linguistic analyses (e.g., Clore and Ortony 1983), while others are based on neurohormonal differences (e.g., Pribram 1980) or are inspired by evolutionary considerations (e.g., Plat- chik 1980). Factor analytic studies using advertising stimuli have also identified underlying factors of affective response (e.g., Aaker and Bruzzone 1981; Schlinger 1979; Wels et al. 1971).

As pointed out by Ekman et al. (1982, p. 46), these typologies of affect often yield different categories be-
cause different stimulus domains have been studied with different methods. Taken individually, each of these typologies is incomplete, and some sort of integration is necessary to develop an exhaustive superset of categories. Unfortunately, the integration offered by Ekman et al. (1982, p. 43) ignores the categories found in the advertising literature and the literature on moods. Before attempting our own integration, we will consider a different approach to studying affect.

### Types versus Dimensions

Rather than classify affective responses into different types, some researchers have tried to identify the dimensions in which these different types may be located. Wundt (1896) proposed that the sphere of consciousness described by emotion or feeling could be accounted for by three dimensions: (1) pleasantness–unpleasantness, (2) relaxation–tension, and (3) calm–excitement. Subsequent empirical work has provided support for similar dimensions. Schlosberg (1954), for example, showed that facial expressions could be adequately described as combinations of specific levels of pleasantness–unpleasantness, attention–rejection, and sleep–tension (activation). As Strongman (1973, p. 157) points out, such a dimensional approach interprets the similarity between different types of emotions as proximities in a multidimensional space; named emotions are thus reduced to combinations of fewer dimensions. While the parsimony implicit in the idea of dimensions is useful, economy is lost when too many dimensions are proposed. Many researchers have identified two or three dimensions (Block 1957; Mehrabian 1980; Osgood 1966; Plutchik 1980; Russell 1980), but others have found four (Davitz 1970) or even five (Frijda 1970). Also, the specific dimensions proposed do not always agree because of differences in the domain of scales analyzed (Ekman et al. 1982, p. 54).

As pointed out by Osgood, the distinction between the typology and dimension approaches to studying emotions (1966, p. 26):

> is not a matter of either-or but of both. Given a space defined by several dimensions, the labels by which we refer to [different emotions] may be represented by points within the space, each point having some projection onto each dimension . . . if the distribution of the points representing labels were homogeneous, there would be no clusters and hence no definable ‘types’ of expressions; if, on the other hand, the labels did fall into clusters—

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2For an example of a study using just one typology (Plutchik’s) to study advertising stimuli, see Holbrook and Westwood 1984. For a classification of typologies themselves, see Holbrook 1985.

3While some authors use “arousal” to denote physiologic energization and “activation” to denote neural excitation, most researchers in the affect literature use the terms interchangeably, as do we. Thus, both arousal and activation are used here to mean a unidimensional feeling state that ranges from sleep to frantic excitation (cf., Mehrabian and Russell 1974, p. 19; Plutchik 1980, p. 137).

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and the space were thus unevenly populated—the ‘types’ could be identified and confirmed.

Osgood himself found that his three dimensions could be further divided into nine interpretable clusters, a number almost large enough to bring us back to a typological list of primary emotions. Ekman et al. (1982, p. 55) conclude that the typology approach allows more distinctions but that it is not clear which approach is preferable overall. In our review, we shall stress the typology approach (so that more distinctions are possible), but will also mention the dimensional combination that each category of primary emotions is supposed to represent. For simplicity, we will use the two dimensions proposed in Russell’s (1980) circumplex model, in which each named emotion is identified as a point on a circle and combines particular levels of two orthogonal axes: pleasure–displeasure and arousal–sleepiness.

### Typologies of Primary Emotions

Given the diversity of objectives, methods, and stimulus domains, it is not surprising that the typologies developed in previous research do not completely agree, although there is, of course, some overlap in the categories identified. Categories identified in one study do not always appear in others or, when they do, these categories often appear combined with other factors. The categories identified are not always mutually exclusive, especially in studies using oblique rather than orthogonal methods of factor rotation (see the many mood studies reviewed by Nowlis 1965). As a consequence, empirical studies often combine categories that in other studies or typologies are considered distinct (for examples and precedents of such composites, see Nowlis 1965, p. 367).

### AFFECTIVE RESPONSES: SYNTHESIS

#### Categories of Emotion

In this section we will discuss the major categories of affective response identified in the literature and attempt our own synthesis. The categories appear in Exhibit 1, which uses as a starting point the Table offered by Ekman et al. (1982, p. 43).

**Interest/Expectancy.** Izard (1977, p. 216) defines this category as a feeling of being engaged, caught up, fascinated, curious, of wanting to investigate and become involved. A perception of novelty and change is usually a key determinant of interest. Interest appears not only in Izard’s typology (which incorporates the work of Tomkins 1962, 1963), but also as Osgood’s expectation/interest, Plutchik’s anticipation (“attentiveness,” “curiosity”), and Frijda’s interest/attention (“surprised,” “amazed,” “curious”), among others. In the mood literature, Nowlis reports a category called concentration (“attentive,” “contemplative,” “engaged in thought”).
## Exhibit 1

### Affect Typologies: A Synthesis of Categories

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<td>Expectancy/interest</td>
<td>Interest/attention</td>
<td>Interest/excitement</td>
<td>Concentration</td>
<td>Uniqueness</td>
<td>(Un/familiarity)</td>
<td>(Personal relevance)*</td>
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<td>Surprise/startle</td>
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<td>na</td>
<td>Confusion</td>
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<td>Disgust/scorn</td>
<td>[Disgust]</td>
<td>[Disgust]</td>
<td>na</td>
<td>(Imitation)*</td>
<td>(Familiarity)*</td>
<td>(Dislike)*</td>
</tr>
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<td>Distrust</td>
<td>Skepticism</td>
<td>na</td>
<td>Skepticism</td>
<td>(Imitation)*</td>
<td>Alienation</td>
<td>(Dislike)*</td>
</tr>
<tr>
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<td>Sullen anger/rage</td>
<td>Anger/agrieved</td>
<td>Anger/rage</td>
<td>Aggression</td>
<td>Irritation</td>
<td>(Alienation)*</td>
<td>Dislike</td>
</tr>
<tr>
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<td>Fear</td>
<td>[Fear]</td>
<td>[Fear]</td>
<td>Fear/terror</td>
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<td>Distress/anguish</td>
<td>Sad</td>
<td>Despair</td>
<td>Acute sorrow</td>
<td>Sadness</td>
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<tr>
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<td>Enjoyment</td>
<td>Happy/gay</td>
<td>Active joy</td>
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<td>Vigor</td>
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<td>Entertaining</td>
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<td>Relaxed</td>
<td>Noncalm</td>
<td>Deactivation</td>
<td>Sensuousness</td>
<td>na</td>
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<td>Soft pleasantness</td>
<td>Joy</td>
<td>Social affection</td>
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<td>Empathy</td>
<td>Warmth</td>
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<td>na</td>
<td>Fatigue</td>
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<td>na</td>
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<td>Irony</td>
<td>na</td>
<td>Egotism</td>
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</tbody>
</table>

* Categories within parentheses contain, in our judgment, elements relevant to this discussion.

