Abstract: Behavioral economics have brought substantial changes in the way consumer’s behavior is understood. Consumers do not always follow rational patterns of behavior subsumable into classic economic theories. These behaviors, object of our study, have been a fundamental factor in the elaboration of the commercial strategy of many companies in the past few years. The objective of this thesis is to analyze the interrelation between these phenomena and some of the most extended practices in marketing.

Keywords: behavioral economics, marketing, consumer’s behavior, perception, irrationality, rationality failure.
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1. INTRODUCTION

The objective of this thesis is to study the implications of behavioral economics in some of the most extended marketing practices. Our goal was to detect and determine the relations between the psychological effects studied by behavioral economics and practical applications in the sales of goods and services. As we will see throughout this work, we should not be surprised to realize that organizations have been increasingly using in its favor irrational consumer behavior.

Readers of this work will be able to notice the impact, frequency and form that behavioral economic effects have had in the efficiency of commercial practices and processes. In order to conduct our analysis, we have resorted to multiple techniques and marketing campaigns from brand with great repercussion with the objective of providing a good example of the mentioned relations. We have specifically used a wide spectrum of business sectors, from media giants providing video-streaming services such as Amazon Prime Video or HBO, to snack companies such as Milka.

Our research has been based on several and diverse sources in order to establish a solid foundation of knowledge. Firstly, in order to better comprehend the world of behavioral economics, we have found works such as Predicably Irrational or Thinking Fast, thinking slow to be very illustrative and they have provided a good general vision of the topic. Secondly, in order to elaborate a more precise interpretation, we have searched for specialized academic articles, press articles and video content from several platforms, including Youtube.

The thesis is organized in two differentiated blocks: (1) a theoretical framework; (2) an applied framework.

In the theoretical framework, readers will be able to comprehend the origins and evolution of behavioral economics, building a foundation on the topic. Finally, we will present a series of behaviors and key concepts that have been object of study in the past years.

In the applied or practical framework, we have analyzed through the means of real examples - advertisements, brand images and campaigns- the implications of these rationality failures in consumption. Our objective has been to show the relations between a marketing practice or technique and one or several phenomena.

Finally, we have presented our conclusions on the analyzed effects, marketing techniques and the relations derived in our study, as well as the role that behavioral economics play in our lifes.
2. **BEHAVIORAL ECONOMICS: THEORETICAL FRAMEWORK**

The first part of this thesis has as its objective the creation and development of a theoretical framework in order to introduce to the reader the object of our study and easier the comprehension of the second part: the applied framework.

The core subject of this thesis is the so called “behavioral economics”, a current of thought that studies economics taking into account real humans’ behavior. These models, therefore, mitigate the main drawback of non-behavioral economics, which are based on agents capable of applying with ease mathematic tools and rational algorithms (Ariely, 2008). Through the use of analytic tools from economists, behavioral economics try to understand human and social cognitive and emotional tendencies to achieve a better understanding of the decision-making process of economic agents. These behavioral models, as we will explain further into the thesis, integrate views from psychology and, lately, even from neuroscience (Just, 2014).

### 2.1. HISTORY OF BEHAVIORAL ECONOMICS

In this chapter we are going to discuss the path of behavioral economics over time in order to understand what has been its historical evolution and what is its current position. In this process, we will highlight the authors and works that have had the most significant impact on this topic.

Historically, even before modern economics trusted election analysis to mathematics, the classical economic theory had a very close relation to psychology, investing a significant amount of time to research how psychological factors affected incentives and motivations from the agents. Adam Smith in his work “The Theory of Moral Sentiments” (1759) described the psychological principles of individual behavior that stimulated the interactions of the economic agent, such as compassion or leadership, going further than mere monetary observations. Jeremy Bentham, as well, wrote profoundly about the fundaments of utility (1789).

However, after the beginning of the XIX century and during the development of neoclassical economy, economists gradually distanced from scholastic psychology of choice. The discipline was redefined as a natural science, being justified by explanations of economic behavior that were deducted from the observation of the nature of the economic agents. It was at this point when the concept of *homo economicus* (Mill, 1874) first appeared, characterized by its fundamental rationality, which did not attend emotional or instinctive aspects that are innate in humans. Economists assumed, with this simplified explanation, that agents make decisions following strict behavior rules, trying to ultimately achieve maximum satisfaction and benefits. Modern
economists built precise mathematic models and eliminated psychological complexity from real life decision-making.

Parallel to this economic tendency, new psychological explanations appeared, being the work of authors such as Francis Edgeworth, Vilfredo Pareto, Irving Fisher or John Maynard Keynes, british economist that became one of the very first to analyze the psychological influences on financial markets and their respective macroeconomic consequences (1996).

In the middle of the XX century, when psychology had almost disappeared from economic discussion, the observation of anomalies drove the questioning of the extended hypothesis, leading to the revival of behavioral economics. Models focusing on expected utility and discounted utility gained presence by generating verifiable hypothesis about decision-making under uncertainty. Furthermore, during the 1960-decade, cognitive psychology focused on the research of topics that had been previously unattended such as memory, critical thinking and decision-making, by the hand of psychologists such as Amos Tversky, Daniel Kahneman, Duncan Luce and Ward Edwards and with publications such as “Prospect Theory: Decision Making under risk” (Kahneman & Tversky, 1979), which proved that humans behave systematically different from *homo economicus*.

