



Shaped by Perceptions:

The Influence of Extremely High Anchors
on Consumer Valuation

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Abstract

Since the twentieth century, with the development of behavioural studies, there has been an uprising of research related to cognitive bias. Over the years, there has been an academic focus on the anchoring bias for a plethora of areas, ending up building a robust foundation in its results. However, when targeting a specific type of anchors - the most extreme ones -, the literature fails to reach a consensus, with some authors finding that extreme anchor present stronger effects, while other researchers find no differences when comparing with non-extreme anchors, whereas some results point towards an anchor losing influence when it is used with extreme values.

To overcome this dissonance, my research portrays a price-based experiment that analyses the impact of a high anchor compared to an extremely high one, in three characteristically different markets: Consumer Goods; Luxury; and Charity. This approach aims to demonstrate that the main findings in the literature may not be mutually exclusive, but rather a phenomenon that alters within its context. Moreover, an additional analysis is performed to uncaptured the impact of an extreme high anchor on other perceptions of value besides price, namely quality, emotions, and social awareness.

The results reveal that extreme high anchors leads to different results compared to high anchors, in the different markets. Furthermore, the additional analysis suggests that the exposure to an extreme high anchor affects different value perceptions depending on the context. All these results may have managerial strategic implications, for instance, when setting pricing strategies.

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Sumário

Desde o século vinte, com o desenvolvimento de áreas de estudo do foro comportamental, tem-se registado um aumento de estudos relacionados com os enviesamentos cognitivos. Ao longo dos anos, o efeito âncora ganhou palco e mediatismo numa infinidade de áreas, nas quais obteve resultados com robustez significativa. No entanto, no que concerne âncoras extremas, a literatura não encontra um consenso: alguns autores a concluírem que estas âncoras extremas apresentam efeitos mais fortes, outros não encontraram diferenças entre âncoras extremas e não extremas, e alguns resultados apontam para a perda de ancoragem quando esta é utilizada com valores extremos.

Para compreender esta disparidade, a minha experiência, baseada no fator preço, analisa o impacto de âncoras altas em comparação com âncoras extremamente elevadas, em três mercados bastante diferentes entre si: Bens de Consumo; Luxo; e Caridade. Esta abordagem visa demonstrar que as principais conclusões da literatura podem não ser mutuamente exclusivas, mas sim um fenómeno resultante do contexto. Além disso, é efetuada uma análise adicional para desvendar o impacto destas âncoras em diferentes perceções de valor além do preço, nomeadamente a qualidade, as emoções e a consciência social.

Os resultados revelam que âncoras extremamente elevadas conduzem a resultados diferentes em comparação com as âncoras altas, dependendo do contexto. Além disso, a análise adicional sugere que a exposição das âncoras extremamente elevadas afeta diferentes perceções de valor dependendo do contexto. Estes resultados podem ter implicações estratégicas, por exemplo, na definição estratégias de preços.

Título: Moldado por Perceções: A influência de âncoras extremamente elevadas na valorização de produtos

Autor: Álvaro Gil Almeida

Palavras-chave: Tomada de decisão, Heurística, Efeito de ancoragem, Âncoras extremas, Avaliação, Contexto, Estratégia

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List of Abbreviations

&	And
H	High
EH	Extremely High
NGO	Non-governmental organization
USA	United States of America
H1	Hypothesis 1 (2 and 3 respectively)
RQ1	Research Question 1 (2 and 3 respectively)
<i>M</i>	Mean
<i>SD</i>	Standard Deviation
<i>p</i>	p-value
e.g.	For Example

1. Introduction

“Men are not prisoners of fate, but only prisoners of their own minds.” - Franklin D. Roosevelt (1939)

As the opening sentence implies, in the complex scenario of decision making, this is, the human mind, even being impressive, still reveals some flaws. The influence of heuristics and biases in our rationality reveal how easy our own intellect can be misled and impacts our choices. The work of Tversky and Kahneman (1974) shows how deeply integrated in the bases of our rational process biases are, leading us to deviate from the normative standards we create for our judgments and decisions. Understanding biases is relevant, not only for a merely intellectual pursuit, but also to gain deep insights about the complexity of the decision-making processes.

Within the intriguing scope of cognitive biases, one of the most common and important phenomena in the quotidian day-to-day that stands out, casting a significant influence on our decision-making processes, is the anchoring effect (Kahneman, 2011). This robust effect that describes a psychological tendency to rely heavily on the first piece of assimilated information (Kahneman, 2011), presents a good example of how our minds can be unconsciously influenced by subtle cues. Whether we are negotiating a deal (Galinsky & Mussweiler, 2001), trying to boost sales (Wansink et al., 1998a), or simply valuing a product (Ariely et al., 2003), these anchors impact our thought processes, exerting their influence even when we believe that we are making rational and objective decisions (Wilson et al., 1996).

The current thesis is focused on a specific type of anchors – extremely high anchors, this is, anchors that are not perceived as plausible (Mussweiler & Strack, 2001).

1.1 Problem statement

The anchoring effect regarding extremely high anchors holds a strong power, shaping our choices in unexpected ways and separating the academia with different findings on the subject. To this extent, some authors find that the anchor under this format present stronger effects (e.g., Strack & Mussweuer, 1997), other researchers find no differences when comparing with high anchors (e.g., Mussweiler & Strack, 2001), and there are also findings showing that an anchor loses influence when it is used with extreme values (e.g., Wegener et al., 2001).

Following these nonconsensual findings, I want to discover if they may be explained by the characteristics of the context in which the extremely high anchor is presented.

To unravel this enigma, I set up one experiment with three distinct scenarios for characteristically different markets: luxury, consumer goods, and charities, that may connect with different anchoring theories. An initial pre-test was done to obtain some insights about which values were seen as implausible and then the main experiment aimed to understand how the anchors differently impacted the value judgments of the same product in the different markets in the study. With these studies I intend to respond to the following question: What is the impact of an extremely high anchor in different contexts?

To bridge the existing research gap, the main question was branched in three specific questions:

RQ1: Do extremely high anchors have the same influence in all contexts (namely, the luxury market, consumers' market and in charities)?

RQ2: Does a high emotional connection with the brand change the valuation of the products (monetary perceived value)?

RQ3: Does the perception of the implausibility of an anchor eliminate its impact?

It is important to mention that the study was focused on extremely high anchors and not extreme low anchors given the managerial interest of the study, where it would not make sense to present an extreme low anchor for a product – this anchor would probably need to be less than zero or zero, which would be impossible to connect in a real-life scenario.

1.2 Managerial and academic relevance

Understanding the complexities of the anchoring effect is of utmost importance in the constantly changing field of decision-making, as it has significant implications for both managerial practices and academic pursuits. From a managerial perspective, this study contributes with practical insights that can change strategic approaches in various sectors. By dissecting the influence of extremely high anchors on different markets, I intend to analyse the impact that it can have on pricing strategies, stakeholders' management, and brand perception. From an academic point of view, this study stretches the boundaries of existing literature by advancing an explanation for the differences found in various academic papers about the impact of extremely high anchors, linking them to the context in which the anchor is presented.

1.3 Structure of the thesis

The current thesis is structured following the standard structure of empirical research papers, facilitating the exploration and analysis of the thesis. To this extent, after the current

introductory chapter, Chapter 2 consists of a brief literature review that summarizes the relevant concepts and existing literature related to anchoring bias, its use with extreme anchors, the three markets under which the anchoring bias was studied and the hypotheses that were going to be tested to target the existing research gap. Then, Chapter 3 presents the pre-test and experiment done to study the impact of extremely high anchors, with an explanation of the methodologies, variables, and situations presented, as well the empirical foundations of the methodological choices. Furthermore, Chapter 4 presents the analysis of the data collected from the pre-test and the main experiment, presenting the results, and linking to the previously shown hypotheses. Next, Chapter 5 presents the discussion of the study's results, comparing them with the existing literature, in a theoretical and practical view, additionally showing the limitations and proposals for future studies. Finally, the Chapter 6 closes with a conclusion.

2. Literature review

2.1 Cognitive Bias and Heuristics

In the domain of decision-making, the human mind often plays tricks on us, defying the illusion of our infallible rationality. Historically, the prevailing notion of the economic man, characterized by flawless rationality, dominated the mainstream academic line of thought (Hodgson, 2007).

However, the pioneering work of Simon (1955) challenged this idea, introducing the concept of limited rationality, where the author affirmed that a model of limited rationality was more suitable to address the reality than the models of that time that assumed total rationality, thus contrasting with the mainstream idea back then. Simon believed that there was a paradox when assuming that individuals always make rational decisions, as the workers of firms and organizations would be problem-free in the classical economic theory, when people's decision-making is clearly limited and susceptible to flaws. Following this, if the idea of the "economic man" was changed to a concept of a decision-making organism with limited knowledge and abilities, the paradox would disappear. This change in perspective acknowledges that people simplify their decision-making processes based on their limitations, which results in organizational behaviours that are not always perfectly rational. This way, the concept constructed by Simon suggests that our choices can be influenced by both external environmental factors and our own internal human characteristics and beliefs.

At the heart of this cognitive complexity, this idea leads to what is called heuristics (Furnham & Boo, 2011). These are cognitive shortcuts that allow us to simplify intricate tasks by relying

on available information stored in our brains (Tversky & Kahneman, 1974). While these mental shortcuts enable fast decision-making in our daily lives, they can also lead us to judgmental errors (Tversky & Kahneman, 1974). Thus, Tversky and Kahneman (1974) claim that cognitive biases are the result of a limited number of heuristics and focused their study on three important ones: representativeness, availability, and anchoring and adjustment; showing how these heuristics compromise decision making, leading to systematic deviation patterns from rational decisions (i.e., bias). The work of Tversky and Kahneman (1974) emphasized the importance of studying human behaviour in real-world contexts, considering the limitations of cognitive processes and marked a pivotal moment in the study of the anchoring-and-adjustment heuristic (Furnham & Boo, 2011). That research showed a new paradigm in behavioural economics and psychology, encouraging researchers to explore the connection between cognition, biases, and decision-making. Their findings continue to shape diverse fields, as strategic management, and entrepreneurship (Guercini & Milanese, 2020).

2.1.1 Anchoring Bias

The anchoring effect refers to the psychological phenomenon where individuals rely heavily on the first piece of information they receive (the anchor) when deciding, which leads to the cognitive bias called anchoring bias (Malhotra et al., 2015). That occurs when individuals are overly influenced by an information, leading them to make judgments or estimations that are insufficiently adjusted from the initial anchor (Gilovich et al., 1998). This bias is a widely proved and well-studied psychological tendency that occurs while making judgments or decisions, even when the initial value is irrelevant or random (G. B. Chapman & Johnson, 1999).

Furnham and Boo (2011) traced the beginnings of the notion of anchoring in decision-making to Slovic (1967). However, the current conceptualization of the anchoring effect was presented by Tversky and Kahneman (1974), when they introduced three relevant heuristics that affect our judgment that led to cognitive bias. Regarding the anchoring heuristic, Tversky and Kahneman (1974) study presents one of the most famous anchoring effect experiments, by displaying an arbitrary number between 0 and 100, then asking the participants to respond if the percentage of African nations in the USA was higher or lower than that arbitrary number. Then the participants were asked to estimate the actual percentage of the previous question, which showed that the participants were systematically influenced by the value of the anchor. Subsequent studies trying to find similar results were conducted, such as trying to guess the age

at which Gandhi died, with the presence of a high and low anchor (Strack & Mussweiler, 1997) or, in another example, using the same method but asking when Washington was elected president (Epley & Gilovich, 2006). This way, the studies showed that information that should not impact the decisions, such as showing a random number before making an estimation, indeed impact people's judgments.

