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AMBIANCE FACTORS, EMOTIONS, AND WEB USER BEHAVIOUR: A MODEL INTEGRATING AND AFFECTIVE AND SYMBOLICAL APPROACH

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Ambiance factors, emotions, and web user behavior : a model integrating and affective and symbolical approach

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Résumé

Ce papier traite de l'efficacité de l'utilisation de la musique d'ambiance sur un site marchand :

- il propose une revue de la littérature sur les facteurs d'ambiance, en publicité et en comportement sur le point de vente, capitalisant sur celle-ci pour :
- proposer un cadre théorique qui améliore notre compréhension du comportement de l'internaute exposé à un facteur d'ambiance tel que la musique, avec une attention particulière à la fidélité et le comportement de recommandation ;
- un modèle est proposé.

Mots-clés : facteurs d'ambiance, emotions, congruence et symbolisme, comportement en ligne.

Abstract

The present paper addresses the efficiency of manipulating music in a merchant website, and it :

- proposes a review of the literature on ambiance factors in advertising & shopping behavior, capitalizing on it to:
- propose a theoretical framework that enhances our understanding of the web-user behaviour in specific ambiance factors such as music, with a specific attention devoted to his loyalty, & affiliation behaviour;
- a model of is proposed.

Key Words: ambiance factors, emotions, fit & symbolism, on-line behavior.

AMBIANCE FACTORS ARE IMPORTANT FOR PRODUCT PURCHASING

Definition of ambiance factors or atmospherics

The difference between ambiance factors and atmospherics is unclear in the literature and both words are often used indistinctively. The origin of the word "ambiance" comes from the Latin "*ambiens*": it gives *ambiens* in French, in 1515, progressive form of "*ambire*", "to go around" (gives in Fr.: "*ambassade*, *ambages*, *ambition*"); is used in Science, 17th & 18th c., "a liquid that circulates around"; since end 19th c., "physical or moral atmosphere", this last one being the modern meaning of the word (DHLF, 1992).

Atmospherics refers to the cues that can create a specific atmosphere; this last word comes from the

Greek "*atmos*", humid gaz, & "*sphaira*", celestial sphere; till 17th century, is used for the envelope of air that surrounds a planet; in the mid 18th it takes the modern meaning of "the air we breathe in a place", and "milieu that surrounds one, intellectual or moral ambiance", (DHLF, 1992).

This is soon 30 years ago that the first attempt was made of taking into account the impact of ambiance factors or atmospherics on the consumer behavior.

The first, Kotler (1974) gives a definition of the concept as corresponding to the effort of design and conception of the outlet, that aim to generate in the consumer a number of specific emotional reactions which are supposed to increase his likelihood to buy.

The definition we would like to propose refers to atmospherics as "all the physical and non-physical

elements of the store that can be controlled with the aim of influencing the behavior of the people in the store" (Eroglu & Machleit, 1993). It is still somehow incomplete in the sense it does not take into account the impact on non-behavioral elements, such as cognitive processes, emotional and physiological reactions. Most of the authors are unanimous in integrating among the atmosphere or ambiance factors the music, the colors, the scents, the lighting. Some authors focus on physical elements (Kotler's approach), others add or focus on non-physical elements such as characteristics linked to the social surrounding, e.g. the level of crowding, or the emotional and social meaning of the physical appearance of the salespeople.

We propose to adopt the definition of Eroglu and Machleit, but including the possibility that such atmospherics might impact not only behavior, but attitude, emotions, cognitions: atmospherics or ambiance factors are "all the physical and non-physical elements of the store that can be controlled with the aim of influencing the behavior, cognitions, emotions, attitude of the people in/towards the real or virtual store". In the present paper we shall focus on music, using the word "atmospherics" or "ambiance factors" indifferently.

The research on atmospherics in marketing

A large number of investigations have been carried out on the impact of the ambiance factors on the behaviour of an individual, e.g. in an organization in order to study the optimal working conditions, as well as in a commercial outlet in order to enhance the loyalty, the purchase intent or purchase behaviour, and the affiliation behaviour, (Mehrabian & Russell 1974, Donovan & Rossiter, 1982, Bruner, 1990, Donovan & al., 1994, and Sierra, 2000).

In consumer behavior the impact of ambiance factors has been studied in a commercial outlet, and in a service environment for services distribution.

In most cases research has focused on the role of one single ambiance factors, and on its impact on either the hierarchy of effects in advertising, (Gallopel, 1998, Morris & Bone, 1998, Gallopel, 2000, Mayol 2001), or on the consumer behavior in a commercial outlet (e.g. Sibéril, 1994, Baker & Parasuraman, 1994, Rieunier, 2000) or in a service encounter (Dubé & al., 1989, Pruyn & Smidts, 1998, Wirtz & Bateson, 1999).

In spite of such studies it is mentioned by authors that ambiance factors have been widely ignored until recently, and that in spite of the importance of their impact on the consumer behaviour, it is said that:

- either the lack of interest towards such elements shows a surprisingly limited appraisal of the determinants of the behaviour in a service or a

commercial environment, (Bitner, 1992, Groeppel-Klein, 1995, 2000),

- or that the theoretical frameworks commonly adopted were clearly insufficient to deal with the many controversial results on the impact of ambiance factors on behavior, and particularly on the impact of music on consumer behavior, (Gallopel 1998, 2000).

In our opinion the reason for ignoring such elements – Kotler's comment of ambiance factors and Mehrabian & Russell's seminal work, both from 1974, will not be followed by research in marketing on the question till 1982 – is due to the importance of those non cognitive, unconscious, emotional reactions that lead to, or accompany, the consumer reactions to ambiance factors, and to the fact that a strong dominant cognitive paradigm was dominant in marketing research till the beginning of the 80's, (Le Doux 1996, Zajonc 1978, 1982).