* Bracketed terms denote multiple categories for Batra and Ray’s one.

**NOTE:** Terms separated by / denote one category.

Among the advertising studies, Wells et al. (1971) found a similar factor, called uniqueness (“novel,” “imaginative”), Schlinger found that the item “unusual” loaded negatively on her familiarity factor, and Aaker/Bruzzone found an “interesting” item loading on their personal relevance factor. Such adjectives were not used by, and thus do not appear in, Russell’s (1980, p. 1166) dimensional analysis.

**Surprise.** Izard (1977, p. 277) calls this category surprise/startle and defines it as a transitory, pleasant feeling of uncertainty, set off by any sudden and unexpected event. In many studies, surprise has not appeared as a separate category; probably it is combined with interest/excitement (e.g., Wells et al.'s uniqueness). However, surprise does appear as a separate category in Osgood’s typology—surprise/amazement and in Plutchik’s and Frijda’s surprise (“astonishment,” “confusion,” “distraction”). In Russell’s dimensional analysis, astonishment is located as being pleasant, with very high arousal. With somewhat negative valence, surprise appears in Schlinger’s confusion (“difficult to follow,” “distracting”).

**Disgust/Scorn.** Izard (1977) treats disgust/scorn as two categories, defining disgust as a desire to move away from an object that is “spoiled” and “tastes bad,” that leaves a “bad taste in the mouth” (p. 336), while scorn...
is defined as a feeling of being superior, of hostility, disapproval, revulsion, and contempt (p. 337). However, disgust/scorn forms one category in Osgood’s typology (“disgust,” “contempt,” “scorn”). Frijda’s typology uses two categories—disgust and bitter, while Plutchik’s typology has one category called disgust (“revulsion,” “dislike,” “loathing”). In the advertising literature, disgust and scorn appear as components of Wells et al.’s irritation (“stupid,” “ridiculous”) and familiarity (“saw before,” “copycat”); they are also components of Aaker/Bruzone’s dislike (“silly,” “pointless”), though dislike also reflects an element of distrust and skepticism, a category discussed later. Neither Nowlis nor Russell discusses either disgust or scorn.

Skepticism. Not discussed by Izard (1977) as a separate category, skepticism appears in the categories identified by Frijda—skepticism—and Osgood—distrust (“disbelief,” “incredulous doubt,” “suspicious”). Nowlis also has a skepticism category (“skeptical,” “suspicious,” “dubious”). In the advertising literature, the skepticism category combines with a contempt/scorn category and appears in Wells et al.’s irritation (“phony”), Schlinger’s alienation (“exaggeration,” “unrealistic”), and Aaker/Bruzone’s dislike (“phony”). Clearly, this category can be defined as a feeling of distrust and doubt evoked by stimuli that appear to be unrealistic, exaggerated, and phony. Again, Russell’s dimensional analysis does not include these adjectives among those sampled.

Anger. Izard includes anger as part of the “hostility trial” along with disgust and contempt, defining anger/rage (1977, p. 329) as a feeling of being restrained from what one intensely desires to do, with an impulse to strike out at the source of the anger. In this state, energy is mobilized, the blood “boils,” the face becomes hot, and muscles tense (p. 331). Anger forms one category in Osgood’s typology—sullen anger/rage, in Frijda’s—anger/agrieved, and in Plutchik’s—anger/annoyance (“fury,” “hostility”). In Plutchik’s scheme, annoyance appears as a “low intensity” form of anger. Nowlis finds a category called aggression (“angry,” “annoyed,” “defiant”). In terms of underlying dimensions, Russell locates annoying in the unpleasant dimension, with low arousal, and anger is also located in the unpleasant dimension but with high levels of arousal, suggesting that the two affects could be treated separately if necessary. In the advertising literature, anger appears as part of Wells et al.’s irritation (“irritating”), Schlinger’s alienation (“irritating”), and Aaker/Bruzone’s dislike (“irritating”) in the low intensity level of irritation.

Fear/Anxiety. Izard (1977, p. 365) uses fear/terror to describe this category, a state of apprehension, uneasiness, uncertainty, insecurity, and perceived danger, which can be caused by either external or internal (i.e., imaginary or objectless) events. Fear, according to Izard, interacts with other emotions (e.g., guilt) to form anxiety, which he defines as “chronic fear” (p. 378). Fear/anxiety appears as two categories in both Osgood’s typology—fear and horror and anxiety—and Frijda’s—fear and insecure. Plutchik’s typology uses one category for this emotion—fear (“fright,” “apprehension”), and Nowlis reports an anxiety category (“fearful,” “tense,” “worrying”). On Russell’s two dimensions, fear appears as high in unpleasantness and high in arousal. None of the advertising studies reviewed here found a fear or anxiety factor, probably because of the sample of ads used in those studies.

Shame. Izard defines this category (p. 389) as a heightened degree of self-awareness, inadequacy, ineffectiveness, and incompetence, where the self is felt as the object of contempt, scorn, and ridicule. None of the other typologies reviewed here identified this category.

Guilt. Izard (p. 425) defines this as an intense, gnawing feeling of not “being right” with a person wronged, of being in the wrong, of causing a person to hold his/her head lower and avert his/her gaze. (Izard distinguishes guilt from shame by calling shame “nornal” guilt.) Of the other typologies reviewed, only Frijda’s includes a similar category—guilt.

Sadness. This category, defined by Izard (p. 289) as a feeling of being downhearted, discouraged, miserable, lonely, and helpless is called distress/anguish. Sadness appears in Osgood’s typology as two categories—despair and acute sorrow. Like Izard, Frijda and Plutchik use one category: sad (Frijda) and sadness (“sorrow,” “dejection;” Plutchik), while Nowlis reports a sadness (“regretful,” “sad,” and “sorry”) mood factor. This category was not used by any of the advertising studies reviewed. In Russell’s two-dimension scheme, sadness appears as an affect that is unpleasant and has low arousal.

