

ATMOSPHERICS AS AN EMERGING INFLUENCE IN THE DESIGN OF EXCHANGE ENVIRONMENTS

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This is a conceptual article which begins with a discussion of the historical underpinnings and concepts related to atmospherics, i.e. situational variables, image, and environmental psychology. Then, it presents a synthesis of current thought (including definitions of atmospherics and atmospheric variables). Finally, it concludes by developing a paradigm under which this phenomenon can be studied and implemented.

INTRODUCTION

Nearly two decades ago, Kotler (1973-74) suggested that marketers could construct a set of spatial aesthetics which would elicit specific emotional effects in buyers and thus increase the probability of gaining the desired consumer response, e.g. approach or avoidance behavior, increased expenditures, shorter decision-making intervals, etc.

Kotler called this intentional control and structuring of physically perceived stimuli "atmospherics." If consumers are influenced by physical stimuli experienced *at the point of purchase*, then, the practice of creating influential atmospheres should be considered for many exchange environments. According to recent research conducted by Bitner (1990), such atmospheric planning can make the difference between a business's success or failure.

So, what has happened over the past two decades since Kotler's original proclamations? Do firms carefully consider the psychological impact of physiologically related influences? Do they plan for these influences in the marketplace? Have appropriate exchange situations been identified for the application of atmospheric engineering? How large a difference can be effected by careful atmospherics considerations and crafting? Nearly twenty years after Kotler's original article on the subject, Bitner (1992) writes, "...in marketing there is a surprising lack of empirical research or theoretically based frameworks addressing the role of physical

surroundings in consumption settings. Managers continually plan, build, change, and control an organization's physical surroundings, but frequently the impact of a specific design or design change on ultimate users of the facility is not fully understood." (p. 57)

Thus, unfortunately, the record suggests that marketers have not yet delimited the bounds of atmospherics; nor have they developed a pedagogy within which to study this phenomenon. Therefore, the intent of this paper is to develop the conceptual antecedents of atmospherics, present a synthesis of current practices, and suggest a paradigm under which this phenomenon could be studied and/or implemented.

HISTORICAL UNDERPINNINGS AND CONCEPTS RELATED TO ATMOSPHERICS

The genesis of atmospherics relies heavily upon the call for concepts to explain the variability found in inter- and intra-personal responses to the same object (Lavidge 1966; Ward and Robinson 1973; Engel, Kolat, and Blackwell 1978) and upon the development of three separate but overlapping areas of inquiry: situation, image, and environmental psychology. The first issue is sufficiently self-explanatory. However, each of these three latter areas of inquiry requires more careful examination.

Situational Variables

Social scientists have long reported that human behavior tends to vary in a non-random fashion, depending upon the peculiar set of circumstances surrounding the behavior occasion. For example, individuals can have different attitudes toward a particular behavior, each corresponding to a specific situation (Shiffman

and Kanuk 1991); or people select and shape situations in terms of their own personality dispositions as well as respond to situations presented to them (Pervin 1989). Observations such as these support the general hypothesis that *situational elements have the capacity to influence human behavior*.

In its simplest form, a situation is a point in time and space (Belk 1975a). Therefore, any given situation represents a "momentary encounter with those elements of the total environment which are available to the individual at a particular time (Belk 1975b, p. 157). Personal and situational factors always enter into behavior; the relative amount of consistency or variability will depend on the interaction among persons, situations, and objects that are considered (Mischel 1969; Epstein 1983; Epstein & O'Brien 1985; Mischel & Peake 1982; Wright & Mischel 1987). In this context, a situation is a discrete subunit of the environment which provides a unique source of behavioral influence.

Several authors have provided taxonomies of situation characteristics (Sells 1963; Bellows 1963; Allen 1965; Wolf 1966; Kasmar 1970; and Moos 1973). While most were conceived in non-business situations, Belk (1975) developed a set of marketing-specific factors comprising a situation. In relating situation to atmospherics, the most relevant part of his five-item taxonomy involves his interpretation of the factor, "physical surroundings:"

... the most readily apparent features of a situation. The features include geographical and institutional location; decor, sounds, aromas, lighting, weather and visible configurations of merchandise or other material surrounding the stimulus object. (p. 159)

Overall, the contribution of the situation literature is somewhat limited; but clearly confirming that the portion of a situation encompassing atmospherics is a recognized and influence-producing component of many purchase situations.