Ambiance factors off-line; and on-line?

Of course we highlight here the interests, and the limitations, of the existing literature on ambiance factor... off-line: needless to say that nothing exists on the consumer behavior on-line, and it is one of the academic contributions of the present paper to try to capitalize on the most recent findings on ambiance factors (off-line in most or in all the cases) and to try to see what can be relevant in our objective of better understanding the behavior on-line.

To make it more simple we shall study here only the role of music, and will only deal with merchant websites; we nevertheless must highlight that this approach might be of some interest for non-merchant websites (content, learning, or others).

TOWARDS THE INTEGRATION OF THE ENVIRONMENTAL FACTORS

The first step in recognizing the importance of environmental factors on the consumer behaviour was made by Kotler (1974). A taxonomy of 5 different types of situational factors is proposed (Belk, 1975) among which the environment factors are defined as the factors linked to apparent or visible characteristics of the physical environment. The other 4 factors proposed by Belk are the social environment, the time perspective, the roles attributed to the actors in a given situation, and finally the initial affective and psychological state of the consumer.

Mehrabian & Russell offer a large review of the literature on the impact of environmental factors in (human & animal) Psychology, and in Organization Management. They propose the concept of "ambiance factors" (AF), that also corresponds to the concept of Belk mentioned here-above, as well as a model that integrates the mediating role of

emotions in the impact of ambiance factor on the behaviour of an individual in a social, organizational, as well as a commercial environment. We are interested mainly in the part of such research that deals with the commercial environment. Their objective is bypassing the

traditional "black-box" or behaviourist approach which ignores emotional reactions, by a model commonly denominated S-O-R, for Stimulus-Organism (actually "Emotional Reactions")-Response, as follows:

| |
|--|
| Environmental stimulus----->Emotional reaction----->Behavioral response. |
|--|

They propose and validate an emotion measurement scale called PAD (Pleasure-Arousal-Dominance), consisting of 18 items that will be widely used in the following 25 years, and widely accepted in the international research since then.

They propose a taxonomy of two general families of behaviors defined as Approach (to stay, explore, purchase, affiliate, and to be loyal to) vs. Avoidance (the opposite) behaviors, that will be extremely fruitful in their application to a number of service or product purchase situations: "the generic concept of approach-avoidance is defined as a conceptual set comprising preference, exploration, work performance, and affiliation", p. 136. Note that in their acceptance, affiliation means trying to establish a contact with another person, whether in the organization (asking instructions to the boss, to a colleague) or in a shop (asking information to a salesperson, to another customer). Significant results are evidenced in the following two decades (Milliman 1982, 1986, Donovan & Rossiter 1992, 1994, for example). This approach will nevertheless give low results in some cases.

Some limits of the S-O-R approach and the need for another framework

One important limit that has to be mentioned: this scale has been conceived for any kind of behavior that can be influenced by an environment: e.g. a waiting room, working conditions, looking at a spectacle, etc., and not only in a consumption or purchase context.

Comparable studies by the way show the superiorities of other scales in specific contexts, such as advertising, or merchant environment.

Richins for instance, in a context of consumption, compares the emotional scales of Izard (1977), in its modified version DESS II, the Psycho-evolutionary emotional scale of Plutchik (1980), and the PAD scale of Mehrabian & Russel (1974), with her proper scale, in a mere commercial context. She finds major differences in validity and shows the superiority of her scale, for assessing the emotional reactions elicited in a commercial environment (Richins, 1997).

Other studies find low validity results with the PAD scale in a number of experiments. Some might be due to the use of an indirect measure and a possibly low understanding of the questions about the emotional states by the consumers (Sibéril 1994, Morris & Bone 1998).

Limited results may have been found, either as to its predictive power on satisfaction and behaviour, or as to the internal validity of the emotional scale proposed in the original PAD form, or in the reduced scale (only Pleasure & Arousal) proposed by Russel & Prat (1980); see e.g. Sibéril (Sibéril, 1994: impact of music on the consumer behaviour in supermarket and a hypermarket), Gallopel (Gallopel, 1998: impact of music on the consumer behaviour towards commercials and brand image), Drugeon-Lichtlé (Drugeon-Lichtlé, 1998: impact of the colours on printed advertising and brand image), Rieunier (Rieunier, 1998 & 2000: impact of music on the consumer behaviour in a commercial outlet).

Most scholars even just do not use the full PAD scale and stay with the first two factors, Pleasure-Arousal. Only Groeppel-Klein keeps the full scale, including the 3rd factor, Dominance, and finds interesting results of predictive power of the latest on behavioural, and attitudinal measures (Groeppel-Klein 1997, 2000, 2001).

An extensive review of the literature on the impact of ambiance factor on the consumer behaviour concludes to a number of limitations of both the S-O-R and the mere conditioning approach, that have to be bypassed by a more comprehensive framework, in order to understand the impact of ambiance factors on such behaviour (Gallopel 1998, & Rieunier 1998, 2000).

In one word the scale is useful, but the sustaining framework is too narrow and we consider this to be the major reason for enlarging our perspective in the present approach. We think it remains a very valuable scale if we do not look for specific emotions elicited, but only for the detection of *some emotional/affective reaction* to the manipulations, without needing to identify, via the measurement scale, which emotion was generated.

Actually we will try to identify the levels of pleasure / displeasure and of arousal, mainly, and this scale is sufficient for such purpose (Richins, 1997).

Another limitation of all those verbal approaches is that emotions are assessed only through verbal measurements, which generates an incomplete appraisal of such phenomenon. This is why some key articles in the literature on emotion and consumer behavior do recommend crossing the measurement methods (Derbaix & Pham, 1989, Bagozzi & al., 1999), and this is the purpose of the present study.