Surgency, Elation, Vigor/Activation (SEVA). This corresponds to a composite category that Izard (p. 272) calls active joy—feelings of intense joy intermixed with feelings of confidence and vigor. The descriptors used in the name for the SEVA category come from three factors in the mood literature—surgency, elation, and vigor/activation. Of the mood factors reported by Nowlis, these three seem closely related, judging by the results of the oblique factor analyses reported as well as his descriptions of these factors. Thus surgency (carefree, playful, witty, lively), elation (overjoyed, pleased, refreshed, lighthearted), and vigor/activation (lively, energetic, peppy, active) together refer to an af-

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4Two further categories appeared in only one other typology besides ours: pity (Osgood) and pride (Frijda). Pain and irony and fatigue and egoism are categories found only in Frijda and Nowlis, respectively. Pain and fatigue would appear to be equivalent to our drives category and will be discussed as such later. Irony and egoism may not be considered affective by others (see the review of definitions by Kleiring and Kleiring 1982); as such, these categories are not discussed further here, but are depicted in Exhibit 1.
ffective response that is at once both pleasant and arousing. In Russell’s circumplex model, this response is located in the quadrant that has high arousal and high pleasantness as its axes, close to his “excitement.” In discussing the previous use of such a composite, Nowlis called it euphoria/good mood (1965, p. 367). In Osgood’s typology, this state is described by the category enjoyment (“joy,” “glee”), in Plutchik’s typology it is called joy (“cheerfulness,” “elation”), and in Frijda’s typology the category is happy/gay. In the advertising literature, Wells et al. found that a humor factor represented “jolly,” “merry,” and “playful” feelings and a vigor factor represented “enthusiastic,” “vigor,” and “exhilarated” feelings. Schlinger found a factor called entertainment that was evoked by commercials seen as “pleasurable,” “enjoyable,” and “enthusiastic,” while Aaker/Bruzzone found a factor called entertaining (“lively,” “amusing,” “clever”).

Deactivation. Osgood (1966, p. 16) reports an emotional category called quiet pleasure (“silent laughter”) similar to a factor found in Wells et al. called sensuousness, which indicates a self-indulgent relaxed state (evoked, for example, by cosmetics commercials) measured by using the items “tender,” “gentle,” “serene,” and “soothing.” Sensuousness would seem to correspond to an affective state in Russell’s circumplex model that is at once both pleasant and low on arousal, which is close to where he shows relaxation and contentment. Plutchik has no category for sensuousness but he classifies serenity as a low-arousal level of his joy category. The term deactivation comes from a mood factor that Nowlis called deactivation and described as “at rest,” “quiet,” and “placid,” and which he related empirically to a mood factor called nonchalance (“leisurely”). Izard refers to this category at various points, calling it relaxed peacefulness (1977, p. 264). He also classifies this state as “low-intensity joy,” “receptive joy,” and “calmness-tranquility,” (p. 271) pointing out its emergence as an independent empirical factor. Deactivation appears in Frijda’s typology as quiet (“calm”), and elements of it are incorporated into Aaker/Bruzzone’s gentle mood factor.

Social Affection. Izard (p. 240) defines this category as a feeling of being loved, of engendering trust, and of being accepted in the surrounding world, along with a sense of confidence and meaningfulness. In Izard’s own typology, this category is labeled joy, but it should not be confused with Plutchik’s joy category mentioned earlier, since joy is explicitly differentiated by Izard from feelings of having fun or being amused or entertained (these feelings fall in Izard’s active joy category). In Frijda’s typology, social affection is called soft pleasantness (“endearment,” “happy,” “loving”), and in Plutchik’s typology it appears as acceptance (“love,” “trust”). In the mood literature reviewed by Nowlis, this category is called social affection and represents feelings that are “affectionate, forgiving, kindly, warm-hearted.” In the advertising literature, this category appears to be similar to the elements of Schlinger’s empathy factor (“personal,” “intimate,” “affectionate,” and “warm”—feelings evoked by commercials showing affectionate couples, mothers with children, or a cuddly Pillsbury dough boy) and to Aaker and Bruzzone’s warmth factor (see also, Aaker, Stayman, and Hagerty 1986). This category does not appear in Russell’s circumplex model because Russell did not use such adjectives in his analysis.

Drives. Not included in any of the earlier categories are affective responses that theorists would call drives or motivations. Izard (1977, p. 65) defines these responses as states brought about by tissue changes or tissue deficits, exemplified by hunger, thirst, etc. Izard includes among them pain and fatigue (categories that both Frijda and Nowlis also use). Note that many theorists include both emotions and drives/motivations in an all-encompassing category called affects or feelings (Izard 1977; Pribram 1980). While in most cases it may be true that advertising does not directly evoke drive-like, motivational feelings, some protocols taken from a developmental predisposition (not reported here) did show instances (especially for food ads) where the “sizzle” (nonverbal appetitive) appeal of an advertised object made the respondent “wish I could go out and buy some just now.” This desire is one of the effective categories discussed by Descartes (1650) and by de Rivera (1977) in his logically derived categorization scheme. It is also possible that advertisements using high levels of sex appeal might, in certain circumstances, evoke some kind of sexual desire. Thus, such motivational drive-like feelings could form another kind of response category.

Integration with Current Categories

The 13 categories of affective response just discussed are not new to studies of advertising response. It is possible to relate at least some of these 13 to categories that have already been used. For example, the rarely used cognitive response category curiosity mentioned by Wright (1973, p. 62) seems at first glance to reflect our description of interest. However, Wright’s definition of curiosity only describes a situation in which the viewer “expresses interest in additional information about the product.” The description of interest just given could (in the advertising context) indicate interest in (1) the manner of presentation, (2) the product or message itself, or (3) both manner and message. In our synthesis, such interest is incorporated as source bolstering if the interest stems from ad presentation or as

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As Izard points out (1977, p. 270–271), joy is often (but not always) accompanied by feelings of strength and vigor. He writes, “There is an unresolved problem with respect to the role of activeness in the phenomenology of joy. Many people...make a distinction between active and passive (or receptive) joy.” Therefore, our composite SEVA category describes the state in which both pleasantness and vigor appear.
support argumentation if it stems from the product or message itself.

Another affective response category that may be incorporated into the extant source bolstering category is *surprise*, assuming such surprise led to positive feelings towards a stimulus. Also indicative of source bolstering would be the *personal relevance* factor of Wells et al. ("important to me," "valuable") and Aaker/Bruzzone ("worth remembering," "effective"), plus Schlinger's *relevant news* ("taught something," "useful") advertising factor.

Conversely, the currently used category of source derogation (inclusive of source discounting) would seem to capture some of the moods and emotions described earlier in the *disgust/scorn, skepticism, and anger* categories. It should be noted, however, that the emotions in these categories are conceptualized here as feeling states and not simply evaluative responses to an ad. The extent to which these emotions are captured would depend on the coding definitions or measuring scales used by particular researchers.