The effect that influences the judgements of decision makers, biasing them towards an initially presented anchor, has three main explanations across academia: First, an explanation based on insufficient adjustment, which states that people start by rejecting the anchor value as a plausible estimate and then adjust until they reach a satisfactory answer. The adjustment is typically insufficient and, so, the final estimation ends up being biased in the direction of the initial anchor value (Tversky & Kahneman, 1974). Second, the selective accessibility explanation defends that the strength of the anchoring effect depends on the applicability of activated information (Strack & Mussweiler, 1997). This means, for example, the impact of the anchor should be stronger when presented as information from an expert source, compared to when it is presented as randomly generated information, since the information given by an expert should be more applicable to the situation. Finally, the third explanation is based on attitude change, which uses theories of attitude change to explain anchoring bias (Blankenship et al., 2008). For example, using the elaboration likelihood model (Petty & Cacioppo, 1986), this approach expects the anchoring effect to have different mechanisms of action as a function of high versus low elaboration. Under high elaboration (when motivation and ability are high), people should compare the anchor with what they know to determine the plausibility of the anchor, thus the anchor influences the thoughts that come to mind under elaboration. In contrast, in low elaboration (when motivation and/or ability are low), the anchor serves as low-effort alternative, directly providing a number that can be given as an answer or at least establishing a plausible magnitude (Blankenship et al., 2008). Because of these different mechanisms, the impact of the anchoring bias is thus different as a function of elaboration. For example, anchoring effects under high elaboration may last longer (Blankenship et al., 2008).

Furthermore, research has shown that this bias has a robust influence on human judgement in different contexts and can be shown through different forms. Respectively, the effect was found in contexts such as general knowledge, as in the example of the study about the age of death of Gandhi (Strack & Mussweiler, 1997) and the number of African countries within the USA (Tversky & Kahneman, 1974). Other ways shown were in purchase quantity decisions - as in a study using slogans suggesting different quantities (Wansink et al., 1998b) - as in purchasing

price valuations -, as in a study that used data from an art auction (Beggs & Graddy, 2009) -, among other contexts (Furnham & Boo, 2011). In terms of forms, the anchor showed effects in different ways, mostly through showing a numerical anchor before a choice (G. B. Chapman & Johnson, 1999; Jacowitz & Kahneman, 1995; Lichtenstein et al., 1993) and as attribute-level anchoring, in which just showing another product linked with a different value can influence the chosen product (Köcher et al., 2019). Therefore, the effect was repetitively found, even when the anchor was presented in diverse ways, such by presenting priming sequences (Mussweiler & Englich, 2005) or even by presenting values and saying that these do not provide any informative value (Englich et al., 2006).

Focusing now on the anchoring effect on the managerial context, the literature reveals the significance of showing such effect in organizational environments. As an example, there are studies focusing on the impact of anchors in the negotiation process, where an initial offer serves as an anchor to impact the final judgment (Schweinsberg et al., 2012). Additionally, the impact of anchors in online auctions was also studied, whereby a reference price affects the consumers' bid values and purchase intentions (Wolk & Spann, 2008). Also, in propriety acquisitions, it was found that prior acquisition premiums affect consumers decisions (Malhotra et al., 2015). Finally, in areas related to management, was also find impact in perception of risk (Yamagishi, 1994), evaluation of options (Johnson & Schkade, 1989), and self-evaluation and performance (Cervone & Peake, 1986).

In the current work, as well in most of the anchoring bias research, a numerical anchor was presented. This approach allows the study to be closer to a real-life situation, where anchors can be used, such as in sales (anchoring the value before the sale). Additionally, as already stated, my thesis was focused a specific type of anchor: extremely high ones.

2.1.2 Extremely high anchors

This thesis delves into an intriguing aspect of anchoring, extremely high anchors, and how they affect characteristically different markets. An extremely high anchor is a value that influence a decision, but that is viewed as not plausible. As mentioned, the state of the literature on this niche topic is mixed.

First, with arguments of the anchor-and-adjustment perspective, the literature suggests that extremely high anchors would have the same effect as high anchors, this is, people would start with the anchor, adjusting until they reach the most extreme number within their boundary of plausible values, and provide this boundary value as their final answer (Jacowitz & Kahneman,

1995). Other authors, using the perspective of the selective accessibility model, believe that such extreme anchors could be seen as important information and make individuals doubt their first range of possibilities, modifying the amplitude of previous hypotheses, increasing their range of plausible values, and ending up making more extreme guesses as final estimations (Mussweiler & Strack, 2001). Later, following the perspective of the attitude change theories, Wegener et al. (2001) tried to prove that extreme anchors would generate smaller anchoring effects, since the recipients were less likely to generate cognitive responses, finding curvilinear effects towards extreme anchoring. This last study was important to validate the theories of anchor-and-adjustment and selective accessibility, which can explain the results of different anchors, but could not fully target the extreme ones, capturing the effects of all numerical anchors (Wegener et al., 2001). However, Løhre & Jørgensen (2016), who studied the anchoring effect on low credibility sources, found that even implausible and low credibility anchors lead to anchoring affects.

Hence, most studies on extreme anchors have been done through students at universities and with general questions (Mussweiler & Strack, 2001; Wegener et al., 2001). Normally these studies have both extremely high and low anchors, but since my study aim to be linked with managerial implications, as profit increase, low anchors were not used.

2.2 Anchoring contexts

While most research on anchoring has been done in the context of general knowledge questions and with college students as sample, as previously stated in the literature review, anchoring has been used in multiple managerial contexts, such as online auctions (Wolk & Spann, 2008), negotiations (Schweinsberg et al., 2012) and acquisitions (Malhotra et al., 2015). In this thesis, I want to see if extremely high anchors have different impacts depending on the context in which they are exposed, thus and as explained previously, I tried evidence of that by analysing the effect of extremely high anchors in three characteristically different markets: luxury, consumer goods, and charities. These markets were chosen by their features which will be discussed in the present section, to explain why the literature finds different results.

2.2.1 Consumer goods

To begin with the consumer goods market, this market is known for targeting a large audience, focusing on medium-low pricing capabilities, and offering everyday products (Faith & Edwin, 2014). The consumer base of this market is notorious for being more focused on the value brought by the characteristics of the products and for being price-conscious, thus seeking value for the money they spend, in factors such as utility, quality, and competitive pricing (Ladd & Suvannunt, 1976). In other words, consumers rate the products as the sum of the value of the benefits of using them (Kotler, 2010), with the product's utility being the most valued characteristic.

Due to these aspects, I believe that extremely high anchors should be easier to identify as implausible for those more connected with the brand representing this market, since the consumers of this market are more price-aware. Following this idea, buyers of this product should be more likely to ignore both anchors, and, therefore, are less likely to be influenced by them. Given such context, buyers' perception of price will reach indistinguishable values in accordance with insufficient adjustment theories. Hence, I hypothesize that:

H1: In the consumer goods market, the monetary valuation of the product will show no difference between the extremely high and high anchors.

Nevertheless, the use of extremely high anchors might have other impacts, for instance on brand reputation, since the confrontation with such anchors can diminish the trust of the brand and lead to negative reviews, damaging brand reputation and sales (Luca & Reshef, 2021). However, I believe that the use of high anchors might have some positive implications as well, as higher prices could be perceived as superior quality and premium features (Lichtenstein et al., 1993).

2.2.2 Luxury Market

Moving on to the luxury market, this market has completely different features when compared to the consumer goods market. Luxury consumers are known to seek premium products, valuing their exclusivity and brand prestige (Grossman & Shapiro, 1986), hence, being more influenced by hedonic factors rather than utilitarian ones (Tynan et al., 2010). Consequentially, high prices are normally not a factor that drives away consumers, as the unattainable prices highlight the product's exclusivity, augmenting the perceived value to buyers (Wiedmann et al., 2007).

Following this idea, the literature says that this market has a larger range of values that could be seen as realistic (Kapferer & Laurent, 2016). That statement suggests that finding an extremely high anchor should be harder in this market, but it should also be more probable that consumers are affected by that value of the anchor. This is because, following the selective accessibility model, an extreme value should make the consumer rethink their own valuation of the product, changing the ranges of possible values. Therefore, the next hypothesis reads as follows:

H2: In the luxury market, the monetary valuation of the product will be higher in the extremely high compared to the high anchor.

In such case, the use of both high and extremely high anchors should have a positive impact in the monetary valuation of these products and could be expected that there would be a positive significant difference between the perceived monetary value when shown an extremely high anchor in comparison with a high anchor.

As to the consumer goods market, some distinctive differences can be seen. In one hand, consumer goods are valued especially by their utility and functionality, as the costumers expect a price that aligns with that purpose. While on the other hand, consumers in the luxury market seek an hedonic experience, that makes them feel unique, exclusive, seeing the price as a way to exclude less wealthy consumers.

2.2.3 Charities

Finally, the charity market is the most intriguing one, where the donations are the main source of revenue of these institutions (Bilodeau & Slivinski, 1997; Sally Hibbert & Suzanne Horne, 1996). Following that, the individuals or companies that donate are motivated by altruism, empathy, reputation, and the desire to positively influence society (C. M. Chapman et al., 2020). Accordingly, donors value institutions that act in causes that they value, trust, and show transparency and direct resultst of the donations they receive (Torres-Moraga et al., 2010).

Following this idea, when confronted with an extremely high anchor, donators might feel that they are being deceived and this could directly affect their trust in the institution. However, donators could believe that the NGO is really in need of funding and that they are being more altruistic or providing a higher impact to society. As such, the effect of extremely high anchors in the charity market can have either counterproductive effects or positive ones. Perhaps

donators might stretch the amount that they would give, which are linked to selective accessibility approaches. That could especially happen if a well propagate disasters happen, where donators feel closer to the victims (Koschate-Fischer et al., 2012). In contrast, an extremely high anchor might disengage donators, especially in less reputed organizations, as they perceive it as an unreasonable or manipulative request, leading to a backlash (Koschate-Fischer et al., 2016), linking more with an attitude change model. Thus, since the direction of the anchoring do not show consensus on literature, the following hypotheses are proposed:

H3: In charities, the monetary valuation of the product will change in the extremely high compared to the high anchor.

After discussing all three markets, both luxury goods and charity markets can be more linked to hedonic experiences. Even if in apparently distinct ways, luxury buyers seek a premium, distinctive experiences, and the feeling of exclusivity by using luxury products, while the persons that donate want to improve the life of others, being guided by values such as altruism and empathy. However, in the end, both are associated with being accepted, being better perceived and with an increase in their reputation (Kumru & Vesterlund, 2010; Nwankwo et al., 2014). In terms of reaction when exposed to extreme anchors, while in the luxury goods it is expected that extremely high anchors have a positive effect on monetary valuation (H2), in terms of charities the literature does not lead to concise expectations (H3). Then, the consumer goods market is the only one between the three that is mostly linked with a utilitarian experience, where the consumers should value the function of the product and being more aware of that value. Therefrom, I expect that both anchors should have a lower effect, and that the extremely high should lead to similar values than the high one, thus is not expected a different perception of monetary value between both anchors (H1).

3. Methodology

3.1 Research design

The current research had a pre-test and one experimental study. Both involved presenting participants with t-shirts that had the exact same appearance but were presented with different brand logos: UNICEF, Pull&Bear and Gucci, to respectively link with the specific market: charity, consumer goods, and luxury. Both pre-test and main experiment can be seen at Appendix 1 and 2, respectively.

The pre-study had as its primary goal to determine the value of the anchors used in the main study. Participants were presented with three questions regarding the exposed t-shirt: how much they monetary valued it, and the lowest and the highest they would pay for it. Then, participants were asked how much they usually paid for a t-shirt. In the pre-study, outliers were removed using the mean absolute deviation method (Songwon, 2006).

The main experiment had as its main goal to find if the anchoring effect differs between high and extremely high anchors, and if their impact depends on the type of market. To do that, people were presented with a high or extremely high anchor, in one of the three different markets for a total of six different conditions. The main question was the perceived monetary value of the t-shirt after being presented with one of the conditions. Additional control questions were used to find to which extent the impact of the valuation of the product was due the anchor.