Image

The origins of atmospherics are also related to concepts used in the definition and interpretation of image. Image, as a mental construct, summarizes a vast array of complex situations and stimuli. Image perceptions become symbolic of reality and mediate interactions between individuals and their surroundings (Boulding 1956; Marks 1976). Lindquist's (1975) study of store

image closely follows this classic definition. His compilation of nine image variables (suggested by twenty-six authors) are presumed to symbolically represent the reality of a retail store and influence consumer behavior directed toward that store. Lindquist's image variables overlap Belk's taxonomy of situational components; thus, further confirming the complementary relationship between these two areas. In particular, Belk mentions *physical surroundings* and Lindquist mentions *physical surroundings, store atmosphere, and merchandise*. Physical surroundings are largely encompassed by the definition of atmospherics.

Two more observations regarding image vis-a-vis atmospherics should be made. First, image components tend to vary in salience depending upon the circumstances. This would be consistent with the definition of atmospherics since the influence of atmospheric variables also tends to vary. Second, image tends to be persistent over time, indicating that its components are learned and retained for future recall and utilization. While this point has yet to be confirmed for atmospherics, it suggests that individuals tend to learn and retain atmospheric information regarding which colors, shapes, sounds, etc. are appropriate to use to form symbolic perceptions of situations and stimuli.

Environmental Psychology

A third field of study related to atmospherics is found in a loosely organized discipline known as environmental psychology (Stokols 1978). Environmental psychology is based primarily upon correlational studies (using color, architecture, textures, sounds, etc.) which have demonstrated a nonrandom relationship between physical elements and human behavior. Conclusions reaffirm the naive viewpoint that a wide variety of human behaviors (e.g. orientation, estimated passage of time, healing, balance, feelings of warmth or coolness, etc.) are partially dependent upon physically originated environmental influences.

Only recently have researchers begun to empirically examine the effects of specific environmental stimuli (Mehrabian and Russel 1974, Russel and Pratt 1980, Donovan and Rossiter 1982, Milliman 1982 & 1986) even though marketplace relationships between environment and behavior have been noted and/or practiced informally for years (Smith and Curnow 1966; Wysocki 1979; Flory 1981; and Rath 1984). Certain applications, such as retailing, have produced much of the empirical literature in marketing. For example, it was found that consumers who desire stimulation and novelty seek out stores that offer such environments

while those who desire "information rich" stores seek out exchange environments offering different atmospheres (Bellenger and Korgaonkar 1986). Certain colors affect physical attraction toward a store environment (Bellizzi, Crowley, and Hasty 1983) and other colors exacerbate the perception of crowdedness and influence shoppers to leave the area (Omura 1982). Similarly, "Music has long been considered an efficient and effective means for triggering moods and communicating non-verbally (Bruner 1990, p. 94).

Collectively, the aforementioned studies and reports provide strong empirical and anecdotal support for the purported influence of sociospatial characteristics and/or the emotive connotations of physical arrangements. Careful crafting of the physical environment, in the exchange setting, appears to be a useful behavior shaping tool.

DEFINITION OF ATMOSPHERE AND ATMOSPHERICS

At this point, there is a need for a clearer definition of the concepts of "atmosphere" and "atmospherics" and a holistic approach upon which to base further investigations. First, these definitions are offered:

- (1) *Atmospheric Variable*: an atmospheric variable is any component within an individual's perceptual field which stimulates one's senses and thus affects the total experience of being in a given place at a given time.