However, it was not until 2002 that Daniel Kahneman and Verson L. Smith, experimental economist, were awarded the Novel Price in Economics, prize that some years later, in 2017, would be awarded as well to behavioral economist Richard Thaler by questioning the fundaments of important economic theorems, such as Coase’s (1960), and uniting proofs against the hypothesis of the efficient market. Nowadays, behavioral sciences are the ones that constitute the main current of thought, with great impact on the design of both public and private policies.

2.2. PHENOMENA OF BEHAVIORAL ECONOMICS

The purpose of this section is to introduce a series of behaviors that are the object of study of behavioral economics. We will analyze their origin, their implications and their effects regarding economic agents. Finally, we will discuss how do these behaviors relate to some fundamental concepts of the marketing of goods and services.
2.2.1. **Prospect Theory**

The so called “Prospect Theory” is the culmination of the applied use of psychology to economy to find an answer to phenomena in consumer behavior that the current economic theories could not explain. We are facing a theory developed by Daniel Kahneman and Amos Tversky (1979) that has as its objective the explanation of the decision-making process of consumers in cases where there are multiple alternatives subjected to risk. This work contrasts with the Theory of Expected Utility from Von Neumann and Morgenstern (Thaler, 1980).

Kahneman and Tversky point out that an asymmetry arises between gains and losses of utility from individuals which create a series of phenomena that require study, postulate that is not subsumable within the Theory of Expected Utility. These are the: certainty effect, isolation effect and the loss aversion effect.

2.2.2. **Endowment effect**

The endowment effect is one of behavioral economics’ phenomena, initially studied by Thaler (1980), consisting in an increase in the relative value that the owner of a good attributes to the good once it is within his or her domain.

It was observed through several experiments that we will revise further into the chapter that the behavior of several individuals did not follow a rational pattern regarding some of their goods. Furthermore, the experience showed evidence that in situations where a good experience a positive revaluation, owners were not willing to sell for the new price, but demanded an extra premium instead. Kahneman and Tversky (1984) associated this phenomenon to risk aversion – understanding risk aversion as a rejection attitude towards losses on assets’ value-- and affirmed that the loss of the good causes a more significant impact to the owner than its gain. This discovery, therefore, implied a twist regarding R. Coase’s Theorem (1960), by which markets had perfect competition. Coase’s theorem implied that without transaction costs it was indifferent how the assignation of resources and ownership titles was made, since these would distribute themselves depending on the value that each agent assigned to them. Owners demands of a premium over the real value of a good in order to be willing to sell was a deviation of the rationality of Coase’s Theorem.

The endowment effect shows that there is an asymmetry in gains and losses of utility for owners, where the sale or loss of a good causes a more significant loss of utility than the gain of its equivalent price.
This effect has been studied through several experiments during the 1980 and 1990 decades. We will point out the experiment conducted by Kahneman, Knetsch and Thaler at Cornell University, Ithaca (U.S.A).

In 1990, the previously mentioned authors proposed several trading simulation exercises during a course for business management undergraduate students. One of them focused on the coffee mugs that were sold at the university’s own bookstore. This experiments’ methodology is simple: authors randomly assigned the resources or fictional money and the ownership rights over a number of mugs. At this point, several rounds of trading start where individuals can trade their ownership rights for the price that both parties agree on. We must consider, as well, that the intrinsic value of the mugs, easily ascertainable, was known by all agents. Authors hypothesize that, since mugs and resources have been randomly distributed and there are no specified preferences or transaction costs, we would be facing a case subsumable in Coase’s economic theory where resources and ownership titles would end up with the agents that assigned the highest value to them, indistinctly of how the initial assignment of resources and titles was made. This means that the students that valued the most the coffee mugs but had not been assigned one would participate in the market and trade with a student that assigned more value to the resources. Since the initial assigned had been random, authors hypothesized that there would be a 50% of trades.

However, Kahneman, Knetsch and Thaler observed that contrary to what is predicted by economic theory, a percentage of students far inferior to 50% participated in the market. When analyzing the purchase and sale dispositions, they were able to notice a significant disparity between them. Subsequent experiments showed that vendors displayed a consistent behavior: reticence from selling their assets and premium demands over the price of the asset.

2.2.3. Status Quo Effect

Similar to the previous behavior, the status quo effect (Samuelson and Zeckhauser, 1988) appears in cases where individuals have a substantial preference towards keeping the status quo.

Colin F. Camerer (2000) shows as an example the insurance policy that Harvard University offered to its academic personnel. The author highlights how a new and similar insurance policy is offered to the personnel that was not covered. Individuals that had been previously covered are offered the possibility to switch to the new policy. However, only an insignificant percentage of personnel with old insurance policies decided to switch their plans. There is an opposition,
therefore, between status quo preferences in the case of individuals enjoying previous coverage and standard preferences in the case of previously uncovered personnel.