3.2 Pre-test

As already explained, a pre-test was used to find the point estimate and range of values (in euros) that a person would give for each t-shirt, to calculate the anchor for the main experiment. Since the same t-shirts were used in both the pre-test and main experiment, the respondents of the pre-test were recruited in a different manner from the main experiment. Hence, to make it less likely that a person was biased by the pre-study, the recruitment of the pre-test was done through the paid platform Prolific, aiming to collect 60 participants and setting as an eligibility criterion that participants were currently living in Portugal. This way, the guidelines for the targeting of the respondents in the pre-test lays the foundation for a similar audience as the people that I could reach in the main study through my contacts and reach potential.

By doing outlier exclusion using the mean absolute deviation formula (Songwon, 2006), one outlier at the highest valuation of the t-shirt in euros was detected and removed from the consumer's goods market. There were at least 19 responses in each of the three shown t-shirts. The data was composed of 21 women, 37 men, and one person who did not identify with either. The range of ages were between 20 and 62 years old, and the mean was 29-years old. The education level of most respondents was bachelor's degree (55%), followed by master's degree (30%), and then high school graduates (10%).

With the results of this pre-test, I saw how much the participants would price the t-shirts of Pull&Bear ($M = 8.63$, $SD = 3.32$), Gucci ($M = 47.52$, $SD = 33.55$) and UNICEF ($M = 11.00$, $SD = 5.13$). These results were also used to detect if there was an anchoring effect between studies. To determine the anchor values for the main experiment, I used the highest monetary

value estimation given by the participants of the t-shirt linked with the luxury market ($M = 75.00$, $SD = 56.69$), consumer goods market ($M = 13.21$, $SD = 5.93$) and charities market ($M = 16.57$, $SD = 5.90$). The full table with the range of values can be found on Appendix 3.

3.3 Decision-making scenarios

The current research asked participants to imagine that they were going to buy one of three similar white t-shirts, were as stated, only the brand varied between the three, changing between: Gucci for the luxury market, Pull&Bear for the consumer goods market, or UNICEF for the charities. The markets were chosen due their possibility of finding all three main theories on anchoring effect. Using the same product, by simply changing the market, implies that the changes are due the context where they are shown. Additionally, by keeping the exact same product constant in all markets, ensures that the characteristics of the t-shirts, such as the design, colour, or cut could not impact the consumer preference and valuation of the product.

The choice of a white t-shirt as the product of this research was due three main factors. First, to facilitate the variation of the market, which can be done by simply changing the brand. Secondly, to address the charities market, I needed to choose a product that could be seen as commonly used in fundraising. Finally, as a young student, most of the people that I can reach through my contacts, social media, and so on, were persons more familiar with buying clothes, comparing to other products that could vary significantly in price range by changing the brand (i.e., the wine market).

As mentioned, the highest possible values from the pre-test for each of the three t-shirts were used to calculate the value of the anchors in the main experiment. These values were hereby calculated using the mean of absolute deviation formula: $\frac{0,6745+(X-Median)}{MAD} = output$ (Songwon, 2006), X being the amount of the highest perceived value provided in the survey by the participants. For the high anchor, the value three was used as output (i.e., the first range where values are seen as outliers), so this value can be seen as a value already outside of the range of participants' choices, but still close to this boundary. That is in line with the proposition that anchors should always be outside of the range of plausibility to bias decisions (Strack & Mussweiler, 1997). For the extreme anchor a value three times higher than the high anchor was used, so in this case, the value 9, to assure that the value was seen as extremely high, far away from the range of possible values of the participants. On that account, the high and extremely high anchor were, respectively, for the luxury market: $H = 247.82$, $EH = 709.42$, consumers goods market: $H = 31.78$, $EH = 77.94$, and charities market: $H = 52.97$, $EH = 129.90$.

The values of the anchors calculated based on the pre-study were all finalized by being rounded to the next higher integer. This choice was conducted due the amount of literature showing that non-rounded values have stronger anchoring effects due the perception of rationality behind the given anchor (Loschelder et al., 2014; Mason et al., 2013; Schweinsberg et al., 2023). Therefore, by rounding the anchors to the next integer, I am assuring that the effect found is due to the extremity of the anchor and not biased by the effect of being specific. Since the values should be rounded to avoid biasing the results, the final anchors were H = 250€ and EH = 710€ for the luxury market, H = 35€ and EH = 80€ for the consumer goods market and H = 55€ and EH = 130€ for the charities market.

3.4 Procedure

The main study started with an introduction which mentions the expected duration of the study, the data protection information, and the topic of this research. There was no mention that the experiment aimed to measure anchoring effect to avoid biasing the participants.

To make participants more comfortable and improve the quality of the responses (Tourangeau & Rasinski, 1988), the study started with neutral warm-up questions about consumer' purchases preferences. These questions also reduce the probability of dropping out of the study during its crucial parts (Reips, 2002), thus increasing the odds of equal number of participants per condition.

Then, in the main part of the study, participants were shown one of the three scenarios with their respective t-shirts representing one of the different markets (luxury, consumer goods, and charities). In each scenario, they were further presented with one of the two anchors, high or extremely high (Strack & Mussweiler, 1997). After, they were asked about the plausibility of the anchor, to see whether the anchor had an impact even if it is seen as plausibility (Wegener et al., 2001). Thenceforth, participants were asked to respond to the perceived monetary selling value of the t-shirt, being the main dependent variable of study. Later, were presented questions about the emotions felt after seeing the suggested price (i.e., the anchor) using the six basic emotions (Mohammad & Turney, 2013), since these are easy to measure and can be used to find if the anchor activates negative feelings. Afterwards, participants were asked about their emotional connection with the presented brand (Zboja & Voorhees, 2006), different perceived perceptions of value of the t-shirt (Walsh et al., 2014), and one attention check question to further assure the quality of the responses (Curran & Hauser, 2019). Finally, they were asked

some demographic questions, and the survey ended afterwards. For more wider view of the main experiment, see Appendix 2.

3.5 Participants

The data collection for the main experiment was done between 11th of November 2023 and 26th of November 2023. A total of 415 responses were obtained. All participants were volunteers recruited through social media, such as Facebook, Instagram, WhatsApp, Twitter, and LinkedIn. The first participants excluded were the ones that did not finish the survey, since they did not provide the data needed to conduct the analysis; a total of 69 participants were removed at this step. Additionally, some people did not respond to the main question of the survey, this is, the perceived monetary value of the t-shirt; as the dependent variable is essential, these participants were also removed, a total of 41 participants were further removed at this step. Finally, some participants failed the attention check, and an extra 21 participants were removed at this final step. The final data was composed of 284 valid responses.

There were at least 39 responses in each of the six experimental groups. The data was composed of 193 women, 90 men and 1 person that did not identify with either. The range of ages were between 15 and 76 years old, and the mean was 36-years old. Most of the participants responded through three main channels: Facebook (48%), followed by Instagram (27%), and then WhatsApp (23%). Most responses were from Portuguese people, representing 91.5% of the responses. The education level of most respondents was bachelor's degree (45%), followed by persons with high school degree (30%), and then master's degree graduates (21%).

3.6 Description of Variables

3.6.1 Dependent Variable

Monetary Value (perceived): The main variable of this study was the perceived monetary value of the product. It refers to the consumer's subjective assessment of the product's worth. This value was measured by asking “What do you think is a fair selling price for this t-shirt? (in euros)” and presenting a text box where participants could only add numbers.

3.6.2 Independent Variables

The following independent variables were included:

Anchor extremity: Coded as a dummy variable, the participants were presented with one of the following anchors: extremely high anchor or high anchor. Both anchors were different to each market as already shown, depending on the value of the pre-test (see Section 3.3).

Luxury, Consumer Goods and Charities Market: The second main variable in the study was the different markets (consumer goods vs. luxury market vs. charities). In each of the three scenarios, participants were presented with the same product, but linked with a different brand for each of these markets. All three t-shirts shown to the participants can be seen in both Appendix 1 and 2.

Perceived plausibility of the anchor: The perceived plausibility of the anchor was the level of plausibility, measured following the study of Wegener et al. (2001), shown after participants saw the anchor and before reporting their perceived monetary value for the t-shirt. In my study, instead of having a scale between 1 and 9, I used a scale between 1 (*Totally Implausible*) to 7 (*Totally Plausible*).

Emotional connection: Emotional connection with the brand was measured by asking participants, after the product was shown, if they had an emotional connection with the brand, being rated between 1 (*Totally disconnected*) to 7 (*Totally connected*).

3.6.3 Control variables

Frequency of donations: This variable stands for the regularity of a participant to donate to charities. Participants were asked to rate the frequency of their donations between 1 (Never) to 5 (At least once a week or more often). That question was the only variable presented during the warm-up section of the survey.

Survey duration: The survey duration was the total time, in seconds, that a participant spent responding to the survey. It was used, following the fast-thinking System 1 (Kahneman, 2011), to see if persons spending less time, were more influenced by the anchor.

Age: Age was asked in the end of the survey; participants had a text box where they could only insert numbers higher than zero.

Education: The level of education was measured by asking participants the highest level of education they finished, rated between 1 (*Less than high school*) to 5 (*PhD*). An additional option box was added so participants could self-describe their education level.

3.6.4 Additional Variables

Additional variables were used to explore further questions and for data cleaning:

Emotions: This variable was the emotions the participants felt after being shown the anchor, was used to find if people reacted emotionally to the anchor. Participants were presented with the six basic emotions: happiness, sadness, fear, anger, disgust and surprise (Mohammad & Turney, 2013) and asked the extent to which they felt any of them between 1 (*Not at all*) to 5 (*Very much*).

Perceived quality, emotional, and social value: This variable was composed of six questions – all of those presented in the Walsh et al. (2014) paper -, seeking to see if participants believe that the t-shirt had good quality, would be something that they could enjoy or would make them be better perceived. Even though the six questions of quality, emotional, and social value presented in Walsh et al. (2014) paper are a part of my questionnaire, the price questions included in paper were excluded from my survey given that my dependent variable- perceived monetary value -, already addresses them. These questions were used to assure the participants were responding with coherence, using these variables to calculate Cronbach's α , and to additionally understand if the anchors impact these 3 additional perceptions of value. For each question, participants choose between 1 (Totally disagree) to 5 (Totally agree).

Attention Check: An attention check question was included in the study, asking the participant to choose the option 7 (*Totally Agree*), in a scale from 1 (*Totally Disagree*) to 7 (*Totally Agree*), to assure that the participants were paying attention when responding to the survey (Curran & Hauser, 2019).

4. Results

4.1 Scale Reliability

To measure the robustness of responses and see if the results are consistent enough to calculate average scores, an additional calculation was done, the Cronbach's α (Taber, 2018). As the survey have three pairs of questions that were used to measure the perception of quality, emotion, and social value, that variables were used to understand if the participants were responding to the questions consistently. To that end the test was done on the participant perception of quality ($\alpha = .73$), emotional ($\alpha = .79$), and status ($\alpha = .80$), presented all alphas superior to $\alpha = .70$, representing a good classification, implying that the responses are reliable (Taber, 2018). Since the results were positive, no item had to be deleted in this process.

4.2 Descriptive Statistics

Looking at the data of the three identical t-shirts together, the values varied between 3€ to 150€ in the monetary valuation question. When segregating by brand (with both anchors), the monetary valuation in the main experiment followed the same pattern as in the pre-test findings, being Gucci ($M = 41.98$, $SD = 28.98$) the one with higher values, followed by UNICEF ($M = 20.46$, $SD = 13.32$), and finally Pull&Bear ($M = 13.62$, $SD = 6.20$).

