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The Influence of Psychological Distance on the Effects of Music Congruency in Consumer Behavior

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ABSTRACT

Specific music genres (classical, country/rock) are known to have a premium pricing effect on consumer's purchase decisions. The induction of a temporal psychological distance variable in a purchasing process alters music congruity semantic priming effects on consumer behavior, since more psychologically distant objects are said to reduce priming effects. In harmony with these concepts, a quantitative method shows how psychological distance influences background music affects through social identity, utilitarian, and ambiguous (displaying both attributes) products exposure on consumer's overall pricing and hedonic perception; and if a contextual consumer conditioning can possibly force the perception framing of a product, when a background music is congruent with it.

SUMÁRIO

Específicos géneros musicais (clássica, country/rock) são conhecidos por terem um efeito de preço premium no que diz respeito às decisões de compra dos consumidores. A indução de uma variável de distancia psicológica temporal no processo de compra altera os priming effects da coerência musical, uma vez que quanto maior a distancia psicológica dos objetos menor serão os priming effects. Quando ambos conceitos se encontram em harmonia, o estudo mostra como a distancia psicológica influencia o efeito que a música de fundo tem na identidade social, no utilitarismo, e por fim, a ambiguidade (quando ambos atributos estão presentes) que a exibição do produto tem na disponibilidade para pagar e na experiência hedónica do consumidor. Este estudo também procura compreender se o condicionamento contextual do consumidor pode forçar a percepção de enquadramento do produto, quando a música de fundo é coerente com efeito de distancia psicológica.

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To all my friends in Lisbon with whom music was always at the core of our laughs, smiles, and crazy moments...to all these magnificent people and wonderful times.

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CHAPTER 1: INTRODUCTION

1.1 Background and problem statement

As part of my thesis I chose to enroll in the “Marketing and Hedonic Experiences” dissertation seminar. Having a strong interest for consumer’s psychology, I thought it could be very interesting to dig deep in the existing relationships between consumer behavior and external environmental variables that could influence its overall experience. Moreover, being passionate about music, I supposed it could be fascinating to investigate the various effects it could have (as an external variable) on consumer’s behavior. Indeed, the latter is at the same time predictable and unpredictable. Existing tests, such as the famous Armstrong test, have come to examine the common sets of empirical generalizations in consumer behavior (John R. Rossiter 2003). In his paper, the author developed the principles of what construct a valid test of scientific knowledge in this field. He explained that the creation of such evaluation should carefully follow planned and executed steps; forms, content, format and answer being the key words of this concept. Basically, the forms of consumer behavior knowledge need to be clearly stated, whilst experts in the related domain of study should deliver useful, popular structural frameworks, empirical overviews, and common misconceptions on the matter. Afterwards only should suitable answer formats be provided, and be confronted to a smaller group of specialists who can approve those answer formats. So by definition, conducting scientific research on consumer behavior requires accuracy and an environment providing expertise on the subject.

Likewise, in her rhetorical approach to music in advertising Linda M. Scott (1990) has demonstrated the vast complexity of music. According to her this intricacy enables music to be a real language with a meaningful sense carrying a meaningful sense for consumers, instead of affective and non-semantic. There is an open door to develop the extent to which consumers can be responsive and more sensitive to the powers of music. Through a single song or melody, identification can be forged, memory be stimulated and preferences be suggested. This is what I find captivating about it, and taking into consideration both these personal choices and aspects, I figured my thesis subject as follows.

It is inquisitive to study if people always choose what brings them more utility or not. Research in marketing and consumer behavior focuses a lot on the distinction between utilitarian and hedonic motives. J.W. Alba & E.F Williams (2012) describes hedonic consumption as whether or not the experience of consuming a product or an event is pleasurable. The concept of hedonic consumption suggests both physiological (hunger, thirst, etc.) and psychological (thought, style, purity, etc.) driven pleasures. They define several notions from which pleasure can be taken from: essences, person-product interactions, expectations, their beliefs about consumption, and the savoring process. Following the concept of essentialism pleasure will be extracted from a specific stimulus (holding an essence) that will alter consumers' experience. Person-product interactions underline the role of the consumer as a moderator of pleasure, initiated by its own psychological profile and what they call "the inherent nature of the event". Expectations instinctively drive its overall behavior and influence the degree to which pleasure will be felt. Lastly, savoring represent the extents to which consumers acknowledge this level of pleasure, based on personal memories and experiences.

So according to this theory I decided to investigate the psychological side of hedonic consumption, in relation with consumer's perception and purchase intentions.

In a recent study from North, A., Sheridan, L. and Areni, C. (2015) they conceptualize music congruity in terms of cognitive priming of concepts and spreading activation along related semantic networks in memory. In other words they show in their article that background music congruency affects several important variables of consumer decision. It tends to activate specific concepts in consumer's mind, and when being congruent with the products under evaluation they are more willing to spend for those products. For instance they establish that classical music drives consumer's willingness to pay for luxury products.

This effect is described as a semantic priming phenomenon whereby classical music primes concepts of luxury. The theory of priming states that an implicit memory effect exposed to a specific stimulus affects the answer to another one. According to the cognitive priming activation explanation, premium pricing congruity effects appear to be based on the activation of semantically related concepts like "wealthy", "better educated", and "sophisticated" (North, A., Sheridan, L. and Areni, C. (2015).

Furthermore, a variable known to affect semantic priming is psychological distance in a way that more psychologically distant objects are thought to reduce priming effects (Henderson & Wakslak, 2010). Two dimensions of psychological distance can be relevant as for the subject of my study: temporal distance (from now to distant future) and social distance (ranging from myself to distant others). These are two very important dimensions for consumer research in the sense that people often buy things for themselves and others, and we also buy things for immediate consumption or for consumption in a distant future. Nevertheless, I believe that narrowing my field of study to one psychological dimension will allow me to collect more accurate results, over the period of time I have allocated for it. For this reason, my study will focus on temporal distance, as it is the easiest one to assess through a survey.

1.2 Problem Statement

The scope of this research is to determine whether or not psychological distance affects consumer's perception on utilitarian and hedonic products, and if music congruency has an influence on price-perceived quality of each product at study. Understanding the different consumer's decision according to the nature of the products and the values of level of construal constitutes the sole purpose of this investigation.

Combining thorough research on psychological distance, CLT, and music congruency I propose the following research question as general guidance for this paper: Does an increased temporal distance reduce the effects of music congruency on consumer's behavior?

An additional dependent variable asking for an affective forecasting, that is, asking consumers to predict how they expect to enjoy the products they will be evaluating. In order to provide an adequate and in-depth analysis that responds to the problem previously stated, the subsequent sub-research questions will be studied to substantiate the main problem statement.

RQ1: What is the influence of psychological distance on consumer's perceptions of prices and of the product attributes (hedonic or utilitarian)?

RQ2: Can background music congruency be affected by a shift in temporal psychological distance, and then induce consumers' purchase decisions?

RQ3: Can a variation of psychological distance and/or background music genre induce the consumers to frame the products under evaluation?

1.3 Relevance

Nowadays, more and more advertising methods rely exclusively on music to captivate and retain consumer's attention. James J. Kellaris and Anthony D. Cox (1989) suggested that consumer researchers must pursue investigation regarding the classical conditioning phenomenon of background music, in order to outline the real limits of its use. Yet, trying to reproduce Gorn's work (Gorn, GeraldJ. 1982), in which he identified that "product preference could be conditioned through a single pairing with background music", they have not found any supportive evidence to emphasize this statement. Therefore, what would become interesting in this dissertation is to find another variable, for the combination with background music would have another influence on consumer behavior (whether it relates to buying behavior, preferences, decision-making process etc.).

From previous experiments they found that single-exposure conditioning of product preferences is a subtle phenomenon. Perhaps, after exploiting the results of our study, we will contribute to bringing more relevance to this topic and will be able to propose different advertising strategies, or in-store management methods that would improve consumer's retention and buying intentions. Even if this research will not present any significance as for the impact of psychological distance (mainly temporal distance in this paper) on background music effects, we will surely open another potential field of study on the matter.

1.4 Research methods

In order to answer the research questions, primary data was collected within a survey. A quantitative method was the most appropriate one here since we are trying to evaluate the consumer's perception over several types of products. Responses were collected from a sample of 114 respondents ranging from 20 to 60 years old. Based on the literature review, we expect to find a potential three-way interaction between temporal distance, music genres, and consumer's pricing and perception estimation. We expect to find first a three-way relationship between temporal psychological distance, music congruence, and consumer's price/perception estimates; but also some shifts in the levels of impact of our dependent variables depending on the demographics (such as gender, country of origin, or even age).

The main advantage of conducting qualitative research is to be able to either prove or disapprove one or several stated hypotheses, through a set of statistical results. Nevertheless, it can also require a lot of time to collect the amount of data needed for analysis, and can quickly become difficult to exploit if statistical tests are misused. It can quickly lead to unproven results, which could be probably verified more easily with the use of qualitative methods. Indeed, the later would provide an in-depth examination of a specific trend, enabling the study of more complex questions (impossible to examine through quantitative research), to finally give further areas of research to explore.