Stimuli are received through the main sensory channels of sight, sound, smell, and touch (taste is excluded since it is not normally part of an environment). Specifically, Kotler (1973-74) suggested that the dimensions of an atmospheric variable are color, brightness, size, and shape; the main aural dimensions are volume and pitch; the main olfactory dimensions are scent and freshness; and the main tactile dimensions are softness, smoothness, and temperature.

Relevant examples would include wall textures, lighting intensity, the clothing of sales personnel, the colors of in-store signing, contrasts, or the smell of fresh flowers. Many atmospheric variables stimulate more than one sensory receptor (e.g., carpeting is both a visual and tactile stimulus). In the short run, atmospheric variables can be divided into dynamic and static types (e.g., background music sound tracks can be quickly changed while wall paint is far more permanent). In the long run, all atmospheric variables are dynamic.

Additionally, the intensity of any given atmospheric variable can be altered either absolutely or relatively. For instance, the lighting surrounding an in-store display can be varied from dim to bright; an absolute change. However, if the lighting in one display remains constant while the lighting in an adjacent display is made brighter, the lighting of the first display is reduced relative to the other.

- (2) *Atmosphere*: the collection of stimuli (atmospheric variables) which impinge upon an individual's senses effecting the total experience of being in a given place at a given time.

It should be noted, in theory, that each fragment of time is a unique situation, and in like manner, each fragment of time can contain a different atmosphere. However, it is probable that repeated exposures to similar atmospheres will produce a consistent perceptual response based on expectations. This definition isolates on the actual physical components found in a given place at a given time. Further, this definition allows for both conscious and subconscious stimuli since there are some indications of possible subconscious influences upon behavior (Milliman 1982, Harrell 1986).

- (3) *Atmospherics*: this is the study of atmospheres, atmospheric variables, and their effects upon buyer behavior.

TOWARD A THEORY OF ATMOSPHERICS

The above definition of atmosphere suggests that atmospheric effects are found at the end of a sequential chain of events; (i.e., the consumer must take actions to expose himself to a particular atmosphere before there can be any mediating influence from atmospheric variables on behavioral outcomes). Any interruption of that chain will negate the impact of atmospheric variables since their decision-making influence is isolated singularly to experiential encounters. In this pure sense, atmospheric variables are completely ephemeral.

However, once experienced, anticipated physical stimulus configurations can become part of a consumer's stored information set and an input into the formation of an image (i.e., mental experiences that resemble, more or less closely, an actual perceptual occurrence even when the actual perceptual occurrence is not currently happening) (Atwood 1989). In this sense, the presence/influence of atmospheric variables might be generalized to other similar situations. These

residual effects of atmospheric variables (which, in memory form, at least contributes to the holistic image held as stored information) could be quite important in future decision-making situations.

A SIMPLE PARADIGM OF ATMOSPHERIC VARIABLE INFLUENCE

In the forms suggested above, atmosphere can be either an anticipated or an unanticipated circumstance (depending upon the degree of prior experience or expectations) which might alter already formed images and/or purchase intentions.

This would be consistent with the workings of the familiar Engel, Kollat, and Blackwell (1978, p. 479) model of consumer decision-making. In effect, the physical stimulus (e.g. sound, scent, touch, or visual cue) could intervene between intention and behavior. Depending upon the atmospheric variable's relative magnitude and extent of variance from expectations, the behavioral outcome could be different or perhaps quite similar. For example, a research study by Milliman (1986) indicates that restaurant patrons purchase more or less alcoholic drinks depending upon the tempo of the background music played. Atmospheric variables, in this sense, are a one-time, unplanned, unanticipated behavioral influence. There is no requirement that the consumer even be consciously aware that he or she is being influenced by this variable.

The power of a low-involvement physical stimulus is perhaps best explained by Paulman (1982). She reported that music works as therapy because it meets "with little or no intellectual resistance and does not need to appeal to reason or judgment to initiate action." Some atmospheric variables apparently function in much the same way.

However, such a viewpoint does not address the more complex relationship between atmospheric variables and information processing. What happens when atmospheric variables are operationalized much like the components of image? How do physically originated stimuli influence behavior when such stimuli are anticipated (i.e., are expected to be part of the situation or product)? To address such questions, the concept of atmosphere must necessarily cross the line between being a spontaneous, physically perceived experience to becoming a component of some deliberate decision-making process.