To check for evidence of anchoring effect in this study, the values of the main study were compared with the values of the pre-test through one sample t-tests (see Appendix 4 for the full analyses). This test was repeated for all six conditions that resulted from the combination of the three markets and two anchors. Anchoring was found in both consumer goods and charities markets for both high ($p < .001$ and $p < .001$, respectively) and extremely high anchors high ($p < .001$ and $p < .001$, respectively). Unexpectedly, the results on the luxury market shown no significance with the high anchor ($p = .74$) and the extremely high anchor had a significant decrease in the perceived monetary value ($p = .013$), reporting in the first case no anchoring, and in the second a negative impact of anchoring effect.

In terms of emotional connection, the overall mean was 2.93 ($SD = 1.68$), with Gucci ($M = 1.81$, $SD = 1.21$) being the one with a lowest emotional connection, which leads me to think that my sample was too far from being Gucci's target audience, and possibly with the group also showing lack of knowledge of the brand. The perception of quality was higher in Gucci ($M = 4.08$, $SD = 1.06$), but close to the perception of Pull&Bear ($M = 4.00$, $SD = 0.93$), also suggesting the previous idea of lack of knowledge of the luxury brand. It is also interesting to notice that the questions about the amount that participants typically pay for a t-shirt, that should be an independent variable, appears to have been affected by the anchor or brand presented. This is because people that saw the Gucci t-shirt said that they usually spend 21.95€ ($M = 21.95$, $SD = 22.60$), more than people who saw the UNICEF t-shirt ($M = 16.90$, $SD = 8.75$), and the Pull&Bear t-shirt ($M = 16.40$, $SD = 8.09$). Alternatively, another explanation for Gucci respondents placing the highest in spending, is that the wealthier respondents to the questionnaire might randomly ended up answering to the Gucci survey. This hypothesis is, however, less likely, given the pattern of results obtained in other surveys.

When looking at the following emotions after seeing the anchor: joy, fear, and disgust; participants showed low levels of intensity, with a mean value inferior that 2 (slightly), on a scale of 1 (Not at all) to 5 (Very much), in all markets. That is, after being presented with the

anchor, most participants, on average, did not feel the prior emotions. On the contrary, the feelings of sadness and anger displayed a significant yet vague impact for luxury and charities markets with values averagely reaching 2 (slightly) and 3 (Moderately). Finally, the only emotion that participants felt, on average, above the middle point of the scale 3 (Moderately) was the feeling of surprise, being the most felt across all markets.

For more information related to descriptive statistics, see Appendix 5.

4.3 Bivariate correlations

Bivariate correlations were calculated between all main variables of the study. To analyse all markets with the same control variables, maintaining the analysis constant between contexts, Plot 1 was created with all markets included. Additionally, that plot was used to investigate the variables that must be included to create the studied linear regressions. With these results, the variables of education, age, typical payment for a t-shirt, the feeling of surprise when seeing the anchor and the plausibility of the anchor were the ones showing higher correlation with perceived monetary value. Since the feeling of surprise and the plausibility of the anchor were highly correlated ($r = -.34, p < .001$), the surprise feeling was not added in the main equation to avoid multicollinearity in the model, as plausibility needed to be included to respond to RQ3. The correlation between the study dependent variable and the typical value paid for a t-shirt was also significant, but was ruled out of the regression since, as already mentioned, it showed signals of being anchored by previous assumption of the price of the t-shirts.

In terms of the correlations per market (Plots 2, 3 and 4), it is possible to see that each market has differences in the correlations between variables. However, the typical value is always positively and highly correlated with the perception of monetary value of the t-shirt, which highlights the possibility of that variable being anchored by their preview's assumption of value. For more information about the bivariate correlations, all Plots are presented in Appendix 6.

4.4 Hypothesis testing

Before starting to analyse the impact of the anchors in the different markets, it was important to verify if there were indeed significant differences between monetary valuations. Table 1, shows a regression showing the differences of perceived monetary value of the market t-shirt between charities market and luxury market, compared to the consumer goods one. It is possible to see that analysis without control variables, and with control variables, with the variables mentioned in chapter 3.6.

Table 1: Market Differences without vs with control variables

	Dependent variable:		
	Monetary Value (perceived)		
	Without Control	With Control	
Anchor extremity	1.306 (3.941)	5.463 (3.655)	
Luxury Market	33.336*** (3.956)	32.929*** (3.846)	
Charities Market	4.203 (4.227)	1.315 (3.892)	
Survey duration		0.001 (0.002)	
Perceived plausibility of the anchor		5.637*** (0.849)	
Age		-0.198*** (0.073)	
Education		0.920 (1.301)	
Emotional connection		0.877 (0.733)	
Anchor extremity : Luxury Market	-10.643* (5.474)	-14.254*** (5.048)	
Anchor extremity : Charities Market	5.020 (5.629)	2.980 (5.199)	
Constant	12.846*** (3.026)	3.838 (6.005)	
Observations	284	284	
R2	0.316	0.439	
Adjusted R2	0.304	0.418	
Note:	*p<0.1	**p<0.05	***p<0.01

Looking at the table without control variables, is possible to note that there was in fact a significant difference of the consumer goods market when compared with the luxury market ($p < .01$). In contrast, there was no significant difference ($p > .1$) between the consumer good market and the charity market. There was also a significant interaction between luxury and anchor extremity ($p < .01$), suggesting that the extremity of the anchor had a different impact in this market. The results did not change after adding the control variables.

Therefore, to test the research hypothesis, Table 2 presents the linear regressions, divided by market, to see if the extremely high anchors affect differently depending on the context.

Table 2: Perceived monetary value per market

	Dependent variable:		
	Monetary Value (perceived)		
	Luxury	Consumer Goods	Charities
Anchor extremity	-10.863** (5.189)	2.869** (1.325)	9.097*** (2.388)
Survey duration	0.001 (0.007)	0.003*** (0.001)	0.0005 (0.001)
Perceived plausibility of the anchor	4.092** (1.735)	3.169*** (0.857)	5.920*** (0.940)
Age	-0.539*** (0.184)	0.007 (0.050)	-0.058 (0.085)
Education	6.318* (3.322)	0.874 (0.804)	-2.704* (1.474)
Emotional connection	4.500** (2.259)	-0.754* (0.400)	-0.218 (0.753)
Frequency of donations	-1.301 (3.103)	-0.303 (0.857)	-0.138 (1.700)
Constant	32.516** (14.245)	6.829* (3.985)	14.182** (6.462)
Observations	100	95	89
R2	0.283	0.213	0.405
Adjusted R2	0.229	0.150	0.354
Note:	*p<0.1	**p<0.05	***p<0.01

There are a lot of points that are worth mentioning and some results that are against the expectations regarding the markets under study. It was shown in the literature review of the markets, in hypothesis 2, that the characteristics of the luxury market and its consumers' behaviour should lead to an increase of the perception of value when presented with an extremely high anchor. However, the results of this study show a significant decrease on valuation when they were presented with that anchor ($p < .01$). Bearing this in mind, H2 was not supported, as the inverse output was found. Going to the charity market, the previous literature divided the expectation of results. While on one side, it would be interesting to find a negative value due to the connection of charities with beliefs like integrity, - where the extremely high anchor would be seen as deviate from that perception -, on the other side, the hedonic experience of donation can detach the participants from the utility of the product itself, and focus on the feeling of helping (Ren & Ye, 2017), increasing the donation value with the anchor. Following the last idea, my experiment suggests that, when confronted with an

extremely high anchor, participants monetary valued the t-shirt even more than when presented with a high anchor ($p < .01$). This allows to accept H3, which is in line with the literature of (Koschate-Fischer et al., 2012). Finally, in the consumer goods market, H1 expected no significant change between the high anchor and the extremely high. Therefore, the results did not follow this direction, with the extremely high anchor affecting positively the monetary valuation of the t-shirt ($p < .05$), rejecting H1.

In terms of the second research question, regarding the emotional connection towards the brand impacting the valuation of the product between markets, we can see that, in the luxury market, according to the expectations, participants more emotionally connected had a higher monetary valuation of the product ($p < .01$). Looking at the charities market, against the expectations presented in the literature review, the connection with the NGO brand did not improve the perceived monetary value of the product, as this variable showed no significant impact on the dependent variable ($p > .1$). Going to the last market, in terms of connection, the expected effect was found, decreasing the perception of value of the t-shirt, when emotional connection was higher ($p < .1$).

Finally, in terms of the last research question, we can see that on every market in study the participants that see the anchor as more plausible, were indeed more affected by it. That goes in line with the selective accessibility model, which states that the anchor has more effect when the person sees it as a more relevant source of information (Strack & Mussweiler, 1997). However, is worth to remember that the mean values of plausibility for all markets were lower than 1.5 in a scale from 1 (*Totally Implausible*) to 7 (*Totally Plausible*). Thus, we can reinforce various researchers such as Englich et al. (2006), that stated even when the anchor is seen as not being relevant to the judgement in course, it still impacts the decision.

4.5. Additional analyses

With the following additional analyses, firstly I aimed to understand if the extreme high anchor could increase different perceptions of value, starting by the perceived quality of the t-shirts. For that end, Table 3 presents a regression that show how the anchor extremity affects the perceived quality, without control variables.

Table 3: Perception of quality without control variables per market

	Dependent variable:		
	Perceived quality value		
	Luxury	Consumer Goods	Charities
Anchor extremity	0.167 (2.213)	0.263 (0.195)	-0.331 (0.220)
Constant	4.000*** (0.143)	3.846*** (0.149)	3.915*** (0.162)
Observations	100	94	89
R2	0.006	0.019	0.025
Adjusted R2	-0.004	0.009	0.014
Note:	*p<0.1	**p<0.05	***p<0.01

Looking at the results of this first analysis, it seems that the anchor does not affect the perception of quality of any t-shirt.

Next, in Table 4 show the same linear regressions but adding control variables.

Table 4: Perception of quality with control variables per market

	Dependent variable:		
	Perceived quality value		
	Luxury	Consumer Goods	Charities
Anchor extremity	0.136 (0.209)	0.351* (0.208)	-0.317 (0.230)
Survey duration	0.001*** (0.0003)	0.0001 (0.0001)	-0.00002 (0.0001)
Perceived plausibility of the anchor	-0.021 (0.070)	0.124 (0.134)	0.006 (0.091)
Age	0.0002 (0.007)	0.010 (0.008)	-0.192 (0.142)
Education	-0.055 (0.134)	0.278** (0.126)	-0.192 (0.142)
Emotional connection	-0.053 (0.091)	0.124* (0.064)	0.134* (0.073)
Frequency of donations	-0.194 (0.125)	-0.077 (0.134)	-0.027 (0.164)
Constant	5.162*** (0.574)	2.228*** (0.626)	3.917*** (0.623)
Observations	100	94	89
R2	0.125	0.150	0.097
Adjusted R2	0.058	0.081	0.018
Note:	*p<0.1	**p<0.05	***p<0.01

Here is it possible to notice that one market showed a significant positive change of quality perception between anchors: the consumer goods market ($p < .1$). These results align with the monetary valuation of the product in the main analysis, where the monetary valuation could increase due the higher quality perception between anchors. These findings did not follow the charities market, which had a significant increase of perceived monetary value between anchors but did not show any difference in quality perception ($p > 0.1$). Such results suggest that the higher amount of perceived monetary value was not linked with a higher perception of quality. Finally, in the luxury market, no difference was found ($p > 0.1$), even though the monetary valuation decreased between high and extreme high anchor.

In terms of perceived emotional value, Table 5 shows a regression measuring the impact of the anchor extremity in that perception of value.

Table 5: Perception of emotional value between anchors

	Dependent variable:		
	Perceived emotional value		
	Luxury	Consumer Goods	Charities
Anchor extremity	0.458 (0.299)	0.249 (0.273)	0.445 (0.289)
Constant	2.209*** (0.201)	1.961*** (0.210)	2.305*** (0.212)
Observations	100	93	89
R2	0.023	0.009	0.027
Adjusted R2	0.013	-0.002	0.015
Note:	* $p < 0.1$	** $p < 0.05$	*** $p < 0.01$

As in the last regression, the linear model without control variables, did not show any significant results across the studied markets.