1.5 Dissertation outline

The following chapter presents the theoretical framework for the different levels of construal associated with consumer's products perception, in a context of background music congruency. The literature review aims at providing further explanations on the construal level theory of social psychology, as well as describing the relevance of background music in purchase situations, to finally sum up the multiple existing effects of psychological distance on consumer's behavior.

Additionally, the third chapter shows the methodology through which the study will answer the different hypothesis. It will be mainly based on a statistical data analysis, collected throughout the questionnaire. Each statistical test will be detailed and justified within this chapter. The fourth one provides a thorough analysis based on the results obtained, plus a supplementary examination on their relevance.

The final chapter addresses a general discussion of the outcomes, their limitations, and suggestions for further research in a similar field of study.

CHAPTER 2: LITERATURE REVIEW AND CONCEPTUAL FRAMEWORK

2.1 Topic 1: Background Music and Congruency

In the past, several studies have already been conducted in order to assess the different aspects of background music. For instance researchers have studied the effect of environmental cues suitability in stores, shopping mall and proved that overall consumer's perceptions of quality and shopping value were affected (Babin, B., Chebat, J. and Michon, R. 2004). Music tends to influence consumer's buying behaviors in a sense that it modifies the whole background in which customer's perception is under evaluation.

Another concrete example is the study from Ronald E. Milliman (1982) upon which he demonstrated that background music had an impact on several consumers' behavior variables such as, the pace of in-store traffic flow, or the daily gross sales volume. With a slower music tempo running in the store, the general pace was drastically slower. Also, with a slower tempo sales volumes were dependably higher, because customers were moving slower during their purchase process, spending more time within the store and so leading to a bigger amount of purchases.

Furthermore, Garlin, F. and Owen, K. (2006) have shown throughout their experiments that background music positively affects affective, attitudinal and behavioral responses. Also, according to the study of Kathleen T. Lacher and Richard Mizerski 1994), all four hedonic responses (emotional, sensory, imaginal, and analytical) have a significant positive effect on what they call the experiential response. Conferring to their experiment, rock music has a positive impact on respondent's behavior, and suggests a strong effect on enjoyment and purchase intention of the music itself. It would then be interesting to test the affect of specific music genres, proven to be impactful, on the general consumers' perception and buying intentions.

In 2007, Morin, S., Dubé, L. and Chebat, J. have shown that music highly influence the context within which consumers assess the service environment and its provider. Assumptions have been made whether "the music must fit with the perceived service scape atmosphere." In other words, the effect of background music must be congruent with the service ambiance on customers' behavioral and affective responses.

Additional experiments presented the service setting as a moderator between the actual in-store music and customers' behavior reactions. In terms of contextual framework, the design of in-store music involves several musical dimensions: a physical one, a preferential and the music genre (Anne Michel, Chris Baumann, Leonie Gayer, 2016). Pleasure, arousal, and dominance are the three main variables considered to be relevant in terms of customer's emotions giving to their article; pleasure being the valence of the emotion, arousal describing the degree of the customer's activation, and dominance relating the level of control over a given situation.

In her article, Nathalie T.M Demoulin (2011) defines congruency as "the extent to which consumers' subjective perceptions of the music fit with their perception of the services scape atmosphere." She proved in her study that perceived music congruency has a significant impact on arousal but not necessarily on pleasure. For instance, low arousal induced by music congruency directly increases customers' return intentions. Nevertheless, it negatively affects customers' perception of environment quality; in opposition to pleasure that seems to have more a mediation role. Moreover, service scape quality perception is strongly increased when the pleasure dimension is activated. It could be interesting to investigate the cognitive responses toward a same product after implementing a shift in the background music, studying several patterns of congruency (congruent versus non-congruent). Since we know from previous studies the different cognitive effects of classical, rock, or even country music on consumer behavior, it could be easily tested in an experience using various music genres.

Naturally, as Morin, S., Dubé, L. and Chebat, J. (2007) remind it in their article, establishing a congruency with one element of the environment is not sufficient. Several elements have to be correlated in order to submit a full assessment on the relationships between background music and consumers' behavior dimensions. Therefore, it is very interesting to ask us whether or not an additional variable such as consumer's psychological distance could have an affect on this congruency, since music considerably affects product evaluation, and the decision-making process by priming "music-congruent concepts" in memory North, A., Sheridan, L. and Areni, C. (2015).

2.2 Topic 2: Construal Level Theory (CLT)

In social psychology, Construal Level Theory (CLT) establishes the relation between psychological distance and the extent to which people's thinking is whether abstract or concrete. Kyeongheui Kim, Meng Zhang, and Xiuping Li (2008) define psychological distance as "the subjective distance between an actor and an event in the actor's psychological space, and the theory posits that different distance dimensions can be unified under one psychological space."

CLT identifies levels defining the extent to which we think in a concrete or an abstract way. High-level describes the abstract way we relate to some other people or events. The big picture, or the general aspect of a given event, situation, or object represent the attitude we demonstrate toward it. The theory states that people's perception can easily be altered according to the way they mentally construe their proximity with it (Kyeongheui Kim, Meng Zhang, and Xiuping Li 2008). On the other hand, low-level construal relates to people who focus on the details, and less essential features of a given object or situation. They generally ponder in a very concrete manner, and establish a psychological proximity with it.

Besides that, there is also a notion of feasibility and desirability that needs to be taken into account when it comes to consumer's behavior analysis. It commonly splits the general population in two different parts. The persons following a high-level construal pattern accentuate the desirability aspect whereas low-level construals emphasize the feasibility side (the "how") (Trope, Liberman, Wakslak 2007). In order to highlight this feature they asked participants, throughout a semantic discrimination version of the experiment, "to indicate what the word printed on the arrow was. In both tasks, and across the distance dimensions, participants were faster when responding to distant congruent stimuli (e.g., "we" printed on proximal arrow) than distant incongruent stimuli (e.g., "we" printed on distal arrow).

More marketing-oriented studies have used this psychological theory to focus on the real impact it could have regarding specific features such as price perception. Somehow the goal of the marketer is to read and understand the consumer behavior. It includes the way he/she might think and behave toward a product, event, or situation. Dengfeng Yan and Jaideep Sengupta (2011) predicted an obvious dependence between abstract signals (suggesting an increased psychological distance) and a rise in prices, as well as a relationship between the price and the quality judgment (given an increased psychological, distance price

should increase). The results of one of their experiments supported the hypothesis that price influenced quality judgments more for high-level construals than for low-level construals. According to their article a greater psychological distance infers a “superordinate, ends-related, abstract construal increasing the effect of price on quality judgments”. On the other hand, a lower distance “yields a subordinate, means-related, concrete construals increasing the impact of attributes”.

Consistent with J.W. Alba & E.F Williams (2013), consumers tend to make trade-offs between hedonic consumption and the actual resources that generally guarantee it (the price). Regarding self-identity products, consumers are more likely to trade-off price since pleasure becomes the main focus. It would then be interesting to study the full effects of a shift in psychological distance on both price estimation and consumer’s product perception, for different types of products (hedonic and utilitarian). Also knowing that, when it comes to quantifying the price, that induces a distant perspective, and there is no straight commitment or identification with the product (Fiedler, K. 2007). Consequently, an alteration on the temporal distance might directly affect the impact of choice over pricing. The most expected trend would be an increase in the pricing estimates as much as the product is perceived as hedonic, instead of utilitarian.

2.3 Topic 3: Psychological Distance (temporal)

A lot of literature has discussed the different implications of temporal construal for evaluation and consumer’s choice in the past. Liberman, N., Sagristano, M., & Trope, Y. (2002) established that the overall perception of a given event varies according to its construals. They assumed that adding a shift in the value of the level of construals would logically infer another change in its perception. In terms of temporal distance they suggested that “the schematic, prototypical representation of a vacation (e.g., dining in a scenic restaurant) may be more positive than its contextual, non-schematic representation (e.g., waiting in line to get on the plane), and therefore a vacation in the distant future may seem more positive than a vacation in the near future.”

Likewise, Henderson and Wakslak (2010) deemed in their experiment that the more individuals are semantically primed the more the amount of psychological distance from a defined target will affect the degree of evaluation. Based on that we expect in our study to find more significant results, in terms of pricing and perception estimations, on a high-level of temporal distance.

A fascinating law developed by Weber-Fechner (Dehaene, S. (2003). recognized a decreasing sensitivity to physical distances. Basically it suggests an inverse relationship between dimensions: the impact of distance induced by one dimension on the perceived distance of an event will be reduced, as the distance on the other dimensions increases.

Furthermore, Bornemann, Torsten, and Christian Homburg (2011) established the relationship between price-perceived quality and psychological distance. Their work focused on the perceptions of quality for quite high product price in comparison to a quite low one. They showed that a product had a more pronounced price-perceived quality when distant in future. The second part of their study intended to prove that perceptions of monetary sacrifice would be higher when the purchase is psychologically near.