We will hence propose a multiple emotional measurement in our field survey, with a verbal + a psycho-physiological measure (EDA), as the little number of studies that have used such cross measurement methods have proved fruitful so far (Kroeber-Riel, 1984, Sanbomatsu & Kardes, 1988, Groeppel-Klein, 2000).

THE RELEVANCE OF THE EXPERIENTIAL APPROACH

Introduction to the Experiential approach

One of the important supports of our theoretical framework lies in the experiential approach, for its ability to account for non-goal directed behaviors, in which the benefit of a behavior is not material nor economic, not even fully assessed for by the Maslow's hierarchy (Csikszentmihalyi, 2000), and is not a mere result of, but is rather in the very process of the studied behavior.

Decades of research in psychology and in consumer behavior have relied on a so-called cognitive paradigm that assumed that the individual is driven by a sequential, rational analysis of a situation, treated as a problem-solving process, and that cognition would explain our reactions and behaviour (Le Doux, 1996).

Conversely, Holbrook & Hirschman (1982) propose the so-called Experiential Approach that enlarges our perspective, taking into account not only the goal-directed behaviours, but the benefits that he/she can find in the mere completion of an act, e.g. an exploration, a shopping process, regardless of the goal-directed benefits.

That is, a consumer may also act in a pure "experiential" perspective, for the benefit of a strategy may be found in the proper act itself. This approach proposes that symbols, signs, environment, hedonism and pleasure in the process itself (e.g. in shopping, in exploring) may offer sufficient benefit to partly drive our behaviours. The following definition is proposed and adopted here: an approach that considers that "activities are not guided by goals or outcomes, but by the process itself" (Bloch & al., 1986).

On the figure in annex, Fig.1, are listed the drivers and rewards of consumer behavior: on the left side are the elements traditionally taken into

consideration in consumer behavior, according to Holbrook & Hirschman; on the right side are the drivers/rewards that those authors propose to take into account too, in bold are some features particularly relevant in our approach.

Holbrook (1986) refines his experiential model and proposes the C-E-V (Conscious-Emotion-Value) model, that integrates the importance of emotional and hedonistic benefits, as well as how such affective reactions are assessed and evaluated (concept of "value"), in order to better explain our consumption behaviours. That is, the emotional benefits are integrated, as well as how such benefits are evaluated according to the situation and to the characteristics of each individual.

In the specific shopping context, the experiential benefits conceptualised by Holbrook & Hirschman (1982) may refer particularly to fun and playfulness. A number of studies have been made on the subject (Babin & Darden, 1995, Babin & al., 1994, Underhill, 1999, Jones, 1999) that confirm its relevance, always in off-line shopping, we address such field of research here after.

The relevance of the experiential approach in a shopping context

In line with the research on experiential shopping behaviors, Jones defines entertaining shopping experience as "fun and pleasurable shopping experiences (and) are similar to leisure or recreational experiences in that both are characterized by intrinsic satisfaction, perceived freedom, and involvement", (Jones, 1999, p. 129).

Such experiences provide hedonic value to shoppers (id), and reflect what is conceptualised as the experiential benefits by Holbrook & Hirschman, and also by Babin & al. (1994). Such benefits may be experienced through a shopping process, via the purchasing or a product or without any purchase, (Jones, 1999).

Bloch & al. show that browsing may be a source of shopping experience that can be realized for the mere benefit of such behavior, independently of any other purpose. That is, the pleasure of the mere act of shopping may provides enough benefit in itself; Babin & al. also quote Christmas shoppers referring to "loving shopping for toys because of the little kid in me", and to others who "enjoy shopping when it helps (me) forget (my) problems". Playful behavior is reflected in the intrinsic enjoyment of engaging in activities that are absorbing, to the point of offering an escape from the demands of day-to-day world: "the intrinsic enjoyment of playful exchange behavior serves as an end unto itself, engaged in without concern for practical considerations" (Babin & al., 1994). We shall also comment hereafter the Korgaonkar & Wolin's findings on-line (1999) on this very important point.

It is evidenced that "the purchase of goods may be incidental to the experience of shopping. People buy so they can shop, not shop so they can buy", (Langrehr, 1991, p. 428). Underhill (1999) gives a number of measures or observations in different outlets, covering a very large range of product categories such as food, clothes, electronic devices etc., that show that the shoppers is also looking for entertainment. A number of examples of the relevance of such approach in marketing are proposed in books of marketing too (Schmitt, 1999).

Hedonic benefits experienced through shopping, off-line, are hence contrasting with the benefits resulting of a shopping that ends in a purchase (Jones, 1999). Jones finds out through a comprehensive survey using the CIT (Critical incident Technique) that store environment is one of the 5 critical factors that participate in generating entertaining or un-entertaining shopping experience.

Experience might also be a major driver of shopping off-line: to complete our theoretical framework we therefore propose to study if such experiences can be encountered on-line.

RELEVANCE OF THE EXPERIENTIAL APPROACH IN ONLINE SHOPPING

Why the experiential approach should be relevant for Internet behavior, as it was basically proposed for off-line consumption behaviors? It is proposed that whether it is purchase-oriented or not, a session on Internet is similar to a research of data, information – eventually completed by a purchase process. That is, surfing is a process, and not an instantaneous sequence.

A one-company, commercial website may belong to the 2 first, of 6 the following categories:

Online storefront;

Internet presence site (that is, a site that allows the company/brand to benefit from a virtual presence);

Content sites;

Mall;

Incentive site;

Search agent, (Hoffman & Novak 1995).

An Internet "presence site" (the second family) may be of three kinds:

flat ads;

image;

information websites (ibid).