However, Table 6 was used to complete the analysis of the different perceived emotional value depending on the anchor used, with control variables.

Table 6: Perception of emotion between anchors with control variables

	Dependent variable:		
	Perceived emotional value		
	Luxury	Consumer Goods	Charities
Anchor extremity	0.456 (0.299)	0.222 (0.309)	0.513* (0.297)
Survey duration	0.0001 (0.0004)	-0.0001 (0.0002)	-0.0002 (0.0002)
Perceived plausibility of the anchor	0.065 (0.100)	-0.094 (0.198)	0.074 (0.117)
Age	-0.018* (0.011)	-0.007 (0.012)	-0.024* (0.011)
Education	-0.221 (0.192)	0.022 (0.187)	-0.184 (0.236)
Emotional connection	0.225* (0.130)	0.120 (0.093)	0.004 (0.094)
Frequency of donations	0.025 (0.179)	-0.191 (0.198)	0.236 (0.212)
Constant	2.967*** (0.822)	2.426*** (0.919)	3.485*** (0.805)
Observations	100	93	89
R2	0.107	0.044	0.127
Adjusted R2	0.039	-0.035	0.052
Note:	*p<0.1	**p<0.05	***p<0.01

Looking at the results, is possible to see a significant and positive impact of the extreme anchor in the charities market's perception of emotion value ($p < .1$), which may explain the higher monetary valuation between the two anchors in that market. The last two markets did not show any significant impact on the perception of emotional value ($p > .1$).

In terms of social value, the analysis can be found in Appendix 7 but, since it did not show any significant results between high and extremely high anchors in any of the presented markets, it is not presented in the results. It is worth to mention, that results can only provide differences of the perceptions between high and extreme high anchors in the respective markets.

Finally, as exploratory analyses, an additional linear regression was used to see if the extreme anchor was linked with more negative feelings that might influence the perception of the brand. Since the higher negative emotion showed in the descriptive statistics was anger, this feeling was used as dependent variable of the following regression.

This way Table 7 present a regression that investigate the impact of the extreme high anchor on the activation of the negative feeling anger, compared to the high anchor, without control variables.

Table 7: Impact of extreme high anchor in Emotion (Anger) without control variables

	Dependent variable:		
	Emotion (Anger)		
	Luxury	Consumer Goods	Charities
Anchor extremity	0.105 (0.283)	0.576** (0.258)	0.063 (0.258)
Constant	2.236*** (0.189)	1.842*** (0.199)	1.750*** (0.190)
Observations	99	93	88
R2	0.001	0.052	0.001
Adjusted R2	-0.009	0.041	-0.011
Note:	*p<0.1	**p<0.05	***p<0.01

With that first analysis, the extremely high anchor does not show a significant impact on anger in the luxury and charities market ($p > .1$). However, the results imply that it significantly affects the consumer goods market ($p < .05$). To further analyse these findings, the same analysis with the introduction of control variables was conducted, as presented at Table 8.

Table 8: Impact of extreme high anchor in Emotion (Anger) with control variables

	Dependent variable:		
	Emotion (Anger)		
	(1)	(2)	(3)
Anchor extremity	0.064 (0.268)	0.470* (0.278)	-0.054 (0.265)
Survey duration	-0.0005 (0.0004)	0.001*** (0.0002)	-0.0002 (0.0001)
Perceived plausibility of the anchor	-0.268*** (0.089)	-0.105 (0.179)	-0.168 (0.104)
Age	0.015 (0.009)	-0.009 (0.010)	0.002 (0.009)
Education	-0.146 (0.171)	0.016 (0.172)	0.214 (0.168)
Emotional connection	0.337* (0.130)	-0.087 (0.085)	-0.058 (0.082)
Constant	2.341*** (0.638)	2.380*** (0.786)	1.761** (0.724)
Observations	99	93	88
R2	0.169	0.144	0.082
Adjusted R2	0.114	0.114	0.014
Note:	*p<0.1	**p<0.05	***p<0.01

Looking at Table 8, only the consumer goods market keeps showing a correlation between anger and the extremely high anchor, being positively significant ($p < .1$). That leads to the idea that

extreme anchors could activate negative feeling on consumers. The same pattern was followed in the last markets, as no evidence was found.

5. Discussion

The presented experiment had, as a goal, to understand the impact of extremely high anchors in different contexts. Hence, the main question was divided in three sub-questions.

Starting with RQ1, that represents the main objective of the thesis and was developed to understand if there was a different impact between anchors depending on the market. The influence of the anchors between markets indeed changed and with different significance levels on monetary perceived value. The consumer goods and charities markets complied with the idea that, when looking at extremely high anchors, people readjust their thoughts and increase their range of possible values, aligning with the selective accessibility hypothesis (Strack & Mussweiler, 1997).

When looking at the luxury market, the results were against the expectations, which estimated that the anchor would lead participants to increase their monetary value perception. The gap between my results and the expectations can be explained by the fact that the participants of my study were not the target group of the luxury brand. Given that, the participants on the luxury study were misplaced, as their perception towards the product equally deviated from what was expected. Following that, the extremity of the anchor could be saw as even more extreme, showing similar results to the Wegener et al. (2001) research. Thus, the participants of my study reveal to be less influenced by the extreme anchor, by showing a lower perception of monetary value, encountering partial evidence of the attitude change theories, where the extremity of the anchor has a curvilinear impact. However, since I did not witness a difference between the baseline and high anchor, I cannot fully support that idea.

With that being said, the results of this thesis corroborate the findings within the literature when it comes to selective accessibility for the consumer goods and charity markets, as well as partially covers the results of attitude changes for the luxury markets. These theories are described and perceived in the literature until now as dissident amongst themselves, however, my findings imply that this gap may be a result of the context in which they are studied, rather than a cause for mutual exclusivity.

The RQ2 had the objective of seeing if the connection towards the brand could impact the perceived value of the product. The results of this thesis endorsed that statement. Looking at

each market, and starting on the consumer goods, a higher emotional connection with the brand had a negative impact to the valuation of the product. This was the expectation for the respective market since a person more connected with that brand should have a more realistic expectation about the value of a t-shirt. That way, a participant more emotionally connected to the brand should be less affected by the anchor resulting in lower perceived value towards the t-shirt when compared with a less emotionally connected participants. As one may extrapolate from the literature, more connected participants with the consumer goods brand should value the utility of the product, while undervalue hedonic features which are in itself related to consumers that are not as price conscious (Völckner, 2008). Other reason for higher perceptions of value with the Pull&Bear t-shirt for less connected consumers is the lack of knowledge about the normal brand price, since there are literature referring that people are more influenced by anchors when showing lower level of knowledge about the topic (Smith et al., 2013).

Now focusing on luxury, this was another market that was in line with expectations, where participants more connected with the brand produced higher monetary perceptions of the product. This was the expected result since these types of consumers value hedonic features more than utility, and do not see the price as so restrictive as other types of consumers (Ko et al., 2019). It is important to note that the real effect can be less extreme since my sample is not the typical luxury brand consumer. So, one may assume the found relationship between connection and perceived monetary value is inflated due to the comparison with other participants that provided lower monetary values given the lack of information about the brand. Hence, some of the less emotionally connected participants evaluate the t-shirt as a non-luxury product.

Finally, against expectations, the emotional connection towards UNICEF do not show any significant results, where it was expected to follow similar tendencies as the luxury market. Thus, persons more emotionally connected with NGOs should be more willing to donate, and, therefore, increase the valuation of the product compared with less connected persons (Kessler & Milkman, 2018).

The last sub-question RQ3 aimed to see if the extremely high anchors had still impact even when they are perceived as implausible or not knowledgeable. This was corroborated by the results of the one sample t-test on the consumers and charities markets, combined with the fact that the mean value of plausibility was always between 1 (Completely implausible) and 2 (Implausible). To this extent, participants were influenced by both anchors in the expressed

markets despite the anchors' implausibility, complying with previous research such as G. B. Chapman et al. (2000) and Critcher and Gilovich (2008). Regardless of the influence of the anchor and according to selective accessibility theories, was found that the higher knowledge given by the anchor, the higher the perception of monetary value, even admitting the misalignment between the anchor and the true value (Strack & Mussweiler, 1997).

Outside of the research questions there were additional interesting results in the main experiment. The regression showed a negative influence of education in the valuation of the t-shirt to fundraising, that can mean that people with lower education are more affected by anchors when linked with charities. When looking on the effect of education in the luxury t-shirt, it was seen that participant that achieved higher levels of education were more willing to pay for it. This might support the idea that some participants could not fully assess a value for the luxury t-shirt, or that they placed a higher value onto the product due to externalities brought by education, e.g. higher salaries.

5.1 Theoretical implications

The anchoring effect is indeed a very studied and robust topic, however, by analysing the niche of the extremely high anchors, the previous literature shows some apparent contradictions. This led me to try to explain the differences between results by using different contexts - in my research represented by markets - to fill this literature gap.

By using three characteristically different markets the current research found different degrees of anchoring effect impact, showcasing unique market responses. Additionally, as illustrated by the unexpected results on the luxury market, individual characteristics of the participants seemed to impact the influence of anchors. Therefore, my findings suggest that the influence of extremely high anchors is not uniform, with variations based on consumer traits such as prior brand connection and context presented. Furthermore, extremely high anchors or implausible ones should be studied giving a high a consideration to the context in which the study occurs.

Moreover, this research also contributes to strengthen the literature by finding anchoring effects on monetary perception value of products, following past studies as Chandrashekar and Grewal (2006), Shan et al. (2020) and Simonson and Drolet (2004) that also found strong evidence that the value of products can be influenced by the anchoring bias.

Finally, even when people do not see the anchor as knowledgeable, higher perception of plausibility of the anchor can significantly impact its power, showed as a positive impact on the

monetary valuation of the product. This contributes by providing empirical evidence that extremely high anchors are influenced by the perception of increasing validity given by the anchor, following the selective accessibility theories (Strack & Mussweiler, 1997). Also, my findings, as in Løhre and Jørgensen (2016) paper, found that even when the anchor is seen as not being credible, in this case represented by the implausibility, the anchor still affected my participants' decision.

In sum, the anchoring effect was found, adding robustness to this bias and, while past literature had always studied anchoring bias as operating uniformly across different contexts and industries, this research challenges this notion of uniformity by suggesting that the impact of extremely implausible anchors change significantly depending on the context where is displayed and on certain characteristics of the person.

5.2 Managerial implications

In addition to the theoretical contributions, this study also allows to infer some relevant managerial implications. These implications can be used to deviate the stakeholders' thinking to a more desirable way for the organization's vision and goals.

Now, going from an overall perspective, as the results showed, the presence of both high and extremely high anchors can increase the perception of monetary value of a product. Following those findings, high anchors could be used to increase the perception of monetary value of the products of a company. Companies could use this cognitive bias to improve the way their products are perceived in the market.

Following that idea, the use of anchoring bias can be used to facilitate the implementation of pricing strategies, as given the presence of many players in the market, these strategies get more difficult to archive. So, the usage of anchoring can help to justify a higher average price in the market, since, as tested, both consumer goods and charities market increased the perception of monetary value of the product when presented with them. This way, by strategically implementing high anchors in certain products, or in their overall offers, namely through the usage of season discounts or through outlet shops, the company can make the consumer pay higher prices.