A further study (Trope, Liberman, Wakslak 2007) focused on the two main aspects of a product: the desirability and the feasibility. They conducted an experiment in which a simple product was offered as a potential purchase. But after knowing more about all the product's attributes and characteristics, they were presented a promotional offer about it. This same discount could either be dealing with the desirability feature or the feasibility part (the first one being an additional feature for a product at the same price, and the second being an in-store coupon to discount the final price). Following this contextual conditioning, they introduce the psychological variable asking their participants to either imagine completing the purchase at some point in the future, or what they called "expediting" the purchase (meaning considering buying in a very near future). What they observed is that near future purchase intention was associated with a stronger interest about the price discount, referring to the feasibility asset of the product, whereas a long-term purchase consideration suggested a bigger attention on desirability information (on the additional feature exhibited by the product). Throughout their experiment, they have been to provide evidence to prove that temporal distance increases desirability effects of a product, whilst reducing its feasibility effects.

Besides, memory plays a fundamental role in product evaluations since consumers build mental representations of the good or service they expect to consume. According to Yeung- Jo Kim ,Jongwon Park and Robert S. Wyer Jr. (2009), when people are asked to provide a product evaluation based on a previous introduction, they are likely to re-use their initial impression to give new judgment about it. They also demonstrated that the effects of temporal distance on participants' judgments could also be the result of how they initially interpret information regarding desirability and feasibility of the presented product. However, those two main facets of consumer's evaluation can easily become a limit, since one can play a more important role than the other depending on how big the time lapse in which the consumption decision is.

Those findings enabled us to define temporal distance as the psychological distance variable we wanted to focus on in our study, since it has been proven to have an effect on purchase intentions and consumer's decision making process. The second reason for choosing one variable of psychological distance only is also the fact that mixing two dimensions (for example social and temporal) would interactively influence respondents' evaluations. Going back to CLT, if both dimensions involved in the study are proximal, product evaluation would be altered by the low-level construals value, and same opposite situation when associated with high-level construals with both distal dimensions.

To sum up, psychological distance appears to be a very effective factor influencing people's evaluations toward products. Henderson and Wakslak (2010) highlighted again that people's judgments (for psychologically close targets) of others are associated with the concepts activated by primes in their environment. In opposition, they found more "self-generated attitudes" resulting from the association of specific traits with a defined class of people engaging in the respective behavior. Thus, the priming effects are stronger for low distance than high distance, and it could be interesting to study the interaction between music congruency effects, depending on the level of psychological distance.

According to the literature review we define the following hypotheses as main objectives and guidelines of this dissertation.

Hypothesis 1 (H1): when music is congruent with the type of the product under evaluation, a higher temporal distance makes the customer feel comfortable in spending more for it.

Hypothesis 2 (H2): Products perception can be framed according to the background music when it's congruent.

Hypothesis 3 (H3): When the product purchase is near in time, music has more influence on its perception.

Hereafter figures the full methodology of the results analysis.

CHAPTER 3: METHODOLOGY

3. Research Approach

In this chapter, I present and explain the methodology used to study the subject at hand and to reach conclusions about the hypothesis formulated in chapter 2.

In order to achieve this goal and answer the research questions formulated in the first chapter, the conceptual hypothesis will be translated into experimental research. The different effects of both independent and dependent variables were studied by testing all combinations in several questionnaires.

3.1 Data Collection

Method

Participants

Data were collected in a survey research with an online questionnaire (Appendix 1), in which one hundred and fourteen persons took part as volunteers.

The experimental research followed the paradigm of positivism suggesting realist ontology and empiricist epistemology, assuming that the use of quantitative, measurements, scaling, and statistical analysis could provide an adequate set of data to prove the assumed hypothesis.

3.2 Materials and Procedures

Materials and Procedure

The nine products chosen for evaluation were chosen in accordance with the experiment conducted by North, A., Sheridan, L. and Areni, C. (2015). The three hedonic products were a perfume, a designer jacket, and some artisanal beers; the three utilitarian products were aspirin tablets, a toothbrush, and a heater; finally as for the product displaying both attitudinal features, a handbag, a cell-phone, and laptop were chosen. A definition of utilitarian and hedonic as for the products rating scale was provided following the work of Strahilevitz and Myers (1998), "a utilitarian, or a necessary, item as one that is mainly desired to fulfill a basic need or to accomplish a functional or practical task, and we defined a hedonic, or a luxury, item as something motivated primarily by a desire for pleasure, fantasy, and fun."

The procedure had to condition the respondents as potential consumers of the products presented throughout the questions.

In order to assess the impact of the first independent variable (music congruency), an introductory test was shown to the participants, indicating that by processing on the survey, music would start playing in the background and that they would have to answer the incoming questions by listening to the music.

Two different pieces were chosen for this experiment: individual participants were played randomly either a classical music track (see appendix...), or a country/rock track (see appendix...). The choice of these two specific genres were selected based on the experiment of North, A., Sheridan, L. and Areni, C. (2015). who proved their affect on product evaluation showing that country music fosters an utilitarian mindset, and that classical music activates semantic concepts in our brain such as "wealthy", "or "sophisticated", relating to luxury product in a sense. Some editing was done on the country/rock music in order to provide a track long enough to last during the whole survey completion (up to ... minutes). Immediately before data collection began, respondents who were listening to the music were primed.

Furthermore, two levels of psychological distance were under assessment in the questionnaires (high, low), so for each level an introductory text was displayed to the participants so as to condition their mind, and set their thinking process either on a high-level or low-level construal (CLT). They were then asked to read a small contextual text (Appendix 1) for each product, in order to put them in the situation of a potential buying process. Afterwards, only the two dependent variables were presented. Product's utilitarian-hedonic judgments were asked: first, a personal estimation in order to scale their overall perception of the product type as an hedonic or utilitarian product on a scale of 1 to 9 (1 being Utilitarian and 9 being Hedonic) following the model used by Khan & Dhar (2006) in their experiment, and willingness to pay: a second question asking for a free pricing value estimation of the related product between (0 and 1000 euros).

Design/Study phase

A four-way, mixed factor design was employed. Four questionnaires have been elaborated in order to test all variables being at study in this paper. Participants were submitted to a randomizer survey, which would re-direct them to one of the four surveys randomly, evenly distributed. The structure was similar for each questionnaire, using the same set of indications and contextual background for the questions. The experiment had a 2 x 2 x 3 factorial with 2-music congruency (classical, country/rock) and by 2-psychological distance (high, low) between subject factors and 3-product version (hedonic, utilitarian, hedonic & utilitarian features) and within subject factor. The last factor was added in order to assess consumer's framing of the product according to the music that would be primed. Willingness to pay and utilitarian-hedonic judgments were the dependent variables.

3.3 Data Analysis

Test Phase

A first statistical data adjustment (recoding variables, weighting, and means calculations) was executed in order to remove potential outliers of the experiment.

Primary analysis involved descriptive statistics, associated with an overall frequency distribution of the sample, measures of central tendency (such as mean, median and mode), measures of dispersion (range, standard deviation, coefficient of variance), and some charts and measures of shape of the distribution (skewness).

Furthermore, studying consumer behavior toward products' perception and price, a general linear model using univariate techniques seemed to be the best fit for our analysis.

The overall design was 2 (classical; country/rock) x 2 (high; low) x 3 (hedonic; utilitarian; both featured products) mixed ANOVA, with repeated measures on the last factor, performed on the number of participants. Manipulating the price and the perception levels of the different types of products with the psychological distance variable and the background music will enable us to determine the different relationships between all of them.

CHAPTER 4: RESULTS AND DISCUSSION

4.1 Results

4.1.1 Sample Characterization

The data collection process gathered answers from one hundred and fourteen people. Nonetheless, the following question was asked at the end of the survey in order to control the validity of the questionnaire completion: “Did you answer to all sets of questions listening to the music? Answers options being, yes-not completely-no.”

In order to keep relevance in our experiment, the final sample of study included ninety-seven volunteer participants ranging from 20 to 60 years old who replied “yes” to the previous statement (with a majority of 65.3% aged between 20 and 26 years old). Amongst them we count seventeen different nationalities (Portuguese, French, German, Spanish, Italian, Austrian, Belgian, Swiss, Danish, Chinese, Venezuelan, Colombian, Brazilian, Peruvian, Moroccan, American and Canadian) of which 53.1% were male and 46.9% female.

4.1.2 Results from the Hypothesis Test (quantitative analysis)

In order to study the relationships between the price, the utilitarian/hedonic judgment and our independent variables, we computed the means from the data collected for each characteristic (price/perception) of utilitarian, hedonic and ambiguous products. Each case (respondent) having three goods of each kind, and a price and perception evaluation associated with it.