Clearly, however, many affective response categories emerge for which no current coding category seems to exist. Some of these categories may appear rarely in the advertising domain, e.g., shame, guilt, or sorrow, although the use of fear and anxiety as an advertising appeal is well documented (e.g., Ray and Wilkie 1970). Our distinction between three combinations or types of pleasure and arousal, here called SEVA, deactivation, and social affection, is also of interest. It is crucial to note that these three categories are different, conceptually and operationally, from the like–dislike evaluations measured as attitudes to an ad. As Mehrabian and Russell write (1974, p. 18), "Pleasure–displeasure is a feeling state (and) . . . is distinguished from preference, liking, positive reinforcement, or approach–avoidance." (See also the earlier references on the state/object distinction.) The study we are about to describe examines whether these three categories of positive affective responses—SEVA, deactivation, and social affection—make equally important contributions to $A_{ad}$ and, through $A_{ad}$, to brand attitudes and intentions.

**CODING**

In order to study these three positive affective response categories, we needed to develop a coding scheme that could be used to classify the many verbal protocol responses collected here. Using an iterative procedure on prestudy data, coding categories were developed; nine categories achieved 76 percent interjudge agreement. The nine categories were: support arguments (SA), counter arguments (CA), execution discounting (ED), execution bolstering (EB), SEVA feelings, deactivation feelings, social affection feelings, neutral distractors, and other. Readers desiring details of the developmental work should see Batra 1984. (An overview of the coding scheme appears in Exhibit 2.) Note that of the 13 affective response categories discussed earlier, only the three positive response categories were used as coding categories (the other six were standard cognition categories), since only these three were evoked by the sample of ads used in the present study.

The *support arguments* category includes affirmations (both reasoned and simple) for the specific brand. While this definition of support arguments conforms closely to convention, several differences deserve mention. Wright (1980), for instance, argues that simple affirmations do not represent cognitive mediators; rather, they are the attitudinal outcomes of cognitive mediators and thus should not be included as support arguments. Others could argue, however, that most advertising reaches consumers already buying the product, and the task of much advertising is to reaffirm brand support (see, for instance, Schlinger 1979, p. 41). Present users are more likely to agree with an ad about an advocated brand in globally affective (i.e., simple and nonreasoned) terms; therefore, we felt it was reasonable to include affirmations in our support argument category. Thoughts evincing a heightened ad-evoked appetitive desire to try or buy a brand were also counted as support arguments. During the developmental phase of the study, it was found that food ads evoked supportive feelings for the brand that often manifested themselves as a heightened desire to buy or consume the advertised brand, especially when the ad sold the product through its nonverbal sizzle. Researchers may disagree about whether such reports of heightened motivational appetitive impact belong in a support argument category. There appears to be no discussion of this issue in the literature; further analysis of this question is left for future research.  

The *counter arguments* category includes thoughts having the opposite valence of support arguments (see Table 2).

The *execution discounting* (alternatively called *source discounting*) coding category includes challenges to both ad execution and brand credibility as well as derogatory statements about execution technique (which appear as negative reactions "irritating," "stupid," and so on). (While "irritating" could conceivably be coded as a separate affective response category, it was included here to stay consistent with most current practice.) The execution (source) bolstering category consists of positive references to individual ad-execution elements: realism, credibility, overall technique and style, and so on. Note that for ad source, we made no distinctions among the ad, the presenter, or the company. As pointed out by Hovland, Janis, and Kelley (1953, p. 19), sources generally subsume persons, groups, media, and so on, with processes and effects for one particular kind of source usually generalizable to others.

The three positive affective response categories

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The coding scheme being discussed also used various subcategories to allow for subsequent analysis with different aggregate categories. A copy of the coding scheme is available from the authors.
### Exhibit 2

**Overview of Final Coding Scheme Used in Study**

<table>
<thead>
<tr>
<th>Coding category</th>
<th>Includes</th>
<th>Excludes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Support arguments (SA)</strong></td>
<td>Reasoned affirmations</td>
<td>Positive feelings (SEVA, deactivation, and social affection)</td>
</tr>
<tr>
<td></td>
<td>Simple affirmations</td>
<td>Execution bolstering</td>
</tr>
<tr>
<td></td>
<td>Brand trial</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Generic trial</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Message miscomprehension—positive</td>
<td></td>
</tr>
<tr>
<td><strong>Counter arguments (CA)</strong></td>
<td>Reasoned disaffirmations</td>
<td>Execution derogation and challenges to execution credibility</td>
</tr>
<tr>
<td></td>
<td>Simple disaffirmations</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Message miscomprehension—negative</td>
<td></td>
</tr>
<tr>
<td><strong>Execution discounting (ED)</strong></td>
<td>Negative reactions to execution credibility and/or execution elements and style</td>
<td>Challenges to Intrinsic brand credibility</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Neutral execution distractors</td>
</tr>
<tr>
<td><strong>Execution bolstering (EB)</strong></td>
<td>Positive reactions to execution credibility and/or execution elements and style</td>
<td>SEVA, deactivation, and social affection feelings</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Execution bolstering due to effect on moods</td>
</tr>
<tr>
<td><strong>Surgency, Elation, Vigor/Activation (SEVA) feelings</strong></td>
<td>Positive reports of upbeat, happy mood Execution bolstering due to SEVA</td>
<td>Deactivation and social affection feelings</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Execution bolstering not due to SEVA</td>
</tr>
<tr>
<td><strong>Deactivation feelings</strong></td>
<td>Positive reports of ad elements being soothing, relaxing, quiet, pleasant</td>
<td>SEVA and social affection feelings</td>
</tr>
<tr>
<td><strong>Social affection feelings</strong></td>
<td>Positive reports of warmth, tenderness, caring, ad being heartwarming</td>
<td>Deactivation/SEVA feelings</td>
</tr>
<tr>
<td><strong>Neutral distractors</strong></td>
<td>Curiosity and surprise from execution elements Execution-evoked thoughts that are neutral to brand or execution References to other commercials/ viewing occasions</td>
<td>Non-neutral execution comments (discounting, bolstering)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Support/counter arguments</td>
</tr>
<tr>
<td><strong>Other</strong></td>
<td>Playback of ad content</td>
<td>Execution bolstering/discounting</td>
</tr>
<tr>
<td></td>
<td>Subsequently generated thoughts</td>
<td>Concurrent thoughts about other ads/ times</td>
</tr>
</tbody>
</table>

(SEVA, deactivation, and social affection) were operationalized in the coding scheme as follows. **SEVA** was coded when an ad had a pleasant and upbeat effect on respondent feelings and moods because the ad’s music was “catchy,” the ad was “fun to watch or breezy,” or made a likable use of humor. **Deactivation** was coded when respondents reported that ad elements were soothing, pleasant, or relaxing, and so on. **Social affection** was coded when ad effects were called “touching,” “warming the hearts of,” and/or “creating a loving feeling in” respondents, or when ads were seen as depicting “happiness,” “beauty” and/or “caring,” and therefore were sometimes “liked,” making the viewer “happy” and/or “feel good.” It should be noted that despite the use of the word “happy” in the coding definitions for both SEVA and social affection, coding ambiguities were not very frequent, since the other phrases in the protocol usually indicated whether the viewer was happy because of the ad’s upbeat music, humor, and so on, or because the ad depicted tenderness, caring, or warmth.