2.2.4. **Disposition Effect**

We are facing a phenomenon, derived from prospective theory and closely related to risk aversion, which is easily observable in financial markets. Studied profoundly by Shefrin and Statman, the *disposition effect* implies that the asymmetry in the perception of gains and losses applied to investors in the financial markets leads to premature sales of revalued stock and keeping stock that has been devalued.

C. Camerer (1988) and M. Kaustia (2008) highlight T. Odean’s study in 1998 for its capacity to measure the disposition effect. The method designed by Odean consists in a series of mathematic calculations to obtain the proportion of gains and losses that investors have experiences, concluding that in more than 50% of the occasions, investors will only act if the operation reports a gain.

Risk aversion, therefore, has a significant role in this phenomenon, leading investors to irrationally keeping their stock and risking further losses in the future or, contrary, prematurely selling stock that has experience a revaluation instead of waiting for further profits.

2.2.5. **Choice Bracketing**

Usually, we consider that individual processes of decision-making consist in analyzing the effects of our actions in an isolated manner. Contrary, the new concept of *bracketing* (Read et al., 1999) suggests a model where the individual considers their decision in conjunction to other options. As described by Read, Loewenstein and Rabin, individuals consider an action within a set of other actions, examining the consequences of an action over the others as long as these are within the same set. The concepts of *narrow bracketing* and *broad bracketing* appear depending on the number of options within this set.

The differences between observing an option in a local manner or adding a wide spectrum of options seem to have consequences in the manner in which economic agents behave. Economists usually assume that individuals act accordingly to an utility function that incorporates a wide variety of factors, not taking into account the behaviors that do not adopt a global point of view.
The effects of bracketing are observable when we consider the problem suggested by Kahneman and Tversky (1981). In this experiment, individuals faced two dilemmas: in the first one they were asked to choose between a certain or probable gain, while in the second one they were asked to choose between a certain or probable loss. The experiment showed a tendency to consistently choose a certain gain and a probable loss, even though the expected value and utility of choosing a probable gain and a certain loss was higher. In the previous experiment, individuals acted according to what we have previously mentioned as narrow bracketing, considering dilemmas in an isolated manner instead of two successive decisions.

Regarding the causes that originate this phenomenon, authors highlight in *Choice Bracketing* (1999) that even though the exact factors are unknown, it is possible to point out the hypothetical fundamentals of this behavior. On the one hand, the cognitive limitations prevent the consideration of multiple decisions, as seen in the previous experiment. On the other hand, it is also possible that individuals cannot decide among different options when they appear one after another. Furthermore, other influences such as socially acquired rules are also present within the possible causes of this type of behavior.

2.2.6. **Decoy effect**

In marketing, there are two possible scenarios when a new product is introduced to the market: either the probability of choosing previously existent products is not modified – case known as regularity hypothesis- or the launch of the new product affects the existent options that are similar – known as the similarity hypothesis-. The decoy effect eliminates these apparently solid fundamentals of decision-making processes.

By introducing an asymmetrical alternative, that is, an option which is dominated by one alternative, but not by a third one, the probability of choosing the most similar alternative increases. Under these conditions, therefore, the previously mentioned approaches do not hold. On the one hand, the probability of choosing other products is modified by the introduction of a new product, and on the other hand the effect that originates is the exact opposite of the one described by the similarity hypothesis.

This phenomenon has relevant consequences. The introduction of an alternative dominated by another can only make sense if its final objective is not to be chosen, in which case its introduction should not have any effect on the other alternatives. However, the new alternative acts as a distraction or decoy that focuses the attention on another of the alternatives.
This result can only be obtained when alternatives are compared without a clear dominator. In this case, the decoy product can empower the aspect of our product that is worse than our competitor’s, weaken a characteristic in which our product is better or combine a mix strategy.

2.2.7. Anchoring effect

The anchoring effect ascertains that prices do not have to necessarily behave according to the law of demand and supply. Individuals are easily influenceable right when they perceive a reference point on which they can base their valuations about objects. A classic example of the anchoring effect was provided by Kahneman and Tversky (1974) when they asked a number of individuals if the number of African countries is higher or lower to a number obtained after spinning a “fortune wheel”.

Another experiment thoroughly documented was conducted by Ariely, Loewenstein and Prelec (2003) regarding the sales of expensive products to their graduate management students. Firstly, the students were asked to write down the last two digits of their Social Security number. Secondly, they were asked if they were willing to purchase the product and what was their disposition to pay. In this particular case, the Social Security number -manifestly random- acted as a reference point to value the product offered.

The conclusions of the experiment were very clarifying about the functioning of this bias. In the first place, it is necessary that the individuals’ decisions are not influenced by factors that precede the anchoring. In the second place, it is inferred that previous decisions will necessarily influence future decisions on the value of an object. Finally, there is a coherence in the sequence of decisions (Ariely et al. 2003). For this reason, it can be affirmed that even though the valuation of the products does not respond to predetermined preferences, consumers do maintain a certain degree of consistency in their decision-making process.