The first hypothesis (H1) at study in this dissertation states, “when music is congruent with the type of the product under evaluation, a higher temporal distance makes the customer feel comfortable in spending more for it.” Based on the results of North, A., Sheridan, L. and Areni, C. (2015). classical music premium pricing was obtained for social identity products, and country music on utilitarian products.

An interaction was found between the amount respondent were willing to pay for the heater (defined as utilitarian product) and the alteration in temporal distance when congruent music was primed ($R\ squared = .074$, $psychological\ distance\ p = .048$) (Appendix 2). The means variation shown in the graph below (graph 1), indicate a higher willingness to pay for the product when the purchase is far in time ($M = 342$, $SD = 288$, $F(20, 3) = 2.168$) when

compared to a purchase in a near future ($M = 261, SD = 248, F(95, 1) = 4.031, p = .048$) (Appendix 3 and 4).

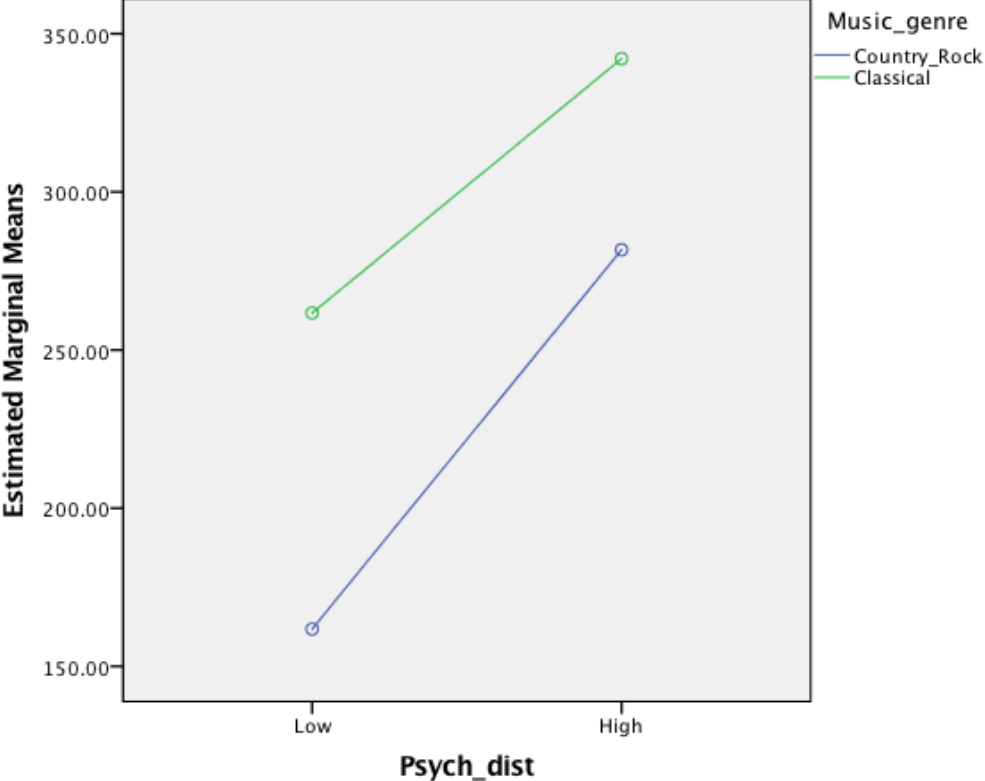
The lines show us that in both musical conditioning (classical and country), the pattern for price estimation remains the same. Estimations get bigger as the psychological distance increases.

The effect of one variable does not change in the presence of the other variable. From graph 1 below we can observe two main effects: one main effect of music genre, and a main effect of psychological distance. This means these two variables have independent contributions for participant's willingness to pay. Besides, the observed effects are not expected by previous findings. It seems that even for an incongruent product, classical music increases willingness to pay. Moreover, psychological distance was also expected to have a different effect on music priming. This may suggest that high distance increases desirability and therefore willingness to pay, more than priming effects. The effect of music is different from a semantic priming effect.

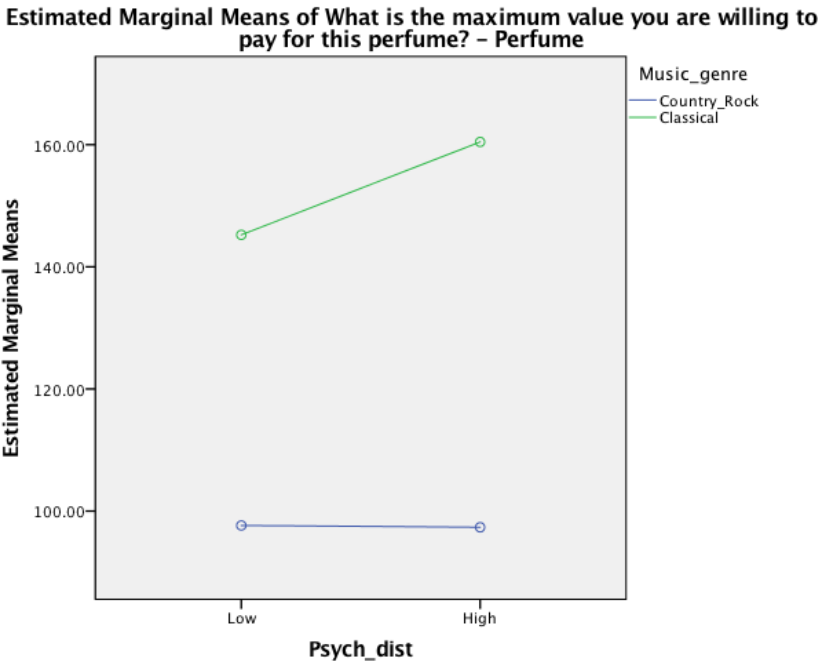
In the case of one of our hedonic product, the perfume (graph 2), we found a marginal significance level for the music congruence ($R\text{ squared} = .045, \text{ music genre } p = .046$) (Appendix 5). Respondents, who had a classical genre as background music during the survey, saw their willingness to pay a bigger amount for the product increase, as temporal psychological distance with the product does. By running a three-way ANOVA again on the average of the means collected for all three ambiguous products (handbag, laptop, and cell-phone), we found a significance level on both independent variables (music genre and psychological distance). $R\text{ squared} = .093, \text{ music genre } F(96,1) = 5.361, p = .023, \text{ psychological distance } F(96,1) = 3.685, p = .058$ (Appendix 6), and graph 3, displaying the estimated marginal means of ambiguous products price, clearly shows that there is a rise in the price estimation as much as the psychological distance increases, within both musical background. Respectively for classical and country/rock music in a low distance ($M = 477, SD = 152, F = 2.450$), ($M = 394, SD = 125, F = 2.450$); and respectively for classical and country/rock music in a high distance ($M = 542, SD = 214, F = 2.450$), ($M = 463, SD = 168, F = 2.450$) (Appendix 7). These results support the idea that high distance leads to higher willingness to pay regardless the music genre.

Graph 1: Estimated Means of Price Estimations of Third Utilitarian Product

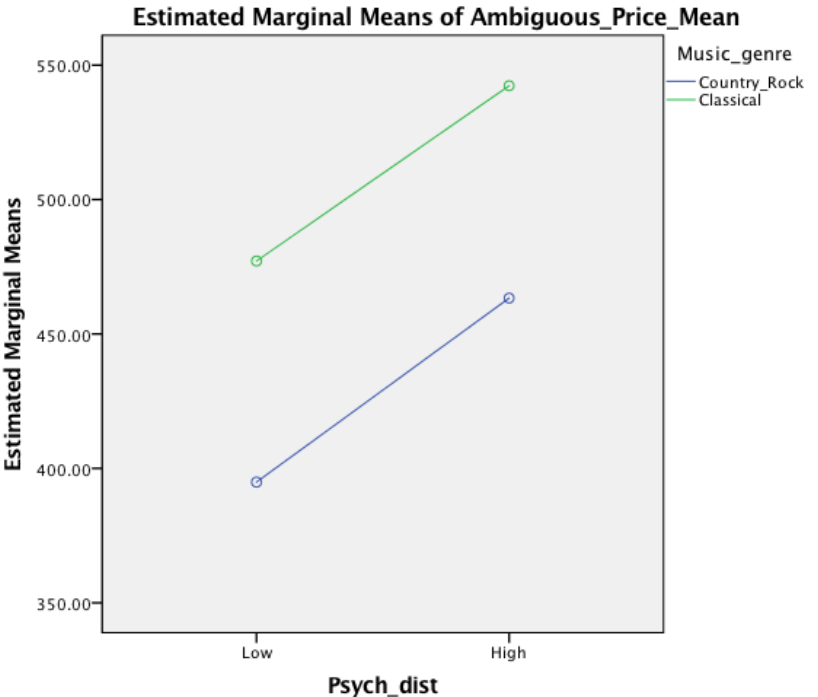
Estimated Marginal Means of What is the maximum value you are willing to pay for this heater? - Heater