The **neutral distractors** coding category included (1) statements about elements of ad execution that could detract from the processing time spent on the brand message, (2) other ad execution-evoked thoughts neutral to either a brand or execution evaluation, and (3) references to other ads or viewing occasions that in the opinion of the judge appeared to have occurred to the respondent while the ad was being shown. (Unlike the **Other** category about to be discussed, the thoughts placed into the neutral distractors category were thoughts that were apparently generated concurrently rather than subsequently.) Finally, since we desired a coding scheme that would be not just mutually exclusive but also collectively exhaustive within the domain of positive affective responses, we defined a coding category called **Other**. This category included (1) reported thoughts that the judge felt were mere playback of ad content, (2) thoughts that were unlikely to have been generated during exposure but were instead subsequently generated, or (3) thoughts related to the viewing task, such as “don’t think we should have seen ads...
twice” (which, in a repetition experiment, might be classified as a repetition-related thought). In the study reported below, less than 3 percent of the protocol responses fell into this category. We now turn to the main study, which attempted to assess the usefulness and other characteristics of the affective responses studied in this sample of commercials.

METHOD

Stimuli and Design

In this study, 120 subjects were exposed to four TV commercials each, taken from a pool of 40 ads. The ads covered 10 product categories, two brands each, with two executions—one “affective,” the other “rational”—per brand. An experimental design (for brevity not described here; see Batra and Ray 1985) was used to systematically vary the subject’s (1) motivational involvement in the product category, (2) extent of prior usage (hence “processing ability”) of the brand, and (3) opportunity to generate cognitive responses (through the number of arguments in the message). Thus, we attempted to tactically create the maximum variance possible in the antecedent conditions (motivation, ability, opportunity) believed to influence the number of support and counter arguments generated (see Wright 1975). In addition, the number of affective responses generated should also vary, since only half of the ads used were “affective” in executional style. It was hoped that attribute-based cognitive responses as well as the affective responses discussed earlier would be generated, and that the role and influence of affective responses could be studied.

Using this experimental design, subjects were randomly assigned to one of ten variance-maximizing “balanced incomplete blocks.” In each block, four ads were shown to 12 subjects in four sessions of three subjects per session. The four ads were randomized with respect to exposure sequence. After initial randomization, the position of the four ads was rotated across the four sessions, to equalize primacy and recency effects. The four sessions were also balanced across the four different times of day during which the sessions were conducted. Over 40 sessions were held in all over a two-week period.

Procedure

Subjects were women, aged 20 through 60, from the Palo Alto and nearby areas. Subjects were contacted by telephone approximately one week before their experimental sessions for some pre-exposure measures. At the experimental session, subjects were told that the study was not of advertising effectiveness, but of trying to understand “what thoughts and feelings people naturally have when they see ads.” Subjects were first shown each of the four commercials once to check and equalize prior familiarity. Since it seemed likely that some subjects had not seen some of the ads before, this viewing ensured that the mediating response data (collected after a subsequent exposure) would reflect responses to an ad seen at least once before, thus reducing the possible effects of a qualitative difference between a first and subsequent exposure (cf., Krugman 1972). In addition, this first exposure also served to more nearly equalize the test commercials on prior familiarity, since the time of last exposure was now not only the same but also very recent.

The verbal protocol data-collection method used in the experimental sessions was based on the results of a prestudy (not described here; see Batra 1984) conducted to develop a data-collection methodology that encourages the reporting of “feeling” and “irrelevant” responses, provided such responses are natural and valid. Eight methodological variations were examined in that prestudy. These methodologies differed depending on (1) how directive the instructions were, (2) whether or not an example protocol was provided, (3) whether there was a “practice” screening and protocol, and (4) how the data were collected (“standard,” “cued,” “structured”). The methodology about to be described is the one we judged best based on both the quantity and quality of responses obtained. Discussion of its advantages and disadvantages can be found towards the end of this article.

The verbal protocol instructions we used stressed the need to (1) be natural, (2) not deliberately attempt to memorize content, and (3) report exhaustively on both thoughts and feelings. First, subjects were shown an example commercial and then read samples of reported verbal responses to this commercial. (The samples read covered a counter argument, a support argument, an execution bolstering thought, and a distractor thought. To reduce demand artifacts, affective responses were not given.)

Next, subjects saw a practice commercial and were asked to write down their thoughts and feelings in response to the ad. Subjects were then asked to read back their protocols silently. Using standardized written and oral instructions, we told the subjects that ad playback was not desired; neither were opinions on whether the ad was “successful” in making them pay attention or want to buy the product. We indicated instead our interest in the kinds of thoughts and feelings that showed whether the subjects agreed or disagreed with something the ad said, whether the ad reminded them of something, or whether it made them feel a certain way (even if what the ad made them think about had nothing to do with the product the ad was talking about)—whatever went through their minds naturally. Then, for the second time, the subjects were shown the four test ads for their replicated block, in the randomized and rotated sequence appropriate for their session. After seeing each ad, the subjects were asked to write a response to the question, “What thoughts and feelings went through your mind while you were looking at the commercial?” They were given one blank page and no time limit, al-
though almost every protocol was completed in under four minutes.

After the four protocols had been written, the subjects answered questions on dependent and covariate measures. The protocols themselves were coded independently by two judges (Batra was one of these judges) using the scheme presented earlier (see Exhibit 2); both judges were blind to the experimental treatments. Interjudge agreement was 83 percent, which is close to the 76 percent prestudy level and well above chance. The percentage of interjudge agreement by category was: support arguments—91 percent, counter arguments—87 percent, execution discounting—90 percent, execution bolstering—78 percent, SEVA feelings—80 percent, deactivation feelings—84 percent, social affection feelings—73 percent, distractor thoughts—79 percent, and other thoughts—54 percent. Disagreement was resolved by the judges discussing the discrepant coding assignments until a consensus was reached.