In the "image", presence website, "the consumer appeal is emotional rather than rational. Information about the product, if any, is provided in the context in which the product is consumed, or has meaning to the consumer", ibid, p. 13. This perfectly fits the approach proposed by Holbrook & Hirschman (1982), and by the C-E-V model (Holbrook 1986), because the content of navigation on Internet does not merely consist in consuming a product, but in spending time in a process with a more or less goal-directed perspective.

This is consistent with the fact that number of (or all?) commercial websites provide information and not only an opportunity to purchase (Hoffman & al. 1996). Here after is a typology of behaviors on-line, where it is proposed that they would belong more typically to an experiential (conversely goal-directed) kind of behaviors.

Typology of situations, goal-directed vs. experience-motivated behavior :

| Search motive: | Involvement: | Behavior: |
|---------------------------|-------------------------|------------------|
| task completion | situational involvement | |
| | with goal: | goal-directed; |
| prepurchase deliberation | situational involvement | |
| | with product: | goal-directed; |
| information bank building | enduring involvement | |
| | with product: | Experiential; |
| Opinion leadership | enduring involvement | |
| | with product: | Experiential; |
| Recreation | enduring involvement | |
| | with process: | Experiential. |

Hoffman & Novak 1995, p.62.

Retailers on-line define themselves as an "experience stager" rather than an service provider, and "the brick-and-mortar segment, for example, is being transformed into "retail interactive theatre" (Mathwick & al., 2001, p.40). In this way the elements of design of a website would hence be important drivers of the satisfaction with the experience of surfing on a merchant website.

Such elements have a high impact, higher than the payment security or even the product offering (Szymanski & Hise, 2000): Fig.2, annex.

Interesting results are evidenced in assessing the motivations for surfing on the web (420 users, all already web users, Korgaonkar and Wolin, 1999).

The first factor F1 is the most important motive and concern in the experience of surfing (the

items that describe such factor are listed below);

then F4 is detailed too:

| F1 = so-called "Social escapism" motivation | loadings | reliability .91 |
|---|----------|-----------------|
|---|----------|-----------------|

Most of the items are consistent with the framework proposed by the experiential approach:

| | | |
|--|-------------|------|
| So I can escape from reality | .824 | |
| Because it stirs me up | .756 | |
| Because it arouses my emotions & feelings | .755 | |
| Because it makes me feel less lonely | .740 | |
| So I can get away from what I am doing | .738 | |
| So I can forget about work | | .734 |
| Because it shows me how to get along with others | .732 | |
| Because it helps me unwind | | .728 |
| So I won't be alone | | .716 |
| I do not like to use the web alone | .562 | |
| Because it takes me into another world | .557 | |

High internal consistency (.91), the statements characterize web use as "a pleasurable, fun, and enjoyable activity that allows one to escape from reality";

| | | |
|---|-------------------|-------------------------|
| F4 Interactive control motivation | reliab .83 | eigenvalue 1.531 |
| Those items would correspond those used by Mehrabian & Russell for measuring their emotions of PLEASURE & AROUSAL; the authors include them in the factor "Interactive Control" nevertheless; 3 items: | | |
| because I enjoy it | | .574 |
| because it is thrilling | .573 | |
| because I find it exciting | .504 | |

It seems therefore reasonable to consider that positive emotions act as a reward and are likely to impact the web-user behavior in a commercial context, and we propose the following hypothesis:

Hyp. 1: "Elements of the design of a website (such as ambiance factors) may impact the emotions of the web-user in a shopping context, which in turn impact his/her satisfaction and hence his/her desire to stay longer on the website."

OTHER LIMITS OF THE PREVIOUS S-O-R APPROACH, THE NEED TO INTEGRATE SYMBOLISM

First step towards a symbolical approach

Before any literature in psychology or marketing is reviewed it must be remembered that an ancient literature records the impact of music on affect, and on behaviours.

In ancient Celtic society it is precisely due to the power that music gives to the bards, on human emotions and behaviors that those men were considered as part of the corporation of the Druids (Le Roux & Guyonvarc'h, 1986). For instance the harp player is able to have people who listen their music, cry, be happy, or fall asleep, id p. 293. This is why music is considered in this society "altogether as an entertainment, a magic practice

and a therapeutic practice", id p. 294. For the same reason any prince or king had his own harpist, as well as he had in his court an historian or a druid. Music creates diseases, cures them, generates joy, and helps abolishing time, id p. 295. For these reasons music is considered as an art from the Other World and the musicians have a high social and sacred position in the Celtic society, id, p. 142-143.

A number of studies on music as ambiance factor record the texts of e.g. Aristotle, and Rousseau, two important theoreticians on the role of music on "soul" and emotions, and consequently on behaviors in their view on mankind.

Interestingly enough an extensive review on the clinical psychology literature and the use of music in dealing with psychological diseases, through the 19th & 20th century shows that the interest towards music in impacting affects and behaviors has led to a number of experiments in psychology and psychiatry (Arweiller, 1980). It has been thought early in psychology that a Stimulus-Response approach could give interesting results. But controversial results in the late 19th century, and finally a conclusive research by Ricci in 1936 led this line of research to be abandoned. Music does impact affects and behaviors, but in a too complex

way for an S-R approach to account for the range of results.

Lacher & Mizerski (1995) give an interesting view of the meaning attributed to a music impacts the behavior of individuals in different, non-commercial contexts.

At the end the strictly affective hypothesis for explaining the impact of music on the advertising hierarchy of effects is little sustainable (Gallopel, 1998). The appraisal of the meaning of the proper music has a role: we therefore propose in the next step to address the symbolical meaning of music in a merchant, on-line context.

