



**The effect of Psychological Distance on
Anticipatory Guilt related to Hedonic
Consumption: An Explanation based on CLT**

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Abstract

Title: The effect of Psychological Distance on Anticipatory Guilt related to Hedonic Consumption: An Explanation based on CLT

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Summary: Generally, consumers have limited resources, constantly divided between what they *need* (utilitarian consumption) and what they *want* (hedonic consumption), where a tendency of underindulgence in these *wants* is observed. Hedonic consumption is perceived as less justifiable, valid and important than utilitarian consumption, resulting frequently in the experience of anticipated guilt at the time of purchase, which many times hinders or even prevents hedonic consumption. However, this under evaluation of hedonic options is found to lay mostly on consumers' perceptions and can, therefore, be undone. This dissertation aims to explore mechanisms by which (*how*) these perceptions can be altered, in such a way that anticipatory guilt associated with hedonic consumption can be decreased and, therefore, hedonic consumption is promoted. Furthermore, it seeks to understand *why* such a manipulation works. It hypothesizes that psychological distance is a mechanism that answers this *how*, and a Construal Level Theory based explanation is proposed, where abstraction answers to the *why*. Two studies were conducted for testing these hypotheses. Results show increases in psychological distance result in decreased anticipatory guilt and in consequent increase of hedonic consumption. Furthermore, abstraction levels are in fact mediating the previously mentioned effect. Lastly, the importance of goal setting (utilitarian/hedonic) for the perception and consumption of hedonic options was investigated. Goal setting is found to be specifically significant for the mediation by anticipatory guilt of the effect of abstraction on choice, as results prove our CLT based explanation exclusively for products of hedonic nature in both goal type and characteristics.

Keywords: psychological distance, construal level theory, goal setting, hedonic consumption, anticipatory guilt, decisions

Resumo

Título: O efeito da Distância Psicológica na Culpa Antecipada associada ao Consumo Hedônico: Uma explicação baseada na CLT

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Sumário: Os consumidores possuem uma quantidade limitada de recursos, que dividem entre o que *precisam* (consumo utilitário) e o que *desejam* (consumo hedônico), onde uma falta de indulgência no que é *desejado* é observável. O consumo hedônico é percebido como menos justificável, válido e importante que o consumo utilitário, levando frequentemente à experiência de culpa antecipada no momento da compra, dificultando ou até impedindo a compra. Contudo, esta subavaliação de opções hedônicas jaz principalmente na percepção e, como tal, pode ser alterada. Esta dissertação visa explorar mecanismos pelos quais (*como*) estas percepções podem ser alteradas, diminuindo a culpa antecipada associada ao consumo hedônico e, conseqüentemente, promovendo este consumo. Adicionalmente, procura entender o *porquê* desta manipulação funcionar. A distância psicológica é proposta como um mecanismo que responde ao *como*, em que a abstração responde ao *porquê*, numa explicação baseada na Construal Level Theory. Dois estudos foram realizados para testar essas hipóteses. Os resultados mostram que o aumento a distância psicológica resulta na diminuição da culpa antecipada e no conseqüente aumento do consumo hedônico. Ademais, que os níveis de abstração medeiam o efeito estudado. Investigou-se também a importância do estabelecimento de objetivos de ação (utilitário / hedônico) na percepção e consumo de opções hedônicas. A definição de objetivos é especificamente significativa para a mediação do efeito da abstração na escolha pela culpa antecipada, uma vez que os resultados provam a nossa explicação baseada na CLT exclusivamente para opções de natureza hedônica em ambos o tipo de objetivo e características periféricas.

Palavras-Chave: distância psicológica, construal level theory, definição de objetivos de ação, consumo hedônico, culpa antecipada, decisões

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List of Abbreviations

- BIF – Behavior Identification Form
- GASP - Guilt and Shame Proneness scale
- HA – High Abstraction
- HD – High Distance
- HG – Hedonic Goal
- HO – Hedonic Option
- HTD – High Temporal Distance
- LA – Low Abstraction
- LD – Low Distance
- LTD – Low Temporal Distance
- UG – Utilitarian Goal
- UO – Utilitarian Option

Chapter 1: Introduction

Research Topic

While some have unlimited or too limited resources, in most cases, we have a moderately limited purchase power, which we divide between what we *need* to buy and what we *want* to buy. And despite being intrinsically prone to enjoy ourselves, more often than not, a clear preference for the items one *needs* to buy is observable, and insufficient attention is given to what is *wanted*.

The *wants* can be considered as items of hedonic nature, while the *needs* can be described as utilitarian (a similar but different pair of construes as the "shoulds" and "wants" (Bazerman, Tenbrunsel, & Wade-Benzoni, 1998)). It is possible to observe, in many cases, an undervaluation of hedonic options, given that these are perceived as less valid, less justifiable and less important than utilitarian consumption. Furthermore, as it can also be many times considered wasteful, pursuing one's *wants* is then often haunted with a feeling of anticipated guilt, which can hinder or even prevent this type of consumption (Zemack-Rugar et al. 2016).

For that reason, studying the phenomenon of anticipatory guilt and understanding the underlying psychological processes provides more insight on how to change the general perception that consumers have on this dichotomy of hedonic and utilitarian items and consequent validity, justifiability, and importance of hedonic consumption. Moreover, these studies are of great value for yielding practical solutions and reshaping the way hedonic products and services are marketed.

Some anticipatory guilt-reducing mechanisms have been studied, from which the manipulation of psychological distance stands out. Previous works have directly or indirectly studied how different levels of psychological distance can influence anticipated guilt associated with hedonic consumption. Efforts have been made into understanding *how* this manipulation can influence anticipatory guilt associated with hedonic consumption, but not much focus has been given into *why* it works. This paper proposes that the relationship between psychological distance and anticipatory guilt associated with hedonic consumption is mediated by the subject's abstraction level and its effect on perception (validity, justifiability, and importance).

Research Problem

The main goal of this dissertation is to firstly analyze changes in consumers' perceptions and in patterns of decision-making over hedonic products through the manipulation of psychological distance. Furthermore, it will assess if the effect of psychological distance on decision-making patterns is mediated by these perceptions. Perceptions and decision-making patterns will be measured through anticipatory guilt levels and choice rate of hedonic options over utilitarian options, respectively.

RQ1: How does psychological distance affect consumers' anticipatory guilt levels associated with hedonic consumption and, consequently, their decision of whether to indulge?

Secondly, this dissertation aims at understanding the reasoning behind the effect of psychological distance on anticipatory guilt levels and decision-making patterns associated with hedonic consumption. This paper proposes a Construal Level Theory based explanation and the results obtained will be analyzed through a series of mediation models to infer if participants' abstraction level is in fact potentiating these dynamics.

RQ2: Is the relationship between psychological distance and abstraction levels explaining the effect of the first on anticipatory guilt levels and consequent decision-making associated with hedonic consumption?

Dissertation Structure

This dissertation will follow a five-chapter structure. The current Chapter 1 introduces the research topic, the research problem which the work explores and the specific questions it tries to answer. Chapter 2 presents the literature review on which this dissertation was based and developed, that provided possible answers to the research questions allowing thus for the development of hypotheses. Research methodology is presented in Chapter 3, as the means by which the two studies were conducted. Chapter 4 presents the main results found through the analysis of the output of studies. Lastly, Chapter 5 is compromised of main conclusions, results' discussion, limitations and possible future research.

Chapter 2: Literature Review

Anticipatory Guilt in Hedonic Consumption

As almost every product or service has both its utilitarian and its hedonic characteristics (Chernev 2004; Dhar and Wertenbroch 2000), while there are many ways one can distinguish hedonic from utilitarian products, for the purpose of this paper this distinction will be made based on the most prominent features. A product that has a higher level of hedonic (utilitarian) attributes will be considered as hedonic (utilitarian), an approach consistent with the work of Dhar and Wertenbroch (2000) and O'Curry and Strahilevitz (2001).

The main difference between hedonic and utilitarian consumption lies on the benefits these items yield. The first yields benefits in the form of experiential joy, while the latter in the form of practical functionality (Batra & Ahtola, 1991; Hirschman & Holbrook, 1982; Mano & Oliver, 2016), that fulfills intrinsic needs. Given these differences, hedonic consumption may be viewed as wasteful (Lascu 1991), even if not requiring monetary sacrifices (a trip involves spending time, a dinner out may compromise diet and workout efforts). Consumers, therefore, experience anticipatory guilt when faced with the decision of whether to indulge or not in hedonic consumption (Kivetz and Simonson 2002a, 2002b; Strahilevitz and Myers 1998).

However, in the distinction made in current research, the benefits one yields from hedonic items are just as valid, necessary and good as the benefits one yields from utilitarian ones (Okada 2005). Both types of consumption are expected to yield benefits, and neither is necessarily supposed to directly harm the consumer (e.g., Dhar & Wertenbroch, 2000). Furthermore, although basic needs require utilitarian items to fulfill them, not all utilitarian consumption is necessary. In the present world, a lot of utilitarian consumption meets and well exceeds needs (Okada 2005). A shaving machine may incur the perception of being a utilitarian product but is not more necessary than a concert ticket to the survival and well-being of a consumer.

Nevertheless, given the mental predisposition on the validity and justifiability of hedonic versus utilitarian consumption, some people find themselves underindulging in the first. Of course, this does not apply to all consumers, as many do not have difficulty in spending and overspending on hedonic products and services. Moreover, the tendency to over or underemphasize hedonic consumption varies across time and consumption categories. Nevertheless there is, in fact, a big segment of consumers that are aware of their tendency to

overspend on necessities and underestimate the need for indulging. So, they may want to find ways to increase their hedonic consumption (Kivetz and Simonson 2002b; Thaler 1985).

Hence, these differences between the legitimacy and justifiability of utilitarian and hedonic consumption can be understood as laying greatly on consumers' perception and that they can, therefore, be undone.

Defining Anticipatory Guilt and Distinguishing from Regret

It is important to understand the concept of guilt and to distinguish it from regret, as the two are very closely related, separated by a fine but relevant barrier.

Regret, on one hand, is a feeling that arises from the comparison of the actual choices and their consequent outcomes, with upward counterfactual realities the subject fabricates (Zeelenberg and Pieters 2007). Counterfactual thoughts arise spontaneously and refer to imagined alternative realities to past events (Byrne 2016). People have a tendency to imagine better alternatives to the factual past (Nasco and Marsh 1999; Summerville and Roese 2008), which emerge as a response to its negative affect (Markman, Gavanski, Sherman, & McMullen, 1993; Roese & Hur, n.d.; Roese, 1997). These upward counterfactuals (imagined alternatives about how things could have been better, Byrne, 2016), create an additional negative affect since reality becomes even less desirable when compared to these idealized alternatives (affective contrast; Roese, 1994; Roese & Morrison, 2009).

The feeling of guilt, on the other hand, results of behavior-specific appraisals, and has a more prominent focus on the individual's sense of responsibility for the undesired outcomes ((Blum, 2008; Brown and Weiner, 1984; Lewis, 1971; Tracy & Robins, 2004). It is a negative emotion that is activated when one considers his/her actions to be incongruent with their identity goals (Tracy & Robins, 2004). Given this, in the next opportunity of choice, one might feel anticipatory guilt, which arises as a defense mechanism and prevents them of choosing the same wrong way as before. Continuing a counterfactual theory based explanation, anticipatory guilt can be seen as the result of prefactual

thought (Byrne 2016), in order to rectify the outcome.

Given so, albeit the close correlation of the two concepts, it is more appropriate to focus on guilt, and specifically anticipated guilt, once the purpose of the study is to alter the perception of the consequences of hedonic consumption before the purchase, in time to alter the consumers' behavior and pattern of choice. If the purpose is met, the phenomenon of anticipatory guilt is diminished or even eliminated, and consequently so is the possibility of regret.

Furthermore, anticipated guilt is not an outcome of a learning process exclusively. It can also arise from the ability to fantasize about the future (Oettingen 1999, 2012; Oettingen and Mayer 2002; Oettingen, Mayer, and Portnow 2016). It falls under the category of anticipated emotions, given its prospective orientation (Bagozzi et al., 2000), and represent an important and active player in the decision-making process, not only on *what* is chosen but also on *how* it is chosen (Zeelenberg 1999b, 1999a).

Anticipatory guilt is then a self-defense mechanism that only exists due to the human capacity to fabricate multiple fantasies about the future, which does not necessarily need prior similar situations where regret was present. Better yet, in some situations, anticipatory guilt is the mechanism of defense that prevents the existence of actual post-decisional guilt, regret and other negative emotions.

Psychological Distance affecting Hedonic Consumption

Many contextual and psychological variables have been shown to affect preference for hedonic consumptions, often associated to opportunities to reduce anticipated guilt associated. For instance, Okada (2005) demonstrated that hedonic options become more justifiable in consumer's eyes when these are presented singly, rather than alongside the utilitarian option. The paper theorizes and demonstrates how increasing the justifiability of a hedonic option decreases consumers' anticipatory guilt levels and vice-versa. Furthermore, if such an option becomes more justifiable and less guilt-inducing, hedonic consumption increases.

Another variable that has been looked directly or indirectly into the regulation of anticipatory guilt associated with hedonic consumption is psychological distance.

As defined by Kim, Zhang and Xiuping Li (2008), psychological distance is "the subjective distance between an actor and an event in the actor's psychological space" and it is expressed in several dimensions, from which four stand out: the social distance (e.g. closeness to the decision maker), the physical distance (e.g. physical relative position to decision options), the temporal distance (e.g. time between decision-making and actual consumption) and the hypothetical distance (e.g. probability of decision actualizing) (see Liberman and Trope, 2008).

In a study by Kivetz & Simonson (2002b), a theory of Precommitting to Indulgence was explored, where the moderators used were outcome concreteness, which was manipulated by *temporal distance* and *hypothetical distance* (likelihood of the outcome). Results showed that when these distances were higher, participants were found to increase their affinity

towards (sinful) indulgence over the more easily justified option (e.g., cash). This study supports the argument of the present dissertation, however, Kivetz and Simonson (2002) do not measure or directly manipulate abstraction levels (they only manipulate different psychological distance dimensions) and neither measure guilt.

Another relevant work is presented by Lu, Liu, & Fang (2016), in which the effect of decision targets was studied, self or other, on preferences for hedonic or utilitarian options, where anticipatory guilt associated with hedonic consumption represented the reason for the self-other difference. Its results showed that by shifting the decision target from self to other, anticipatory guilt levels decreased. This self-other decision making can be seen as a manipulation of *social distance*, one of the main types of psychological distance, as decisions for others are distant from one's self when compared to decisions with consequences for the person itself.

As so, the first proposition of this paper is that the previously conducted researches all manipulated psychological distance. It is firstly hypothesized that, in general, psychological distance can regulate the magnitude of anticipated guilt associated with hedonic consumption, in an inversely proportional relationship, and consequently increase it:

H1: With higher (lower) levels of psychological distance, anticipated guilt associated with hedonic consumption is decreased (increased) and thus the latter is easier (harder) to indulge in.