After completing the dependent measures, the subjects were shown the commercials for a third time. Each ad exposure was followed by scales that rated the ad on various aspects, including liking for the ad. As argued by Calder and Sternthal (1980), showing the stimulus commercials again allows a direct comparison of reactions to the commercials across treatment conditions without distortion by subjects' memory of the commercials. Such differential forgetting could have been a significant factor here, since the dependent measures took over 40 minutes to collect.

On average, the sessions lasted between 50–60 minutes. Approximately one week later, subjects were contacted by telephone and asked to rate their attitudes to the test brands. These delayed measures were collected from 100 of the 120 subjects.

Measures

Only those measures used in the analysis are described here. Postexposure brand attitudes, the major dependent variable, were assessed through various semantic differential items: “useful–useless,” “important–unimportant,” “pleasant–unpleasant,” “nice–awful,” and “good–bad.” The mean of these five items (Cronbach alpha = 0.80) was used. Brand purchase intentions (self-predictions of such intentions) were measured on a 7-point scale anchored at “definitely would buy” to “definitely would not buy.” Subjects indicated their attitude to the ad on an 8-point scale (“no liking” to “liked the ad a lot”). As with the purchase-intentions measure, this single $A_{ad}$ measure could have low reliability. In the delayed (one week later) telephone callbacks, subjects were told that we needed to measure how they felt about certain brands that day. To reduce subject irritation by limiting the time taken for this interview, only four of the five attitude items (all except “good–bad”) were administered. The mean of these four items was used, which had a correlation with the five-

item immediate attitude measure of 0.84, $p < 0.001$, $n = 398$ and a Cronbach alpha of 0.93.

RESULTS

Analysis is reported here only for the major issues mentioned earlier: (1) whether affective responses influence $A_{ad}$ above and beyond the influence of the currently studied execution-derogation and bolstering categories, and (2) whether the influence of these affective responses on brand preferences (attitudes and purchase intentions) occur directly or indirectly through previously studied antecedents (support and counter arguments and $A_{ad}$). However, before getting to those results, we would like to note the proportion of mediating responses that were classified into each of the different coding categories: support arguments—15 percent, counter arguments—12 percent, execution discounting—28 percent, execution bolstering—14 percent, the three affective response categories—12 percent, neutral distractors—17 percent, and other—2 percent. Of the three affective response categories, the largest was social affection responses (6.1 percent), followed by SEVA (3.7 percent), and deactivation responses (2.5 percent). The 480 protocols yielded an average of 2.57 reported thoughts and feelings per protocol, of which the mean levels per response category were 1.09 for execution discounting and bolstering together, 0.68 for support and counter arguments, 0.43 for distractor thoughts, 0.31 for the three affective responses, and 0.06 for other thoughts.

Estimates of the individual and combined effect of these affective responses on attitude towards the brand and towards the ad can be obtained through multiple regression. However, regressions using ordinary least squares (OLS) suffer from potentially autocorrelated errors, since four observations are used from each of 120 subjects, and these four observations are thus not entirely independent. Though tests showed that the effects of autocorrelation were not severe, these regression runs were performed by using more efficient “joint GLS (generalized least squares)” estimation procedures. If the four observations per individual are related, their error terms should covary such that the four observations form a system of four interrelated equations rather than one equation. The appropriate estimation method in these circumstances is that of “seemingly unrelated regressions” (Zellner 1962), which uses estimates of the covariance of the residuals across equations to increase the efficiency of the estimates. The JGLS estimation procedure that we employed constrained the parameter estimates across the four equations to be equal, so that comparisons could be made between each OLS param-

An examination of OLS residual matrices showed that in almost every case the error terms were correlated at very low (e.g., $r = 0.05$) and insignificant levels. Further, the OLS coefficients were very close to their JGLS counterparts, though coefficients significant in the OLS estimates were often significant at slightly lower (i.e., stronger) levels in the JGLS estimates.
TABLE

JOINT GENERALIZED LEAST SQUARES REGRESSIONS OF MEDIATING RESPONSES ON DEPENDENT VARIABLES

<table>
<thead>
<tr>
<th>Predictor variables</th>
<th>Weighted R² (system)</th>
<th>n</th>
<th>Equation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Criterion variable</td>
<td>A₁₀d</td>
<td>A₀₂d</td>
<td>SA</td>
</tr>
<tr>
<td>A₁₀d</td>
<td>−.434</td>
<td>.245</td>
<td>(.001)</td>
</tr>
<tr>
<td>A₀₂d</td>
<td>−.351</td>
<td>.242</td>
<td>(.001)</td>
</tr>
<tr>
<td>A₁₀d</td>
<td>.118</td>
<td>.055</td>
<td>(.012)</td>
</tr>
<tr>
<td>A₀₂d</td>
<td>.372</td>
<td>.051</td>
<td>(.249)</td>
</tr>
<tr>
<td>A₁₀d</td>
<td>.166</td>
<td>.103</td>
<td>(.001)</td>
</tr>
<tr>
<td>A₀₂d</td>
<td>.404</td>
<td>.030</td>
<td>(.617)</td>
</tr>
<tr>
<td>A₁₀d</td>
<td>.211</td>
<td>−.107</td>
<td>(.001)</td>
</tr>
<tr>
<td>PI</td>
<td>.734</td>
<td>.001</td>
<td>(.001)</td>
</tr>
<tr>
<td>PI</td>
<td>.090</td>
<td>.702</td>
<td>(.013)</td>
</tr>
<tr>
<td>A₁₀d</td>
<td>.086</td>
<td>.089</td>
<td>(.064)</td>
</tr>
<tr>
<td>A₀₂d</td>
<td>.126</td>
<td>−.104</td>
<td>(.014)</td>
</tr>
</tbody>
</table>

NOTE: A₁₀d = Attitude to ad
A₀₂d = Immediate brand attitudes
A₁₀d = Delayed brand attitudes
ED/EB = Execution Discounting/Bolstering
PI = Purchase Intentions
SA/CA = Support/Counter Arguments
SEVA = Surgency, Elation, Vigor/Activation

Figures are beta coefficients; significance levels in parentheses.

As already mentioned, the affective responses studied here are of interest as possible antecedents of A₁₀d, as additions to the conventionally studied execution-derogation and bolstering categories. While the role of execution derogation and bolstering responses in influencing A₁₀d has been demonstrated in much prior research (e.g., Lutz et al. 1983; MacKenzie and Lutz 1982), the role of the affective responses studied here has not. It is therefore necessary to test whether these affective responses as a group add to the variance already explained in A₁₀d by the execution-derogation and execution-bolstering response categories. A "models comparisons" test of incremental variance explained (Johnston 1972, p. 143) was performed (see the Table). It showed that while the execution-derogation and bolstering-response categories together explained 27.4 percent of the variance in A₁₀d (Equation 1), this percentage rises to 39.1 percent when the three affective response categories are added (Equation 2). This increase in R² is both large (a gain of about 12/27, or 45 percent) and significant (p < 0.01) in tests of incre-
mental variance explained. Of the three affective responses studied, only deactivation fails to reach conventional significance ($p < 0.082$), while social affection has a higher beta than SEVA.