Moreover, the results of the perceived quality, shown at consumers goods market, the pricing strategy can additionally be linked with the quality perception of the brand in the market. There are not many companies having this kind of strategy, but the Portuguese high-profile brand

Sacoor, that have a successful business for 23 years is using anchors constantly and the without clients noticing, maintain their high-quality profile, and make consumers buy higher priced products, feeling that is a low price for the products (Marques, 2019). In the case of Sacoor, Marques (2019) states that this strategy also creates a higher brand equity and willingness to buy their products, maintaining their position of premium product in the market. It is important to notice that this brand work with higher quality products, as that strategy should be linked with quality products, at least not cheap products that can be easily detected.

With this in mind, the prior strategy should work properly at consumer goods market, as even not being integrated in a high-profile market as Sacoor, since both perceived monetary value and quality value had a significant increase between the two presented anchors.

The same ideas could be implied at charities, where the perceived monetary value and the perception of emotion increased between anchors, meaning that the t-shirt is perceived as being more enjoyable. Worth to note that, other than the increase of the perceived emotion towards the t-shirt, other explanation for the higher monetary valuation of the product could be due to the hypothetical situation of donating. By other words, participants might have been overreporting their intentions to donate towards charities (Krumpal, 2013).

Lastly, for the luxury market, even with the literature leading to an increase of monetary value perception between high and extreme high anchors, conclusions cannot be taken, given the previously explained predicament between my study participants and the luxury consumers.

Additionally, the results for the exploratory analyses in which an extreme anchor could lead to negative feelings, finding significant results in the consumers goods market, which can imply that the use of extreme anchors could impact the brand linked with it.

Overall, the study suggests that extreme high anchors can be powerful tools, but businesses must carefully assess market contexts to determine the appropriateness of such strategies. Also, companies can benefit by integrating insights from behavioural economics into their strategies, recognizing the role of cognitive biases, such as anchoring, in shaping consumer choices.

5.3 Limitation and future research

In this section, I explore the limitations of this study, how it could be improved, and future research opportunities that could be interesting to study as well.

Starting by limitations and possible improvements of the survey, there are some points to be aware that could produce better results for companies or organizations in each market. Starting by the sample composition, given that the participants clearly deviate from the normal consumers of the luxury market, made it impossible to fully capturing the market dynamics when anchoring is presented. Future research should target costumers of each market, to understand how they change their perceptions of value when exposed to different anchors.

Additionally, just with the question about emotional connection towards the brand, it was impossible to assure if participants knew the presented brands, or even if they link the brand with the intended market. Therefore, future studies could add questions asking if the participant recognizes the brand and, additionally, where they would fit the respective brand (with different markets option). Moreover, it would be possible to understand whether the person answering the question establishes the expected link between the market and the brand.

Other possible improvement, regarding the consumer goods market, even if the Pull&Bear brand is not normally seen as expensive, it is indeed not fully addressed by the utility of their features. Hence, the results obtained may not entirely be influenced by its utilization role, but also by the hedonic aspects such as brand reputation. Then, to fully embrace a utilitarian product, it would be interesting to use private labels to distance the best possible the consumer from hedonic features, removing the brand influence entirely.

As additional interesting options, future studies could present more levels of extremity for the anchor. Doing so could test whether curvilinear effects exist, as stated in attitude change theories, revealing if there were patterns in consumer response, contributing to a deeper understanding of anchoring effects.

Finally, as far as future research opportunities go, it would be interesting to create scenarios more seamless and realistic. One way of doing that could be by presenting a scenario where respondents would be given the choice of not offer a price, like in Lee et al (2018)'s paper. It could have additional questions about why they choose that option, which might be interesting to see if the company would lose donations or sales. Another way could be by making a partnership with one organization, using the example of charities, and see the amount of

donations they can receive using different anchors. Additionally, the same anchors could be used in online vs. real life fund gatherings to compare the anchoring effect, having data not only about the impact of the market, but also about other type of contexts, as the online vs. real life.

6. Conclusion

When discussing the impact of extremely high anchors, factors such as context and participants are a particularly important. This thesis not only contributes to that idea by finding that anchors in different markets lead to different effects, but also reinforces the robust impact of anchoring. The results additionally contribute to two of the main anchoring bias theories and show that is possible to create strategic decisions that improve perceived-quality and price valuation. I hope that my findings increase the importance of behavioural economics in strategic studies and company decisions, by showing that pricing strategies could be linked with effects as the anchoring bias.

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Appendix

Appendix 1: Pre-test Study

Consent Form

My name is Álvaro Almeida and thank you for participating in a research survey about product valuation. The purpose of this survey is to understand your honest opinion on the value of one product.

Your participation in this survey is voluntary. You may withdraw from the survey at any time without penalty, but as usual, to receive approval on the Prolific platform you must reach the end of the survey.

If you agree to participate in this survey, we will collect the following data:

- Your responses to the survey questions.
- Time spent on each page of the survey.
- Prolific ID (that will be deleted after assuring validity of the questions).

We will use your data for the following purposes:

- To analyse the results of the survey and answer our research questions.
- To publish the results of the survey in my thesis, displaying only aggregate data (for example, through means, minimum and maximum values, etc.).

Data Storage and Retention:

- Your data, including Prolific IDs, will be stored securely on Qualtrics and my personal computer.
- The data will be retained until six months after the completion of the study, after which it will be permanently deleted from both Qualtrics and my personal computer.

You have the following rights as a data subject: the right to access your data, to rectify your data, to erase your data, to restrict processing of your data, to object to processing of your data, and to data portability. To exercise any of these rights or if you have any questions or concerns about your data, please contact: s-agnalmeida@ucp.pt.

By clicking the "Consent" button below, you agree to participate in this survey and consent to the collection and use of your data as described above.

- Consent (1)
- Don't consent (2)

Prolific ID

Q14 What is your Prolific ID?

(Please note that this response should auto-fill with the correct ID)

Introduction

Dear Participant,

My name is Álvaro Almeida and welcome to my survey on product valuation! Your insights are invaluable to helping understand how people perceive and value different products.

In this survey, you will be shown a photo of a product, and we kindly request your honest opinion on its value without using external information. It takes about 1 minute.

Your feedback will contribute significantly to our research, enabling us to gain deeper insights into consumer preferences. Thank you for your participation and valuable input. Let's get started!

Valuation Assessment

If Condition = Pull&Bear

Q0_P Knowing that this is an official Pull&Bear t-shirt:



If Condition = Gucci

Q0_G Knowing that this is an official Gucci t-shirt:



If Condition = UNICEF

Q0_U Knowing that this is an official UNICEF t-shirt (for fundraising):



Q1 What do you consider a reasonable price to pay for this t-shirt (in euros)?

Q2 What is the highest and lowest you would value this t-shirt?

	Value in euros
Highest	_____
Lowest	_____

Paje Break

Q3 How much money do you typically pay for a t-shirt? (in euros)

Demographics

Thank you for your answers. To finish this study, we would like you to please answer a couple of demographic questions.

Q5 Age

Q6 Gender

Male (1)

Female (2)

Other (3) _____

Q7 Education (higher level archived)

- Less than high school (4)
- High school (5)
- Bachelor's or equivalent (7)
- Master's or equivalent (8)
- PhD (9)
- Other (10) _____

Q8 Country of birth

▼ Afghanistan (1) ... Zimbabwe (1357)

End of survey message

Thank you for taking part of this study. Now please click on the button bellow to be redirected back to Prolific and register your submission.

Appendix 2: Main Experiment

Introduction

Intro Thank you for accepting to take part in my study!

My name is Álvaro Almeida, and I am conducting research on consumer perceptions and evaluations of various products in different markets. If you already responded to the study, please don't respond again. The expected duration for this survey is 5 minutes. This is a voluntary study, so you can stop anytime you want by simply closing your browser page.

Your insights are invaluable to help me understand how individuals assess the worth of products and make purchasing decisions. I kindly request your honest opinion without using external information. Please rest assured that all your responses will be kept confidential and used solely for research purposes. Your privacy is of utmost importance. Any further information you can contact me through my email address: s-agnalmeida@ucp.pt

Thank you!

Warm-up Questions

Q1: Frequently How frequently do you shop for clothing items?

- Never (1)
 - Less than once a year (2)
 - At least once a year but less than once every month (3)
 - At least once a month but less than every week (4)
 - At least once a week or more often (5)
-

Q2: Physical Do you prefer shopping for clothes online or in physical stores?

- Strongly Prefer Online (1)
 - Prefer Online (2)
 - Slightly Prefer Online (3)
 - No Preference (4)
 - Slightly Prefer Physical Stores (5)
 - Prefer Physical Stores (6)
 - Strongly Prefer Physical Stores (7)
-

Q3: Well-known Do you agree with the following statement: “I am more inclined to buy products from well-known brands”.

- Totally Disagree (1)
 - Disagree (2)
 - Slightly Disagree (3)
 - Neutral (4)
 - Slightly Agree (5)
 - Agree (6)
 - Totally Agree (7)
-

Q4: Charities Do you regularly contribute to charitable causes?

- Never (1)
 - Less than once a year (2)
 - At least once a year but less than once every month (3)
 - At least once a month but less than every week (4)
 - At least once a week or more often (5)
-

Q5: Loyalty Do you agree with the following statement: “Even if other options are available, I prefer to buy from brands that I have used before”.

- Totally Disagree (1)
- Disagree (2)
- Slightly Disagree (3)
- Neutral (4)
- Slightly Agree (5)
- Agree (6)
- Totally Agree (7)

Q6: Factors 1 Which factors do you consider most important when purchasing clothes? (you can select more than 1 option)

- Quality
- Design
- Price
- Brand reputation
- Comfort
- Ethical and Sustainable Practices
- Social Influences
- Other _____

Main Block: T-shirt Valuation

If Condition = HighGucci

Or Condition = ExtrGucci

Now, I would like to ask you to imagine the scenario described next. Please imagine it as vividly as possible.

Imagine you are strolling through an avenue on a relaxed weekend afternoon. You have decided to buy a new t-shirt. Looking at the Gucci store you see a t-shirt and you decide to take a look.

Please answer as honestly as possible, imagining the scenario as your reality.

If Condition = HighPull

Or Condition = ExtrPull

Now, I would like to ask you to imagine the scenario described next. Please imagine it as vividly as possible.

Imagine you are strolling through an avenue on a relaxed weekend afternoon. You have decided to buy a new t-shirt. Looking at the Pull&Bear store you see a t-shirt and you decide to take a look.

Please answer as honestly as possible, imagining the scenario as your reality.

If Condition = ExtrUNIC

Or Condition = HighUNIC

Now, I would like to ask you to imagine the scenario described next. Please imagine it as vividly as possible.

Imagine you are strolling through an avenue on a relaxed weekend afternoon. You have decided to buy a new t-shirt. Looking at the UNICEF stand you see a t-shirt and you decide to take a look.

Please answer as honestly as possible, imagining the scenario as your reality.

Page Break

If Condition = HighGucci

Q7_G_H: At a 'Pay What You Want' event in the Gucci store, the suggested price for this t-shirt is 250€.



If Condition = ExtrGucci

Q7_G_EH: At a 'Pay What You Want' event in the Gucci store, the suggested price for this t-shirt is 650€.



If Condition = ExtrPull

Q7_P_H: At a 'Pay What You Want' event in the Pull&Bear store, the suggested price for this t-shirt is 75€.



If Condition = HighPull

Q7_P_EH: At a 'Pay What You Want' event in the Pull&Bear store, the suggested price for this t-shirt is 35€.



If Condition = ExtrUNIC

Q7_U_H: At a 'Give What You Want' event in the UNICEF store, the suggested price for this t-shirt (to fundraising) is 120€.



If Condition = HighUNIC

Q7_U_EH: At a 'Give What You Want' event in the UNICEF store, the suggested price for this t-shirt (to fundraising) is 55€.



Q8: To which extent do you consider the suggest price to be plausible or implausible?