A COMPLEX PARADIGM OF ATMOSPHERIC VARIABLE INFLUENCE

Figure 1 models a process in which consumers selectively utilize physical stimuli from the exchange environment in order to make consumption decisions. As some may observe, there are certain similarities between some components of this model and the standard confirmation/disconfirmation model. The main components of this six stage model are anticipated atmosphere, an approach/avoidance decision, a matching process, atmosphere confirmation, evaluation, and feedback. Each stage will be discussed briefly and marketing implications noted when applicable.

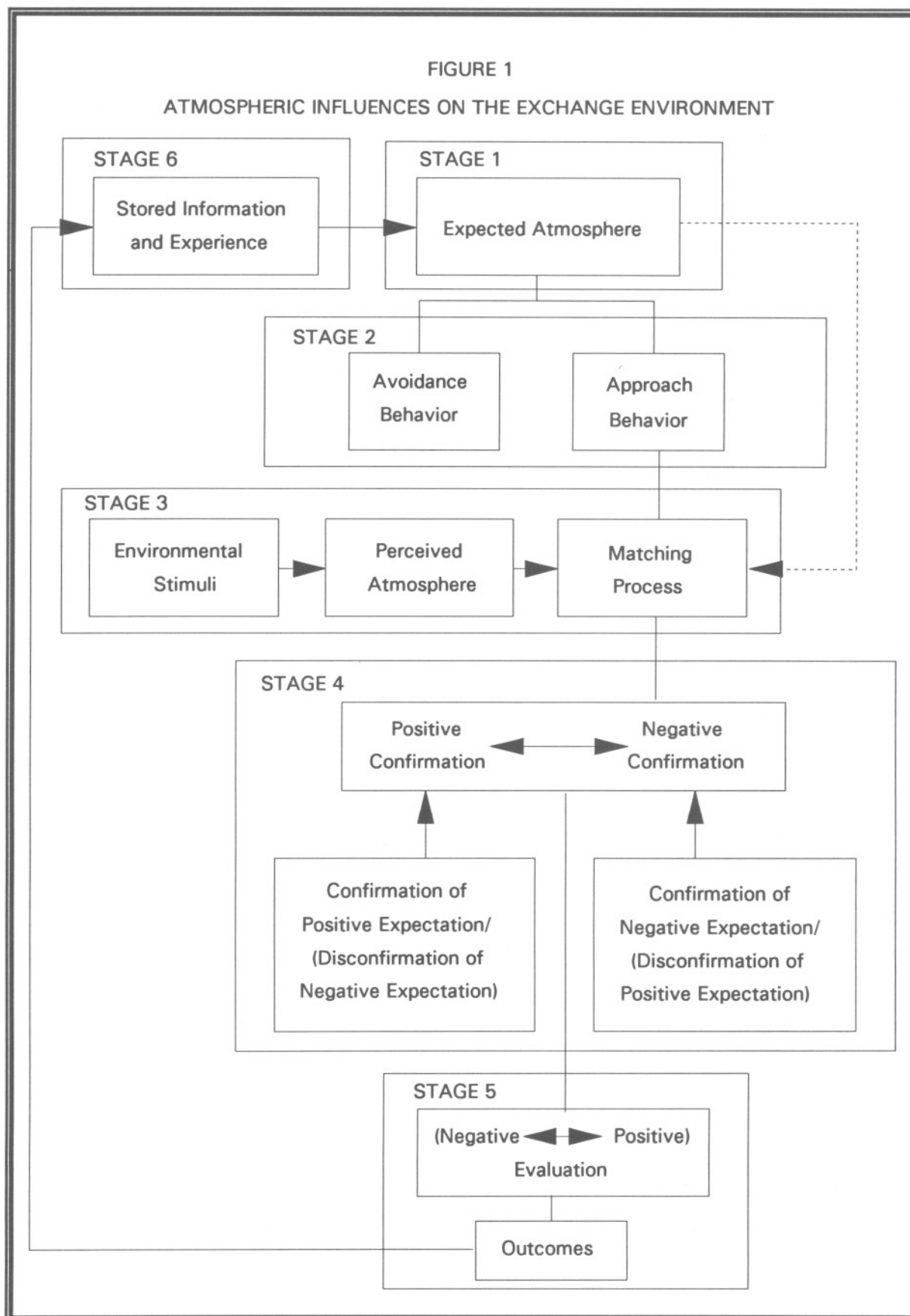
Stage One: Expected Atmosphere

As a type of psychological shorthand, the expected atmosphere of a consuming situation is based on one's perception of reality. At one end of the continuum, this perception may stem from an inventory of actual experiences where the consumer has learned to anticipate, and perhaps even enjoy, certain physiological sensations. At the other end of the continuum, consumers may possess nothing more than a prescriptive set of presumed realities (e.g., when one enters a western wear store, be "should" smell oiled leather, touch rough textures, and hear country and western music).

While the generalizing of this last example is probably accepted, the desirability or importance of any particular physical stimulus is highly dependent upon the individual. It is likely that both sociological forces (e.g., culture, social class, or reference groups) and psychological forces (e.g., self concept, personality, and values) interact to produce a set of salient atmospheric criteria. It is highly unlikely that an individual would have no expectations about the physical cues associated with any particular exchange environment.

Stage Two: Approach/Avoidance Decision

With very few exceptions, consumers will define and anticipate the physical dimensions of a potential consuming situation. To the extent that these physical dimensions are believed to be satisfying or at least acceptable, the expected atmosphere can increase the probability of an "Approach" decision. Conversely, the presence of unacceptable, unsatisfying or unanticipated physical dimensions would increase the probability of an "Avoidance" decision.



Stage Three: Matching Process