However, the anchoring effect does not limit their presence to controlled experiments. The previously mentioned authors tried to formulate hypothesis that could allow a generalization of this type of bias. This so-called arbitrary coherence, generated by the anchoring can be observed in the valuing processes of the financial markets, where economic agents react regarding past prices, as well as in the labor market, where workers without a Union have difficulties to know the retribution that maximizes their utility -that is, their adequate quantities of work and spare time- and use their past salaries as a reference. In this manner, anchorages behave as orientative values instead of information deficits, being consistent with the decisions that will furtherly be taken by economic agents.
2.2.8. Zero-Price Effect

The zero-price effect constitutes a type of consumers’ irrational behavior that deviates from what the classical utility theory predicts, that is that the individuals, when faced by a decision, will choose the option that maximizes their utility, the option that has the best cost-benefit relation (Bentham, 1789). We call zero-price effect the irrational preference of individuals for goods and services with a price equal to zero, even if it is not the option that maximizes their utility.

Ariely and Shampanier (2007) observed these kinds of behavior in a series of experiments conducted at Massachusetts Institute of Technology (MIT) through the following experiment: a stall was built in the middle of the university’s campus where three options were offered to the subjects of the experiment: (1) to acquire a chocolate bar of low quality by a low price; (2) to acquire a chocolate bar of high quality by a moderate price; (3) not to acquire any product. When the sample’s distribution was analyzed, the results showed that the most chosen option had been a high quality and moderate price chocolate bar. At this point, a modification was made: the prices of both products were reduced by the same amount, being the price of the low-quality chocolate bar lowered down to zero. If the classical theory of utility held for this experiment, it would predict no substantial changes in the distribution of choices, since the cost-benefit relation of each product had been increased in the same amount. That is, the subjects that had chosen a high-quality bar by a moderate price, if they were rational, should repeat their decision. However, the results showed how a substantial percentage of the subjects that had chosen the high-quality option switched to the low-quality option when the price reduction was applied.

The authors conclude, therefore, that the determination of a price equal to zero “constitutes a category of its own”, increasing substantially the demand of a good or a service. The value of the good appears to be perceived by these consumers as superior when the price of the good is zero.
3. **BEHAVIORAL ECONOMICS: APPLIED FRAMEWORK**

The second part of this thesis has as its objective the analysis of marketing techniques that are fundamental in the principal phenomena described by behavioral economics. In order to conduct this study, we have used real examples from companies that have used these techniques in the process of presenting and promoting their products or services to final consumers.

The following table will present the correlations between these phenomena in behavioral economics and the different marketing techniques that have originated as a consequence.

3.1. **Discounts, advertisement design and last-minute offers: three dimensions of the prospective theory**

As we have previously mentioned, prospect theory describes how individuals choose among different options and how they estimate the perceived probability of each of these options. We will analyze which marketing practices or techniques are related to the three biases derived from the prospect theory.

3.1.1. **Subscription discounts: the certainty effect**

The origin of this effect comes from the major importance than some consumers give to certain options, opposed to those that have some uncertainty or risk -status quo effect-. From a business point of view, it is possible to establish commercial policies in order to exploit this preference for certain and immediate products. A good example could be the use of promotions. It has been noted that the use of promotions with discount coupons can be more effective that other measures with more uncertainty such as contests (Kaltcheva ed. Al., 2013). Kaltcheva, Winsor, Patino and Shapiro conducted an experiment where the relative evaluation of a promotion with certainty was compared to another promotion with uncertainty. Even though consumers valued more the prices when the promotion was certain, these results were restricted to retail commerce (idem).

Other studies have centered their attention into the effect that the use of these certain discounts, either in one or two phases, can have on the promotion of compulsive shopping behavior (Chuang, 2015). Through the means of a unique product, in this case a new type of smartphone, the author evaluates the certainty effect present in the discounts and the impulsive shopping of the good, taking into consideration other effects such as social influence or the unique nature of the product. The results suggest that the introduction of discounts can be a good conductor for impulsive...
shopping behavior, specially if the discounts occur in two phases (*idem*). Therefore, discounts and promotions which are certain will become more attractive and effective than higher rewards that involve risk.

The offer of certain discounts can be exemplified by practices such as the ones that *Old Navy* performs, where the subscribers to the company’s emails can receive a discount coupon for a percentage of their next acquisition.

Image 1: *Old Navy*’s discount by subscription

![Old Navy’s discount by subscription](https://secureoldnavy.gap.com/profile/info.do?cid=82635&onSubmit=true&simplePrefs=true&mlink=5151,P_D_EmailAcq)

3.1.2. **Advertisement design: isolation effect**

The *isolation effect* or *Von Restorff’s effect* comprises the tendency of some individuals to act on the information that is highlighted over the other (Von Restorff, 1933), which constitutes the basis for many marketing techniques.

During an experiment conducted in 2009, it was possible to observe one of the applications where the isolation effect gains the most importance: the design of advertisements (Bireta & Simels, 2009). An advertisement which is notably different to others will provoke a bias in the consumers: whenever they face the option between two similar products, they are likely to choose the option whose advertisement is easier to retain. The study noted how this distinction could present in a semantic dimension -the product or service’s characteristics are highlighted- or a physical dimension -visual elements of the advertisement-. The subjects of the study showed a tendency to assign distinctive factor to the brand, rather to the advertisement itself.