Graph 2: Estimated Means of the Price Estimation of First Hedonic Product

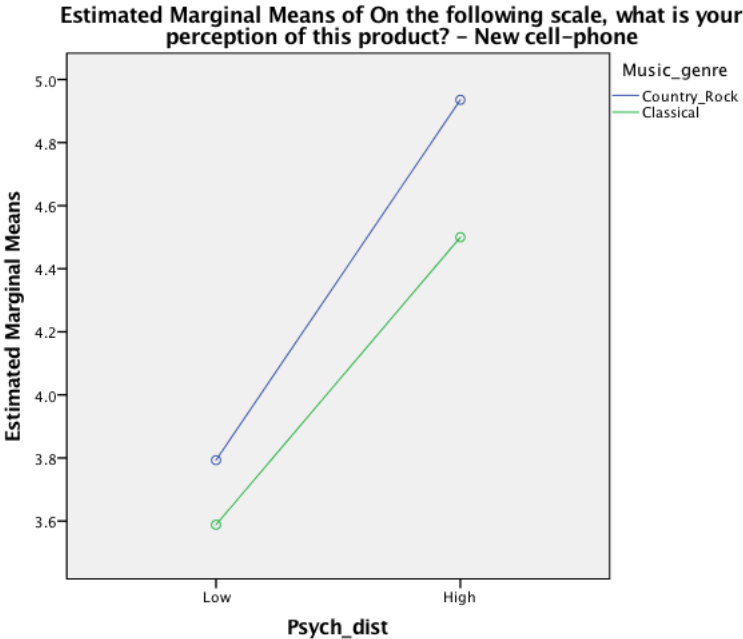


Graph 3



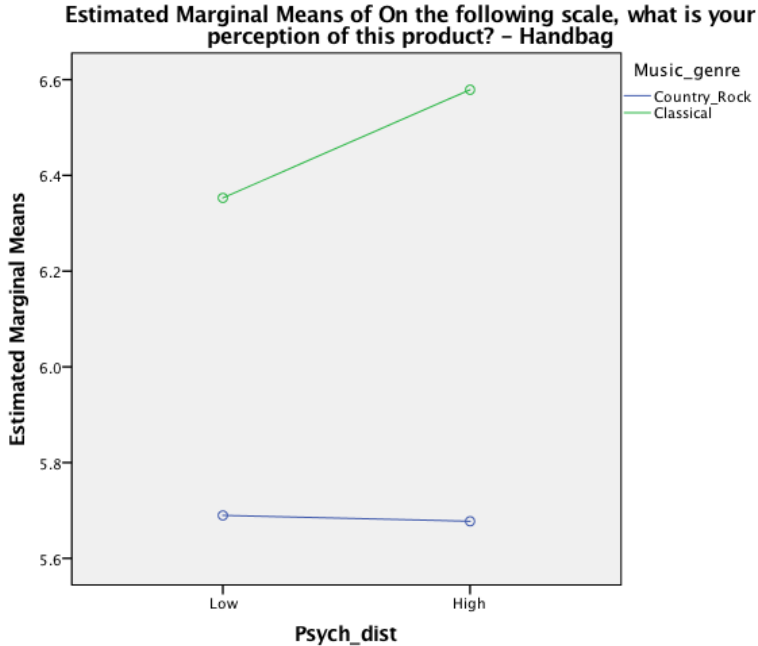
Additionally, we found significance in analyzing one of the ambiguous products, the new cell-phone, with $R\text{ squared} = .072$, $F(97,1) = 5.949$, $\text{psychological distance } p = .017$ (Appendix 8). As we can see on graph 4 below, both music genres imply a higher score in the perception of the attributes of the new cell-phone, seen as more hedonic when psychological distance gets higher.

Graph 4: Estimated Means of Ambiguous Product Attributes Perception (1-Utilitarian/9-Hedonic)



The second hypothesis (H2) intended to determine whether pricing estimations and product attributes perception (hedonic or utilitarian) could be framed according to the background music when that one would be congruent. For that purpose we analyzed the different levels of perception on the means of our three types of products. Even though we did not find on the music genre variable when studying the perception means of the three products, we have a marginal significance level of $F(96,1) = 3.229$, $p = .076$ for the music genres being real close to $R\text{ squared} = .036$ (Appendix 9) (Following an analysis on handbag perception only). Although not being sufficiently significant to be of evidence, it still enables us to propose a pattern subsequent to graph 5, upon which we can clearly suggest that classical music tends to increase the perception of an object referred to as a hedonic product.

Graph 5: Estimated Means of the First Ambiguous Product’s Attributes Perception (1-Utilitarian/9-Hedonic)

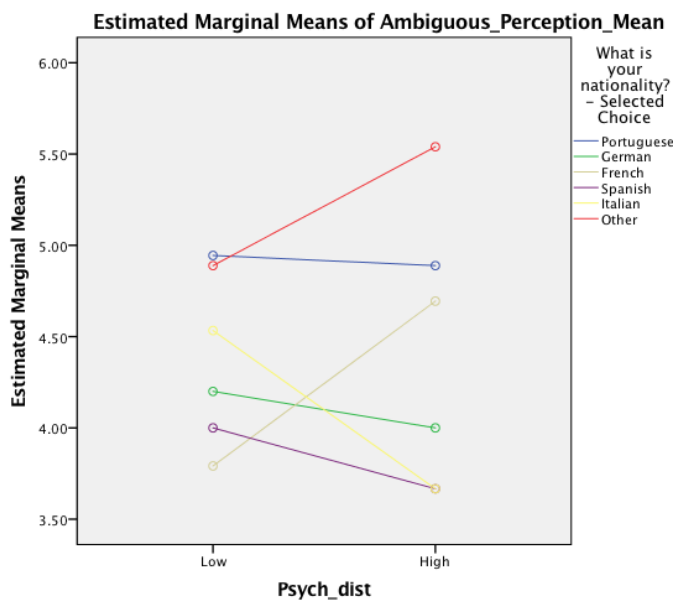


Even without finding any significance, we pushed the study further by checking out other variables from our sample (such as nationality and gender), and we could also identify a trend, as for the gender. Regarding female respondents the means of perception for ambiguous products (handbag, laptop and cell-phone) are bigger when classical music is primed (4.75 on average) in comparison with country music (4.28 on average). On the other hand, there is not much impact on the male’s perception level for the same products (average of 4.70 under both music genre) (Appendix 10).

Our last hypothesis (H3) affirmed that when the product purchase is near in time (small psychological distance), music has more influence on its perception. Although no significance has been identified in our three-way mixed ANOVA analysis (between music genre, psychological distance, and perception levels for all three types of products), there is an obvious tendency that is proving the opposite hypothesis, namely that when psychological distance is high music has more influence on the hedonic products means, which tends to be higher (on a scale from 1 to 9, 1 standing for an utilitarian product and 9 being recognized as fully hedonic). The same pattern is observable on ambiguous perception means, but the utilitarian ones don’t bring any solid relevance, since there is a discrepancy on the consistency of the effects of classical and country music.

Finally, we found significance between nationalities, psychological distance, and the perception of ambiguous products ($R\text{ squared} = .192$, $F(5,96) = 2.745$, $\text{nationality } p = .024$) (Appendix 11). The graph showed that nationalities have different levels of perception for the same types of products. In this case, the variation deals with the handbag, the cell-phone, and the laptop. Depending on the country, high or low temporal contexts have different effect on the perception (hedonic or utilitarian) of the product at evaluation. For instance, Italians, Germans, and Spanish present the same trend and then to lower their perception (becoming more utilitarian) as the temporal distance increases. In perfect opposition, we observe French people and other nationalities (including Austrian, Belgian, Swiss, Danish, Chinese, Venezuelan, Colombian, Brazilian, Peruvian, Moroccan, American and Canadian) to increase their score of perception, leading to a more hedonic valuation of the product when temporal distance increases (French people shifting from $M = 3.79$, $SD = 1.26$ (1 being utilitarian - 9 being hedonic) in a low psychological context to a $M = 4.69$, $SD = 1.47$ in a high psychological context; other nationalities showing a change from roughly $M = 4.90$ under small temporal context against $M = 5.50$ on a higher one) (Appendix 12).

Graph 6



4.2 Discussion

The first research findings indicate a clear relationship between the amounts consumers are willing to pay depending on which level of psychological distance they are exposed to. Under both music genres, the example of the heater shows changes in the price estimations within a range of two hundreds euros, fluctuating from one hundred and fifty euros to three hundreds euros. Respondents, whose estimation was evaluated with a country/rock music playing in the background had overall lower pricing judgments than the ones who were confronted to a classical background. First of all, this comes in support to the second experiment of North, A., Sheridan, L. and Areni, C. (2015). showing that classical music activates related concepts in memory such as sophisticated, educated, and expensive therefore suggesting a premium pricing effect. Classical music always increases willingness to pay. Secondly, if the purchase were suggested in a distant future (with a country music background), respondents' estimates were increased by more than one hundred euros (the heater being presented as an utilitarian product in this study). We suggest that on a long-term, since people think more in an abstract way, their perception of price is less sensitive. A distant future would always imply a higher estimation of pricing, as it does not involve an immediate purchase. In a near future, people would probably consider the cheapest options first (lower prices), since they intend to make a very probable purchase.