The fit or congruency between ambiance music and the image of the brand or the product

We have addressed the ambiance factor in general but it is proposed here to focus on the particular impact of music, and on its power in creating an atmosphere, and in impacting the attitude, evaluation, and behavior, in a commercial or advertising, context, both being relevant for assessing the consumer behaviors on-line.

Music has been studied for long, and a number of results show the relevance of this particular ambiance factor in marketing (Milliman 1982, Donovan & Rossiter 1982, Bruner 1990). We will not detail all the literature as an extensive review can be easily found (Rieunier 1998, 2000, Turley & Milliman 2000 or Gallopel 1998, 2000). It is nevertheless shown that in general a "pleasant" (in the meaning of Mehrabian & Russel) music enhances the approach behaviours (as conceptualised by Mehrabian and Russel) as well as the evaluation of an offer, and the purchase behaviour in a number of cases – but ... not always.

In which way & how do the components of the proper music affect behavior?

A wide literature studies separately the impacts of the style, the volume, the tonality, the tempo, the rhythm (which is different), etc., either in an advertising, a commercial, or a service context (Bruner, 1990), and no conclusive result can be found out.

The pleasantness and style of the music, for instance, is a major driver of the impact on purchase behavior in some cases (Milliman 1982, 1986). Controversial result nevertheless emerge from other findings (Sibéril, 1994, Top 40 vs. Classical music - much less "efficient" in enhancing purchase). She also records inconsistencies in the results of the affective reactions towards music: those might be attributed to the indirect measure used for assessing the Pleasure and Arousal of Russel & Prat's (1980) scale, through the set of pictorial representations called the SAM, Self Assessment Manikin, used instead of the original semantic scales. This shows the difficulty in

assessing emotional reactions properly through a single, e.g. verbal or pictorial method.

Interestingly, the context in which the music is experienced such as an hypermarket (Sibéril, 1994), vs. a fashioned wine-store (Areni & Kim, 1993) might moderate its impact on the consumer behavior; but why? The mere Stimulus-(Organism-)Response conceptual framework is still not sufficient to propose a satisfactory explanation for the varying impact of music. Such controversial results show that the way the larger physical environment is appraised might moderate the way the (musical) ambiance factors impact the consumer behavior. An approach that only takes into account a Stimulus-Response approach, or even with the moderating effect of the emotional reactions to the music (S-O-R), is shown to be insufficient for explaining the impact of this ambiance factor, in advertising (Gallopel, 1998), or in commercial outlets (Rieunier, 2000).

Enlarging the framework: towards a reconciliation of cognition & emotion?

Actually it is probable that the old opposition between emotion and cognition has to be bypassed, (Derbaix & Pham, 1989). As Le Doux states, a long tradition in psychology had under-evaluated the role of emotional reactions and its relations with behavior. Yet a number of publications in the 80's 90's have shown that emotions and affect are strong drivers of behaviors in consumption contexts, but then do we have to consider the role of affect or emotions separately from cognition (Zajonc, 1978, 1982)? Which also supposes the necessity to take a position in the debate on the pre-eminence between emotion and cognition and their impact on behavior, which is not an easy debate, from James (in Le Doux, 1996 and Groeppel-Klein, 2000), to Zajonc (1978, 1982, 1986).

New step with the symbolical approach: justification and contribution for understanding the consumer behavior off-line

A recent line of research shows the relevance of taking into account the fit between the cognitive content of a message and the meaning attributed to a music, for better understanding the persuasion route, and assessing the effects on the hierarchy of effects in advertising (McInnis & Park 1991, Kellaris & Powell-Mantel 1996, Morris & Bone 1998).

Lacher & Mizerski (1995) highlight the necessity of better taking into account the imaginative reaction of consumers to ambience music, to better understand & predict their behaviors.

Frances (1958: Arveiller, 1980, and Gallopel, 1998), and Frances (1963: Arveiller 1980), shows that music acts as a language, has a meaning,

wherever we are unaware of it. This leads us to propose a conceptualisation of the "symbolical dimension" of music, the role of which is assessed with very positive results in advertising (Gallopel, 1998, 2000). Evidences partly confirms the relevance of such symbolical approach in an outlet too (Rieunier, 2000).

It is therefore proposed that the line of research on the symbolical meaning of music is a major milestone in the literature on emotions, ambiance factors, and consumer behavior, by taking into consideration the symbolical meaning of an ambiance factor through the congruence or fit between such ambiance factors, and the values attributed to the brand / product / message considered. This approach has several advantages:

It helps understanding their original results, and designing new experimental designs;

It seems to perfectly fit the C-E-V (Consciousness – Emotions – Values) model proposed by Holbrook 1986 and finally not very often tested in the literature, a conceptual model that makes environmental and experiential approach meet together;

Last, it bypasses the controversy on affect vs. cognition.

This approach might also help bridging the gap between the need for more theory and a number of non understood or controversial results in environmental studies, particularly using music as an ambiance factors, which are not well explained by the mere conditioning approach, by the single S-O-R model (in both advertising and commercial environments), see also Turley & Milliman (2000) in a very important, synthetic article on the state of the art in environmental studies.

Additionally, it can be commented that the role of the symbolical dimension of ambiance factors had apparently been foreseen but expressed in other words, by some authors, and had proved fruitful and good predictors of behavior, off-line:

- the feeling of dominance (PAD) elicited through the image of luxury of an outlet positively impacts the proneness to accept high prices (Groeppe-Klein, 1997), and we think that the way dominance is introduced and conceptualised here is on line with the concept of "symbolical dimension" of an ambiance factor;

- an experiment uses the Functional Theory approach to assess the way ambiance factors of an outlet are interpreted in a symbolical way, and how they, in turn, positively impact the product's evaluation, regardless of the products themselves (Schlosser, 1998).