While these studies have focused on *how* (psychological distance can regulate anticipatory guilt and consequent consumption), little has been studied on *why*. In this work, it is proposed that this phenomenon is explained as being mediated by abstraction levels. In the previously conducted studies, we believe the reason *why* psychological distance has an impact on anticipatory guilt and consumption choices is because psychological distance is manipulating participants' construal levels, where the more psychological distance, the more abstract they become, resulting in different perceptions over the available options.

A Construal Level Theory Based Explanation

Construal Level Theory links psychological distance to abstraction. It is suggested that individuals mentally construe events/objects more concretely (low-level, detailed and contextualized) when these are psychologically near, while at further psychological distance the same events/objects are construed more abstractedly (high-level, general and of stable characteristics) (Liberman, Sagristano, & Trope, 2002; Liberman, Trope, & Stephan, in press). It is a theory that focuses on how distance affects mental construal, which in turn has been shown by previous research to guide prediction, evaluation, and behavior.

For a consumer to recognize the need for indulging in hedonic consumption, a more global view of their own needs is necessary. This is due to the dichotomous nature of the benefits yielded: while utilitarian items are necessary for the relieve of an unpleasant state of discomfort, hedonic items add pleasantry to states of comfort (Berry, 1994). CLT proposes that psychological distance contributes greatly to determine what characteristics are used for perception and evaluation over an event or object, given its effect on individuals' construal level. When high (low) level construals are activated, individuals prefer options construed at a higher (lower) levels also (Liberman and Trope 1998; Trope and Liberman 2000).

The relationship between psychological distance and the evaluation of events has been widely studied, given that it pertains to many manifestations of high-level vs. low-level of construal. One of these manifestations is the weighting of pros and cons. Arguments against an action are subordinate to arguments in favor. This is so because the importance of the latter does not depend on the existence of the first, while the same cannot be said for the cons, as these are only important in the presence of pros. Given so, it is expected that the pros become more salient than the cons, as distance increases (Eyal et al. 2004).

Looking into the analysis of the thought process behind the choice between engaging in hedonic and utilitarian consumption, evaluating the pros and the cons becomes greatly important, as pros are present in both options (benefits in the form of experimental pleasure and practical functionality, respectively), while cons are scarce for utilitarian consumption and vast for hedonic. Both options have costs associated (whether they are monetary, of time or of effort), but given that utilitarian consumption is "needed", the con of its cost is perceived as not so great as the con of the cost of hedonic consumption, as it is not "needed" and therefore, "wasteful". Hedonic consumption *per se* is desired but its cost (the con) induces the perception of a less justifiable, valid and important option, hence the experienced anticipatory guilt. Therefore, as the pros become more salient with increased distance, the cons become

less significant, hence, it is expected that higher levels of abstraction will increase the value given to hedonic options.

CLT also suggests that psychological distance plays an important part in deciding which characteristics (primary and essential, or secondary and peripheral) are used for the evaluation of options, postulating that increased (reduced) distance increases the weight given to primary (peripheral) features of options (Trope, Liberman, and Wakslak 2007). Given that the valences of high and low-level attributes are not dependent, opposing action tendencies can be evoked by the same item, depending on the level of construal activated (Fujita et al. 2006). Furthermore, goal-directed actions also bear two distinct concerns: feasibility, which pertains to the means to reach the end-goal, and desirability (attractiveness), which is implicated in the value of the end-goal. Therefore, feasibility concerns are associated to low levels of construal whereas desirability concerns are associated to higher levels.

Being so, the two following studies conducted both have a second part where the primary attributes are set as consumer hedonic or utilitarian goals (once for centrally utilitarian consumption and once for centrally hedonic consumption) and two options are given: a hedonic option that is more desirable but less feasible (including better quality, more luxurious customer experience, but more expensive and more far away from participants' houses) and a utilitarian option that is more feasible but less desirable (closer to participants' homes, more affordable, more practical but of less quality and with a less pleasant customer experience), in order to further explore the possible implications of abstraction levels on various scenarios. According to CLT, it is expected that the desirability of options should be given greater weight over feasibility with the increase in participants' abstraction levels. Hence, we predict that desirable options (hedonic options) become more valuable for participants. Although we are exploring differences in utilitarian and hedonic goals, we expect psychological distance to increase preference for hedonic options regardless of participants' hedonic or utilitarian consuming goal.

Furthermore, the weighing of idealistic values, as opposed to pragmatic concerns have also been found to bear a manifestation of high-level vs. low-level of construal. Kivetz and Tyler (in press) have argued that, just as with pros and cons, pragmatic concerns are subordinate to individuals' inner, idealistic values. Being so, they have suggested that more distant perspectives increase the expression of an idealistic self, therefore increasing the placement of value on identity-related concerns.

Needs are, in general, similar among people and cannot be voluntarily changed (e.g. I have to buy food, like everyone else), whereas wants and desires are different from individual

to individual and can express one's idealistic values (e.g. I only buy organic food because I believe it brings me closer to the person I want to be). Similarly, utilitarian consumption is, for the most part, congruent between all people, while hedonic consumption is, in some part, a way of expression of the ideal self (Baek and Ho 2015), and these consumption choices are some of the means by which consumers reach their idealistic goals in life. Therefore, as in higher level construal mind-sets idealistic values tend to weight more in the evaluation of an option, hedonic options are expected to be perceived as more valuable at greater psychological distances.

Lastly, in a research conducted by Han, Duhachek and Agrawal (2014), a direct connection was studied between the feeling of guilt and abstraction. Its theoretical framework was so that, when guilt, as a behavior-specific feeling, was present, local appraisal tendencies were activated and consumers would endow lower-level construal mind-sets. Furthermore, that this effect was carried-over to following judgements, such that low-level construed consumption options would be more preferred than options that were dominant in high-level features.

Therefore, we have reason to suspect that higher levels of abstraction may decrease the feeling of anticipatory guilt, if the relationship mentioned above can be reversed. As previously studied, higher abstraction levels activate higher construal mind-sets. Perhaps, by activating high-level construal mind-sets, which in turn trigger more global appraisal tendencies, the possibility of feeling anticipatory guilt can be reduced.

Given all the above, it is hypothesized that the effect of psychological distance on anticipatory guilt associated with hedonic consumption can be explained as being mediated by construal levels, following relationship patterns theorized in Construal Level Theory:

H2: The relationship between the decreased (increased) anticipatory guilt associated with hedonic consumption resulting from the increase (decrease) of psychological distance is mediated by abstraction levels and leads to more (less) choice of hedonic options.

Overview of Studies

For testing the hypothesis proposed, two studies were conducted. Study 1 manipulates psychological distance, while Study 2 manipulates abstraction, and its effects on preferences, anticipatory guilt experienced, and choice are measured when participants are faced with utilitarian and hedonic options. Within each study, there are two parts: a first part where evaluation is done at product level, and a second part where it is done at attribute level.

Part I of Study 1 is an adapted replica of the second study of Lu et al. (2016), where social distance is manipulated. A measure of abstraction is included, through the 25-item BIF questionnaire (Vallacher and Wegner 1989). Four product pairs are presented, each with a utilitarian option and a hedonic option.

Part II of Study 1 manipulates temporal distance and sets two consumption goals: a utilitarian goal (buying groceries) and a hedonic goal (dinning out). In each of these goals, a utilitarian and a hedonic option are given for participants to evaluate.

H1: With higher (lower) levels of psychological distance, anticipated guilt associated with hedonic consumption is decreased (increased) and thus the latter is easier (harder) to indulge in.

Both part I and II allow for testing H1, by analyzing the impact of psychological distance on anticipatory guilt and on choice rate of the hedonic option and lastly, by testing the significance of the mediation by anticipatory guilt on the effect of psychological distance on choice.

H2: The relationship between the decreased (increased) anticipatory guilt associated with hedonic consumption resulting from the increase (decrease) of psychological distance is mediated by abstraction levels and leads to more (less) choice of hedonic options.

Both part I and II will also allow to test H2, as the overall score of the 25-item BIF questionnaire will measure abstraction, and so mediations by abstraction can be evaluated.

Regarding Study 2, abstraction is directly manipulated through the how/why task (Freitas, Gollwitzer, and Trope 2004) and the same product evaluation structure is followed, in each of the two parts. This allows for further confirmation of the role of abstraction in evaluation, anticipatory guilt and choice of hedonic items. It will also allow for further confirmation of the mediating effect of anticipatory guilt on the impact of abstraction in hedonic consumption.

Chapter 3: Methodology

Both studies had two parts of product evaluation. Part I was done at a product level (Chernev 2004; Dhar and Wertenbroch 2000), testing for the effect of the independent variable on either utilitarian and hedonic consumption. As we study effects on hedonic consumption specifically, monitoring the effects associated with utilitarian consumption will help infer whether it is in fact a manipulation that has relevant impact on the first.

In Part II, product evaluation was done at an attribute level (Kronrod and Danziger 2013), as participants engage with two situations where the goal is set as utilitarian and then hedonic, with two types of options presented to choose from, in each: a hedonic and a utilitarian option. The distinction is present to infer whether the preferred product changes in the nature of the secondary aspects, at different levels of construal. Furthermore, if the primary feature's nature has an impact on this alteration of preferences.

Study 1: Psychological Distance Manipulation

Participants

A hundred and four people (62 women, 42 men; Mage = 29.02 years, where 69.23% were aged between 15 and 24 years; 74.04% where Portuguese) participated in Study 1. All were randomly assigned to either the high or low psychological distance condition.

Procedure & Materials

Part I: Product Level Evaluation

On the first experiment, the effect of social and temporal psychological distances on preferences, anticipatory guilt and choice were tested. The results of these two are then extrapolated for psychological distance in general, also supported by the fact that all its main strains have already been tested, direct or indirectly, in other studies. The survey starts by randomly assigning participants to either the high or low psychological distance conditions.

On the first part, social distance is manipulated. Participants in the high psychological distance condition were asked to think of someone they know, but not close to them (a former college in work or school, a friend that lives abroad and who they don't see often, etc), and write down the person's name, age, gender and how they are distant from the participant. The ones in the low condition were asked to write down their own name, age, and gender. After that, a series of 4 pairs of products were shown, each pair with one product representing a

utilitarian option and one representing a hedonic option. Depending on their condition, participants would imagine getting on of the two products either for themselves (low psychological distance condition) or for the other person (high psychological distance condition). Participants were asked to describe their preference for each (0= Utilitarian option; 9= Hedonic option), how guilty they would feel considering each option (0= Utilitarian option; 9= Hedonic option) and finally which one they would choose.

Table 1: Products in part 1 of study 1 and 2.

Product	Utilitarian Option	Hedonic Option
Device	Printer	Stereo
Readings	Science readings	Entertainment readings
Food	Fruit	Pastry
Newspaper	Financial newspaper	Entertainment newspaper

To measure participants' abstraction level, the 25-item BIF questionnaire was presented afterwards (Vallacher and Wegner 1989). This questionnaire allows the measurement of the level at which individuals are construing activities. Participants were asked to read statements describing actions (e.g. taking a test) and then to choose which of the two options (e.g. answering questions (low-level) vs. showing one's knowledge (high-level)) better suited the activity.

Part II: Attribute Level Evaluation

In the second part of the study, participants were presented the scenario where they had won a lottery, which yielded prizes in the form of vouchers. Participants in the high psychological distance condition were told the voucher could be discounted in one year, while participants in the low distance condition could discount the voucher right away.

The first voucher was for \$200 in groceries, which would prime participants to imagine engaging in utilitarian consumption, that is, setting a utilitarian goal. The voucher had then two possible sets of supermarkets to choose from: a regular supermarket set, which was the utilitarian option, and a gourmet supermarket set, which was the hedonic option.

Participants were asked about their preferences (0= Don't prefer at all; 7= Prefer much more, for each option), how guilty they would feel considering each option (0= Not guilty at all; 7= Very guilty, for each option) and made a choice.

The second voucher was for a \$150 voucher for dining out, priming participants to imagine engaging in hedonic consumption, setting a hedonic goal. The two possible choices were of gourmet restaurants and of local restaurants. The same procedure was then done: participants were asked about their preferences (0= Don't prefer at all; 7= Prefer much more, for each option), how guilty they would feel (0= Not guilty at all; 7= Very guilty, for each option), and then made a choice.

Afterwards, the definition of utilitarian versus hedonic was explained, and participants rated each option of supermarkets and of restaurants (0= Utilitarian; 7= Hedonic), to control for product manipulation.

Lastly, to control for individual differences in guilt sensitivity, participants completed an adaptation of the GASP scale to assess guilt proneness in daily life (Cohen, Wolf, Panter & Insko, 2011). A control question asking participants whether they consider their answers to be suitable for the study based on their concentration and commitment to it is done. Participants are asked some demographic questions, including age, gender and nationality, thanked and the survey was completed.

Design

The first part of the study had simple experimental design manipulating social distance (self/other). The second part of the study had a 2 Temporal Distance (near/distant) X 2 Goal (hedonic/ utilitarian) X 2 Product Type (hedonic/ utilitarian) mixed design with repeated measures on the last factor for the second part.

In this experiment, psychological distance played the role of the independent variable, which was manipulated, and the measures of preferences, anticipatory guilt, choice and abstraction level, take the place of our independent variables. There were two conditions of the psychological distance: distant and near. In the first part, corresponding to the manipulation of social distance, the decision target varied from self to other. In the second part, temporal distance was manipulated, where the two conditions were a one-month distance from the event versus a one-year distance. No other conditions were included, and no other measures were collected.

Study 2: Abstraction Level Manipulation

Participants

Eighty-three people (40 women, 43 men; Mage = 27.69, where 68.67% was aged between 15 and 24; 67.47% were Portuguese). They were randomly assigned to either the high or low abstraction level conditions.

Procedure & Materials

Part I: Product Level Evaluation

First, participants were randomly assigned to either the abstract or concrete conditions, where they would be presented with a stimulus consisting of a passage to read, in the form of chain of thought, which would prime the participant for either assigned condition. After, participants were asked to elaborate the same type of chain thought, which was a plan on why (for the abstract condition) or how (for the concrete condition) they would improve and maintain personal relationships. This methodology was adapted from Freitas, Gollwitzer, & Trope, 2004. This part was presented to participants as an independent study from the rest of the survey, that aimed to assess how people relate to others.

Then, participants would start what was told to be the second independent study with the goal of understanding decision-making in day-to-day life events. The same series of 4 product pairs used in study 1 (*Table 1*) were presented to participants in study 2. All participants, in both conditions, were asked to imagine they would be getting one of each pair for themselves, thus controlling for psychological distance. Again, participants were asked to describe their preference for each (0= Utilitarian option; 9= Hedonic option), how guilty they would feel considering each option (0= Utilitarian option; 9= Hedonic option) and finally which one they would choose.

Part II: Attribute Level Evaluation

Like the first study, participants were presented with the scenario of the lottery, where the time frame for discounting the voucher was not specified (only that it would have a 30-day validity). The first voucher was for groceries, and the two possible sets of supermarkets to choose from were the same: a regular supermarket set and a gourmet supermarket set.