Moreover in the case of the perfume, considered as hedonic, we found a similar relationship having significance level very close to the R squared value of our statistical test. On average, price estimations for the perfume were shifting from one hundred and forty euros (in answer to a low psychological context) to one hundred and sixty euros (in answer to a high psychological context), when classical music was primed.

Finally, the last significance found in order to answer the main hypothesis concerns the estimation regarding the means of all three ambiguous products at the study (presenting both hedonic and utilitarian features). The estimated means increases from three hundreds and seventy-five euros (in answer to a low psychological context) to five hundreds and fifty euros (in answer to a high psychological context) under a classical music conditioning. The same pattern is observable with country/rock background music, at a lower level of prices (shifting from, on average, four hundreds euros with a low psychological distance context to four hundreds and fifty euros in a higher psychological distance one).

These results plead for the work of Bornemann, Torsten, and Christian Homburg. (2011) who established the relationship between price-perceived quality and psychological distance. Nevertheless, we could not find any significance showing that background music could potentially frame consumer's perception of those "ambiguous products" as either utilitarian or hedonic good. In comparison with their experiment that demonstrated that a product had a more pronounced price-perceived quality when distant in future.

We can only observe a tendency, like graph 7 shows (Appendix 13) that perception tends to become more hedonic (referring to a self-identity product) as temporal psychological distance increases.

Regarding our second hypothesis, we showed through the results a lack of significance as for the possibility to frame our ambiguous products into one of the two following options: hedonic or utilitarian object. Only the case of the handbag provides a close significance level to assert that in presence of a music genre activating priming concept such as "sophisticated" or "expensive", consumers tend to perceive the product in association with a more hedonic perspective than utilitarian. Also, having a disparity in some results between genders implies that perception can be completely different from male to female consumers. Perhaps it would be of relevance to conduct an in-depth study on how genders react toward a given product, and see what divergent aspects could influence their opinion.

Ultimately, the significance found regarding the different nationalities collected within the questionnaire supports the idea that there might be a cultural factor that has to be taken into account. It is obvious graph 6 that every country has conditioned its citizens in a specific way through its culture, regarding assimilations and perceptive judgments. There is an understandable culture gap between countries from South America, like Peru, Venezuela or Brazil, and European nations for instance such as, Portugal, Spain, France or Italy. This same gap is probably the reason for a different sensitivity to music genres, leading to a distinctive approach and judgment toward same products.

As Kalman Applbaum and Ingrid Jordt (1996) explain in their study for cross-cultural consumer research, consumer behavior tends to be surrounded by several socio-cultural circumstances. In their articles, they perceive a consumer more as a “cultural being” rather than a usual buyer.

They enlighten the fact that “the consumer is a complex actor trying to satisfy diverse, multidimensional, often contradictory goals in a splendidly variegated range of settings (...) until marketing environments around the world have been thoroughly standardized and consumers have been educated by marketers to perceive the satisfaction of need and the attainment of prosperity to be always represented by the same classes of products and services everywhere.”

CHAPTER 5: CONCLUSIONS AND LIMITATIONS

5.1 Main Findings & Conclusions

Although prior studies and experiments have established relationships between price-perceived quality and psychological distance, or have shown that atmospheric musical background could influence the choice between given products, the present research has come to demonstrate the effects of another factor over music conditioning.

Music is a very complex entity that can become quickly one of the most powerful marketing tools, if used in an appropriate way. It implies all of its different assets such as the genre, tempo, the volume level, the familiarity with the music, and its popularity (Anne Michel, Chris Baumann, Leonie Gayer, 2016). However, music has the power to play a very meaningful role in consumer's behavior. Human being are receptive to musical sounds because it has a cognitive effect on the brain, and activates specific memory related concepts that can induce to behave in one way or another. Music is already used in-store as one of the most essentials benefit in a service setting.

Former findings also brought in-depth analysis on what a model of music consumption linked with purchase intention suggests (Kathleen T. Lacher and Richard Mizerski 1994). It involves four main initial consumer's responses (emotional, sensory, imaginal, and analytical). Somehow, music refers to hedonic consumption because it has the ability to create a unique experience on memory, and can be perceived as phenomenological or experiential by the human brain.

Furthermore psychological distance, which is known to affect semantic priming (like music does), has been tested in the past within various experiments in order to understand the different construal levels and to be able to determine what disparities a low-level would present in comparison to a higher one, in a buying context.

Nevertheless, the main aspect of this research was to intend to determine whether a higher temporal distance makes the customer feel comfortable in spending more for a product in a congruent musical background, but also to define the potential weight of background music as for the framing of products' attributes perception and see if it could vary according to the construal level of the situation.

Several relevancies arose from our research and showed that when a purchase intention was evaluated on a long-term period, respondents gave higher pricing estimates than in a near future. They have also been responsive in some ways to the music genre playing in the background, since their pricing estimations were higher in a classical music conditioning. The combination of a high psychological distance and a classical music setting is then by definition the context proposing bigger prices perceptions and could be used in pricing strategies, since classical music leads to higher willingness to pay than country music.

Regarding the potential role of music as a determinant in product framing, none of the tests could provide significance to establish a proper relation between background music and its affective abilities. Lastly, our results show that a strong cultural factor has also to do with consumers' appreciation since nationalities reacted in diverse ways toward a same given product.

5.2 Managerial and Marketing Implications

In terms of marketing implications, we believe it is necessary to understand that considering a variable such as temporal psychological distance can be tricky. For instance, advertising teams and agencies might perceive it as fundamental since the main objective of an advertisement is to promote a service or a product, whether it already exists on the market or incoming in the future. In this case, temporal distance becomes essential as it fosters consumers' mind in giving a concrete conceptualization of the advertised item. But for an in-store situation it is much harder to implement a selling strategy based on temporal distance since customers walk in and out, but technically intend to purchase in an immediate future.

That is why; our current research can provide mainly sufficient relevance to department for which psychological distance is often used when it comes to conditioning people's attentions. It is obvious that these proposals referred to advertising process making use of musical content, since the main relationships proven in this paper relates on temporal psychological distance impact on background music effects over consumers.

So if we remain in such advertising context, we could propose that the introduction of pricing information during an ad can easily be manipulated in a way that consumer price perception would not be altered nor shocked, because an adequate temporal context in accordance with a congruent music would enable marketers to define perfect pricing levels.

5.3 Limitations and Further Research

First of all, gathering data involving musical records is very complicated when there cannot be a full control on the proceedings.

In order to obtain more accurate results, such a study should be realized in a close room, providing headphones to all participants to make sure that each respondent's response meets the experience requirements.

Moreover, having some preliminary explanations about the subject at the beginning of the questionnaire is crucial and extremely helpful for the respondents to understand the testing procedure. Yet, without conducting a pilot study to ensure that all chosen products are indeed recognized as either hedonic or utilitarian by the participants, it is almost impossible to assert that every single one has been considered as we defined them during the study.

Reducing these uncertainties would undoubtedly provide more correct results regarding the perception evaluation. For our study, we followed the model of North, A., Sheridan, L. and Areni, C. (2015) in order to determine what product would be at study. Nonetheless, utilitarian products such as the toothbrush or aspirin tablets provided a very small range of variation in terms of price. Probably due to the familiarity of the product (and its common prices), respondents were biased, and our expectations to find variation (according to the psychological context) could not be met. I suggest for further study to identify and select goods for which it is easier to gather a bigger range of answers, when it comes to estimations.

Dengfeng Yan and Jaideep Sengupta (2011) proposed, "Consumer's reliance on price for making quality inferences would be enhanced when the judgment is psychologically distant." It would be challenging to test this reliance by introducing a new variable that could impact the influence of psychological distance. Perhaps consumer's judgment can be shifted according to the decision-making environment.

Furthermore, we could not validate our second hypothesis (products perception can be framed according to the background music when it is congruent) with that kind of experiment. Perhaps it would be relevant to narrow the research subject to specific objectives focusing exclusively on product framing. Our study has been conducted testing only two music genres (classical and country/rock), so in order to assess music ability to frame a given product with undefined attributes, it might be interesting for further research to conduct an experiment making use of the main musical genres (Jazz, Metal, Hip-Hop, Electronic etc.). As Kathleen T. Lacher

and Richard Mizerski (1994) mention it in their article, music being an aesthetic product is very challenging to study by researchers because they are first valued for their own sake. Each type of music of them suggests different consumer behaviors since it triggers a different sort of emotional and cognitive stimulation in our brain. So testing various musical genres would certainly give a greater scope to the analysis, and would possibly lead to new product-music relationships associations.

Finally our research has important implications for further marketing research related to the consumer's psychology since our findings showed initial relationships between psychological distance, music congruency and consumers' evaluation.