If "Approach" behavior is undertaken, consumers place themselves in time and space specific situations; each with its unique set of operating atmospheric variables. At this stage, consumers consciously and subconsciously assess the physical dimensions of the actual purchase situation in accordance with their set of atmospheric predispositions (e.g., furniture shoppers experience the scent of new furniture). Because of differences in stimuli expectations, consumers tend to be quite selective in the areas of perception, attention, interpretation and emphasis of selected environmental stimuli.

This selectivity seems to be as much product-oriented or person-oriented as it does situation-oriented. Consumers appear to possess varying degrees of environmental sensitivity (Grossbart, Amedeo, and Chinchin 1979). The greater the intensity of feelings associated with situational experiences, the more carefully atmospheric variables must be controlled. Obermiller and Bitner (1984) suggest that level of involvement with the product may contribute significantly to the role of atmospherics. Specifically, environmental stimuli and product involvement appear to be inversely related; as product involvement increases, the effect of atmospheric variable stimuli tends to diminish. This suggests that the salience of atmospheric stimuli can, perhaps, be affected or even overridden by strong, impactful product criteria or specifications.

However, it must be emphasized that the apparent inverse relationship between goods and their surrounding atmosphere does not, necessarily, extend to all types of services. Since the atmosphere enveloping the provision of many services provides most of the tangible cues for judging service quality, the relationship between service and its atmosphere is highly correlated (McElroy, Morrow, and Eroglu 1990; Turley, Fugate, and Milliman 1990).

Stage Four: Confirmation/Disconfirmation

As a result of "Approach" behavior and the matching of expected to actual physical stimuli encountered, consumers complete a confirmation/disconfirmation process. While this may be accomplished in some exchange environments subconsciously, confirmation of positive expectations (resulting in a positive outcome) or disconfirmation of negative expectations (resulting, also, in a positive outcome) increases the probability that the behavior will be engaged in again and thus, is an important link in the chain of atmos-

pheric influence to the marketer. Conversely, a negative outcome could result from either confirmation of negative expectations or disconfirmation of positive expectations. In this latter event, the probability is reduced that the behavior will be engaged in again.