Next, it is of interest to see whether the effect of these affective responses on brand attitudes ($A_b$) occurs directly, or through the variables that in past research have been shown to be direct antecedents of $A_b$. Much previous research has shown that these antecedents include SAs and CASs (e.g., Petty et al. 1981; Wright 1973), as well as $A_{ad}$ (e.g., Lutz et al. 1983; Mitchell and Olson 1981). Information about this mediating role is available through the analysis of covariance technique (see Cacioppo and Petty 1979; Insko, Turnbull, and Yandell 1974). This ANCOVA technique compares specific causal models by introducing the hypothesized mediator into a regression equation as a covariate. If the regression coefficient for the initial variable on the criterion variable drops to nonsignificance upon such introduction, the data are consistent with the mediating role of the covariate as theoretically modeled (the data could, of course, be consistent with other theoretical models as well).

It can be seen from the Table that SEVA and social affection responses are significant predictors of immediate brand attitudes (Equation 3), but the effects of these two responses drop to nonsignificance when $A_{ad}$ and support and counter arguments are introduced into the Equation (Equation 4). This suggests that both SEVA and social affection responses operate only indirectly in their effect on immediate brand attitudes.$^{10}$

Note, interestingly, that SAs and CASs themselves do not reach significance in explaining $A_b$ when $A_{ad}$ is already in the Equation (Equation 4). This result parallels the weak relationships between brand cognitions and $A_b$ found earlier by MacKenzie and Lutz (1982, p. 32) and Lutz et al. (1983, p. 535) and is discussed further below. The Table also shows clearly that these affective responses by themselves explain a very small portion of the variance in brand attitudes (Equation 3) or purchase intentions (Equation 8), suggesting that $A_{ad}$ is the relevant dependent variable for them.$^{11}$

Next, it is of interest to see whether the effect of the affective responses on purchase intentions (PI) occurs completely through brand attitudes, in view of the weight of past research on that relationship (e.g., Ryan and Bonfield 1975). It can be seen (Equation 8) that social affection responses are significant predictors of purchase intentions ($p < 0.01$), while SEVA is only significant at $p < 0.10$ (and deactivation fails to reach even that level of significance). However, when $A_b$ is introduced into the Equation (Equation 9), social affection and SEVA also become insignificant at $p < 0.10$, confirming that their effect on purchase intentions is completely mediated by $A_b$. The variance explained in PI by $A_b$ alone is 0.5502, not significantly less than that of Equation 9 ($F_{ad} = 1.24$), confirming the nonsignificance of the ARs in Equation 9. Since we have just shown that the effect of the affective responses on $A_b$ itself is completely mediated by $A_{ad}$, it is appropriate also to compare Equation 10 (which brings in $A_b$ and $A_{ad}$ together) with Equation 8. While $A_{ad}$ appears to be significant in Equation 10, this result is due to multicollinearity, because the gain in variance explained by $A_{ad}$ (Equation 10 over 9) fails to reach significance ($F_{ad} = 2.89, ns$ at $p < 0.05$), suggesting that $A_{ad}$ works on PI only through $A_b$, which is consistent with earlier results (Lutz et al. 1983; MacKenzie and Lutz 1982). As far as these affective responses are concerned, then, the ANCOVA results are consistent with prior theory and evidence suggesting effects through the chain ARs $\rightarrow A_{ad} \rightarrow A_b \rightarrow PI$.

DISCUSSION

Clearly, the affective responses studied here form part of the mood subsystem that other researchers (e.g., Lutz 1985; Lutz et al. 1983) hypothesize to be an antecedent of $A_{ad}$. We have here an empirical demonstration of their significance in determining $A_{ad}$ and we have correlational (ANCOVA) evidence suggesting that the relevant chain of effects is ARs $\rightarrow A_{ad} \rightarrow A_b \rightarrow PI$.

It is also interesting to examine (as far as these data will allow) the role of support and counter arguments in this chain. Following prior theory and research (e.g., Lutz et al. 1983), SAs and CASs were not introduced as predictors of $A_{ad}$ in Equations 1 and 2; they are, after all, mediators of $A_b$ and not of $A_{ad}$. However, as suggested by previous researchers (Lutz 1985, p. 59; Lutz et al. 1983, p. 533; MacKenzie and Lutz 1982), various relationships are possible between SAs and CASs, $A_{ad}$, $A_b$, and ad-execution thoughts and feelings. For example, it is possible to hypothesize that $A_{ad}$ may also mediate at least some of the effect of SAs and CASs on $A_b$—if one tends to agree or disagree with an ad about a brand, one may tend to like or dislike the ad as well. Such effects may be greater for existing rather than new brands. Alternatively, ad likability may cause greater or lesser message argumentation and acceptance, or both $A_b$ and $A_{ad}$ may have common antecedents. Previously estimated models have often had to model SAs and CASs, ad credibility statements, and/or other ad-execution statements as covarying (Lutz and Mac-
Kenzie 1982; Lutz et al. 1983). The theoretical and empirical argument for a nonrecursive system of equations is thus strong. Unfortunately, for identification reasons, such simultaneous estimation was not possible in this data set.\(^{12}\) However, ANCOVA runs here show that while SA and CA are significant predictors of \(A_b\) (Equation 5), which is consistent with prior research, SA and CA drop to nonsignificant levels (and the \(R^2\) gain is significant) when \(A_{ad}\) is introduced as another predictor of \(A_b\) (Equation 6), suggesting that \(A_{ad}\) mediates the effect of SAs and CAs on \(A_b\). (SA and CA also appear as significant predictors of \(A_{ad}\) in Equation 7, in which ED and EB and the three affective responses are included.) Further, as pointed out earlier, both SA and CA are not significant in predicting \(A_b\) if \(A_{ad}\) and the three ARs are already in the Equation (4).

While surprising, this replicates a result found earlier by Lutz et al. (1983) and MacKenzie and Lutz (1982): when \(A_{ad}\) and brand cognitions are both modeled as causing \(A_b\), the relationship between brand cognitions and \(A_b\) is sometimes surprisingly weak. Those authors discuss various possibilities for this anomalous result, including demand artifacts, measurement problems, restrictions in range of brand cognitions, and so on. While these remain possibilities, and while further causal modeling of these relationships is clearly required, the apparent robustness of this result suggests that \(A_{ad}\) may in fact be the dominant influence on \(A_b\) at least in some exposure settings.