Our hope is to provide sufficient incentives to develop more marketing research based on consumer's preferences as for proximal or future evaluations of prices and product's features. The scope of these analyses is limited to the study of one psychological dimension, but it could be of interest to replicate the same model for the others (social, spatial, and experiential) in order to deliver a full assessment of consumer's psychology. Also knowing that proximal buying situations imply more concrete perceptions in people's mind, perhaps marketers (based on complete psychological analyses) have the opportunity to develop a technique that would incite consumers to represent more intense images of a long-term event, just like on a low-level construals. The main objective would consist in changing the way they generally construct mental representation when product evaluation is associated to a distant consumption. Further studies on the effects of music would enable to find a way stimulate their emotional reactions for future purchasing, and would induce the same behavior they normally show on a short-term representation.

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APPENDICES

Appendix 1

Thesis Questionnaire

Start of Block: Introduction

Q1 First, let me thank you for answering this survey! It will only take you a few minutes. I am conducting research as part of my master's thesis. We are interested in understanding the perception of people about several products. All information collected in here will remain confidential. Your participation is voluntary. If you would like to get access to complementary details, do not hesitate to contact me at: fabien.caujolle@yahoo.fr

Let's go!

End of Block: Introduction

Start of Block: Instructions for background music

Q37

We are interested in understanding the impact of background music on the imagination of daily life consumer experiences. We ask you to complete the survey while listening to music. You just need to adjust the volume of your speakers or headphones. Read all the instructions before you click on the link below.

To automatically play the background music click **Music**.

This link will direct you to a new tab and the music will start automatically. After the background music starts, please return to this tab to proceed and continue the survey.

It is very important that you make sure you do not pause or restart the background music once you start it. Please make sure you keep listening the music throughout all the survey. Otherwise your responses will not be validated.

Press the button >> to proceed and complete the survey.
Thank you.

End of Block: Instructions for background music

Start of Block: High temporal distance intro

Q36

Our thoughts about our life in the future are usually accompanied by plans of purchases of things we want. It is very common to think about products we want for our future, and plan buying it later.

Think about yourself in several months from now. It is very likely that you will buy something.

Perhaps, you are already planning to buy a specific stuff in the long-term, within a year or so. For instance, think about three things that you will probably buy in six months. You can easily picture what those items could be.

Next, you will be presented with several daily life buying scenarios and be asked about your opinion regarding each of them.

Start of Block: Low temporal distance intro

Q36' In our daily life we are prompted to make several purchases. Usually items that we think about and decide to buy right after.

Think about your current week. It is very likely that you bought, or will buy, something today. And, perhaps, you are already planning what you are going to buy tomorrow or on the day after that.

For instance, think about three things that you will buy this week. You can easily picture that we buy many items for here and now.

Next, you will be presented with several daily life buying scenarios and be asked about your opinion regarding each of them.

Q2

For the following set of questions, in which you will be presented with several daily life situations, you will be asked to think about the maximum value you would pay for the product.

You will also be asked to judge each product on a scale from 1 = Utilitarian to 9 = Hedonic.

-An UTILITARIAN, or a necessary, product is an item mainly desired to fulfill a basic need or to accomplish a functional or practical task.

-An HEDONIC, or a luxury, product is an item that is motivated primarily by a desire for pleasure, fantasy, and fun.

Press >> to see the daily life scenarios.

Start of Block: Hedonic Product 1

High Temporal Distance (HTD): Imagine that in several months you will be doing some shopping at the mall.

Once there, you will decide to enter in this perfume store to check out some of their items.

You will finally find a perfume that, according to you, smells very good.

You will like it a lot and will consider buying it.

Low Temporal Distance (LTD): Imagine that you are going to the shopping mall tomorrow.

Once there, you decide to enter in this perfume store to check out some of their items.

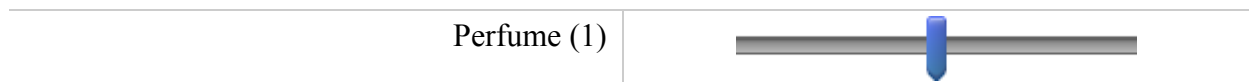
You finally find a perfume that, according to you, smells very good.

You like it a lot and consider changing your current one.



What is the maximum value you are willing to pay for this perfume?

0 100 200 300 400 500 600 700 800 900 1000



Q35 On the following scale, what is your perception of this product?

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7 (7)	8 (8)	9 (9)
Perfume (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Start of Block: Hedonic Product 2

HTD: Imagine that next summer it is the birthday of one of your relatives. You will go shopping in your city center a week before the birthday in order to find a present. This designer jacket will catch your attention. Curious about the article you will get in the store in order to check out the jacket in details.

LTD: Imagine you are going to do some random window shopping in your city center this week-end. Suddenly this designer jacket catches your attention. Curious about the article you get in the store in order to check out the jacket in details.

Q21 What is the maximum value you are willing to pay for this designer jacket?

Q22 On the following scale, what is your perception of this product?

Start of Block: Hedonic Product 3

HTD: Christmas is coming in a bit more than a month. This year you are hosting your family at your place and you thought about innovating for the drinks. You decided that, one week before Christmas, you will go to this craft beer shop to buy all sorts of artisanal beers from unusual breweries.

LTD: Imagine this week, after work, you decide to go to this craft beer shop near where you live. You are planning to buy a six-pack of an artisanal beer from a new brewery, but you still don't know which one.

Q24 What is the maximum value you are willing to pay for these artisanal beers?

Q25 On the following scale, what is your perception of this product?

Start of Block: Utilitarian Product 1

HTD: Imagine you have an open air concert of your favourite artist planned in four months. You know you will go crazy and sing a lot when it will occur. After the concert you will feel sick and have both a sore throat and headache. You will go to the pharmacy in order to buy some aspirin tablets.

LTD: Imagine you attended a concert last night and unfortunately you got a cold. Today you have a very bad headache so you decide to go to the pharmacy to buy some aspirin tablets.

Q27 What is the maximum value you are willing to pay for these aspirin tablets?

Q28 On the following scale, what is your perception of this product?

Start of Block: Utilitarian Product 2

HTD: In a few months from now you will be at the supermarket doing your usual grocery shopping, and you will remember that you have to buy a new toothbrush.

LTD: You are at the supermarket doing your grocery shopping and you remember that you have to buy a new toothbrush.

Q30 What is the maximum value you are willing to pay for this toothbrush?

Q31 On the following scale, what is your perception of this product?

Start of Block: Utilitarian Product 3

HTD: Imagine you will move in a new apartment in a year. The whole place will be new for you, and after a few days, you will realize that the flat is much colder than your previous one. You will then decide to buy a new heater.

LTD: Q33 Imagine you live in apartment and it keeps getting colder with the winter approaching. You decide that it is time to buy a new heater because the one you have at home is not sufficient anymore. Tomorrow you go to the closest hardware store in order to get yourself this additional heater.

Q34 What is the maximum value you are willing to pay for this heater?

Q35 On the following scale, what is your perception of this product?

Start of Block: Ambiguous Product 1

HTD: Imagine yourself in several months browsing the website of an online retailer. You will have a look at the handbags they will be selling, and will decide to buy a new one.

LTD: Imagine you're browsing the internet right now. You visit the website of an online retailer.

You decide to check out the handbags they are selling on this website and consider buying one.

Q37 What is the maximum value you are willing to pay for this handbag?

Q38 On the following scale, what is your perception of this product?

Start of Block: Ambiguous Product 2

HTD: Imagine that next summer, you are going to the biggest music festival of your region. You will be recording one of your favorite artists on video.

But accidentally you drop your cell-phone and break it.

On the next day, you will have to go to a phone store in order to get a new one.

LTD: Imagine this week-end you are invited to one of your friends' party.

At one moment everybody is dancing and you want to record the moment on video.

Accidentally you drop your cell-phone and break it.

On the next day, you go to a phone store in order to get a new one.

Q40 What is the maximum value you are willing to pay for your new cell-phone?

Q41 On the following scale, what is your perception of this product?

Start of Block: Ambiguous Product 3

HTD: Imagine you receive an acceptance letter for the job you have been applying to.
The job only starts in three months.

LTD: Imagine this week you receive an acceptance letter for the job you have been applying to.

Nevertheless this new position requires you to bring your own laptop at work, so you decide to buy one this week-end.

Nevertheless, this new position will require you to bring your own laptop at work, so you know that in two to three months you will have to buy one.

Q43 What is the maximum value you are willing to pay for this laptop?

Q44 On the following scale, what is your perception of this product?

Start of Block: Demographics

Q47 Thank you very much for answering to each of these situations.
To finish I would like to know a little bit more about you.

Q10 How old are you?

Q12 What is your gender?

Male (1)

Female (2)

Q14 What is your nationality?

- Portuguese (1)
- German (2)
- French (3)
- Spanish (4)
- Italian (5)
- Other (6) _____

End of Block: Demographics

Start of Block: Verification

Q49 This is your final question:

Did you answer all of these questions while having the music running in the background?