Most likely, there is an expected intensity and definition range for each salient atmospheric variable which helps guide the confirmation (falls inside the range) or disconfirmation (falls outside the range) process. Knowledge of these range parameters would be important marketing information. Presumably atmospheric variables would be subject to Weber's Law and any stimulus exceeding the j.n.d. (just noticeable difference) threshold would increase the probability that the consumer would re-evaluate the situation and possibly result in a change in behavior or probability of a response.

Stage Five: Evaluation

If actual and anticipated sensory experiences are similar, it is not likely that atmospheric variables will change purchasing or decision-making behaviors since the status quo will have been maintained. In such a case, evaluation is basically a validation of prior learning.

If, however, actual and anticipated sensory experiences are sufficiently dissimilar, the probability of a shift in perception and cognitive elaboration is increased. This is schematically depicted as a continuum of possible evaluation values. Note that the probability of behavioral change resulting from evaluation is non-directional (neither plus or minus) since disconfirmation could possibly have a positive outcome for the marketer (i.e., the purchase/decision atmosphere is more appealing than expected or less unappealing).

Depending upon future pairings of physical stimuli and situations, new consumer learning may occur. The Evaluation process would then shift to accommodate this new relationship.

Stage Six: Stored Information

Once the customer has actually entered a purchase situation, selected, interpreted, and placed appropriate emphasis on the physical dimensions of the situation, it is likely that this processed information becomes part of long term memory. Information stored in memory becomes a basis which can influence consumers expectations of future atmospheres. If a particular physical stimulus becomes quite important to the consumer, it

is possible that this stimulus will become part of the set of evaluative criteria used to evaluate a particular buying situation (e.g., I won't go to restaurants where I have previously experienced the offensive smell of cigarette odors from which I could not escape). Conversely, for another individual, cigarette smoke may have no adverse influence on his or her choice of restaurants; quite to the contrary, restaurants without "non smoking areas" may be preferred since patrons do not have to be concerned about possibly offending someone if they do smoke. In either case, stored information about an atmosphere can play a major role in consumer decision-making.

REVIEW AND RECOMMENDATIONS

Marketers have several opportunities to influence the interaction between consumer and the physical dimensions of the exchange environment. The first of these critical points is at Stage One, Expected Atmosphere. As discussed earlier, the phenomenon of atmospheric expectations is closely related to image; those awarenesses which exist mentally when the actual counterparts are absent. A consumer may have never directly experienced a given marketing atmosphere, yet still possess an expectation of what it is like. Thus, to encourage the desired approach behavior in Stage Two, the marketer should create an expectation of a pleasant sensory experience (e.g., an environment rich in physically appealing and culturally appropriate stimuli). This may be accomplished by using selected components in print and electronic media advertisements. The type of music, photographs, pictures, or illustrations that are shown of the business and the verbal and visual portrayal of any sensory determined element are all important. Each of these cues carry an encoded message which symbolically suggests what type of atmospheric experience the customer is likely to encounter when entering the advertised exchange environment. Vicarious learning is probably as important as experiential learning at this stage.

The next critical opportunity is at Stage Three; the matching process. Here the individual is enveloped by the exchange situation's surroundings. The customer directly experiences what was previously only anticipated. The marketing objective at this point is to have the atmosphere experienced match (equal) or positively exceed the individual's expectations. It was earlier postulated that an inverse relationship existed between product involvement and atmospheric variable influence. Assuming such a relationship exists, the matching process would likely have considerable influence on purchase behavior, especially for lower

product involvement situations where peripheral routes to persuasion and non-elaborative cognitive processing routines are prevalent.

It is also likely that Stage Three is highly important in the marketing of services. Given the difficulty of judging the quality of intangibles, atmospheric variables can provide tangible, though surrogate, indicators of service quality. Atmospherics may also be important when services are extrinsically similar. Thus, as the number of service marketers competing for a buyer's attention increases, "atmospherics may well prove to be a basis for choice or rejection" (McElroy, Morrow, and Eroglu 1990; Turley, Fugate, and Milliman 1990). However, McElroy points out that, at least in some service marketing situations, "Atmospherics are likely to become less important over time as the interpersonal relationship between a customer and seller matures."