Not only do those empirical results show the relevance of addressing the symbolical dimension of an ambiance factor and of music in particular, in a advertising or a shopping context: there is also a

literature on the concept of symbolism in consumption which makes sense.

Symbolism and consumption

It is introduced in the 80's in parallel to the experiential approach (Hirschman 1980, Holbrook & Hirschman 1982, McCracken 1986, Belk 1988). Schouten & MacAlexander (1995), Holt (1995), Ligas (2000), show the relevance of such approach, the variability of the symbolical dimension across products or activities (e.g. hobbies), and across individuals.

But this literature addresses symbolism of consumption, or activities, not the symbolical meaning of an ambiance factor. They show that individuals can adopt e.g. social behaviors, hobbies, consumes products or chose brands because of the symbolical function attributed to the mentioned products or activities. This may be why a long time passed before those concepts were applied to atmospherics in the 90's, as seen before.

IS THE AFFECTIVE REACTION TO SURFING ON A SITE RELEVANT IN THE WEB-USER BEHAVIOUR ?

The Web-user behavior, hedonic benefits, and affective reactions

Little is known about the role of emotions on our behaviour on the web. In an extensive review of the literature Ladwein proposes that the elicited emotions on-line should, according to the theory, impact the loyalty to the site (Ladwein, 2001), and it was confirmed recently that the hedonistic benefits as conceptualised in the experiential approach are most likely to impact the purchase behaviour on-line (Helmé-Guizon, 2001), as was proposed by Hoffman & Novak (1995), according to the theory of Flow proposed by Csikszentmihalyi in a number of writing, (Csikszentmihalyi, 1996, 2000).

If not numerous, there are yet some empirical findings on the question. It is found out that the "Entertainment" dimension (composed of 6 items among which: "fun, exciting, cool, imaginative, flashy") is found to be the first driver of a positive attitude towards a site, in an important experiment in which a total of 120 commercial sites are tested in such study, of many different kinds, such as DELL, TOYSRUS, BLVDMUSIC, or DISNEY, (Chen & al., 1999).

Such findings are supported in another experiment showing that the first motivation for using Internet is highly based on the research of experiential benefits ("stirring me up, escaping, arousing, enjoying, thrilling, exciting", Korgaonkar & Wolin, 1999).

Some publications address the E-satisfaction: it is found out that the aesthetical dimension of the site design contributes to the pleasure of surfing equally with the perceived financial security in the transaction, and more important, that such contribution is superior than the impact of merchandising, defined by product offering and product information (Szymanski & Hise, 2000).

In another experiment playfulness and aesthetics in a website contribute to E-satisfaction as well as to affiliation (recommendation of the site to others) behavior (Mathwick, Malhotra & Rigdon, 2001). The only cross-cultural, cross-product category, survey, carried out with 299 web-users from 3 continents, 2 product categories finds out that the affective reaction to the website strongly impacts the satisfaction in the navigation on a commerce website, and the purchase intention on-line (Lynch & al. 2001). Interestingly enough, such impact varies with the cultural origin of the subjects and the product category. Yet, their measure of affective reaction to the site is somehow poor and could be improved but the results are interesting for the present approach.

EMOTIONAL + SYMBOLICAL APPROACH OF ON LINE BEHAVIOR

It is therefore proposed to study a similar but extended concept of congruence or fit between the symbolical meaning of a music and the values expressed by a product/outlet brand-name on-line.

In an Internet context we would propose that the music is to be considered in both ways:

- as it is done in the mentioned literature in ambiance factors, music would be an environmental factors that impacts the consumer behavior through the fit of its symbolical dimension with the values expressed by the products or outlet brand-name;
- music would be also considered as a service that is encountered, "consumed" during the navigation; and the more pleasurable it is, the more the consumer will "consume" and therefore stay on the site.

This conceptual approach fits well with the necessity of bypassing the mentioned limitations of the mere Stimulus-Organism-Response approach, and propose the following hypothesis.

If music has a capacity to create an atmosphere, either in an advertising context (Gallopel, 1998, 2000), or in a product offering context (Rieunier, 1998), and if the congruence between music and the brand-name (of the supplier or of products offered) moderate the impact of the music on the evaluation and behaviours off-line, we propose that such effects deserves to be tested on-line, where we still know very little on consumer behavior. Relying on the conceptualisation proposed by McInnis & Park, Morris & Boone, Gallopel, we propose that:

"Hyp. 2a: music may have a symbolical meaning, defined as its capacity in generating a specific atmosphere, characterized by values (not) linked to/(un)consistent with the brand /outlet."

Relying on the literature and the results quoted here above in the literature in Environmental Psychology, and on evidences that pleasure increases the browsing-search behavior in a man-machine interface (Kahn & Isen 1993), we will propose to test the following hypothesis :

"Hip. 2b: in a surfing session on a merchant website a fit between the meaning of the ambiance music and the values associated by the consumer to the brand/outlet will positively impact the behavior on Internet in his desire to stay, explore to (the outlet, here:) the website".

According to the conceptualisations here above commented on non-goal directed surfing (Hoffman & Novak, 1995, Hoffman & al., 1996), and the benefits of surfing evidenced (Korgaonkar & Wolin, 1999), according also to the results on music and time duration in shopping off-line (Sibéril 1994), we propose that:

Hyp. 2c: due to the importance of immersion and entertainment in a non-goal directed context, the consistency between ambiance music & the values of the brand/outlet will have a higher impact on approach behaviors, such as navigation duration & positive evaluation of such duration, in a free, exploratory navigation, than in a task-completion session".

The literature reviewed gives a number of elements for concluding to the positive, moderator impact of the elicited emotions, on the satisfaction towards the outlet, the product offering evaluation, and the staying duration; if a consumer is satisfied he (she) is likely to recommend it to other users. We hence propose the following hypothesis:

Hip. 3: the emotions elicited by the music on-line will act as a (partial) moderator of the impact of music on the approach behaviors on-line, namely staying duration and affiliation".