- Totally Implausible (1)
- Implausible (2)
- Somewhat Implausible (3)
- Neutral (4)
- Somewhat Plausible (5)
- Plausible (6)
- Totally Plausible (7)

Q9: What do you think is a fair selling price for this t-shirt? (in euros)

Page Break

Q10: Please rate the extent to which you felt each of the following emotions when you saw the suggested price:

	Not at all (1)	Slightly (2)	Moderately (3)	Very (4)	Very much (5)
Joy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Sadness	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Anger	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Fear	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Disgust	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Surprise	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Page Break

If Condition = HighPull

Or Condition = ExtrPull

Q11_P: How emotionally connected do you feel towards Pull&Bear?

- Totally disconnected (1)
- Disconnected (2)
- Somewhat disconnected (3)
- Neutral (4)
- Somewhat connected (5)
- Connected (6)
- Totally connected (7)

If Condition = HighGucci

Or Condition = ExtrGucci

Q11_G: How emotionally connected do you feel towards Gucci?

- Totally disconnected (1)
- Disconnected (2)
- Somewhat disconnected (3)
- Neutral (4)
- Somewhat connected (5)
- Connected (6)
- Totally connected (7)

If Condition = ExtrUNIC

Or Condition = HighUNIC

Q11_U: How emotionally connected do you feel towards UNICEF?

- Totally disconnected (1)
- Disconnected (2)
- Somewhat disconnected (3)
- Neutral (4)
- Somewhat connected (5)
- Connected (6)
- Totally connected (7)

Q12: This is an attention check: Please select “Totally Agree” to assure attention.

- Totally Disagree (1)
- Disagree (2)
- Slightly Disagree (3)
- Neutral (4)
- Slightly Agree (5)
- Agree (6)
- Totally Agree (7)

Page Break

Q12: Below, please indicate to which extent you believe the t-shirt:

	Totally disagree (1)	Partially disagree (2)	Don't agree or disagree (3)	Partially agree (4)	Totally agree (5)
Has consistent quality?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Is well made?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Is one that I would enjoy?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Would make me want to use it?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Would help me to feel acceptable?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Would improve the way I am perceived?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q12: What factors influenced your valuation of this t-shirt? (can select more than 1 option)

- Quality
- Design
- Price
- Brand reputation
- Comfort
- Ethical and Sustainable Practices
- Social Influences
- Other _____

Demographic questions

Thank you for your answers.

To finish this study, we would like you to please answer a couple of demographic questions.

Q13: How much money do you typically pay for a t-shirt? (in euros)

Q14: Age

Q15: Country of birth

▼ Afghanistan (1) ... Zimbabwe (1357)

Q16: Gender

Male

Female

Other _____

Q17: Education (higher level finished)

Less than high school (1)

High school (2)

Bachelor's or equivalent (3)

Master's or equivalent (4)

PhD (5)

Other (0) _____

Appendix 3: Results from Pre-test: Table with findings

Measure:	Gucci		Pull&Bear		UNICEF	
	M	SD	M	SD	M	SD
Expected Price	47.53	33.56	8.63	3.32	11.00	5.14
Highest Perceived Price	75.00	56.69	13.21	5.93	16.57	5.91
Lowest Perceived Price	25.53	19.57	5.68	3.02	6.62	3.47

Gucci

Statistic:	N	Mean	St. Dev.	Min	Max
Expected Price	19	47.526	33.560	8	120
Highest Perceived Price	19	75.000	56.691	15	200
Lowest Perceived Price	19	25.526	19.571	5	80
Typically Paid for T-shirt	19	18.526	11.087	3	50
Age	19	29.000	8.615	20	45

Pull&Bear

Statistic:	N	Mean	St. Dev.	Min	Max
Expected Price	19	8.631	3.321	3	15
Highest Perceived Price	19	13.210	5.931	5	30
Lowest Perceived Price	19	5.684	3.020	1	10
Typically Paid for T-shirt	19	12.579	5.919	3	25
Age	19	27.158	9.149	21	62

UNICEF

Statistic:	N	Mean	St. Dev.	Min	Max
Expected Price	21	11.000	5.138	3	25
Highest Perceived Price	21	16.571	5.905	4.99	25
Lowest Perceived Price	21	6.620	3.470	0.01	15
Typically Paid for T-shirt	21	12.571	5.870	3	25
Age	21	30.286	9.514	21	51

Appendix 4: One sample t-test to find anchoring by market.

One sample T-test 1: Luxury High Anchor

One Sample t-test

data: TtestGH\$Value
t = -0.33604, df = 54, p-value = 0.7381
alternative hypothesis: true mean is not equal to 47.52
95 percent confidence interval:
38.19797 52.16566
sample estimates:
mean of x
46.18182

One sample T-test 2: Luxury Extreme High Anchor

One Sample t-test

data: TtestGE\$Value
t = -2.5806, df = 44, p-value = 0.01328
alternative hypothesis: true mean is not equal to 47.52
95 percent confidence interval:
28.50703 45.18186
sample estimates:
mean of x
36.84444

One sample T-test 3: Consumer Goods High Anchor

One Sample t-test

data: TtestPH\$Value
t = 4.6333, df = 38, p-value = 4.145e-05
alternative hypothesis: true mean is not equal to 8.63
95 percent confidence interval:
11.00372 14.68756
sample estimates:
mean of x
12.84564

One sample T-test 4: Consumer Goods Extreme High Anchor

One Sample t-test

data: TtestPE\$Value
t = 6.3317, df = 55, p-value = 4.663e-08
alternative hypothesis: true mean is not equal to 8.63
95 percent confidence interval:
12.40382 15.89902
sample estimates:
mean of x
14.15143

One sample T-test 5: Charities High Anchor

One Sample t-test

data: TtestUH\$Value
t = 4.2159, df = 40, p-value = 0.000138
alternative hypothesis: true mean is not equal to 11
95 percent confidence interval:
14.14906 19.94850
sample estimates:
mean of x
17.04878

One sample T-test 6: Charities Extreme High Anchor

One Sample t-test

data: TtestUE\$Value
t = 5.5193, df = 47, p-value = 1.426e-06
alternative hypothesis: true mean is not equal to 11
95 percent confidence interval:
18.86441 27.88559
sample estimates:
mean of x
23.375

Appendix 5: Summary Statistics of Main Experiment

All Markets (Merged)

Statistic:	N	Mean	St. Dev.	Min	Max
Survey duration	284	470.500	672.005	141	8,579
Frequency of donations	284	2.542	0.794	1	4
Perceived plausibility of the anchor	284	1.806	1.278	1	7
Monetary Value (perceived)	284	25.748	22.649	3	150
Emotion (Joy)	280	1.157	0.614	1	5
Emotion (Sadness)	280	2.132	1.368	1	5
Emotion (Anger)	280	2.093	1.300	1	5
Emotion (Fear)	279	1.258	0.718	1	5
Emotion (Disgust)	279	1.523	1.003	1	5
Emotion (Surprise)	283	3.594	1.264	1	5
Emotional Connection	284	2.930	1.682	1	7
Attention Check	283	7.000	0.000	7	7
Perceived Quality	281	3.943	1.019	1	5
Perceived Social	282	3.194	1.371	1	5
Perceived Emotion	284	2.355	1.399	1	5
Typically Paid for T-shirt	284	18.509	15.187	3	200
Age	284	35.641	14.556	15	76
Education	284	2.866	0.826	0	5

Luxury Market (Gucci)

Statistic:	N	Mean	St. Dev.	Min	Max
Survey duration	100	425.050	374.060	141	3,118
Frequency of donations	100	2.550	0.869	1	4
Perceived plausibility of the anchor	100	1.960	1.569	1	7
Monetary Value (perceived)	100	41.980	28.980	5	150
Emotion (Joy)	99	1.131	0.600	1	5
Emotion (Sadness)	99	2.081	1.353	1	5
Emotion (Anger)	99	2.283	1.393	1	5
Emotion (Fear)	98	1.247	0.909	1	5
Emotion (Disgust)	99	1.808	1.201	1	5
Emotion (Surprise)	100	3.150	1.329	1	5
Emotional Connection	100	1.810	1.212	1	6
Attention Check	100	7.000	0.000	7	7
Perceived Quality	100	4.075	1.057	1	5
Perceived Social	100	2.840	1.414	1	5
Perceived Emotion	100	2.415	1.498	1	5
Typically Paid for T-shirt	100	21.945	22.597	5	200
Age	100	33.780	14.624	16	76
Education	100	3.050	0.796	2	5

Consumer Goods Market (Pull&Bear)

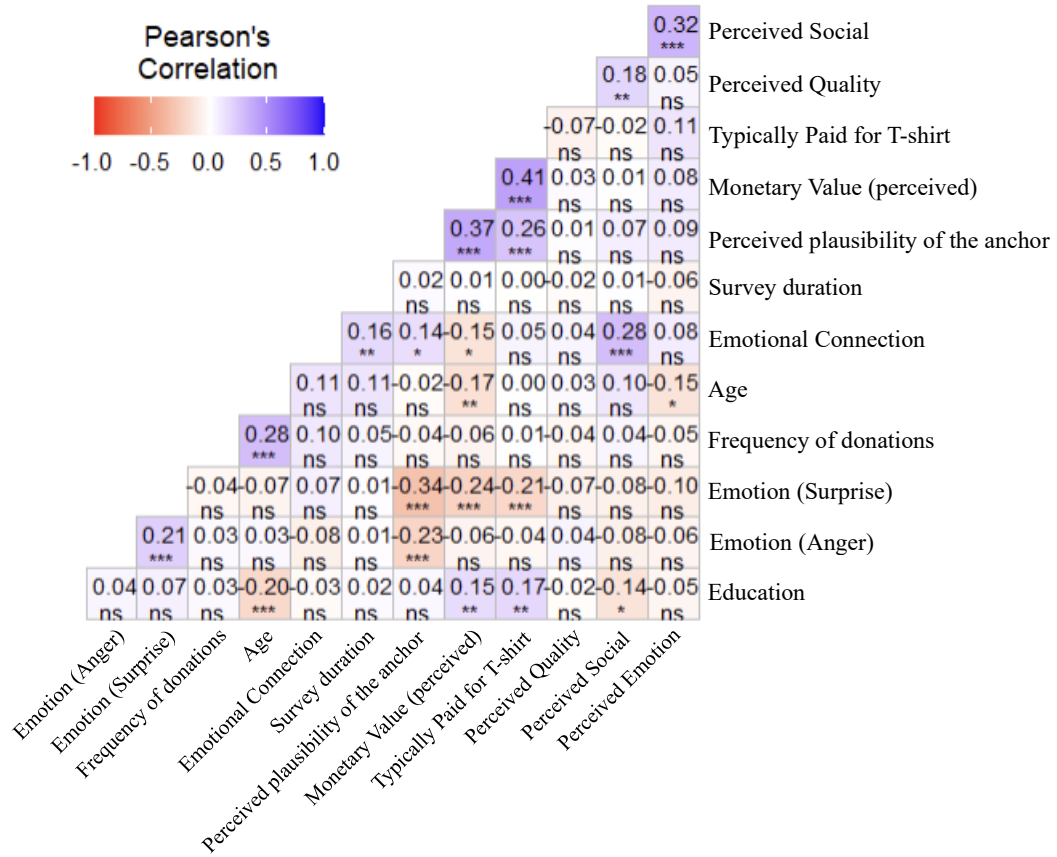
Statistic:	N	Mean	St. Dev.	Min	Max
Survey duration	95	484.695	649.638	169	6,196
Frequency of donations	95	2.611	0.734	1	4
Perceived plausibility of the anchor	95	1.421	0.734	1	6
Monetary Value (perceived)	95	13.615	6.196	3	30
Emotion (Joy)	93	1.086	0.380	1	3
Emotion (Sadness)	94	2.372	1.466	1	5
Emotion (Anger)	93	2.183	1.251	1	5
Emotion (Fear)	93	1.258	0.641	1	5
Emotion (Disgust)	92	1.500	0.943	1	5
Emotion (Surprise)	94	3.809	1.272	1	5
Emotional Connection	95	3.326	1.554	1	7
Attention Check	95	7.000	0.000	7	7
Perceived Quality	94	4.000	0.933	1	5
Perceived Social	92	3.130	1.324	1	5
Perceived Emotion	93	2.108	1.293	1	5
Typically Paid for T-shirt	95	16.400	8.092	3	60
Age	95	36.989	14.174	15	73
Education	95	2.695	0.826	1	4