Participants were asked about their preferences (0= Don't prefer at all; 7= Prefer much more, for each option), how guilty they would feel considering choosing each option (0= Not guilty at all; 7= Very guilty, for each option), and then made a choice.

The second voucher was again for dining out, with two possible choices for sets of restaurants: gourmet restaurants and of normal restaurants. The same procedure was then done: participants were asked about preference; how guilty they would feel and then made a choice.

Afterwards, the definition of utilitarian versus hedonic was explained, and participants rated each option on this (0= Utilitarian; 7= Hedonic).

Lastly, participants completed the adaptation of the GASP scale to assess guilt proneness in daily life (Cohen et al. 2011). A control question asking participants whether they consider their answers to be suitable for the study based on their concentration and commitment to it was done. Participants are asked some demographic questions, including age, gender and nationality, thanked and the survey was completed.

Design

The first part of the study had simple experimental design manipulating abstraction level (high/low). The second part of the study had a 2 Abstraction Level (high/low) X 2 Goal (hedonic/ utilitarian) X 2 Product Type (hedonic/ utilitarian) mixed design with repeated measures on the last factor for the second part.

In this experiment, abstraction level played the role of the independent variable, which was manipulated, and the measures of preferences, anticipatory guilt and choice take the place of our independent variables. There were two conditions of the abstraction levels: high abstraction level (abstract) and low abstraction level (concrete). No other conditions were included, and no other measures were collected.

Chapter 4: Results

Study 1: Psychological Distance Manipulation

Part I: Product Level Evaluation

This analysis started with the assessment of the adapted GASP test, where participants in the low ($M = 5.61$, $SD = 0.88$) and high ($M = 5.61$, $SD = 0.81$) conditions did not differ in guilt sensitivity, $t(102) = 0.036$, $p = .971$. Given so, this variable was excluded from the succeeding statistical analysis.

Preferences

4 Independent Samples T-Tests on Preference Ratings for each pair with Social Distance levels as the independent variable were conducted. A higher score indicates a higher preference for hedonic products. Generally, the results were consistent within the 4 pairs of products, where participants who made decisions for another preferred hedonic products more than those who made decisions for themselves (Table 2).

We also calculated the average Preference Ratings for the 4 pairs of products. An Independent Samples T-Test on the average preference ratings using Social Distance levels as the independent variable revealed a significant effect for decision targets, $t(102) = -2.832$, $p = .006$, as Preference was lower in the low Social Distance condition than in the high condition (Table 2).

Anticipatory Guilt

4 Independent Samples T-Tests on the level of Anticipatory Guilt for each pair of products were conducted, with Social Distance as the independent variable. A higher score indicates a higher level of Anticipatory Guilt induced by the hedonic consumption. The results revealed that the participants who made choices for others felt less guilty than those who made choices for themselves (Table 1).

The Average Anticipatory Guilt was calculated through an Independent Samples T-Test and revealed a marginally significant effect, $t(102) = 1.68$, $p = .096$. The score was lower in the high Social Distance condition than in the low condition (Table 2). These results supported H1, thereby indicating that participants in higher psychological distance levels feel less anticipatory guilt regarding hedonic products than those in lower levels.

Choice Rate

The results of 4 Chi-square tests on percentage of the participants who selected the utilitarian and hedonic options in each pair were generally consistent, suggesting that making decisions for another person promoted preferences for hedonic options over utilitarian options (Table 3).

We also computed the Purchase Rate of hedonic options among the 4 pairs of products.

An Independent Samples T-Test on the Purchase Rate of hedonic options using Social Distance levels as the independent variable yielded a significant effect, $t(102) = -5.14$, $p < .001$. This rate was higher in the high Social Distance condition ($M_{HD} = 77.17\%$, $SD_{HD} = 24.05\%$) than in the low condition ($M_{LD} = 49.57\%$, $SD_{LD} = 29.43\%$). These results supported H1.

Table 2: Means (standard deviations) and statistical values of anticipatory guilt and preferences for hedonic options.

Product	Variables	Condition	M (SD)	Statistical values
Device	Anticipatory Guilt	Low	4.81 (2.05)	$t(102) = 1.348$, $p = 0.181$, CI95 -0.239 1.250
		High	4.30 (1.70)	
	Preferences	Low	5.79 (2.91)	$t(99.99) = -3.225$, $p = 0.002$, CI95 -2.511, -0.598
		High	7.35 (1.99)	
Readings	Anticipatory Guilt	Low	5.02 (2.67)	$t(98.632) = 1.739$, $p = 0.085$, CI95 -0.107, 1.620
		High	4.26 (1.92)	
	Preferences	Low	5.69 (2.90)	$t(102) = -0.759$, $p = 0.450$, CI95 -1.593, 0.712
		High	6.13 (3.00)	
Food	Anticipatory Guilt	Low	5.91 (2.64)	$t(101.276) = 1.996$, $p = 0.049$, CI95 0.006, 1.778
		High	5.02 (1.92)	
	Preferences	Low	5.24 (3.16)	$t(102) = -1.602$, $p = 0.112$, CI95 -2.233, 0.238
		High	6.24 (3.15)	
Newspaper	Anticipatory Guilt	Low	4.59 (2.40)	$t(102) = 0.299$, $p = 0.766$, CI95 -0.732, 0.991
		High	4.46 (1.92)	
	Preferences	Low	5.48 (3.04)	$t(102) = -1.564$, $p = 0.121$, CI95 -2.011, 0.238
		High	6.37 (2.65)	
Average	Anticipatory Guilt	Low	5.08 (1.89)	$t(102) = 1.688$, $p = 0.096$, CI95 -0.103, 1.245
		High	4.51 (1.48)	
	Preferences	Low	5.55 (1.67)	$t(102) = -2.832$, $p = 0.006$, CI95 -1.649, -0.290
		High	6.52 (1.81)	

Table 3: Purchase percentage of utilitarian and hedonic products.

Products	Condition	Utilitarian Option		Hedonic Option		Statistical Values
		Value	Percentage	Value	Percentage	
Device	Low	27	46.55%	31	53.45%	$\chi^2_{1,n=104} = 20.028$, $p < 0.001$
	High	3	6.52%	43	93.48%	
Readings	Low	29	67.44%	14	32.56%	$\chi^2_{1,n=104} = 4.049$, $p = 0.044$
	High	29	47.54%	32	52.46%	
Food	Low	33	56.90%	25	43.10%	$\chi^2_{1,n=104} = 8.528$, $p = 0.003$
	High	13	28.26%	33	71.74%	
Newspaper	Low	28	48.28%	30	51.72%	$\chi^2_{1,n=104} = 5.336$, $p = 0.021$
	High	12	26.09%	34	73.91%	

Hypothesis 1: Mediation by Anticipatory Guilt

Following the work of Lu et al. (2016), a mediation model was tested in the efforts of replicating the findings of the before mentioned study on a mediation effect of anticipatory guilt in the impact of psychological distance on choice for hedonic products.

Given the marginally significant effect of Distance on Anticipatory Guilt, the result of a non-significant indirect effect was expected. Results of a bootstrapping procedure (5.000 samples) indicate the indirect effect of Anticipatory Guilt to be non-significant, as 95% confidence intervals include zero. Regardless, Anticipatory Guilt was influenced by Distance, $\beta = -.57$, $p = .096$, and so was Choice Rate, $\beta = .28$, $p < .001$.

When the confidence intervals are raised to 90%, however, this indirect effect becomes significant (90% CI [0.0007, 0.0579]). Both Psychological Distance and Anticipatory Guilt were shown to have a significant effect, $\beta = .25$, $p < .001$ and $\beta = -.04$, $p = .008$, respectively (*Figure 1*).

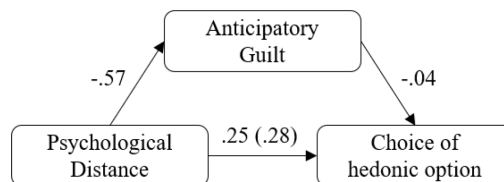


Figure 1: Mediation by anticipatory guilt of the effect of psychological distance on choice. Standardized coefficients are reported. The total effect of the psychological distance on choice rate for hedonic options is reported in parentheses.

This demonstrates how larger psychological distances impact individuals in such a way that anticipatory guilt experienced associated with hedonic consumption is reduced and, therefore, the latter becomes easier to indulge in, thus supporting H1.

Abstraction Manipulation

The results of the BIF-25 questionnaire were analyzed in order to assess if the manipulation of the psychological distance had in fact an impact on subjects' abstraction level and, therefore, if it was successful. Following established procedures (Vallacher and Wegner 1989), answers were first coded, assigning the value of 0 to lower level construal option and of 1 to higher level construal option. This was followed by combining the participants' overall scores for the 25 items, forming the construal level score, where overall higher scores indicate an activation of higher construal level mind-sets.

An Independent Samples T-Test was conducted and revealed a significant effect of the Psychological Distance level ($t(98.47) = -3.89, p < .001$) in Construal Level, such that participants in the high psychological distance level scored higher ($M_{HD} = 18.76, SD_{HD} = 4.24$) than participants in the low level ($M_{LD} = 14.64, SD_{LD} = 6.53$). The manipulation was then considered successful.

Hypothesis 2: Mediation by Abstraction

Abstraction was included in the analysis, in the form of the previously mentioned construal level score, in order to explore its relationship dynamics with the variables: psychological distance, anticipatory guilt and hedonic consumption rate.

For a model in which Psychological Distance took place of the independent variable and Abstraction of the manipulator, the effect of Psychological Distance on Abstraction was highly significant ($\beta = 4.12, p < .001$). Furthermore, Abstraction was found to mediate both the effect of Distance on Anticipatory Guilt ($\beta = -.13, p < .001$) and on Choice Rate ($\beta = .02, p < .001$). Through a bootstrapping procedure (5,000 samples), the indirect effect of Abstraction was found to be significant for both Anticipatory Guilt (95% CI [-0.9112, -0.2036]) and Choice Rate (95% CI [0.0155, 0.1470]), as 95% confidence intervals did not include zero (*Figure 2*).

These results, therefore, support H2, as they demonstrate how the effect of psychological distance on both anticipatory guilt associated with hedonic consumption and choice rate of hedonic options is explained as being mediated by changes in the level of abstraction.



Figure 2: Mediation by abstraction of the effect of psychological distance on anticipatory guilt and choice. Standardized coefficients are reported. The total effect of the psychological distance on anticipatory guilt and choice rate for hedonic options is reported in parentheses.

The full model was also tested, where Abstraction mediated the effect of Psychological Distance on Anticipatory Guilt and consequent Choice for hedonic options. Results of a bootstrapping procedure (5.000 samples) showed the indirect effect of Anticipatory Guilt ($\beta = -.02, p = .191$) on the prediction of Choice Rate of hedonic options not to be significant, as 95% confidence intervals include zero (Figure 3), an expected result, as Distance was shown to only have a marginally significant effect on Anticipatory Guilt. Therefore, and although promising, this serial mediation model could not be confirmed.

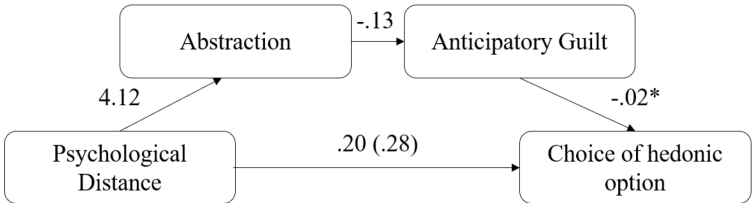


Figure 3: Mediation by Abstraction on effect of Psychological Distance on Anticipatory Guilt and consequent effect on Choice for hedonic options. Standardized coefficients are reported. The total effect of psychological distance on choice was not available, due to dichotomous nature of variables.

*denotes $p > .05$

Part II: Attribute Level Evaluation

For the second part of the study, where products were evaluated at attribute level, it was first tested the product manipulation. A One-way ANOVA was made, for each goal type. A higher score meant a higher hedonic nature of the product. The results showed that for each goal type, the hedonic option scored higher ($M_{Gourmet\ Supermarkets} = 5.28, SD = 1.72$ vs. $M_{Gourmet\ Restaurants} = 6.08, SD = 1.36$) than the utilitarian option ($M_{Convenience\ Supermarkets} =$

1.38, $SD= 1.40$ vs. $M_{Local\ Restaurants} = 2.67$, $M = 1.73$), thereby indicating a successful manipulation ($F(1, 197.589) = 321.342$, $p < .001$, for Supermarkets; $F(1, 195.065) = 250.088$, $p < .001$, for Restaurants).

Preferences

An ANOVA 2 (Temporal Distance) x 2 (Goal) x 2 (Option Type), with repeated measures on the last factor mixed was conducted on participants' Preference ratings.

The Goal's main effect ($F(1, 102) < 1$) on preferences appeared to be non-significant ($M_{UG} = 4.29$, $SD_{UG} = 0.07$ vs. $M_{HG} = 4.28$, $SD_{HG} = 0.10$). The Option Type's main effect was statistically significant ($F(1, 102) = 13.531$, $p < .001$, $\eta_p^2 = 0.117$), as participants generally show a higher preference for hedonic options ($M_{HO} = 4.81$, $SD_{HO} = 0.17$ vs. $M_{UO} = 3.76$, $SD_{UO} = 0.15$). As of the manipulation of Temporal Distance, this variable did not show a significant main effect, $F(1, 102) = 1.415$, $p = .237$, $\eta_p^2 = 0.014$, ($M_{LTD} = 4.37$, $SD_{LTD} = 0.10$ vs. $M_{HTD} = 4.20$, $SD_{HTD} = 0.11$).

Two significant interactions arose. The interaction between Goal and Option Type ($F(1, 102) = 26.294$, $p < .001$, $\eta_p^2 = 0.205$), shows that the disparity between preferences for hedonic options and utilitarian options is larger for the hedonic goal than for the utilitarian goal (Figure 3). Indeed, 2 Independent Samples T-Tests with Goal as the independent reveals that participants overall prefer hedonic (utilitarian) options when the goal of action is hedonic (utilitarian) as well (Table 8).

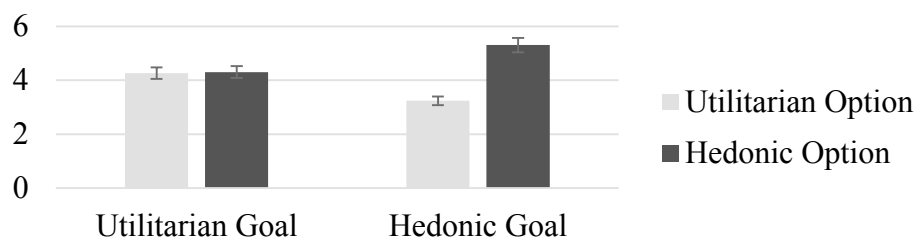


Figure 4: Estimated marginal means (standard deviations) of preferences for interaction of goal and option type.