The importance of the isolation in order to stimulate the consumer’s memory can be exemplified by the following cases in the fast-food sector. *Pizza Hut, Little Caesars* and *Domino’s Pizza* announced the launch of a new app to make orders with the following adverts. We have
highlighted the most important elements in each of them, which will be fundamental in order to trigger the memory of the consumers:

Images 2-4: Distinctions in the advertisements of three Pizza companies

Source 1: https://adaidancy.wordpress.com/portfolio/nsac/pizza-hut-magazine-print-ad/
Source 2: https://www.bestadsontv.com/ad/55240/Dominos-Order-On-The-Go-Park

We observe, therefore, that the exploit of a distinction, either through words or images, can contribute to the consumer choice of a certain brand over the others.

3.1.3. **Commercial strategy: loss aversion**

The loss aversion effect, that is, the tendency to stop losses rather than gain something new can bring new approaches to commercial strategy -price-quality relation-. This phenomenon is a wide and complex topic, and for this reason there are many and diverse applications. The use of loss aversion in relation to brand selection has been a successful field for prospect theory. It is possible to make relevant inferences if the postulates of the theory (Kahneman & Tversky, 1979) are applied to the introduction of new products (Bruce et. al, 1993).

In this sense, prospect theory establishes that consumers prefer the reduction of losses rather than gains in a particular attribute (Heath et. al, 2000). It is necessary, then, to pay attention to the relative weight of gains and losses when the quality or price of a brand change, in comparison to the reference brand of the sector.
During an experiment where the subjects had to value juice brands according to the quality and price, results showed that changes in price, such as discounts, could be more beneficial to brand with high quality and price -Minute Maid in the experiment-: users valued more the reduction in the expense made, due to the price reduction, rather than the increase in gains due to the same price reduction in a different brand with lower price and quality (Bruce et. al, 1993).

Loss aversion also suggests that consumers have difficulty to change a brand with which they are satisfied (Paraschiv & L’Haridon, 2008). Consequently, the attributes of a product are key during the process of designing the commercial strategy: if both the price and quality are low, prospect theory advices a strategy where the relative loss of quality is reduced in relation to the reference brand in the sector. Alternatively, if price and quality are high, a reduction in price can be more favorable than an increase in quality (Heath et. al, 2000).

In this case, we were not able to provide a more practical and precise example that could illustrate this effect, since we lacked enough information to show whether reduction of losses of utility were more effective in prestige brands than others with less quality or prestige.

3.2. Free Trial Periods: the zero-price effect and the endowment effect interrelation.

We have been able to see in the previous chapter the characteristics of the zero-price effect and the endowment effect from a theoretical point of view. However, this kind of behaviors are object of study and use in the marketing of goods and services, which could provide us an applied or practical perspective. We will analyze a marketing technique: the offering of free trial periods of a service, using a case-example as reference in our study: audiovisual streaming services provided by enterprises such as Amazon Prime Video and HBO Max.

Below, there are two marketing actions consisting in advertising clips of short duration, destined to Television and online platforms such as Youtube.

Source 1: Bring People Together Commercial. Amazon Prime Video. iSpot.tv (0:57); Source 2: His Dark Materials Commercial. HBO Max. iSpot.tv (0:14)
Both pictures are photograms of two advertising spots of the video-streaming services provided by Amazon Prime Video and HBO Max. The clip shows a wide range of the content that is offered with the services and it ends with a black background that highlights two elements: (1) the brand and the logo of the streaming services; (2) the offer of a free trial period, which in the case of Amazon Prime Video is established at 30 days.

The sales of these type of services, by the means of techniques such as free trials, shows a process that follows two steps or phases clearly differentiated: (1) acquisition phase; (2) retention phase.

In the **acquisition phase**, the objective of the company is to obtain -acquire- the maximum number of subscribers, with no regard to their disposition to pay for the services. It is at this point where the first behavior studied by behavioral economics is exploited: the *zero-price effect*. Ariely and Shampanier (2007) concluded that a price equal to zero constitutes a unique category, that is, a category of its own, and studies conducted by the authors (MIT, 2007) showed that a substantial increase of the demand of a good or a service occurred when the price was lowered down to zero, phenomenon that did not occur when prices were close but higher than zero. The objective that free trials pursue, therefore, is the acquisition of a high number of consumers, appealed by the free character of the service.

Once a considerable number of consumers has taken part into the free trial period, a second phase starts: the **retention phase**. The ultimate goal of the company is to earn profits through subscribers, and for that reason the objective during this second phase is going to be to keep -retain- the highest possible number once the free trial period expires. It is at this point where the second behavior studied by behavioral economics that we have mentioned, mentioned earlier in this section, intervenes.

We have presented from a theoretical point of view how Kahneman, Knetsch & Thaler’s experiments (1991) were able to note a major predisposition in some consumers to value more the goods and services that were under their domain or ownership. A good strategy, therefore, to build loyalty and retain consumers is to allow them to experiment the benefits that the goods and services report. As mentioned before, experiencing these benefits can contribute to changes in the perceived value of the goods and services, which in some cases will lead to changes in the disposition to pay for them. Amazon Prime Video and HBO Max, among others, make the decision to grant access to their services, considering that a part of the individuals that take part in the free trial period and were not willing to subscribe might change their decision once the trial expires.
We can observe that the free trial period is a means to an end: customer retention through the use and exploit of the endowment effect.