Loyalty, definition and interest on-line

Attracting new customers is far more expensive than retaining them, as confirmed by a number of interviews with professional designers of websites, and by research in an off-line context (Abbott & al., 2000).

Research in consumer behavior defines loyalty as both a behavioural & attitudinal concept. We shall adopt the following definition of loyalty to a store as a "biased (i.e. non random) behavioural response (i.e., revisit), expressed over time, by some decision-making unit with respect to one store out of a set of store, which is a function of psychological (decision making and evaluative) process in brand commitment" (Bloemer & de Ruyter 1998: Abbott & al. 2000, p.145).

But we shall add the possibility of loyalty behavior be generated in both following cases:

- either when the consumer decides to (plan to) come back to the site, to complete an information research, or for a non-goal directed exploration;
- or also (and this is new) when he decides one of both alternatives (goal-directed or non-goal directed browsing) to be completed off-line, if the brand/outlet offers both the two channels for purchase.

That is, and this is a major point to highlight: the merchant website perfectly meets its requirements if the user decides to continue his/her process of "approach" off-line, conversely to staying on-line – it does not need to be separated from the off-line channel in a global marketing strategy of customer conquest or retaining. This definition of loyalty is in line with the concept of "approach" (Mehrabian & Russell, 1974), applied to a (off-line as well as on-line) store.

Loyalty is important because it is a huge driver of the amount of money spend in an outlet, off-line (no data on-line): a loyal customer can happen to spend twice as much money in his/her First Choice Outlet than the amount spent in the first outlet he/she uses to go to when no loyalty behavior has been adopted, (Knock & Denison, 2000). It is conceptualised that comfort/pleasure in surfing might enhance loyalty to a site (Ladwein, 2001);

and shown that the aesthetic ("beauty of the site") and the entertainment dimensions of the site are strong drivers of commercial site loyalty, surprisingly enough before the price of the offered products or services, and before the interest of the promotions and discounts (Bergeron, 2001).

Relying on the findings in atmospherics literature off-line and extending them for the mentioned reasons to an on-line context we hence propose to test the following hypothesis :

"Hyp.4a: a positive affective reaction to the ambiance factors (music) on a website positively impacts the consumer proneness to loyalty";

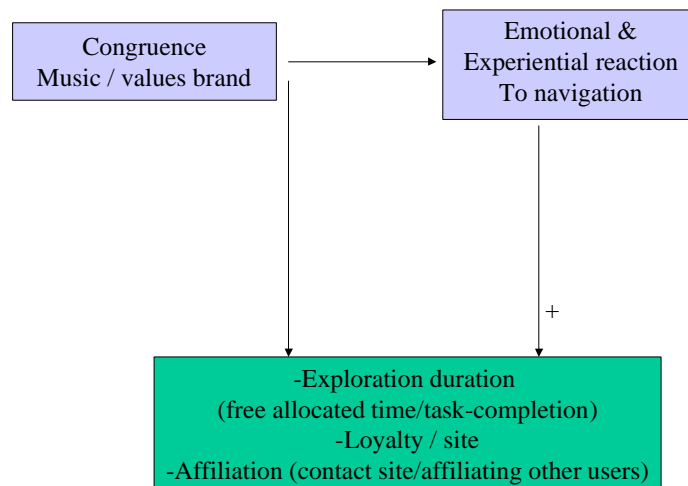
Additionally and relying on the symbolical approach here above mentioned, we propose that:

Hyp. 4b: a high fit between music and the values (brand or product) and a positive elicited emotion of a given level, will have a higher impact on the web-user loyalty than a mere positive elicited emotion with no fit between the music and the values".

PROPOSITION OF A MODEL

A model integrating the emotional reaction to an ambiance music is proposed, in an experiential and symbolical approach based on the literature reviewed:

Model - pretest



CONTRIBUTIONS

This paper capitalizes on previous contributions on separated lines of research in atmospherics, in advertising on one hand, in shopping behavior on the other hand, and proposes a conceptual framework that takes into account the specificities of Internet as an advertising media, an information channel, and a distribution channel altogether.

It explores the limitations of the Stimulus-(Organism)-Response model to understand the impact of ambiance factors on shopping behavior,

particularly of music, and justifies the adoption of an approach that do not systematically separates emotion from cognition: the symbolical approach, tested in the advertising hierarchy of effect, is therefore shown to be relevant in explaining the shopping behavior, and integrated into a conceptual model.

It is also proposed to link previous findings about the Web-user behavior, on advertising websites or merchant websites, with the framework proposed by the experiential approach.

Last, an extended definition of "loyalty" is proposed, that do not separate the channels off-line and on-line, and that should prove fruitful in future CRM practices: this opens the possibility of interesting experiments using the tracking of a web-user, on-line and off-line together.

An experiment is being designed, in collaboration with professionals, and will be commented in the conference.

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ANNEX A1

ADDITIONAL CONSIDERATIONS ON E-COMMERCE

Some objections are sometimes mentioned and we try to address some of them here after.

Internet merchant websites deserve research in spite of the crisis they are going through

On-line commerce cannot be ignored, due to its importance now: only in the USA the estimations of the total on-line sales vary from USD 30 to 65 Bl (ACSEL, 2001), and the Gartner Group forecasts plan those sales to triplicate in 2004. In Europe the estimations of the total on-line sales highlight its potential, thus varying from USD 8 to 22 Bl in 2000 (ACSEL, 2001); for example JUPITER MMXI estimation is of USD 10 Bl (MMXI, April 2001).