More interestingly for the present hypothesis, the interaction between Temporal Distance and Option Type was marginally significant ($F(1, 102) = 2.955$, $p = .089$, $\eta_p^2 = 0.028$). 4 Independent Samples T-Tests showed that the impact of Temporal Distance on Preferences, although not always significant, followed the predicted direction (Table 7), which indicates that participants in the low distance condition have a stronger preference for the

utilitarian product than participants in the high distance condition; but this pattern reverses for the hedonic product, with participants in the high distance condition showing a stronger preference for this product than participants in the low distance condition (*Figure 5*).

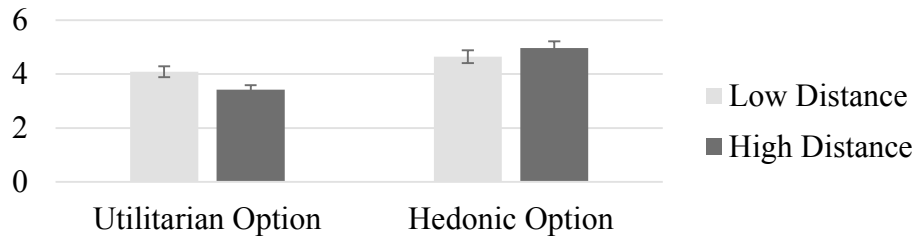


Figure 5: Estimated marginal means of preferences for interaction of psychological distance and option type.

Anticipatory Guilt

Next, it was conducted a 2 (Temporal Distance) x 2 (Goal) x 2 (Option Type) mixed analysis of variance (ANOVA) for assessing Anticipatory Guilt levels.

Both the main effects of Goal ($F(1, 102) = 5.397, p = .022, \eta_p^2 = 0.050$) and Option Type ($F(1, 102) = 41.684, p < .001, \eta_p^2 = 0.290$) became significant. The Goal's isolated effect showed that participants felt overall guiltier in the utilitarian goal: $MUG = 2.20, SDUG = 0.14$ vs. $MHG = 1.87, SDHG = 0.16$. Option Type's isolated effect increased Anticipatory Guilt for all hedonic nature: $MUO = 1.33, SDUO = 0.14$ vs. $MHO = 2.74, SDHO = 0.20$. As before, the main effect of Temporal Distance ($F(1, 102) = 1.892, p = .172, \eta_p^2 = 0.018$) was not significant ($MLTD = 1.85, SDLTD = 0.18$ vs. $MHTD = 2.22, SDHTD = 0.20$).

The interaction term between Goal and Option Type variables was significant ($F(1, 102) = 5.499, p = .021, \eta_p^2 = 0.051$). Its results, coupled with the results of the main effects of Goal and Option Type, match with findings of 2 Independent Samples T-Test on the impact of Goal (*Table 8*) and illustrate that, while anticipatory guilt levels of utilitarian options did not depend on the goal associated, for hedonic options anticipatory guilt was significantly higher for utilitarian goals rather than for hedonic ones (*Figure 6*).

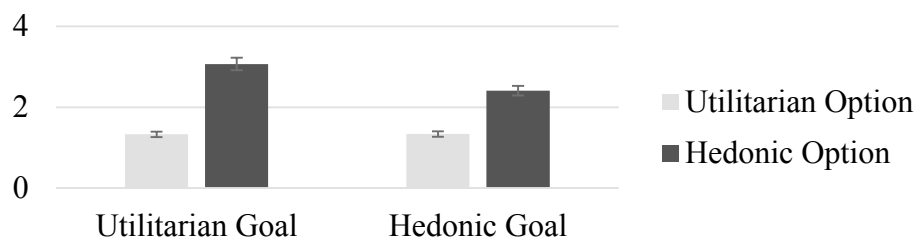


Figure 6: Estimated marginal means of anticipatory guilt for interaction of goal and option type.

Lastly, no significant interactions with Psychological Distance were observed. 4 Independent Samples T-Tests with Temporal Distance as independent variable did not indicate any expected effects on product options (Table 7), as anticipatory guilt of participants did not seem to be affected by the manipulation.

Table 4: Means (standard deviations) and statistical values of anticipatory guilt and preferences of each product option throughout the temporal distance manipulation.

Product	Variables	PD Condition	M (SD)	Statistical values
Convenience Supermarket	Anticipatory Guilt	Low	1.22 (1.70)	$t(94.023) = -0.609, p = 0.544, CI95 -0.898, 0.477$
		High	1.43 (1.80)	
	Preferences	Low	4.62 (1.67)	$t(87.600) = 1.925, p = 0.057, CI95 -0.023, 1.438$
		High	3.91 (2.00)	
Gourmet Supermarket	Anticipatory Guilt	Low	2.83 (2.30)	$t(102) = -1.072, p = 0.286, CI95 -1.359, 0.406$
		High	3.30 (2.19)	
	Preferences	Low	4.14 (2.15)	$t(102) = -0.831, p = 0.408, CI95 -1.152, 0.472$
		High	4.48 (1.98)	
Local Restaurant	Anticipatory Guilt	Low	1.09 (1.45)	$t(84.154) = -1.548, p = 0.125, CI95 -1.142, 0.141$
		High	1.59 (1.85)	
	Preferences	Low	3.55 (2.10)	$t(101.374) = 1.616, p = 0.109, CI95 -0.140, 1.374$
		High	2.93 (1.79)	
Gourmet Restaurant	Anticipatory Guilt	Low	2.28 (2.44)	$t(102) = -0.598, p = 0.551, CI95 -1.155, 0.620$
		High	2.54 (2.12)	
	Preferences	Low	5.16 (2.06)	$t(102) = -0.768, p = 0.444, CI95 -1.080, 0.477$
		High	5.46 (1.89)	

Table 5: Means (standard deviations) and statistical values of anticipatory guilt and preferences for each option type throughout the action goals.

Option Type	Variables	Goal	M (SD)	Statistical Values
Utilitarian	Anticipatory Guilt	Utilitarian	1.32 (1.74)	$t(206) = 0.041, p = 0.967, CI95 -0.453, 0.473$
		Hedonic	1.31 (1.65)	
	Preferences	Utilitarian	4.31 (1.85)	$t(206) = 3.870, p < 0.001, CI95 0.505, 1.553$
		Hedonic	3.28 (1.98)	
Hedonic	Anticipatory Guilt	Utilitarian	3.04 (2.26)	$t(206) = 2.042, p = 0.042, CI95 0.022, 1.266$
		Hedonic	2.39 (2.30)	
	Preferences	Utilitarian	4.29 (2.07)	$t(206) = -3.557, p < 0.001, CI95 -1.554, -0.446$
		Hedonic	5.29 (1.98)	

Choice Rate

Both the effects of Goal and Temporal Distance on Choice Rate of hedonic options were overall as expected.

2 Chi-Square tests with Goal as the independent variable revealed higher choice percentage of hedonic (utilitarian) options for hedonic (utilitarian) goals (Table 10).

The results of 2 Chi-square tests with Temporal Distance as the independent variable, on percentage of the participants who selected hedonic options in each pair were generally consistent, suggesting that people tend to choose hedonic options more when the temporal distance between the decision and the consumption itself is bigger (Table 9).

Table 6: Purchase percentage of utilitarian and hedonic options throughout the temporal distance manipulation.

Goal	PD Condition	Utilitarian Option		Hedonic Option		Statistical Values
		Value	Percentage	Value	Percentage	
Utilitarian	Low	41	70.69%	17	29.31%	$\chi^2_{1,n=104} = 5.615, p = 0.015$
	High	22	47.83%	24	52.17%	
Hedonic	Low	21	36.21%	37	63.79%	$\chi^2_{1,n=104} = 4.516, p = 0.027$
	High	8	17.39%	38	82.61%	

Table 7: Purchase percentage of utilitarian and hedonic options throughout the action goals.

Goal	Utilitarian Option		Hedonic Option		Statistical Values
	Value	Percentage	Value	Percentage	
Utilitarian	63	60.58%	41	39.42%	$\chi^2_{1,n=208} = 22.531, p < 0.001$
Hedonic	29	27.88%	75	72.12%	

The Impact of Anticipatory Guilt on Choice

To access whether Anticipatory Guilt influenced Choice Rate of hedonic options, two Linear Regression analyzes were conducted, for each Goal scenario. Results showed a marginally significant effect of participants' guilt in choosing gourmet supermarkets ($\beta = -.172, p = .081$) and a significant effect in choosing gourmet restaurants ($\beta = -.212, p = .031$). Analyzing the standardized coefficients, we conclude that higher levels of anticipatory guilt lead hedonic consumption to decrease, therefore supporting H1 and H2.

Hypothesis 2: Mediation by Abstraction

A series of mediations were tested for understanding relationship dynamics between variables. Given the structure of the second part of the study, mediations were done for both utilitarian and hedonic scenarios separately.

When Abstraction was tested as mediator of the effect of Psychological Distance on both Anticipatory Guilt ($\beta = -.12, p = .002$ for Supermarkets and $\beta = -.15, p = .002$ for Restaurants) and Choice Rate of hedonic options ($\beta = .14, p = .002$ for Supermarkets and $\beta = .14, p = .004$ for Restaurants), its indirect effect, tested by bootstrapping procedures of 5.000 samples, was found significant for for both Anticipatory Guilt (Supermarkets: 95% CI [-1.0272, -0.1100], Restaurants: 95% CI [-1.1881, -0.1329]) and Choice Rate (Supermarkets: 95% CI [0.1940, 1.3244], Restaurants: 95% CI [0.1623, 1.2070]), as 95% confidence intervals did not include zero (Figure 7, Figure 8).

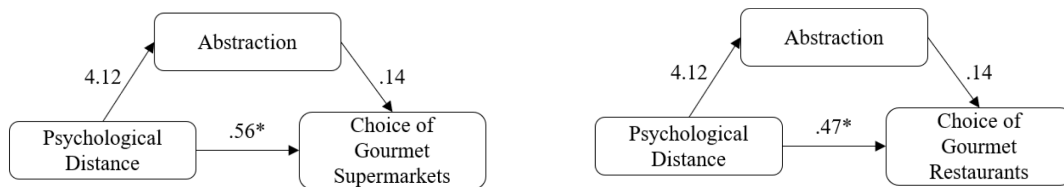


Figure 7: Mediation by Abstraction on effect of Psychological Distance on Choice. Standardized coefficients are reported. The total effect of psychological distance on choice was not available, due to dichotomous nature of variables.

*denotes $p > .05$



Figure 8: Mediation by Abstraction on effect of Psychological Distance on Anticipatory Guilt. Standardized coefficients are reported. The total effect of psychological distance on anticipatory guilt is reported in parentheses.

* denotes $p > 0.05$

Thus, these findings support H2, since they show that the effect of the psychological distance manipulation on participants' anticipatory guilt levels and choice associated with the hedonic options available were mediated by individual's abstraction level.

The serial models were also tested, where Abstraction mediated the effect of Psychological Distance on Anticipatory Guilt and consequent Choice for hedonic options. As expected, given the non-significant effect of the manipulation on guilt levels, results of a bootstrapping procedure (5.000 samples) showed the indirect effect of Anticipatory Guilt ($\beta = -.15, p = .147$) on the prediction of Choice Rate of gourmet supermarkets not to be significant, as 95% confidence intervals include zero, as well as in the hedonic goal, where Anticipatory Guilt's indirect effect was again not significant ($\beta = -.11, p = .305$).



Figure 9: Mediation by Abstraction on effect of Psychological Distance on Anticipatory Guilt and consequent effect on Choice for hedonic options. Standardized coefficients are reported. The total effect of psychological distance on choice was not available, due to dichotomous nature of variables. *denotes $p > .05$

Study 2: Abstraction Manipulation

Part I: Product Level Evaluation

As in the first study, the participants in the low ($M_{LA} = 5.44, SD_{LA} = 0.93$) and high ($M_{HA} = 5.46, SD_{LA} = 0.77$) conditions did not differ in guilt sensitivity, $t(81) = -0.104, p = .917$. Therefore, this variable was excluded from the following statistical analysis.

Manipulation Control

A manipulation check was conducted. Each participant's level of construal was measured based on the abstractness of their responses to the why/how manipulation (Hampson, John, and Goldberg 1986; Liberman and Trope 1998). Responses were coded as -1 for answers that were subordinate to the previous, +1 if answers were superordinate to the previous and 0 if it fit neither criterion.

Thereafter, by summing all four answers' codes for each participant, an index of level of construal was formed, with a possible range of -4 to +4, where higher overall scores indicated higher levels of abstraction.

As expected, participants who responded to the why questions ($M_{HA} = 2.29$) reflected higher levels of abstraction in their overall scores than those who answered the how questions ($M_{LA} = -2.73$), therefore indicating a successful manipulation ($t(81) = -20.45$, $p < .001$).

Preferences

For the analysis of Preferences Ratings for each pair, a total of 4 Independent Samples T-Tests were conducted, with Abstraction as the independent variable. Results were overall consistent, where participants in abstract conditions tended to prefer hedonic products more than those in the concrete condition.

An Independent Samples T-Test on average Preference Rating was also conducted, where Abstraction, as the independent variable, revealed to have an insignificant effect on Preference Ratings, $t(81) = -1.593$, $p = .115$. The overall score, however, was higher for the high condition (*Table 10*).

Anticipatory Guilt

4 Independent Samples T-Tests for Anticipatory Guilt on all pairs of products were conducted using Abstraction as the independent variable. As expected, as participants subjected to the abstract condition felt less guilty when contemplating hedonic consumption, compared to participants subjected to the concrete condition manipulation (*Table 10*).

When computed the effect of Abstraction on the Average Anticipatory Guilt, through the conduction of Independent Samples T-Test, results showed this effect to be statistically non-significant ($t(80.052) = 0.913$, $p = .364$). Nevertheless, overall, participants in the abstract condition felt less guilty than those in the concrete condition, as expected.

Choice Rate

Through the conduction of 4 Chi-Square Tests on percentage of the participants who selected utilitarian and hedonic options, for each pair of product options, it was observed that the choice of hedonic options was always higher for higher abstraction levels (*Table 12*).

An Independent Samples T-Test was then conducted for assessing the effect of the Abstraction on Average Purchase Rate of hedonic options. The test yielded a significant effect of the Abstraction ($t(81) = -4.170$, $p < .001$), suggesting that participants subject to a high-level manipulation tend to choose more hedonic options ($M_{HA} = 68.57\%$, $SD_{HA} = 26.67\%$) than participants in the concrete condition ($M_{LA} = 42.19\%$, $SD_{LA} = 29.70\%$). The results support H2.

Table 8: Means (standard deviations) and statistical values of anticipatory guilt and preferences for hedonic options.