Graphic 1: Sale Process through the means of free-trial periods.

**SALE PROCESS THROUGH THE MEANS OF FREE TRIALS**

**ACQUISITION PHASE**
Zero-Price Effect

\[\begin{align*}
\text{a) Consumers with disposition to pay for the service} \\
\text{b) Consumers without disposition to pay for the service}
\end{align*}\]

Division of b) in two groups: b') i c)

**RETENTION PHASE**
Endowment Effect

\[\begin{align*}
\text{a) Consumers with disposition to pay for the service} \\
\text{b') Consumers without disposition to pay for the service} \\
\text{c) Consumers with changes in the disposition to pay for the service}
\end{align*}\]

Source: Own elaboration, based on the zero-price and endowment effects (Thaler, 1991; Ariely, 2007).

3.3. Bundling and Peanut Effect: Choice Bracketing

We have been able to see in the previous chapter how choice bracketing constitutes a mental tool in the hands of the decision-making subject to react to uncertainty situations. In the specific case of consumers, it is possible to react taking into account many of the concurring elements in a space of time period or, contrary, it is possible to limit the decision to one or several of the most important elements. Besides this fact, marketing strategies try to find a way to influence a certain type of bracketing in their potential consumers (Koch & Nafziger, 2016).

In normal conditions, consumers tend to maximize their utility when they follow a broad bracketing type of decision structure. A good example of the problems that arise around narrow bracketing is the so-called peanut effect, by which a consumption decision of an apparently insignificant good can be harmful if there is further consumption (Read ed. Al., 1999). In this line, the sector of companies specialized in Rent-to-own exploited low weekly and monthly payments for a long period of time (Swagler & Wheeler, 1989).

Another example where a strategy of narrow bracketing can end up being harmful towards consumers is the case where there is an unexploited beneficial tradeoff between two options. In
the case of the articulation of family budget this phenomenon can be seen more clearly: the funds within a deposit will normally just be spent in this deposit, instead of being used in another category if more beneficial consumption options appear (Health & Soll, 1995).

However, the systems of narrow bracketing can be beneficial in some particular circumstances. A well-known application of these is constituted by the sequential decisions in cases of self-control disorders. It is possible that the fixation of short-term objectives without consideration towards the global result after a long period of time helps these subjects to improve their utility (Read et al. 1999). When an individual is unable to make a strong commitment when faced by, as an example, an addiction, it is more effective to consider each decision in an isolated way.

Therefore, companies can also influence the use of broad bracketing by consumers. This happens when products are “bundled” to be sold together. This technique can be used to counter measures of self-control imposed by consumers (Koch & Nafziger, 2016). A relevant example can be observed in the menus of fast-food restaurants. When healthy and unhealthy products are offered together within a menu, customers tend to value the benefits and drawbacks in a global manner (Fisherbach & Zhang, 2008). Furthermore, the consumer be more likely to choose the menu instead of just the unhealthy product.

Marketing strategies are very related to the type of product that is up to sale. If we consider the cost-benefit relation both in the present and the future, it is possible to determine if the acquisition of a product is more connected to broad bracketing or to narrow bracketing. For this reason, the goods or services whose price is high in the beginning but provide delayed benefits are more related to broad bracketing strategies. Contrary, the goods that offered instant benefits with high maintenance costs throughout time require of a narrow bracketing technique (Just, 2015). In consequence, when an automobile is sold, more importance will be given to elements regarding the short-time, whereas in the case of college tuition long-term will be the reference point.

Finally, some elements should be particularly highlighted over others as influence factors on the decision-making process of the consumer. The use of labels or tags related to a natural or ecological origin of a good can be closely related to the priority that some segments of population attribute to this type of goods. These users can overvalue a certain factor over others such as price or the relative quality of the product. In these areas, narrow bracketing is characterized by an impatient perception and a higher valuation of present benefits (Delmas & Burbano, 2011).

3.4. Decoy Pricing: an applied marketing approach to decoy effect

The psychological decoy effect or “effect of asymmetric dominance” shows practical application in multiple contexts. The fact that our evaluations and preferences are not fixed, but rather
dependent on a context, is applicable to completely different topics such as election campaigns, decision-making processes in a labor environment or even dating apps.

Marketing and sales are one of the most benefited from this effect. We will focus our analysis in a particular marketing strategy: Decoy Pricing, which exploits the so-called decoy effect in the process of determining and advertising the prices of goods and services.

This technique works as follows: whenever consumers are faced with a choice between two options, which we will denominate cheap option and expensive option, they will tend to make a choice based on their personal preferences. However, if a third “deceiving” option similar but asymmetrically dominated by the expensive option is added, consumers will tend to choose the most expensive product after comparing it to the new added option.