Nevertheless the commerce on-line is far from meeting the expectations that were made in 1995-2000, and web designers have got poor results in enhancing purchase till now.

Website owners still do know little about how to better capture, retain, entertain, and have the web-user buy: in this perspective the ambiance factors are expected to have an impact, without knowing how (Volle, 2000). This does not mean therefore that e-commerce cannot work well, but rather that we still do not know how to attract and stick the user: which is one of the interests of such approach.

A multiple perspective has to be adopted in studying website effects

We have integrated in our review the literature on the impact of music, or ambiance factor in general, in a commercial or advertising context: this is justified by the fact that a merchant web-site is both a channel of distribution, but also an advertising media for the product, or the outlet, which is shown

in the site. That is: a merchant website is both an **outlet and a media**, and both literatures relevant to a commercial outlet and to the advertising hierarchy of effect have to be taken into account in our opinion, as we did previously.

A merchant web site may also to considered in a **service encounter** perspective. Some explored service literature justifies our approach as finally a website, in its explorative use, is a support and a service that enables to inform oneself, to search inputs, stimulations, etc. It is shown (Bitner, 1992) that affect is impacted by ambiance factor and how those, in turn, impact the service satisfaction, time perception, and the approach behaviours in the sense of Mehrabian and Russel (Taylor 1994, 1995). Dubé & al. (1995), Pruyn & Smidts (1998) test and confirm the relevance of such model in services.

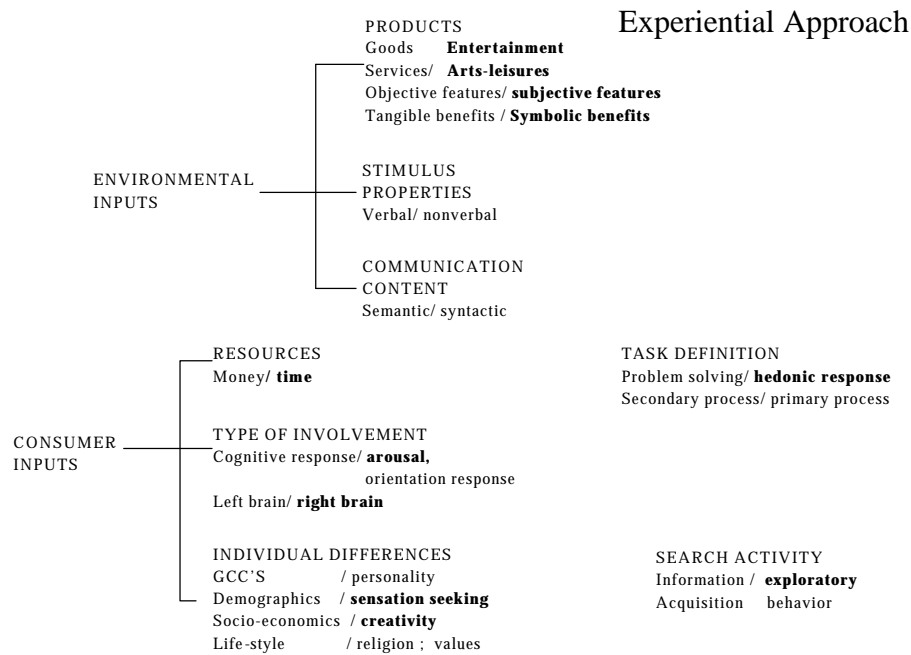
Comment on a technical point: feasibility of downloading music with a website

Is it possible to include ambiance music in a website? Is this question interesting, do or will people surf on the Web with music?

The development of the services of "Streaming" on Internet makes it now possible to download music without delay in web page downloading. Second, the development of broadband access to Internet is making it possible, even without streaming, to download music while surfing. It is expected that 30% of the households in Europe will be equipped with broadband access in 2004 yet (MMXI, April 2001). It is therefore justified to integrate in our models of E-Behaviour such ambiance factors as music, as such factors manipulation makes no technical problem and they have proved to be important drivers of purchase behaviour in off-line outlets.

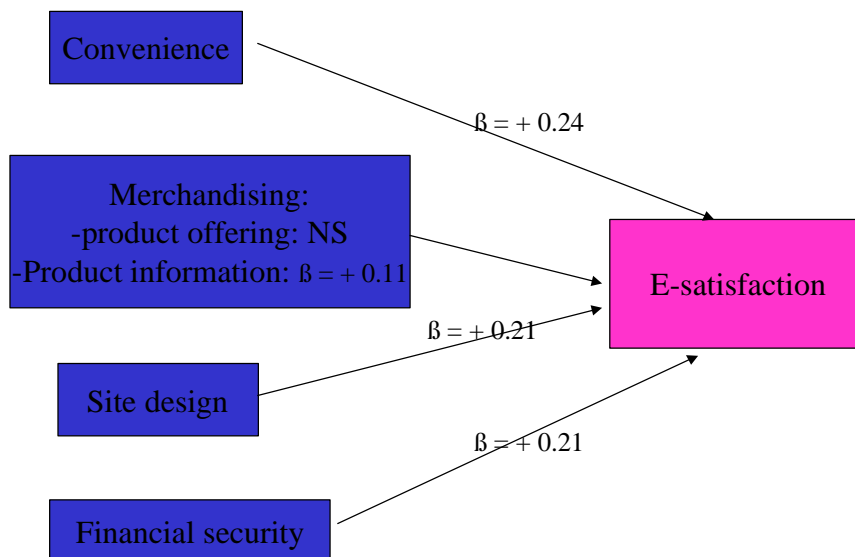
ANNEX - FIGURES

Figure 1



Holbrook & Hirschman 1982

Figure 2



Szymanski & Hisé, 2000: 3 focus-groups, online shoppers

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