Product	Variables	Condition	M (SD)	Statistical values
Device	Anticipatory Guilt	Low	5.15 (2.54)	t(81) = 1.089 , p = 0.280 , CI95 -0.467 , 1.624
		High	4.57 (2.13)	
	Preferences	Low	5.58 (3.20)	t(81) = -2.036 , p = 0.045 , CI95 -2.631 , -0.030
		High	6.91 (2.55)	
Readings	Anticipatory Guilt	Low	4.88 (2.96)	t(81) = 0.337 , p = 0.737 , CI95 -0.927 , 1.305
		High	4.69 (2.15)	
	Preferences	Low	5.25 (3.25)	t(30.778) = -0.647 , p = 0.519 , CI95 -1.712 , 0.897
		High	5.66 (2.49)	
Food	Anticipatory Guilt	Low	5.90 (3.01)	t(80.365) = 0.982 , p = 0.329 , CI95 -0.597 , 1.760
		High	5.31 (2.39)	
	Preferences	Low	5.27 (3.09)	t(81) = -0.477 , p = 0.635 , CI95 -1.703 , 1.045
		High	5.60 (3.14)	
Newspaper	Anticipatory Guilt	Low	4.79 (2.41)	t(81) = 0.328 , p = 0.744 , CI95 -0.827 , 1.153
		High	4.63 (1.99)	
	Preferences	Low	5.69 (2.93)	t(81) = -1.028 , p = 0.307 , CI95 -1.924 , 0.613
		High	6.34 (2.79)	
Average	Anticipatory Guilt	Low	5.18 (2.08)	t(80.052) = 0.913 , p = 0.364 , CI95 -0.445 , 1.990
		High	4.81 (1.68)	
	Preferences	Low	5.45 (2.02)	t(81) = -1.593 , p = 0.115 , CI95 -1.531 , 0.169
		High	6.13 (1.78)	

Table 9: Purchase percentage of utilitarian and hedonic products.

Products	Condition	Utilitarian Option		Hedonic Option		Statistical Values
		Value	Percentage	Value	Percentage	
Device	Low	27	56.25%	21	43.75%	$\chi^2_{1,n=83} = 10.998$, p = 0.001
	High	7	20.00%	28	80.00%	
Readings	Low	31	64.58%	17	35.42%	$\chi^2_{1,n=83} = 2.506$, p = 0.113
	High	13	37.14%	22	62.86%	
Food	Low	29	60.42%	19	39.58%	$\chi^2_{1,n=83} = 2.506$, p = 0.113
	High	15	42.86%	20	57.14%	
Newspaper	Low	24	50.00%	24	50.00%	$\chi^2_{1,n=83} = 4.984$, p = 0.026
	High	9	25.71%	26	74.29%	

Part II: Attribute Level Evaluation

Product Manipulation

As in the previous study, for the analysis of the second part of the study, where product evaluation was done at attribute level, we first tested the product manipulation. A One-way ANOVA for the supermarkets ($F(1, 206) = 206.397, p < .001$) and restaurants ($F(1, 199.322) = 13.563, p < .001$) option pairs indicated again a successful manipulation. For each pair, the option with hedonic peripheral attributes scored higher ($M_{Gourmet\ Supermarkets} = 4.98, SD = 1.85$ vs. $M_{Gourmet\ Restaurants} = 3.88, SD = 2.25$) than the options with utilitarian secondary attributes ($M_{Convenience\ Supermarkets} = 1.41, SD = 1.61$ vs. $M_{Local\ Restaurants} = 2.84, SD = 1.79$).

Preferences

For the analysis of Preferences, a 2 (Abstraction) x 2 (Goal) x 2 (Option Type) mixed analysis of variance (ANOVA) was conducted.

The main effect of Goal as marginally significant ($F(1, 81) = 2.193, p = .092, \eta_p^2 = 0.035; M_{HG} = 4.39, SD_{HG} = 0.09$ vs. $M_{UG} = 4.20, SD_{UG} = 0.08$), indicating higher preference ratings for hedonic goals. Furthermore, although the main effect of Option Type was not significant ($F(1, 81) < 1; M_{UO} = 4.34, SD_{UO} = 0.18$ vs. $M_{HO} = 4.25, SD_{HO} = 0.20$), an important interaction arose between Goal and Option Type ($F(1, 81) = 224.671, p < .001, \eta_p^2 = 0.233$). Indeed, 2 Independent Samples T-Test on the effect of Goal (Table 15) revealed that participants tended to choose hedonic (utilitarian) options more when the goal was hedonic (utilitarian) (Figure 10). No other effects were found.

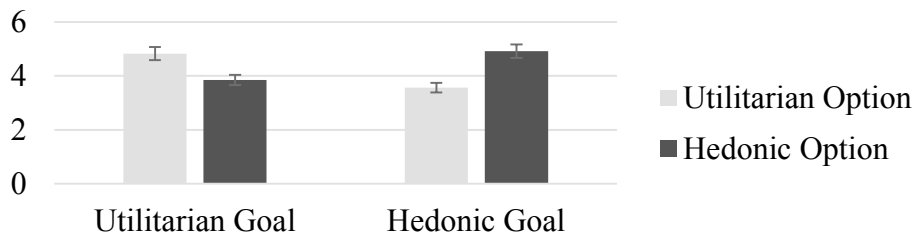


Figure 10: Estimated marginal means of preferences for interaction of goal and option type.

Abstraction did not have a significant main effect on Preferences ($F(1, 81) = 1.172$, $p = .282$, $\eta_p^2 = 0.014$; $M_{LA} = 4.22$, $SD_{LA} = 0.09$ vs. $M_{HA} = 4.36$, $SD_{HA} = 0.10$). 4 Independent Samples T-Tests were conducted on the effect of the abstraction level. Overall, although not significantly, preferences for hedonic (utilitarian) options increased (decreased) with increase of abstraction (*Table 14*).

Anticipatory Guilt

A 2 (Abstraction) x 2 (Goal) x 2 (Option Type) mixed analysis of variances (ANOVA) was carried out on Anticipatory Guilt levels for each product option.

This time all three main effects of Goal ($F(1, 81) = 6.561$, $p = .032$, $\eta_p^2 = 0.056$), of Option Type ($F(1, 81) = 77.524$, $p < .001$, $\eta_p^2 = 0.489$) and of Abstraction ($F(1, 81) = 5.814$, $p = .018$) were significant: generally, participants feel more guilty in situations of utilitarian goal ($M_{UG} = 2.01$, $SD_{UG} = 0.15$ vs. $M_{HG} = 1.72$, $SD_{HG} = 0.16$); participants also felt more guilt for hedonic options ($M_{HO} = 2.85$, $SD_{HO} = 0.23$) vs. $M_{UO} = 0.88$, $SD_{UO} = 0.11$); and lastly, participants felt more guilty in lower levels of abstraction ($M_{LA} = 2.20$, $SD_{LA} = 0.18$ vs. $M_{HA} = 1.53$, $SD_{HA} = 0.21$).

Additionally, the interaction between the Goal and Option Type ($F(1, 81) = 9.987$, $p = .002$, $\eta_p^2 = 0.110$) had also a significant impact in Anticipatory Guilt levels (*Figure 9*). 2 Independent Samples T-Test on the effect of Goal revealed that, while the anticipatory guilt associated with utilitarian options is independent of the action goal associated, in hedonic options anticipatory guilt levels were significantly higher for utilitarian goals rather than for hedonic ones (*Table 16*).

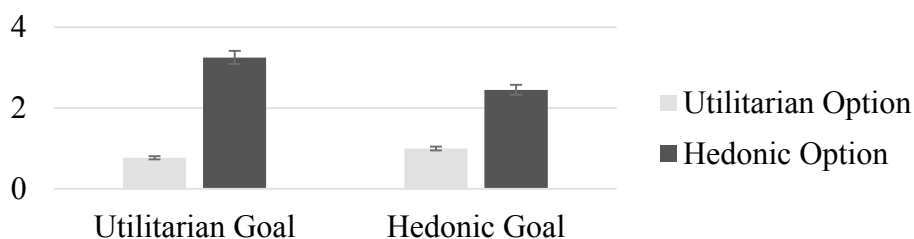


Figure 11: Estimated marginal means of anticipatory guilt for interaction of goal and option.

Overall, levels of Anticipatory Guilt associated with hedonic consumption have decreased with the increase of Abstraction in a statistically significant way for options of hedonic goal (*Table 15*).

Table 10: Means (standard deviations) and statistical values of anticipatory guilt and preferences of each product option throughout the abstraction manipulation.

Product	Variables	Abstraction Condition	M (SD)	Statistical Values
Convenience Supermarket	Anticipatory Guilt	Low	0.94 (0.98)	$t(81) = 1.372, p = 0.174, CI95 -0.152, 0.827$
		High	0.60 (1.27)	
	Preferences	Low	5.02 (1.94)	$t(81) = 0.886, p = 0.378, CI95 -0.488, 1.273$
		High	4.63 (2.06)	
Gourmet Supermarket	Anticipatory Guilt	Low	3.67 (2.55)	$t(79.129) = 1.614, p = 0.110, CI95 -0.195, 1.871$
		High	2.83 (2.16)	
	Preferences	Low	3.17 (2.27)	$t(81) = -1.647, p = 0.104, CI95 -1.777, 0.168$
		High	3.97 (2.09)	
Local Restaurant	Anticipatory Guilt	Low	1.31 (1.39)	$t(81) = 2.087, p = 0.040, CI95 0.029, 1.224$
		High	0.69 (1.30)	
	Preferences	Low	3.90 (2.00)	$t(81) = 0.209, p = 0.835, CI95 -0.816, 1.007$
		High	3.80 (2.14)	
Gourmet Restaurant	Anticipatory Guilt	Low	2.90 (2.46)	$t(80.456) = 1.853, p = 0.068, CI95 -0.066, 1.858$
		High	2.00 (1.94)	
	Preferences	Low	4.79 (2.22)	$t(81) = -0.561, p = 0.577, CI95 -1.208, 0.677$
		High	5.06 (2.00)	

Table 11: Means (standard deviations) and statistical values of anticipatory guilt and preferences for each option type throughout the action goals.

Option Type	Variables	Goal	M (SD)	Statistical Values
Utilitarian	Anticipatory Guilt	Utilitarian	0.80 (1.11)	$t(164) = -1.301, p = 0.195, CI95 -0.637, 0.131$
		Hedonic	1.05 (1.38)	
	Preferences	Utilitarian	4.86 (1.99)	$t(164) = 3.191, p = 0.002, CI95 0.381, 1.619$
		Hedonic	3.86 (2.05)	
Hedonic	Anticipatory Guilt	Utilitarian	3.31 (2.42)	$t(164) = 2.176, p = 0.031, CI95 0.073, 1.517$
		Hedonic	2.52 (2.29)	
	Preferences	Utilitarian	3.51 (2.22)	$t(164) = -4.144, p < 0.001, CI95 -2.063, -0.732$
		Hedonic	4.90 (2.12)	

Choice Rate

The effect on Choice Rate for hedonic options was overall as expected (Table 17). The main effect of Goal ($F(1, 81) = 3.782, p < .001, \eta_p^2 = 0.215$) was significant. A Chi-Square on the effect of Goal (Table 18) shows that participants chose hedonic (utilitarian) options more in hedonic (utilitarian) goal situations as well ($MHG = 59.3\%$ vs. $MUG = 28.7\%$).

The main effect of Abstraction Level was also significant ($F(1, 81) = 8.879, p = .004, \eta_p^2 = 0.099$). The results of 2 Chi-square tests on percentage of the participants who selected the utilitarian and hedonic options in each pair were generally consistent (Table 17), as participants always chose hedonic options more when in the abstract condition ($MLA = 32.3\%$ vs. $MHA = 55.7\%$).

The Impact of Anticipatory Guilt on Choice

To access whether Anticipatory Guilt influenced Choice Rate of hedonic options, 2 Linear Regression analyzes were conducted, for each Goal scenario. Results showed a very significant effect of participant's levels of guilt on choosing the hedonic option, in both utilitarian ($\beta = -.362$, $p = .001$) and hedonic scenarios ($\beta = -.417$, $p = .000$). Analyzing the standardized coefficient, we conclude that higher levels of anticipatory guilt lead hedonic consumption to decrease, therefore supporting H1 and H2.

Table 12: Purchase percentage of utilitarian and hedonic options throughout the abstraction manipulation

Goal	Abstraction Condition	Utilitarian Option		Hedonic Option		Statistical Values
		Value	Percentage	Value	Percentage	
Utilitarian	Low	41	85.42%	7	14.58%	$\chi^2_{1,n=83} = 8.306$, $p = 0.004$
	High	20	57.14%	15	42.86%	
Hedonic	Low	24	50.00%	24	50.00%	$\chi^2_{1,n=83} = 2.863$, $p = 0.071$
	High	11	31.43%	24	68.57%	

Table 13: Means (standard deviations) and statistical values of anticipatory guilt and preferences for each option type throughout the action goals.

Goal	Utilitarian Option		Hedonic Option		Statistical Values
	Value	Percentage	Value	Percentage	
Utilitarian	61	73.49%	22	26.51%	$\chi^2_{1,n=166} = 16.699$, $p < 0.001$
Hedonic	35	42.17%	48	57.83%	

Hypothesis 2: Mediation by Anticipatory Guilt on effect of Abstraction

Finally, a mediation model tested if Abstraction did in fact impact Anticipatory Guilt Levels in such a way that hedonic consumption is affected. A model with Abstraction as the independent variable, Anticipatory Guilt as the mediator and Choice Rate as the dependent variable were conducted, for both goal situations.

It was firstly assumed the manipulation (1=Concrete; 2=Abstract) as measure for the independent variable. For both the utilitarian (supermarkets) and hedonic (restaurants) goals, although all variables had significant impacts on the Choice Rate, the indirect effect was not significant, as tested through a bootstrapping procedure of 5.000 samples, 95% confidence intervals included zero (*Figure 12*).



Figure 20: Mediation by Anticipatory Guilt of the effect of Abstraction (manipulation) on Choice of hedonic options. Standardized coefficients are reported. The total effect of the abstraction on choice rate for hedonic options was yielded, due to the dichotomous nature of variables.
 *denotes $p > 5\%$

Suspecting that the manipulation may not represent Abstraction of participants the best, these were tested using the index of level of construal as measure. Interestingly, the mediation model became significant for the hedonic goal situation, in the Gourmet Restaurants' case, accentuating our belief in such relationships for hedonic consumption. The indirect effect of Anticipatory Guilt on Choice Rate for the hedonic option, tested through a bootstrapping procedure of 5.000 samples, was found significant, as 95% confidence intervals did not include zero (95% CI [0.0007, 0.1923]), (Figure 6).

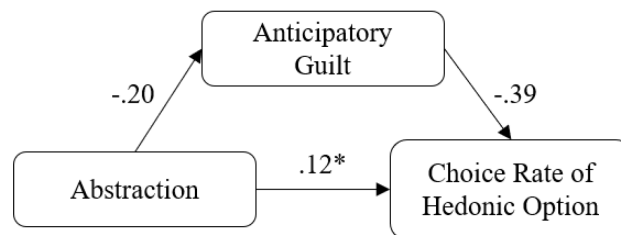


Figure 12: Mediation by Anticipatory Guilt of the effect of Abstraction (overall abstraction score) on Choice of Gourmet Restaurants. Standardized coefficients are reported. The total effect of the abstraction on choice rate for hedonic options was yielded, due to the dichotomous nature of variables.
 *denotes $p > 5\%$

These findings confirm the suggestion that individuals in high-level construal mind-sets experience a decrease in anticipatory guilt related to hedonic products, therefore increasing their proneness to indulge in hedonic consumption, therefore supporting H2.