- Yes (1)
- Not for all questions (2)
- No (3)

End of Block: Verification

Start of Block: Thanks

Q38

Thank you very much for your participation in this survey!

Your contribution is very important.

Please use the space below if you want to add further questions or comments, or send an email to Fabien Caujolle at: fabien.caujolle@yahoo.fr

End of Block: Thanks

Appendix 2

Tests of Between-Subjects Effects

Dependent Variable: What is the maximum value you are willing to pay for this heater? - Heater

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	408955.05 ^a	3	136318.350	2.439	.070	.074
Intercept	6157824.87	1	6157824.87	110.167	.000	.548
Music_genre	144297.079	1	144297.079	2.582	.112	.028
Psych_dist	225302.165	1	225302.165	4.031	.048	.042
Music_genre * Psych_dist	8776.377	1	8776.377	.157	.693	.002
Error	5086490.38	91	55895.499			
Total	11758284.0	95				
Corrected Total	5495445.43	94				

a. R Squared = .074 (Adjusted R Squared = .044)

Appendix 3

Descriptive Statistics

Dependent Variable: What is the maximum value you are willing to pay for this heater? - Heater

Psych_dist	Music_genre	Mean	Std. Deviation	N
Low	Country_Rock	161.7778	150.15385	27
	Classical	261.7059	248.26265	17
	Total	200.3864	197.45582	44
High	Country_Rock	281.7097	253.77236	31
	Classical	342.1000	288.56522	20
	Total	305.3922	266.77617	51
Total	Country_Rock	225.8793	218.67962	58
	Classical	305.1622	270.16811	37
	Total	256.7579	241.78955	95

Appendix 4

Levene's Test of Equality of Error Variances^a

Dependent Variable: What is the maximum value you are willing to pay for this heater? - Heater

F	df1	df2	Sig.
2.168	3	91	.097

Tests the null hypothesis that the error variance of the dependent variable is equal across groups.

a. Design: Intercept + Psych_dist + Music_genre + Psych_dist * Music_genre

Appendix 5

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	73358.091 ^a	3	24452.697	1.445	.235	.045
Intercept	1417925.90	1	1417925.90	83.771	.000	.477
Music_genre	69298.812	1	69298.812	4.094	.046	.043
Psych_dist	1260.244	1	1260.244	.074	.786	.001
Music_genre * Psych_dist	1359.389	1	1359.389	.080	.778	.001
Error	1557213.53	92	16926.234			
Total	2991456.00	96				
Corrected Total	1630571.62	95				

a. R Squared = .045 (Adjusted R Squared = .014)

Appendix 6

Tests of Between-Subjects Effects

Dependent Variable: Ambiguous_Price_Mean

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	259179.45 ^a	3	86393.152	3.150	.029	.093
Intercept	19942843.4	1	19942843.4	727.067	.000	.888
Music_genre	147058.558	1	147058.558	5.361	.023	.055
Psych_dist	101076.379	1	101076.379	3.685	.058	.039
Music_genre * Psych_dist	60.462	1	60.462	.002	.963	.000
Error	2523483.07	92	27429.164			
Total	23298088.0	96				
Corrected Total	2782662.53	95				

a. R Squared = .093 (Adjusted R Squared = .064)

Appendix 7

Descriptive Statistics

Dependent Variable: Ambiguous_Price_Mean

Psych_dist	Music_genre	Mean	Std. Deviation	N
Low	Country_Rock	394.8810	125.68535	28
	Classical	477.1373	152.96323	17
	Total	425.9556	140.81323	45
High	Country_Rock	463.3548	168.41195	31
	Classical	542.3417	214.19712	20
	Total	494.3301	189.65500	51
Total	Country_Rock	430.8588	152.35906	59
	Classical	512.3829	188.94154	37
	Total	462.2795	171.14668	96

Levene's test of equality of error variances

Dependent Variable:

Ambiguous_Price_Mean

F	df1	df2	Sig.
2.450	3	92	.069

Tests the null hypothesis that the error variance of the dependent variable is equal across groups.

a. Design: Intercept + Psych_dist + Music_genre + Psych_dist * Music_genre

Appendix 8

Tests of Between-Subjects Effects

Dependent Variable: On the following scale, what is your perception of this product? - New cell-phone

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	29.284 ^a	3	9.761	2.416	.071	.072
Intercept	1610.837	1	1610.837	398.693	.000	.811
Psych_dist	24.034	1	24.034	5.949	.017	.060
Music_genre	2.336	1	2.336	.578	.449	.006
Psych_dist * Music_genre	.303	1	.303	.075	.785	.001
Error	375.747	93	4.040			
Total	2172.000	97				
Corrected Total	405.031	96				

a. R Squared = .072 (Adjusted R Squared = .042)

Appendix 9

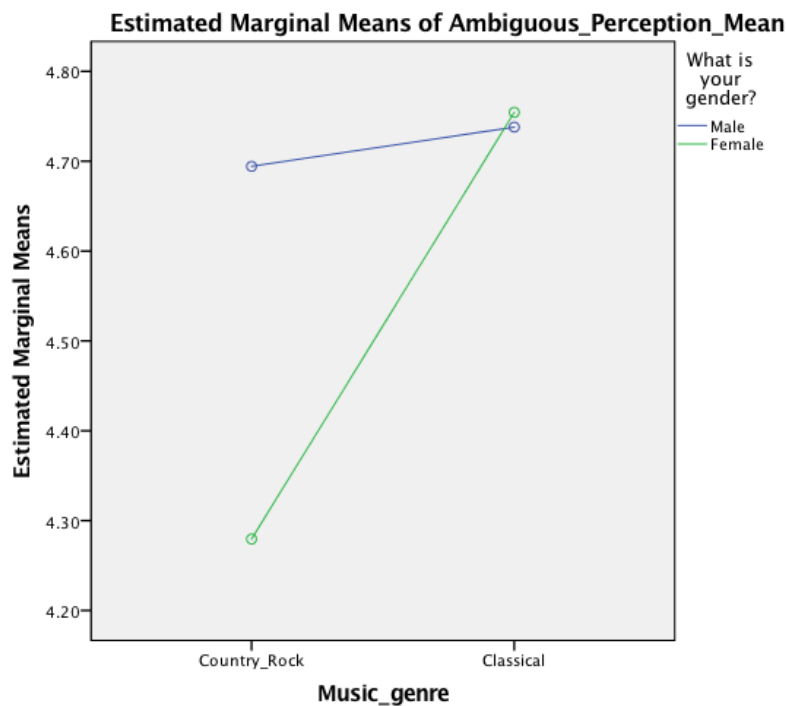
Tests of Between-Subjects Effects

Dependent Variable: On the following scale, what is your perception of this product? – Handbag

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	14.463 ^a	3	4.821	1.133	.340	.036
Intercept	3313.429	1	3313.429	778.645	.000	.894
Psych_dist	.256	1	.256	.060	.807	.001
Music_genre	13.741	1	13.741	3.229	.076	.034
Psych_dist * Music_genre	.319	1	.319	.075	.785	.001
Error	391.495	92	4.255			
Total	3838.000	96				
Corrected Total	405.958	95				

a. R Squared = .036 (Adjusted R Squared = .004)

Appendix 10



Appendix 11

Tests of Between-Subjects Effects

Dependent Variable: Ambiguous_Perception_Mean

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	36.748 ^a	11	3.341	1.814	.064	.192
Intercept	1077.282	1	1077.282	585.001	.000	.874
Psych_dist	.004	1	.004	.002	.964	.000
Nationality	25.278	5	5.056	2.745	.024	.140
Psych_dist * Nationality	5.999	5	1.200	.652	.661	.037
Error	154.686	84	1.842			
Total	2272.778	96				
Corrected Total	191.434	95				

a. R Squared = .192 (Adjusted R Squared = .086)

Appendix 12

Descriptive Statistics

Dependent Variable: Ambiguous_Perception_Mean

Psych_dist	What is your nationality? - Selected Choice	Mean	Std. Deviation	N
Low	Portuguese	4.9444	.92896	6
	German	4.2000	1.09093	10
	French	3.7917	1.25909	8
	Spanish	4.0000	.70711	5
	Italian	4.5333	.96032	5
	Other	4.8889	1.83310	12
	Total	4.4203	1.31362	46
High	Portuguese	4.8889	1.62845	6
	German	4.0000	.27217	4
	French	4.6944	1.47339	12
	Spanish	3.6667	1.24722	6
	Italian	3.6667	.	1
	Other	5.5397	1.42780	21
	Total	4.8733	1.49054	50
Total	Portuguese	4.9167	1.26431	12

German	4.1429	.92186	14
French	4.3333	1.43066	20
Spanish	3.8182	1.00403	11
Italian	4.3889	.92896	6
Other	5.3030	1.59069	33
Total	4.6563	1.41954	96

Appendix 13

Graph 7