Ariely (2008) considers that this phenomenon exploits selective human perception- the human mind is not impartial in the process of deciding what information is perceived-. We make decisions based on context or the relative advantage of an option over another, not in absolute terms, especially if the comparison is easy to do. For these reasons, when marketing professionals incorporate a third product similar to the most expensive option, they usually pursue the consumer’s comparison between both products. Contrary to this, the cheap option will not have any similar product as a reference point, lowering consumer’s attention. Furthermore, the commitment effect plays an important role in the addition of a third product: consumers tend not to prefer the cheap option, which usually associate to lower value.

As a means to better understand Decoy Pricing, we propose as an example the package offers to subscribe to Spotify Premium -a payed subscription to audio and media streaming services-. When analyzing the different options displayed below, we can observe that the Student option will only position itself as the best option if the consumer is a student who had not intention to share the subscription. However, if the previous criteria are not met, the consumer will tend to perceive the Family option as the most advantageous, since for less than twice the price, up to six times more people will be able to enjoy the services.

Through this method, Spotify exploits the same phenomenon that can be extracted from an experiment conducted by National Geographic (Brain Games. Season 2, Episode 2: It’s about time. (2013) National Geographic Film & Television.). In the experiment, consumers faced a choice between buying a small or a big bowl of popcorn, being their respective costs $3 and 7$. A major part of the subjects decided to choose the first option, considering that $7 was a disproportionate price and the cost-benefit relation of the first option was much better. However, after this first round of choices, a third option was introduced: a middle-sized bowl of popcorn
for $6.50. Once this change was introduced, the demand of popcorn substantially changed towards big bowl orders, which dominated the middle option.

Image 3: Spotify Premium’s Subscription Packages


In conclusion, the final objective of the Decoy Pricing is that consumers choose a particular product that generates the most margin for the company, usually the one with the highest price, positioning itself as one of the star techniques for any type of businesses, especially those that are digitally based.

3.5. Brand Awareness and Brand Alliances: Anchoring effect

Another effect studied by behavioral economics with relevant marketing applications is the anchoring effect. We will center our study into one of these: brand awareness, which constitutes a key concept to attract and retain clients. Keller and Kotner refer to the information that consumers have in relation to the characteristics of a product, their willingness to use or try the product and whether they remember it in order to acquire it again (Kotler & Keller, 2012). Despite being an important factor, the authors consider that a major part of companies do not know how to properly transmit. Awareness, therefore, can be a sign of success a company’s success and, with the right use, it can become an anchor.

In the anchoring effect, consumers build a biased judgement about a stimulus based on the initial valuation of another stimulus, the anchor, and adjust insufficiently their initial valuation. This anchoring takes places with brand awareness.
A common practice in marketing are the so-called *brand alliances*, where two or more companies unite their resources in order to bring to the market a new product or service. A study published by the magazine *Advances in Consumer Research* showed that brand awareness can condition success or failure of these brand alliances due to the anchoring effect (Esch, Schmitt, Redler, & Langner, 2007). The study considered as a hypothesis the existence of a “brand anchoring effect”, that is, the impression that a consumer has about a brand can act as an anchor provided that there is enough information to act as a reference point. The research determined the existence of this *brand awareness effect* through three experiments based on the perception of 80 subjects about real and artificial products created under alliances. The conclusion can be summed up in the following statements:

- The valuation of the brand alliance was based in the perception of the brand with the highest awareness.

- When both components of the alliance shared a high level of awareness, regardless of the strength of the brands, neither of them acted as an anchor.

- In situations of equal intensity of awareness, the *visual perception* -particularly the packaging- conditioned which brands acted as anchor.

Redler (2003) proposed a model to analyze the evaluation process that consumers of a brand alliance usually follow. The author affirms that there is an anchoring and adjustment focus that follows these steps:

1. There is a preliminary evaluation based on one of the brands involved and one particular dimension, such as “quality of service”. The brand that the evaluation is based on acts as an anchor. This selection will depend on factors such as awareness, brand strength and dominance in the packaging design.

2. Once a value is assigned to the anchor, consumers will make adjustments regarding the value that they attribute to the other brand until a plausible value is reached.

3. The global evaluation of the valued dimension of the brand alliance will be a result that can be described as an average ponderation of the evaluation values of the two relevant brands.

We can exemplify this effect through a case: Milka’s Brand alliances.
In order to analyze the impact of each brand awareness to the consumer, we will use a hybrid model between the research on brand anchoring effect and Redler’s “three steps”:

A) The choice of the anchor -Redler’s first step- will be made according to the dominant brand:

a) If the consumer has higher awareness regarding one of the two brands, this brand will become the anchor. The values, information and characteristics perceived about the product in its totality will be primordially those of the brand that generates the most awareness.

b) If the allied brands have a similar awareness in the mind of the consumers, they will perceive as anchor the strongest brand in terms of packaging.

c) In cases of packaging such as in Chips Ahoy, Lu and Oreo’s brand alliances with Milka, even if these were dominant in the mind of the consumer, it would be possible that the consumer could not perceive them, since they stand a secondary role in the packaging of the product. The reaction in this hypothetic case would be an intermediate case between a) and b): the dominance would be overturned by the packaging.
B) Once the anchor brand has been evaluated, consumers adjust their perceptions towards the other brand until an intermediate perception is achieved -Redler’s second step-:

a) If Milka is the brand anchor, consumers will tend to adapt its values towards the non-anchor brand.

b) If Royal, Huesitos, Chips Ahoy, Lu or Oreo are the anchor brand, consumers will only retain a part of Milka’s value.