Chapter 5: Conclusion & General Discussion

In the Marketing of hedonic products and services, understanding the psychological processes behind consumers' decision-making is the topic of much research, in attempts to identify the factors that promote such a consumption. As recognized in the current paper, one of these factors is the way matters of validity, justifiability and importance of hedonic consumption are perceived. The present dissertation demonstrates an effect of psychological distance on these perceptions.

Furthermore, understanding not only *how* certain manipulations promote hedonic consumption but *why* this is so allows to better understand in which ways Marketing can work them to fit, including but not exhaustively, different market needs, different target groups or different product offers. Given so, this dissertation also shed light into a Construal Level Theory based explanation for the effect of psychological distance.

Hedonic consumption induces less anticipatory guilt in consumers who are at bigger psychological distances because this increases their abstraction level of mind-set. When anticipatory guilt is decreased, hedonic consumption becomes easier to indulge in.

The findings of this dissertation could be of great value not only for the Marketing of items, but also for Product Development, as the second part of each study reveals the importance of goal setting (of central characteristics). The studied perception manipulation was found to only fully work for items that are centrally hedonic. Therefore, different combinations of primary and secondary features are affected in different ways by the abstraction of consumers at the time of purchase.

Academic Implications

Hedonic consumption has as one of its biggest barriers the tendency of consumers to underindulge (Kivetz and Simonson 2002b). Consumers constantly make decisions about where to apply their limited resources, dividing it between things they *need* to buy and things they *want* to buy. In other words, people constantly seek the best balance between spending on things they can't do without, and things they can do without, but would be much better off with. As explained before, these different items can be categorized as utilitarian and hedonic consumption (Batra & Ahtola, 1991; Hirschman & Holbrook, 1982; Mano & Oliver, 2016), as they differ on the type of benefits yielded: one in the form of practical functionality and the last in the form of experimental joy.

In the attempt to balance spending, this tendency of underindulgence in hedonic consumption arises from its misperception as less justifiable, less valid and less important than utilitarian consumption and even as wasteful (Lascu 1991), when current research finds benefits yielded from hedonic consumption are just as valid, necessary and good (Okada 2005). It can then be reasoned that these differences lay greatly on consumers' perception and that, therefore, can be undone.

As so, the aim of this dissertation was to explore and provide more knowledge into what can alter these perceptions and lead consumers to better evaluate hedonic options, increasing consumption.

For that purpose, this paper assumed anticipatory guilt as its measure of justifiability, validity, and importance of hedonic consumption, as this negative emotion has been studied to increase with the decrease of the three mentioned factors (Kivetz and Simonson 2002a, 2002b; Strahilevitz and Myers 1998). Psychological distance was studied as the manipulator, as previous research begun to study directly and indirectly such an effect on perception (e.g. Kivetz & Simonson, 2002b; Lu et al., 2016; Okada, 2005).

This dissertation had as its main objective the analysis of the effect of psychological distance on anticipatory guilt and consequent decision-making associated with hedonic consumption. Furthermore, it attempted to demonstrate the mediation of this process through abstraction levels, in order to prove previous indications of so (e.g. Han et al., 2014; Trope et al., 2007). Thus, the following model and included relationships needed demonstration:

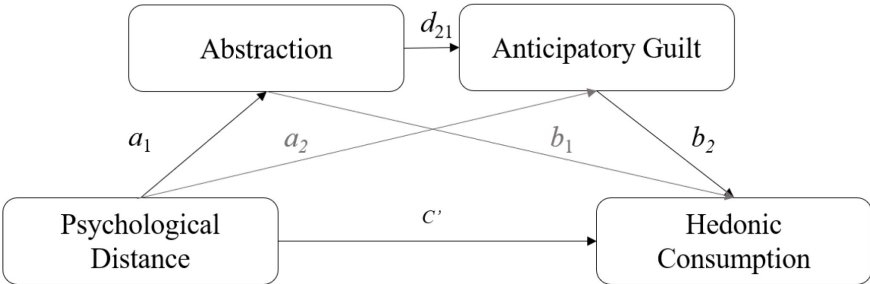


Figure 21: Conceptual Framework

H1: With higher (lower) levels of psychological distance, anticipated guilt associated with hedonic consumption is decreased (increased) and thus the latter is easier (harder) to indulge in.

Regarding H1, there were significant results indicating that increasing psychological distance of consumers leads to: higher preference for hedonic options, lower anticipatory guilt levels (a_2) and higher engagement in hedonic consumption (c'). Furthermore, anticipated guilt was found to impact significantly choice rate of hedonic options in such a way that, when the feeling decreased, hedonic consumption was promoted (b_2). Psychological distance was demonstrated to affect abstraction as expected (a_1). Lastly, the mediation by anticipatory guilt of the effect of psychological distance on choice was proved, thereby confirming our first hypothesis.

H2: The relationship between the decreased (increased) anticipatory guilt associated with hedonic consumption resulting from the increase (decrease) of psychological distance is mediated by abstraction levels and leads to more (less) choice of hedonic options.

Respecting H2, results showed a significant effect of abstraction by which, if increased, preferences for hedonic options were increased, anticipatory guilt was decreased (d_{21}) and hedonic consumption increased (b_1). Additionally, abstraction was found to mediate the effect of psychological distance on anticipatory guilt and on hedonic consumption.

Just as items can be differentiated in hedonic and utilitarian ones, the same item can also have both hedonic and utilitarian characteristics. Furthermore, different natured characteristics can represent primary/central and secondary/peripheral aspects of the same item.

As different construal levels have been proven to interact differently with primary and secondary aspects of the same item (e.g. Trope et al., 2007), the second part of each study aimed to assess the importance of goal setting on the evaluation of hedonic and utilitarian options. On one hand, the high condition of manipulation induced was expected to prime participants into weighing more pros over cons (Eyal et al. 2004), central aspects, desirability concerns (Trope, Liberman, and Wakslak 2007) and idealistic values (Kivetz and Tyler, in press), which would lead to higher valuing of hedonic options. On the other hand, goal setting also influences individuals' construal level: a low-level goal (utilitarian) activates low-level appraisals, inducing concrete construal, while high-level goal (hedonic) activates high-level appraisals, inducing abstract construal.

Alternatively, one could argue that because goals are high level, primary aspects of decisions, preferences and choices are more likely to conform to such goals under high levels of construal. Therefore, when participants have a utilitarian goal in mind they could show a

stronger preference for the utilitarian option. This could then reduce the argued preference for hedonic options under high levels of construal when the goal is set as a utilitarian consumption.

For that reason, the second part of each study shed light into the importance of goal setting on consequent outcomes, in which the main assessment intended was which factor (the direct manipulation of construal or the goal setting) had the biggest effect on participants behavior: what differences were observed and which effects were transversal among goals.

It was found that, in Anticipatory Guilt, for both the psychological distance and the abstraction manipulations, the main effect of Goal was significant, translating into higher anticipatory guilt experienced when the goal was utilitarian. Moreover, that while for utilitarian options, different goals did not have a significant effect, for hedonic options levels of anticipatory guilt were much higher in hedonic goal sets. In anticipatory guilt, goal setting is then of much importance, concluding that, for centrally utilitarian items with peripheral hedonic characteristics guilt levels are much higher, than for an item that is also centrally hedonic, confirming the suspicion that goal setting does in fact alter the construal level at which consumers perceive options.

Furthermore, Choice patterns showed both Goal and Manipulation effects to be significant. This time, an effect of both goal setting and psychological distance/abstraction manipulation was proved, by which it is inferred that consumers perceive secondarily hedonic items as more preferable when the action-goal is also hedonic, and this effect is heightened if these same consumers are in higher-levels of construal.

Lastly, goal setting on the mediations tested was only important when Anticipatory Guilt mediates the effect of Abstraction on Choice, as the indirect effect of Anticipatory Guilt was significant for the case of Gourmet Restaurants. This result may indicate that the proposed mechanism for increasing hedonic consumption only works for items that are hedonic in its central and peripheral characteristics.

Limitations and Future Research

There were at least three main limitations found that could have led to clearer results.

Firstly, the sample size for each study may have contributed to the inconclusive results found throughout. A larger sample size would be important to, for example, analyze relationships between dichotomous and continuous variables (as in the example of anticipatory guilt levels and the manipulation conditions). It would have also increased the

accuracy of results in general, as matters studied are more of a subjective nature (e.g. relative preferences and relative levels of anticipatory guilt) than of objective.

Furthermore, the scope of this dissertation may have been too broad for the time available. The length and amount of information in the surveys may have contributed to some of the ambiguous findings, as it decreases participants' ability of focus and increases tiredness throughout. Also, the interference of many manipulations may have made the identification of participants' mind-sets harder. Both studies compromise of two parts almost as independent studies, as each part has different study goals, but with answer dependency among them, as they also share a manipulation. Therefore, studying each of the two parts as independent studies would be a future direction, in order to obtain more concrete and enlightening results.

Thirdly, as this dissertation overviews and studies matters of psychological nature, the lack of specialization on the subject from the student's part may have hindered the achievement of the best results. For example, in the survey conducted, preferences were asked before anticipatory guilt levels. This led to ambiguous answers to the latter, as some participants assumed this as a post-decisional guilt. More in-depth knowledge over the matters studied would have allowed for a better structuring of the studies and surveys.

Throughout this research, the serial mediation model, with two mediators, was partially proven through its decomposition in direct relationships and smaller mediations within. By adjusting the three above designated limitations, it is possible that the model can be statistically proved in its totality.

Lastly, in the present study, as mentioned, anticipatory guilt levels assumed the measurement of participants perception over the justifiability, validity and importance of hedonic consumption. As a final suggestion, future research could add direct measures of these three factors, in order to even better understand the impact of psychological distance and abstraction levels on perceptions over hedonic consumption.

Appendices

Appendice 1: Questionnaire

Hello,

Thank you for agreeing to participate in this survey.

I am a student at Católica Lisbon SBE, and this survey is the foundation of my Master thesis.

So your answers are of great importance.

I kindly ask you to answer truthfully, and that you carry the survey out with no breaks or distractions if possible, as your concentration is very important for the validity of your answers.

All answers are strictly anonymous and for research purposes only. The survey will take around 10 minutes to complete.

Once again, thank you for your time and effort.

Rita Perdigão Ho

MSc in Management with specialization in Strategic Marketing

Study 1: Psychological Distance Manipulation

The study seeks to understand how we make consumption decisions on day-to-day life.

It will have two moments, and two different "check-points" throughout, the latter being of very fast and intuitive answer.

Without further ado, let's get started!

Section 1: Part I & Manipulation of Social Distance

Low Level Condition:

In this first moment, a series of 4 product pairs will be shown to you. In each scenario, your task is to imagine you will choose one of the two for yourself to consume.

Q1 Firstly, please write down your name, age and gender.

High Level Condition:

In this first moment, a series of 4 product pairs will be shown to you. In each scenario, your task is to imagine you will choose one of the two for **another person**.

Firstly, please think about someone you know but who is not very close to you. For example, a former school colleague or a former co-worker, someone living abroad that you don't see or talk very often, someone from a distant social circle, etc.

Q1 Write their name, age, gender, and how they differ from you (like the examples above: former colleague, lives abroad, etc):

Evaluation at Product Level

You want to buy a device. You have the following two options:

1. Printer: You will be able to print your work at home. It is an asset to improve your productivity.
2. Stereo: It will allow you to listen to music all the time and will bring many good moments.

Q2: How would you describe your **preference** for each option?

	0 = Prefer completely the printer	1	2	3	4	5	6	7	8	9 = Prefer Completely the entertainment readings
Preference										

Q3: How **guilty** would you feel when considering to choose each option?

	0 = Feel completely guilty considering the printer	1	2	3	4	5	6	7	8	9 = Feel completely guilty considering the stereo
Guilt										

Q4: Which would you choose?

- Printer
- Stereo

You want to buy some **readings**. You have the following two options:

1. Scientific Readings: It would make your time productive, stimulate your intellect and deepen your understanding over subjects.
2. Entertainment Readings: These will yield easy and nice stimuli that won't require much effort to engage in.

Q5: How would you describe your **preference** for each option?

	0 = Prefer completely the scientific readings	1	2	3	4	5	6	7	8	9 = Prefer Completely the entertainment readings
Preference										

Q6: How **guilty** would you feel when considering to choose each option?

	0 = Feel completely guilty considering the scientific readings	1	2	3	4	5	6	7	8	9 = Feel completely guilty considering the entertainment readings
Guilt										

Q7: Which would you choose?

- Scientific readings
- Entertainment readings

You want to pick up a **snack**. You have the following two options:

1. Fruit: This is a very healthy option. Choosing this will help you better or maintain your health.
2. Pastry: Pastries (like in example croissants, cakes, baggels, etc) will yield a pleasurable moment.

Q8: How would you describe your **preference** for each option?

	0 = Prefer completely the fruit	1	2	3	4	5	6	7	8	9 = Prefer Completely the pastry
Preference										

Q9: How **guilty** would you feel when considering to choose each option?

	0 = Feel completely guilty considering the fruit	1	2	3	4	5	6	7	8	9 = Feel completely guilty considering the pastry
Guilt										

Q10: Which would you choose?

- Fruit
- Pastry

Finally, you want to buy a newspaper. You have the following two options:

1. Financial Newspaper: You don't have to be an expert, but having a general idea over finance is important.
2. Entertainment Newspaper: You can keep up with your interests and to spend your free time in a relaxed, fun way.

Q11: How would you describe your **preference** for each option?

	0 = Prefer completely the financial newspaper	1	2	3	4	5	6	7	8	9 = Prefer Completely the entertainment newspaper
Preference										

Q12: How **guilty** would you feel when considering to choose each option?

	0 = Feel completely guilty considering the financial newspaper	1	2	3	4	5	6	7	8	9 = Feel completely guilty considering the entertainment newspaper
Guilt										

Q13: Which would you choose?

- Financial newspaper
- Entertainment newspaper

Section 2: 25-BIF Questionnaire

Next there are 25 situations, with two possible descriptions. Your task is to choose the option that best describes the behavior for you. Simply select the option you prefer.

Q14: Making a list:

- Getting organized
- Writing things down

Q15: Readings:

- Following lines on a print
- Gaining knowledge

Q16: Joining the army:

- Helping the Nation's defense
- Signing up

Q17: Washing clothes:

- Removing odors from clothes
- Putting clothes into the machine

Q18: Picking an apple:

- Getting something to eat
- pulling an apple off a branch

Q19: Chopping down a tree:

- Using an axe
- Getting firewood

Q20: Measuring a room for carpeting:

- Getting ready to remodel
- Using a yard stick

Q21: Cleaning the house:

- Showing one's cleanliness
- Vacuuming the house

Q22: Painting a room:

- Applying brush strokes
- Making the room look nice

Q23: Paying the rent:

- Maintaining a place to live
- Writing a check

Q24: Caring for houseplants:

- Watering plants
- Making the room look nice

Q25: Locking a door:

- Putting a key in a lock
- Securing the house

Q26: Voting:

- Influencing the election
- Making a ballot

Q27: Climbing a tree:

- Getting a good view
- Holding on to branches

Q28: Filling out a personality test:

- Answering questions
- Revealing what you are like

Q29: Toothbrushing:

- Preventing tooth decay
- Moving a brush around in one's mouth

Q30: Taking a test:

- Answering questions
- Showing knowledge

Q31: Greeting someone:

- Saying hello
- Showing friendliness

Q32: Resisting temptation:

- Saying “no”
- Showing moral courage

Q33: Eating:

- Getting nutrition
- Chewing and swallowing

Q34: Growing a garden:

- Planting seeds
- Getting fresh vegetables

Q35: Travelling by car:

- Following a map
- Seeing the countryside

Q36: Having a cavity filled:

- Protecting your teeth
- Going to the dentist

Q37: Talking to a child:

- Teaching a child something
- Using simple words

Q38: Pushing a doorbell:

- Moving a finger
- Seeing if someone’s home

Section 3: Introduction of part II & Temporal Distance Manipulation

Let's change it up a bit!