Regardless of the product situation, marketers should strive for positive outcomes either by having the atmosphere confirm positive expectations or disconfirm negative ones (Stage Four). Buying behavior is encouraged (purchase probability increases) through positive atmospheric outcomes (whether confirmation or disconfirmation of atmospheric expectations). Therefore, the marketer or atmospherics engineer must carefully plan an appropriate atmosphere. Suitable items of concern are floor coverings, background music, store or office furniture, wall coverings, lighting intensity, room temperatures, aromas, and others. The atmospheric variables should be carefully coordinated and orchestrated around a singular objective—to construct, maintain, and/or reinforce the desired atmospheric effect.

A special case exists where expectations are negative; unpleasant sensory cues or those with unfavorable symbolic values are anticipated. Selective perception and interpretation may negate any positive influence that these or other atmospheric variables would have upon the purchase decision. In this case, it may be appropriate for negative expectations to be disconfirmed (i.e., the cumulative effect of sensorially determined cues exceeds the customer's resistance threshold). This would require marketers to place greater emphasis than normal on the planning of high-arousal atmospherics especially in the case of low-involvement goods and services where salient criteria do not easily override the influence of atmospheric variables.

The evaluation and subsequent feedback loop (Stages Five and Six) represent the logical outcome of

confirmation or disconfirmation paradigms. Positive outcomes and experiences with atmospheric variables should increase the probability of repeat purchasing behavior and favorable word-of-mouth communications. In fact, familiarity with situational cues seems to diminish the level of information processing capability allocated to these cues. For this reason, Stages Five and Six become perhaps more important when a new customer or client is involved.

There appears to be an inverse relationship between the importance of evaluation and feedback and the number of direct experiences an individual has had with a store or office. Thus, if the marketer is opening a new exchange outlet, is continually attempting to attract new customers, or is dealing with long repurchase cycles, the evaluation and feedback stages may have proportionately greater influence on the purchase behavior of customers. In addition, the feedback mechanism is closely related to positive or negative word-of-mouth publicity which, as mentioned previously, can affect the anticipated atmospheric formulations of other potential customers or clients.

One area which has not yet been explored is the impact of atmospherics upon product and exchange satisfaction. Much of the current satisfaction literature centers on the theoretical premise that satisfaction is a function of confirmed expectations. If that theory is valid, then confirmed atmospheric expectations, when those expectations are positive, could reasonably be anticipated to influence consumers' perceptions of satisfaction when atmospheres are considered a relevant criterion in the decision process.

CONCLUSION

This paper attempts to give structure and substance to the familiar, but somewhat disjointed and disorganized, concept of atmospherics. It is very clear, from the existing research conducted on the subject, that atmospherics can play an important role in affecting buyer behavior in certain types of exchange environments. However, issues raised clearly delineate the need for considerably more empirical research on atmosphere, atmospheric variables, and its possible influence in different marketing situations. Marketers would be well advised to appreciate both the potential and limitations of atmospheric variable influence. For instance, is there a consistent inverse relationship between product involvement and atmospheric influences? Is there an inverse relationship between the number of direct experiences with a specific atmospheric situation and the formulation of one's atmospheric impressions/expectations? Are certain types of individuals more susceptible to atmospheric influences than others (e.g., women more than men or younger consumers more than older consumers)? Is there a hierarchy of sensory influences, i.e. do visual atmospheric variables have more influence than auditory variables? To what extent does familiarity lessen the impact of atmospheric variables? The list of questions which could be posed and investigated is far greater than the list of answers that have been provided since the concept of atmospherics was first developed and published. Thus, there is opportunity for considerably more in-depth research in this area to test and further develop the paradigm of atmospherics presented in this paper.

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Pittsburg State University	57	Western Illinois University	57
University of Arkansas	57	Western Kentucky University	66