C) Finally, the consumer will make a global evaluation of the brand alliance, from which a value close to the average ponderation of the evaluation values of both brands will originate.

In conclusion, brand alliances are marketing strategies that work by exploiting anchoring and brand awareness, being beneficial to the entities that joined the alliance. Consumers will instinctively focus on one of the brands, the anchor, which will provide information that will determine the global valuation. That is, during the consumption decision process, involuntarily and in a biased manner, consumers will perceive value in a brand that is not its own. The dominant brand, therefore, succeeds in extending their value to the other brands and the non-dominant brands obtain these values, which can even include brand reputation.
4. CONCLUSIONS

Behavioral economics have involved relevant economic changes. Many of the presuppositions of the conventional microeconomic theory are questioned by the psychological effects analyzed in this field (Kahneman & Tversky, 1979). In particular, the questioning of the main elements of theories such as the Theory of Expected Utility have important consequences in the analysis of consumer’s reasoning, which now has new tools with a high prediction capacity (List, 2004).

Behavioral economics’ contributions suggest that the reference that consumers make to their initial dotation ends up becoming fundamental in the decision-making process, contrary to the theories of rational decisions, according which the election is independent of the dotation (Knetsch, 1989). The utility of the decision is not determined depending on what is the most beneficial for the individual in absolute terms, but rather consumers react to the changes that their initial dotation experiment, the same way we could react to temperature changes in relation to our temperature reference (Kahneman & Tversky, 1979). Furthermore, the individual does not make a single valuation for each of these changes. Contrary, negative changes have a stronger impact than the positive ones (Kahneman & Tversky, 1991).

This particular form of the value function present in the prospect theory invites the evaluation of different questions relative to the psychological effects behind these new models of behavior, as well as the relevance that they have in relation to a discipline so attached to human behavior, such as marketing. Firstly, we can observe that the economic subject always acts in relation to a reference point, this fundament necessarily intervenes in this subject’s operation. Secondly, the changes around the reference point do not have the same importance, since losses have a stronger impact than gains (Camerer, 2000).

On one hand, the anchoring effect can fit effectively within this description, where the individual makes their decision according to a determined state of things, which must not necessarily be relevant for this individual’s optimal choice. This “arbitrarial coherence” situation finds its counterpart in commercial strategy and brand alliances. By exploiting the so-called brand awareness, it is possible to influence the decision of a consumer through the recognition and prestige associated to a particular brand, which acts as a catalyzer of the brand alliance (Advances in Consumer Research).

On the other hand, the endowment effect is also relevant in the sense that what are being referenced are the states of wealth of the individuals as fundament to their conducts. Consequently, given the importance that the consumers attribute to the possession of a good
(Thaler, 1991; Ariely, 2007), a good strategy to build customer loyalty can be the implementation of free trial periods into subscription-based services or products. These free-trial periods can become a key to achieve a final paid subscription.

Regarding the asymmetry observed between positive and negative changes in individual wealth, the form of the value function is concave in relation to gains and convex in relation to losses (Kahneman Tversky, 1979). From this formal particularity, it is necessary to find points of connection between this psychological trait and the economic agent’s reasoning. In this sense, there have been found several very significative empirical statements, such as the fact that consumers give more importance to reduction in prices or quality when these occur in premium brands, or that these consumers have preferences for discounts and promotions that are certain and not probabilistic. Consequently, in the Marketing sector it is recommended to take into account the products’ attributes when deciding the commercial policies, as well as a price policy with certain and not probable rewards.

Finally, it can be highlighted the psychological effects related to the selection of alternatives in which the subject’s preferences become inconsistent. In the asymmetrical dominance effect, the decision-making subject is forced towards a reference point, another alternative which is irrelevant for the decision. Von Restorff’s effect makes individuals give more importance to an element due to their differentiation of the others (Kahneman & Tversky, 1979), such as bracketing produces an incorrect inference depending on the different decisions made in a time period (Loewenstein, 1999). Among the different practical applications for each effect we can highlight the introduction of a decoy, the design of advertisements and bundling as means to counter self-control.

In conclusion, throughout this thesis we have tried to establish relations among the diverse psychological effects present in behavioral economics, with deep roots in the fields of neurosciences and psychology, and their respective applications into the field of marketing. However, we are aware that the fundaments of behavioral economics need further and more incisive theoretical development. We have argued that these effects can be related to cognitive difficulties (Loewenstein & Rabin, 1999) and, even to information asymmetries that may fit classical theories (List, 2004). Nevertheless, it is important to take into consideration the fact that these effects do no imply that the consumer is not rational. In any case, we have to admit that the decision-making process has also a cost for the individual and that, as a consequence, conventional theories do not adapt to the rationality of the individual that is the object of study of psychology (Thaler, 1980). It is precisely due to the discovery of this rationality that new tools can be brought in order to achieve real advances in a practical economic discipline such as marketing.
5. BIBLIOGRAPHY


WEBGRAPHY