In this second moment, imagine now you were suddenly approached by a group of people that were organizing a free lottery.

They were organizing it in order to promote a new product, and there is nothing asked, expected or demanded from the participants during or after their participation.

You have participated in the lottery, and you won!

Low Level Condition:

The prizes offered were vouchers, that can start being discounted right now, on November of 2018.

High Level Condition:

The prizes offered were vouchers, that can start being discounted one year from now, on November of 2019.

Evaluation at Attribute Level

As a prize, you won a **\$200 voucher worth of groceries** at a selected range of supermarkets.

Low Level Condition:

This voucher is discounted now, and has the duration of one month so it will start today and expires in 30 days from today.

High Level Condition:

This voucher is discounted one year from now, and has the duration of one month so it will start November 1st and expires in december 1st, 2019.

So, you will have \$200 worth of the necessary, functional daily products that you need covered.

You are informed that you can furthermore customize your choice by picking one of the two sets:

Convenience Supermarkets:

- Very close to your home and with affordable prices.
- Very wide range of products of basic needs and utilities, but small range within each category (brands, flavors, etc).
- Average product quality and average experience provided.

Gourmet Supermarkets:

- Further away from your home and more expensive.
- Small variety of basic need products, but wide range within categories (also, best and most luxurious brands).
- The most tasty, original and pleasurable products, and the overall store experience is excellent.

You will make your decision, and inform the organizers of the lottery now about your choice.

Q39: How would you describe your **preference** for each option?

	0 = Don't prefer at all	1	2	3	4	5	6	7 = Prefer much more
Convenience Supermarkets								
Gourmet Supermarkets								

Q40: How **guilty** would you feel when considering to choose each option?

	0 = Not guilty at all	1	2	3	4	5	6	7 = Very guilty
Convenience Supermarkets								
Gourmet Supermarkets								

Q41: Which would you choose?

- Convenience supermarkets
- Gourmet Supermarkets

Now imagine that instead, as a prize, you won a \$150 voucher worth of dinning out, at a selected range of restaurants.

Low Level Condition:

Again, it is discounted now, and has the duration of one month so it will start today and expires in 30 days from today.

High Level Condition:

Again, it is discounted in one year from now, and has the duration of one month so it will start November 1s and end in December 1st, 2019.

This prize is going to yield you many pleasurable dinners.

You can furthermore customize your choice by picking one of the two:

Gourmet Restaurants:

- Small variety of dishes, far away from your home, expensive.
- The food is sublime and the environment is incredibly pleasing.
- Very pleasurable and unique experiences.

Local Restaurants:

- Very wide range of dish options that can fit any dietary needs, close to your home, affordable prices.
- Very regular and average tastiness of food.
- Simple presentation of dishes and the environment is not particularly stimulating.

You will make your decision, and inform the organizers of the lottery now about your choice.

Q42: How would you describe your **preference** for each option?

	0 = Don't prefer at all	1	2	3	4	5	6	7 = Prefer much more
Gourmet Restaurants								
Local Restaurants								

Q43: How **guilty** would you feel when considering to choose each option?

	0 = Not guilty at all	1	2	3	4	5	6	7 = Very guilty
Gourmet Restaurants								
Local Restaurants								

Q44: Which would you choose?

- Gourmet Restaurants
- Local Restaurants

Hold as utilitarian products that fulfill a need and that yield benefits in the form of practical functionality.

Hedonic ones refer to products which yield benefits in the form of experimental joy (pleasure, good sensations, thrilling experiences).

Q45: Given this definition, how would you evaluate each supermarkets' set?

	0 = Utilitarian	1	2	3	4	5	6	7 = Hedonic
Convenience Supermarkets								
Gourmet Supermarkets								

Q46: How would you evaluate each restaurants' set?

	0 = Utilitarian	1	2	3	4	5	6	7 = Hedonic
Gourmet Restaurants								
Local Restaurants								

Section 4: GASP Test

	Very Unlikely	Unlikely	Slightly Unlikely	About 50% Likely	Slightly Likely	Likely	Very Likely
Q47: After realizing you have received too much change at a store, you decide to keep it. What is the likelihood that you would feel uncomfortable?							
Q48: You are privately informed that you are the only one in your group that did not make the honor society because you skipped too many days of school. What is the likelihood that this would lead you to become more responsible?							
Q49: You reveal a friend's secret, though your friend never finds out. What is the likelihood that this would lead you to exert extra effort to keep secrets in the future? Q50: You secretly commit a felony. What is the likelihood that you would feel remorse?							
Q51: You strongly defend a point of view in a discussion, and though nobody was aware of it, you realize that you were wrong. What is the likelihood that this would make you think more carefully before you speak?							
Q52: At a coworker's housewarming party, you spill red wine on their new carpet. You cover the stain with a chair. What is the likelihood that you would feel that the way you acted was pathetic?							
Q53: While discussing a heated subject with friends, you suddenly realize you are shouting though nobody seems to notice. What is the likelihood that you would try to act more considerately toward your friends?							
Q54: You lie to people but they never find out. What is the likelihood that you would feel terrible about the lies you told?							

Section 5: Answer Control & Demographics

Q55: Finally, please let us know if you consider you have answered **honestly** and **precisely**. Do you believe your answers should be used in the study?

- Yes, I have completed the survey fully concentrated and my answers should be used as valid input for the study.
- No, I was not fully emerged in the survey and my answers are not the most valid input for the study.

Tell us about yourself:

Q56: Age:

- 15-24
- 25-34
- 35-44
- 45-54
- 55-64
- 65-74
- 75+

Q57: Gender:

- Female
- Male

Q58: Nationality:

That is it!

Thank you very much again for your participation.

Your answers are of great value to me, and your help is dearly appreciated.

Best regards,

Rita Ho

Study 2: Abstraction Manipulation

The study will have two parts, corresponding to two independent studies, and a final "check-point", the latter being of very fast and intuitive answer.

In this first part, the survey intends to gain insight on how people relate with others.

Without further ado, let's get started!

Section 1: Part I & Manipulation

Low Level Condition:

We can often follow our broad life-goals down to our very specific behaviors. For example:

Like most people, you probably want to find happiness.

1. How can you find happiness?

Perhaps by practicing kindness towards others.

2. How can you practice kindness?

Perhaps by helping others when necessary.

3. How can you help others?

Perhaps by sharing your effort towards others' life-goals.

4. How can you share your effort?

In some cases, such as today, you participate in a survey for a student's Master thesis.

Research suggests that this type of thought exercise can improve life satisfaction. This experiment tests such a technique.

Clear? Now it is your turn:

Consider the goal: '**Improving and maintaining good personal relationships.**'

Try to recreate the thought chain, in 4 "hows" again.

Get more and more specific, reach a specific behavior in the 4th!

Like most people, you probably try to improve and maintain good personal relationships with others.

Q1: How can you improve and maintain good personal relationships?

Q2: How can you do that (the answer you gave for 1.)?

Q3: How can you do that (the answer you gave for 2.)?

Q4: How can you do that (the answer you gave for 3.)?

High Level Condition:

We can often trace the causes of our behavior back to broad life-goals that we have. For example:

You currently are participating in a survey.

1. Why are you participating?

Perhaps to help the student behind the survey.

2. Why help the student?

Perhaps you like to help others when needed.

3. Why help others?

Perhaps you have as a goal to practice kindness throughout your life.

4. Why practice kindness?

Maybe because, by doing so, it can bring you happiness in life.

Research suggests that this type of thought exercise can improve life satisfaction. This experiment tests such a technique.

Clear? Now it is your turn:

Consider the goal: **‘Improving and maintaining good personal relationships.’**

Try to recreate the thought chain, in 4 "whys" again.

Get more and more general, reach a broad life-goal in the 4th!

Like most people, you probably try to improve and maintain good personal relationships with others.

Q1: Why improve and maintain good personal relationships?

Q2: Why do you wish (to do) that (the answer you gave for 1.)?

Q3: Why do you wish (to do) that (the answer you gave for 2.)?

Q4: Why do you wish (to do) that (the answer you gave for 3.)?

Q5: Now that you've completed your exercise, please share if you think,

	Yes	No
It went well		
It seems effective		

Evaluation at Product Level

The first study is completed!

The second part of the study looks to shed light on how people make consumption decisions on day-to-day life.

It will be a little bit more extensive, but of very quick answer (just make sure you read through instructions well).

You want to buy a device. You have the following two options:

1. Printer: You will be able to print your work at home. It is an asset to improve your productivity.
2. Stereo: It will allow you to listen to music all the time and will bring many good moments.

Q6: How would you describe your **preference** for each option?

	0 = Prefer completely the printer	1	2	3	4	5	6	7	8	9 = Prefer Completely the entertainment readings
Preference										

Q7: How **guilty** would you feel when considering to choose each option?

	0 = Feel completely guilty considering the printer	1	2	3	4	5	6	7	8	9 = Feel completely guilty considering the stereo
Guilt										

Q8: Which would you choose?

- Printer
- Stereo

You want to buy some **readings**. You have the following two options:

1. Scientific Readings: It would make your time productive, stimulate your intellect and deepen your understanding over subjects.
2. Entertainment Readings: These will yield easy and nice stimuli that won't require much effort to engage in.

Q9: How would you describe your **preference** for each option?

	0 = Prefer completely the scientific readings	1	2	3	4	5	6	7	8	9 = Prefer Completely the entertainment readings
Preference										

Q10: How **guilty** would you feel when considering to choose each option?

	0 = Feel completely guilty considering the scientific readings	1	2	3	4	5	6	7	8	9 = Feel completely guilty considering the entertainment readings
Guilt										

Q11: Which would you choose?

- Scientific readings
- Entertainment readings

You want to pick up a **snack**. You have the following two options:

1. Fruit: This is a very healthy option. Choosing this will help you better or maintain your health.
2. Pastry: Pastries (like in example croissants, cakes, baggels, etc) will yield a pleasurable moment.

Q12: How would you describe your **preference** for each option?

	0 = Prefer completely the fruit	1	2	3	4	5	6	7	8	9 = Prefer Completely the pastry
Preference										

Q13: How **guilty** would you feel when considering to choose each option?

	0 = Feel completely guilty considering the fruit	1	2	3	4	5	6	7	8	9 = Feel completely guilty considering the pastry
Guilt										

Q14: Which would you choose?

- Fruit
- Pastry

Finally, you want to buy a newspaper. You have the following two options:

1. Financial Newspaper: You don't have to be an expert, but having a general idea over finance is important.
2. Entertainment Newspaper: You can keep up with your interests and to spend your free time in a relaxed, fun way.

Q15: How would you describe your **preference** for each option?

	0 = Prefer completely the financial newspaper	1	2	3	4	5	6	7	8	9 = Prefer Completely the entertainment newspaper
Preference										

Q16: How **guilty** would you feel when considering to choose each option?

	0 = Feel completely guilty considering the financial newspaper	1	2	3	4	5	6	7	8	9 = Feel completely guilty considering the entertainment newspaper
Guilt										

Q17: Which would you choose?

- Financial newspaper
- Entertainment newspaper

Section 2: Part II

Let's change it up a bit!

In this second moment, imagine now you were suddenly approached by a group of people that were organizing a free lottery.

They were organizing it in order to promote a new product, and there is nothing asked, expected or demanded from the participants during or after their participation.

You have participated in the lottery, and you won!

Evaluation at Attribute Level

As a prize, you won a **\$200 voucher worth of groceries** at a selected range of supermarkets.

So, you will have \$200 worth of the necessary, functional daily products that you need covered.

You are informed that you can furthermore customize your choice by picking one of the two sets:

Convenience Supermarkets:

- Very close to your home and with affordable prices.
- Very wide range of products of basic needs and utilities, but small range within each category (brands, flavors, etc).
- Average product quality and average experience provided.

Gourmet Supermarkets:

- Further away from your home and more expensive.
- Small variety of basic need products, but wide range within categories (also, best and most luxurious brands).
- The most tasty, original and pleasurable products, and the overall store experience is excellent.

You will make your decision, and inform the organizers of the lottery now about your choice.

Q18: How would you describe your **preference** for each option?

	0 = Don't prefer at all	1	2	3	4	5	6	7 = Prefer much more
Convenience Supermarkets								
Gourmet Supermarkets								

Q19: How **guilty** would you feel when considering to choose each option?

	0 = Not guilty at all	1	2	3	4	5	6	7 = Very guilty
Convenience Supermarkets								
Gourmet Supermarkets								

Q20: Which would you choose?

- Convenience supermarkets

Gourmet Supermarkets

Now imagine that instead, as a prize, you won a \$150 voucher worth of dining out, at a selected range of restaurants.

This prize is going to yield you many pleasurable dinners.

You can furthermore customize your choice by picking one of the two:

Gourmet Restaurants:

- Small variety of dishes, far away from your home, expensive.
- The food is sublime and the environment is incredibly pleasing.
- Very pleasurable and unique experiences.

Local Restaurants:

- Very wide range of dish options that can fit any dietary needs, close to your home, affordable prices.
- Very regular and average tastiness of food.
- Simple presentation of dishes and the environment is not particularly stimulating.

You will make your decision, and inform the organizers of the lottery now about your choice.

Q21: How would you describe your **preference** for each option?

	0 = Don't prefer at all	1	2	3	4	5	6	7 = Prefer much more
Gourmet Restaurants								
Local Restaurants								

Q22: How **guilty** would you feel when considering to choose each option?

	0 = Not guilty at all	1	2	3	4	5	6	7 = Very guilty
Gourmet Restaurants								
Local Restaurants								

Q23: Which would you choose?

- Gourmet Restaurants
- Local Restaurants

Hold as utilitarian products that fullfill a need and that yield benefits in the form of practical functionality.

Hedonic ones refer to products which yield benefits in the form of experimental joy (pleasure, good sensations, thrilling experiences).

Q24: Given this definition, how would you evaluate each supermarkets' set?

	0 = Utilitarian	1	2	3	4	5	6	7 = Hedonic
Convenience Supermarkets								
Gourmet Supermarkets								

Q25: How would you evaluate each restaurants' set?