It may be asked if the observed result in which support and counter arguments were found to be significant predictors of \(A_{ad}\) (Equation 7) is due to the inclusion in support arguments of the motivational/appetitive feelings likely to be evoked by affective ads that have such an execution. To test this possibility, this regression was repeated with a definition of support and counter arguments that (1) excluded motivational/appetitive feelings, and (2) excluded simple affirmations and disaffirmations; these were instead analyzed as separate response categories. The results showed no difference: the redefined support and counter argument categories were still significant (\(p < 0.01\)) \(A_{ad}\) predictors.

**Development of Theory**

In addition to the empirical, causal modeling just suggested, more theoretical work is clearly required that examines the role of ARs as a component of the vector of all mediating responses. Many researchers have suggested that the effects of such responses on \(A_{ad}\) and \(A_b\) should be greater in peripheral processing conditions, since their generation should be more “natural” and “automatic,” and less “effortful” (Batra and Ray 1985; Lutz 1985; Lutz et al. 1983). Such hypotheses find support in the literature on moods and emotions. Earlier research has shown (Lizard 1977, pp. 106–7) that emotions and moods are “contagious,” and their transfer “involuntary.” As Zajonc points out, affective reactions “occur without effort” (1980, p. 156). Further, the research on source attractiveness shows that attractiveness (likability) effects appear to be “involuntary” and “less cognitive,” in that they occur whether the source is identified at the beginning of the message or not (e.g., Mills and Harvey 1972). The analysis presented in this article did not address the question of whether the effect of ARs on \(A_{ad}\), and/or of \(A_{ad}\) on \(A_b\), is moderated by such variables as the motivational involvement of the consumer in the processing of the message. Further research on this question, using experimental manipulations, seems needed (see Batra 1984 for some correlational evidence).

If, however, such moods and emotions affect \(A_{ad}\) and \(A_b\) through involuntary and effortless ways, other research questions also suggest themselves. The fact that we have here evidence of a process that involves measurable affective responses of which subjects are aware suggests a more complex process for the effects of affective advertising on brand attitudes and intentions than the unawake “classical conditioning” mechanisms that have recently been suggested (e.g., Gorn 1982; see also Allen and Madden 1983). The exact nature of this process awaits further development. Next, if such affective responses are effortless, are they also so transient that their effects on \(A_{ad}\) and \(A_b\) are dissipated very quickly? Analyses from this data set suggest they do not: when delayed (one week later) brand-attitude measures were regressed on all mediating responses, social affective response scores were still significant (at \(p < 0.05\)) influences (Equations 11 and 12).

**Development of Methods**

More work is also necessary in the area of validating affective response dimensions and in developing a coding scheme for their study. First, the convergent and discriminant validity of the response categories developed needs to be established formally, as does the discriminant validity of the affective responses from \(A_{ad}^\dagger\). Second, additional AR categories need to be studied.

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\(^{13}\)Note that while such discriminant validity could not be tested formally in this study (because only one measure was used per construct), evidence does exist that \(A_{ad}\) and the affective responses are not simply different measures of the same construct. Correlational data indicate that while \(A_{ad}\) is significantly (\(p < 0.05\)) correlated with SAs (\(r = 0.31\)), CAs (\(r = -0.16\)), SEVA (\(r = 0.26\)), deactivation (\(r = 0.12\)), and social affect (\(r = 0.34\)), SEVA does not correlate strongly with SAs (\(r = -0.01\)) or CAs (\(r = -0.06\)), and social affect does not correlate significantly with SAs (\(r = 0.03\)), although it does seem to reduce CA production somewhat (\(r = -0.12\)). Thus, these data indicate that \(A_{ad}\) shares unique variance with SAs and CAs, which SAs and CAs do not share (or share at much lower levels) with the affective responses. The argument that \(A_{ad}\) and the responses are one and the same (in the sense that they relate identically to other constructs of nomological interest) does not therefore find strong support from the data, although more stringent tests are obviously required.
empirically. Only three types of affective responses, all positive, were studied here. A wider sample of commercials needs to be studied that includes negatively valenced affective responses such as fear and anxiety, among others.

Finally, questions arise about the data collection methodology to be used. One may ask whether the collection of such nonverbal response data through verbal protocols invalidates the data collected. We feel this is not the case for two reasons. First, while the data collected may incompletely reflect affective responses, this does not make such (incomplete) responses invalid per se (see Wright 1980). (Such incompleteness could, of course, lead to biased coefficient estimation if it implies a systematically omitted variable.) Second, the response-reporting (verbalization) process does not seem to be one that interferes with the response itself. The reporting is retrospective, not concurrent, and does not request or require forced intellectualization or abstraction (see Ericsson and Simon 1980).

Even if verbal protocol methods are defensible, however, the specific data-collection procedure used here is open to question. One may argue, for instance, that the instructions and training procedure used may have biased subjects towards reporting more feelings than they would have naturally. While such speculation is plausible, and warrants future research, we do not believe these criticisms seriously threaten the validity of the research reported here. A review of the procedure used should make it clear that the instructions (1) repeatedly mentioned both thoughts and feelings, (2) stressed that the respondent should report only those thoughts and feelings that come naturally—those that would emerge if the subject were watching the ad at home, (3) legitimized the reporting of support and counter arguments ("agreed or disagreed with something the ad said"), feeling states, and distractor thoughts, and (4) did not use affective responses among the examples given. Thus, while it is true that our instructions could have led subjects to provide an edited version of their thoughts and feelings, it is our belief that no lab testing situation can ever completely simulate a natural viewing situation (e.g., see Ray 1977), and instructions to combat expected biases, if used with care, can be superior to no instructions at all. Obviously, future research will need to empirically validate this assertion; as Wright (1980, p. 156) points out, the effects of such priming instructions are currently unknown.

While alternative data collection methods could certainly be tried, therefore, it does appear that ads seem to create measurable affective responses of various kinds in viewers, and these seem to significantly influence A_ad. Further research into these affective responses seems appropriate, in view of their potential contribution to our study of peripheral advertising processing.

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REFERENCES


Batra, Rajeev (1984), Low Involvement Message Reception—Processes and Advertising Implications, unpublished dissertation, Marketing Department, Stanford University, Stanford, CA 94305.


Beaver, R.J. (1975), The General Characteristics of Covert Resistance Mechanisms and their Relationship to Attitude Change and Speaker Perception, unpublished dissertation, Department of Psychology, University of Southern California, Los Angeles, CA 90089-1421.


Davitz, Joel R. (1970), "A Dictionary and Grammar of Emotion," in Feelings and Emotions: The Loyola Sympo-