	0 = Utilitarian	1	2	3	4	5	6	7 = Hedonic
Gourmet Restaurants								
Local Restaurants								

Section 4: GASP Test

	Very Unlikely	Unlikely	Slightly Unlikely	About 50% Likely	Slightly Likely	Likely	Very Likely
Q26: After realizing you have received too much change at a store, you decide to keep it. What is the likelihood that you would feel uncomfortable?							
Q27: You are privately informed that you are the only one in your group that did not make the honor society because you skipped too many days of school. What is the likelihood that this would lead you to become more responsible?							
Q28: You reveal a friend's secret, though your friend never finds out. What is the likelihood that this would lead you to exert extra effort to keep secrets in the future? Q29: You secretly commit a felony. What is the likelihood that you would feel remorse?							
Q30: You strongly defend a point of view in a discussion, and though nobody was aware of it, you realize that you were wrong. What is the likelihood that this would make you think more carefully before you speak?							
Q31: At a coworker's housewarming party, you spill red wine on their new carpet. You cover the stain with a chair. What is the likelihood that you would feel that the way you acted was pathetic?							
Q32: While discussing a heated subject with friends, you suddenly realize you are shouting though nobody seems to notice. What is the likelihood that you would try to act more considerately toward your friends?							
Q33: You lie to people but they never find out. What is the likelihood that you would feel terrible about the lies you told?							

Section 5: Answer Control & Demographics

Q34: Finally, please let us know if you consider you have answered **honestly** and **precisely**. Do you believe your answers should be used in the study?

- Yes, I have completed the survey fully concentrated and my answers should be used as valid input for the study.
- No, I was not fully emerged in the survey and my answers are not the most valid input for the study.

Tell us about yourself:

Q35: Age:

- 15-24
- 25-34
- 35-44
- 45-54
- 55-64
- 65-74
- 75+

Q36: Gender:

- Female
- Male

Q37^{nú}: Nationality:

That is it!

Thank you very much again for your participation.

Your answers are of great value to me, and your help is dearly appreciated.

Best regards,

Rita Ho

Bibliography

- Bagozzi R. P., Baumgartner, H., Pieters, R., & Zeelenberg, M. (2000). The role of emotions in goal-directed behavior. In S. Ratneshwar, D. G. Mick, & C. Huffman (Eds.), *The Why of Consumption: Contemporary Perspectives on Consumer Motives, Goals, and Desires* (pp. 36–58). New York: Routledge.
- Baek, Eunsoo, and Jung Choo Ho. 2015. “Effects of Peer Consumption on Hedonic Purchase Decisions.” *Social Behavior & Personality* 43 (7): 1085–1100. <https://doi.org/10.2224/sbp.2015.43.7.1085>.
- Baron, Reuben M, and David A Kenny. 1986. “The Moderator-Mediator Variable Distinction in Social Psychological Research: Conceptual, Strategic, and Statistical Considerations.” *Journal of Personality and Social Psychology* 51 (6): 1173–82. <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.169.4836&rep=rep1&type=pdf>.
- Batra, Rajeev, and Olli T. Ahtola. 1991. “Measuring the Hedonic and Utilitarian Sources of Consumer Attitudes.” *Marketing Letters* 2 (2): 159–70. <https://doi.org/10.1007/BF00436035>.
- Bazerman, Max H., Ann E. Tenbrunsel, and Kimberly Wade-Benzoni. 1998. “Negotiating with Yourself and Losing: Making Decisions with Competing Internal Preferences.” *The Academy of Management Review* 23 (2): 225–41. https://www.jstor.org/stable/pdf/259372.pdf?casa_token=ggrp2YcpdKYAAAAA:1ydbGx_2GnyFCy1tZHu3NPp1LlyNS5wZNSfJ1XTUIGbbvwAgDTjBLVGTID5Xx-Y0RN1HIDENRyl7YpzuhGpJBukWEuURZFKGddMgQ2qRMi0Chefia_do.
- Blum, Alon. 2008. “Shame and Guilt, Misconceptions and Controversies: A Critical Review of the Literature.” *Traumatology* 14 (3): 91–102. <https://doi.org/10.1177/1534765608321070>.
- Byrne, Ruth. 2016. “Counterfactual Thought.” *Annual Review of Psychology*, 7.1-7.23. <https://doi.org/10.1146/annurev-psych-122414-033249>.
- Chernev, Alexander. 2004. “Goal-Attribute Compatibility in Consumer Choice.” *Journal of Consumer Psychology* 14 (1&2): 141–50. http://chernev.com/wp-content/uploads/2017/02/Goal_Attribute_Compatibilityin_Consumer_Choice_2004.pdf.
- Cohen, Taya R, Scott T. Wolf, A.T. Panter, and Chester A. Insko. 2011. “Introducing the GASP Scale: A New Measure of Guilt and Shame Proneness.” *Journal of Personality and Social Psychology*. <https://doi.org/10.1037/a0022641>.
- Dhar, Ravi, and Klaus Wertenbroch. 2000. “Consumer Choice Between Hedonic and Utilitarian Goods.” *Journal of Marketing Research* 37 (1): 60–71. <https://doi.org/10.1509/jmkr.37.1.60.18718>.
- Eyal, Tal, Nira Liberman, Yaacov Trope, and Eva Walther. 2004. “The Pros and Cons of Temporally Near and Distant Action.” *Journal of Personality and Social Psychology* 86 (6): 781–95. <https://doi.org/10.1037/0022-3514.86.6.781>.
- Freitas, Antonio L, Peter Gollwitzer, and Yaacov Trope. 2004. “The Influence of Abstract and Concrete Mindsets on Anticipating and Guiding Others’ Self-Regulatory Efforts.” *Journal of Experimental Social Psychology*, no. 40: 739–52. <http://www.ub.uni-konstanz.de/kops/volltexte/2008/5629/>.
- Fujita, Kentaro, Yaacov Trope, Nira Liberman, and Maya Levin-Sagi. 2006. “Construal Levels and Self-Control.” *J Pers Soc Psychol*. 90 (3): 351–67. <https://doi.org/10.1037/0022-3514.90.3.351>.
- Hampson, Sarah E., Oliver P. John, and Lewis R. Goldberg. 1986. “Category Breadth and Hierarchical Structure in Personality. Studies of Asymmetries in Judgments of Trait Implications.” *Journal of Personality and Social Psychology* 51 (1): 37–54. <https://doi.org/10.1037/0022-3514.51.1.37>.

- Han, DaHee, Adam Duhachek, and Nidhi Agrawal. 2014. "Emotions Shape Decisions through Construal Level: The Case of Guilt and Shame." *Journal of Consumer Research* 41 (4): 1047–64. <https://doi.org/10.1086/678300>.
- Hayes, Andrew F. 2009. "Beyond Baron and Kenny: Statistical Mediation Analysis in the New Millennium." *Communication Monographs* 76 (4): 408–20. <https://doi.org/10.1080/03637750903310360>.
- Hirschman, Elizabeth C., and Morris B. Holbrook. 1982. "Hedonic Consumption: Emerging Concepts, Methods and Propositions." *Journal of Marketing* 46 (3): 92. <https://doi.org/10.2307/1251707>.
- Kivetz, Ran, and Itamar Simonson. 2002a. "Earning the Right to Indulge: Effort as a Determinant of Customer Preferences Toward Frequency Program Rewards." *Journal of Marketing Research* 39 (2): 155–70. <https://doi.org/10.1509/jmkr.39.2.155.19084>.
- . 2002b. "Self-Control for the Righteous: Toward a Theory of Precommitment to Indulgence." *Journal of Consumer Research* 29 (2): 199–217. <https://doi.org/10.1086/341571>.
- Kronrod, Ann, and Shai Danziger. 2013. "'Wii Will Rock You!' The Use and Effect of Figurative Language in Consumer Reviews of Hedonic and Utilitarian Consumption." *JOURNAL OF CONSUMER RESEARCH, Inc.* • 40. <https://doi.org/10.1086/671998>.
- Lascu, Dana N. 1991. "Lascu 1991." *Advances in Consumer Research* 18: 290–95.
- Liberman, Nira, Michael D Sagristano, and Yaacov Trope. 2002. "The Effect of Temporal Distance on Level of Mental Construal." *Journal of Experimental Social Psychology* 38 (1): 523–34. www.academicpress.com.
- Liberman, Nira, and Yaacov Trope. 1998. "The Role of Feasibility and Desirability Considerations in Near and Distant Future Decisions: A Test of Temporal Construal Theory." *Baumeister & Heatherton* 75 (1): 5,18. [http://www.psych.nyu.edu/trope/Liberman %26 Trope%2C 1998 - JPSP.pdf](http://www.psych.nyu.edu/trope/Liberman%26Trope%2C1998-JPSP.pdf).
- . 2008. "The Psychology of Transcending the Here and Now." *Sciencemag.Org*, 2008.
- Lu, Jingyi, Zhengyan Liu, and Zhe Fang. 2016. "Hedonic Products for You , Utilitarian Products for Me." *Judgment and Decision Making* 11 (4): 332–41.
- Mano, Haim, Richard L Oliver, and Richard L Oliver. 1993. "Assessing the Dimensionality and Structure of the Consumption Experience : Evaluation, Feeling, and Satisfaction." *Journal of Consumer Research* 20 (3): 451–66.
- Markman, Keith D., Igor Gavanski, Steven J. Sherman, and Matthew N. McMullen. 1993. "The Mental Simulation of Better and Worse Possible Worlds." *Journal of Experimental Social Psychology* 29 (1): 87–109. <https://doi.org/10.1006/JESP.1993.1005>.
- Nasco, Suzanne Altobello, and Kerry L. Marsh. 1999. "Gaining Control Through Counterfactual Thinking." *Encyclopedia of Social Psychology* 121 (1): 197–99. <https://doi.org/http://dx.doi.org/10.4135/9781412956253.n119>.
- O'Curry, Suzanne, and Michal Strahilevitz. 2001. "Probability and Mode of Acquisition Effects on Choices between Hedonic and Utilitarian Options." *Marketing Letters* 12 (1): 37–49. <https://doi.org/10.1023/A:1008115902904>.
- Oettingen, Gabriele. 1999. "Free Fantasies about the Future and the Emergence of Developmental Goals." *Action & Self-Development*, 315–42. <https://pdfs.semanticscholar.org/ba89/c99b8f8178101b1fdbbbe3bf96671001c731.pdf>.
- . 2012. "Future Thought and Behaviour Change." *European Review of Social Psychology* 23 (1): 1–63. <https://doi.org/10.1080/10463283.2011.643698>.
- Oettingen, Gabriele, and Doris Mayer. 2002. "The Motivating Function of Thinking About the Future: Expectations Versus Fantasies." *Journal of Personality and Social Psychology* 83 (5): 1198–1212. <https://doi.org/10.1037/0022-3514.83.5.1198>.
- Oettingen, Gabriele, Doris Mayer, and Sam Portnow. 2016. "Pleasure Now, Pain Later:

- Positive Fantasies About the Future Predict Symptoms of Depression.” *Psychological Science*. <https://doi.org/10.1177/0956797615620783>.
- Okada, Erica Mina. 2005. “Justification Effects on Consumer Choice of Hedonic and Utilitarian Goods.” *Journal of Marketing Research* 42 (1): 43–53. <https://doi.org/10.1509/jmkr.42.1.43.56889>.
- Roese, Neal J. 1997. “Counterfactual Thinking.” *Psychological Bulletin* 121 (1): 133–48. <https://doi.org/10.1037/0033-2909.121.1.133>.
- Roese, Neal Joseph. 1994. “The Functional Basis Of Counterfactual Thinking.” *Journal of Personality and Social Psychology* 66: 805–18. <https://doi.org/10.1037/0022-3514.66.5.805>.
- Roese, Neal Joseph, and Taekyun Hur. 1997. “Affective Determinants of Counterfactual Thinking.” *Social Cognition* 15 (4): 274–90.
- Roese, Neal Joseph, and Mike Morrison. 2009. “The Psychology of Counterfactual Thinking.” *Historical Social Research* 34 (2): 16–26.
- Shrout, Patrick E, and Niall Bolger. 2002. “Mediation in Experimental and Nonexperimental Studies: New Procedures and Recommendations.” *Psychological Methods* 7 (4): 422–45. <https://doi.org/10.1037/1082-989X.7.4.422>.
- Strahilevitz, Michal, and John G Myers. 1998. “Donations to Charity as Purchase Incentives: How Well They Work May Depend on What You Are Trying to Sell.” *Source Journal of Consumer Research* 24 (4): 434–46. <https://doi.org/10.1086/209519>.
- Summerville, Amy, and Neal J. Roese. 2008. “Dare to Compare: Fact-Based versus Simulation-Based Comparison in Daily Life” 44 (3): 664–71. <https://doi.org/10.1021/ja064902x.Brilliant>.
- Thaler, Richard H. 1985. “Mental Accounting and Consumer Choice.” *Marketing Science* 4 (3): 199–214.
- Tracy, Jessica L, and Richard W Robins. 2004. “Putting the Self Into Self-Conscious Emotions: A Theoretical Model” 15 (2): 103–25. https://doi.org/10.1207/s15327965pli1502_01.
- Trope, Yaacov, and Nira Liberman. 2000. “Temporal Construal and Time-Dependent Changes in Preference.” *Journal of Personality and Social Psychology* 79 (6): 876–89. <https://doi.org/10.1037/0022-3514.79.6.876>.
- Trope, Yaacov, Nira Liberman, and Cheryl Wakslak. 2007. “Construal Levels and Psychological Distance: Effects on Representation, Prediction, Evaluation, and Behavior.” *Journal of Consumer Psychology* 17 (2): 83–95. [https://doi.org/10.1016/S1057-7408\(07\)70013-X](https://doi.org/10.1016/S1057-7408(07)70013-X).
- Vallacher, Robin R., and Daniel M. Wegner. 1989. “Levels of Personal Agency: Individual Variation in Action Identification.” *Journal of Personality and Social Psychology* 57 (4): 660–71. <https://doi.org/10.1037/0022-3514.57.4.660>.
- Zeelenberg, Marcel. 1999a. “Anticipated Regret, Expected Feedback and Behavioral Decision Making.” *Journal of Behavioral Decision Making* 12 (1): 93–106. https://pure.uvt.nl/ws/portalfiles/portal/319634/zeelenberg-1999_JBDM.pdf.
- . 1999b. “The Use of Crying over Spilled Milk: A Note on the Rationality and Functionality of Regret.” *Philosophical Psychology* 12 (3): 325–40. <https://doi.org/10.1080/095150899105800>.
- Zeelenberg, Marcel, and Rik Pieters. 2007. “A Theory of Regret Regulation 1.0.” *Journal of Consumer Psychology* 17 (1): 3–18. https://doi.org/10.1207/s15327663jcp1701_6.
- Zemack-Rugar, Yael, Rebecca Rabino, Lisa A. Cavanaugh, and Gavan J. Fitzsimons. 2016. “When Donating Is Liberating: The Role of Product and Consumer Characteristics in the Appeal of Cause-Related Products.” *Journal of Consumer Psychology* 26 (2): 213–30. <https://doi.org/10.1016/j.jcps.2015.06.001>.