Charities Market (UNICEF)

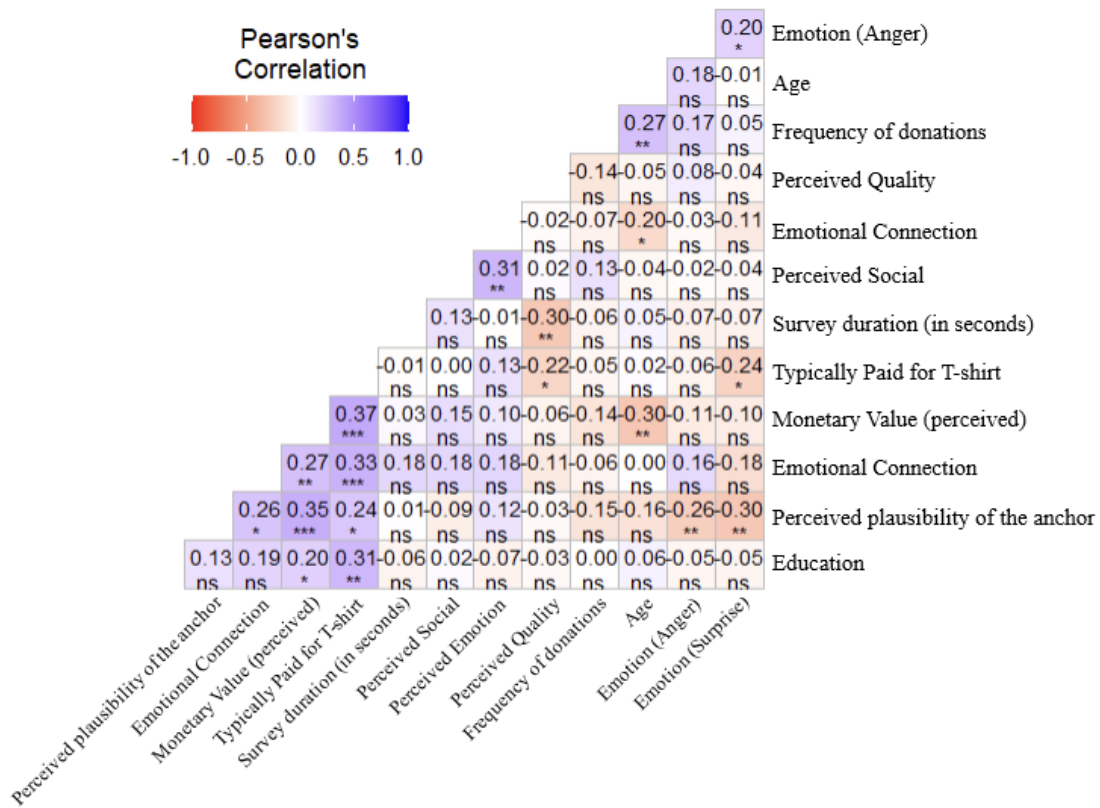
Statistic:	N	Mean	St. Dev.	Min	Max
Survey duration	89	506.416	916.619	152	8,579
Frequency of donations	89	2.461	0.770	1	4
Perceived plausibility of the anchor	89	2.045	1.269	1	6
Monetary Value (perceived)	89	20.461	13.315	5	80
Emotion (Joy)	88	1.261	0.795	1	5
Emotion (Sadness)	87	1.931	1.246	1	5
Emotion (Anger)	88	1.784	1.198	1	5
Emotion (Fear)	88	1.159	0.523	1	4
Emotion (Disgust)	88	1.227	0.690	1	5
Emotion (Surprise)	89	3.865	1.036	1	5
Emotional Connection	89	3.764	1.603	1	7
Attention Check	89	7.000	0.000	7	7
Perceived Quality	89	3.736	1.042	1	5
Perceived Social	89	3.657	1.247	1	5
Perceived Emotion	89	3.657	1.369	1	5
Typically Paid for T-shirt	89	16.899	8.748	4	50
Age	89	36.292	14.826	15	70
Education	89	2.843	0.824	0	4

Appendix 6: Correlation Plots: Main Experiment

Plot 1: Overall Correlation Plot

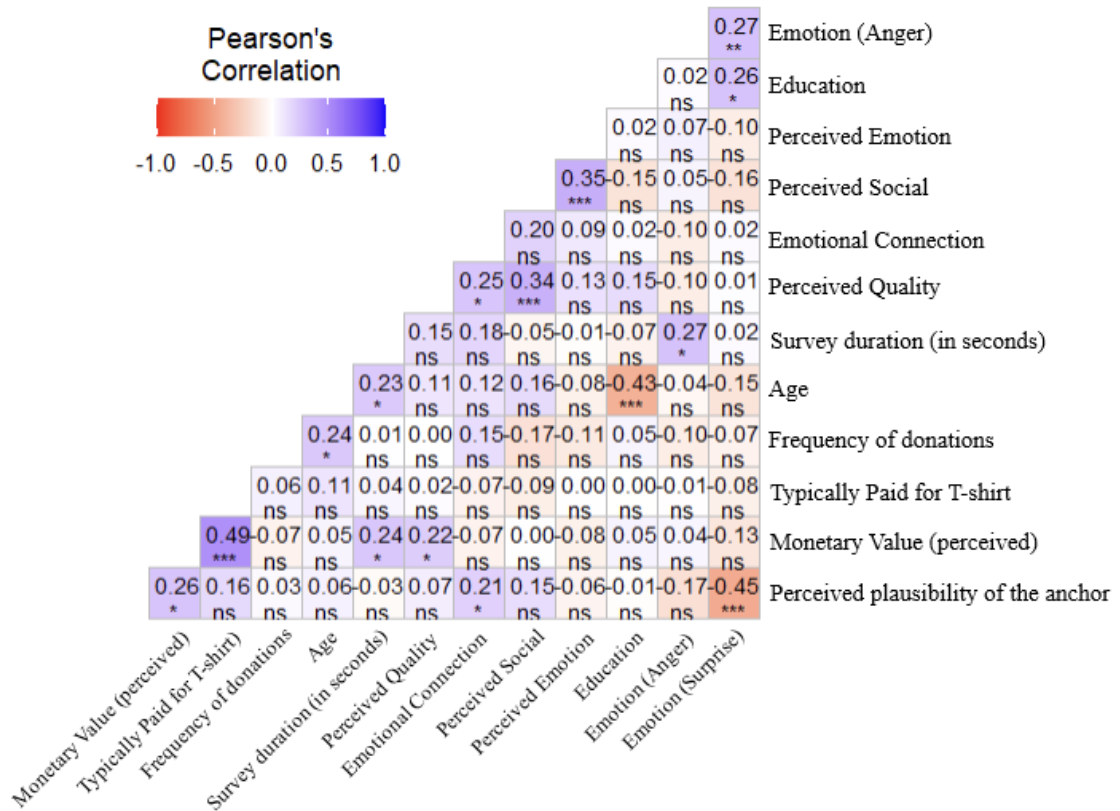


Plot 2: Luxury Correlation Plot



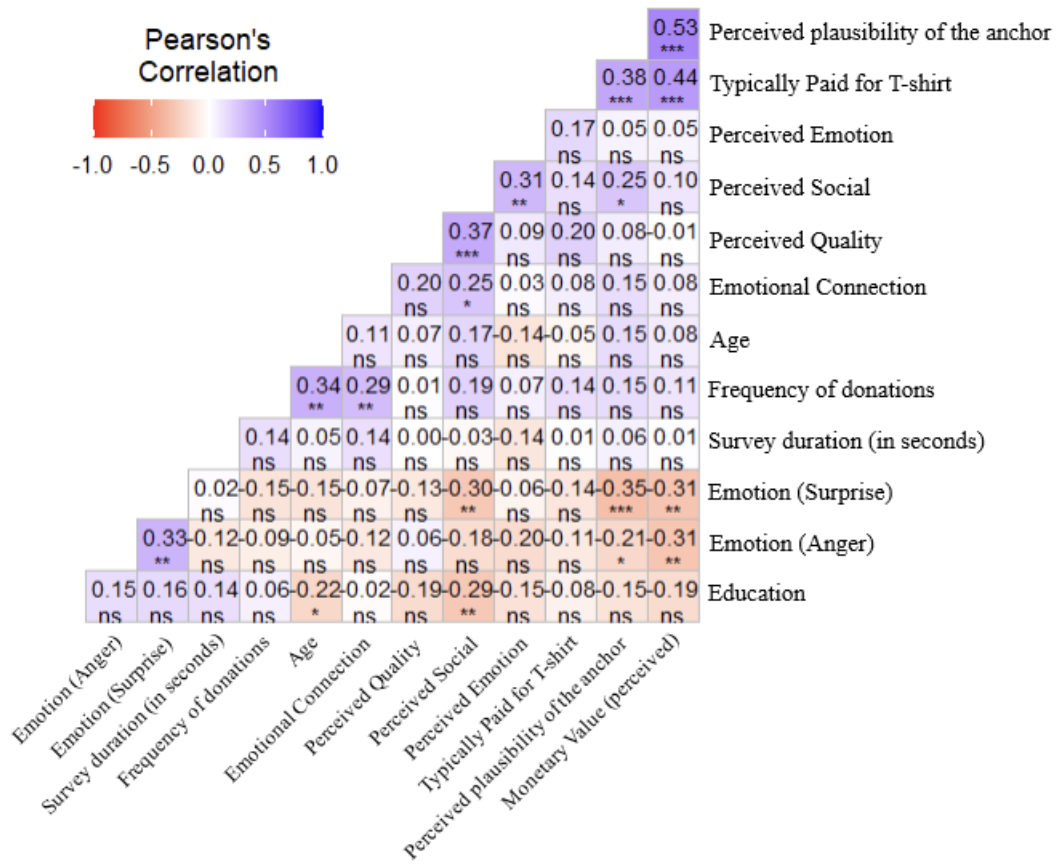
ns $p \geq 0.05$; * $p < 0.05$; ** $p < 0.01$; and *** $p < 0.001$

Table 3: Consumer goods Correlation Plot



ns $p \geq 0.05$; * $p < 0.05$; ** $p < 0.01$; and *** $p < 0.001$

Table 4: Charities Correlation Plot



ns $p \geq 0.05$; * $p < 0.05$; ** $p < 0.01$; and *** $p < 0.001$

Appendix 7: Social value, the analyses between anchors

Perception of Social value between anchors (without control variables)

	Dependent variable:		
	Perceived social value		
	(1)	(2)	(3)
Anchor extremity	0.291 (0.284)	0.402 (0.279)	0.156 (0.266)
Constant	2.709*** (0.191)	2.895*** (0.213)	3.573*** (0.195)
Observations	100	92	89
R2	0.011	0.023	0.004
Adjusted R2	0.0005	0.012	-0.008
Note:	*p<0.1	**p<0.05	***p<0.01

Perception of Social between anchors with control variables (with control variables)

	Dependent variable:		
	Perceived social value		
	(1)	(2)	(3)
Anchor extremity	0.276 (0.285)	0.489 (0.296)	0.198 (0.259)
Survey duration	0.0004 (0.0004)	-0.0003 (0.0002)	-0.0001 (0.0001)
Perceived plausibility of the anchor	-0.117 (0.095)	0.287 (0.189)	0.169 (0.102)
Age	-0.010 (0.010)	0.014 (0.011)	0.002 (0.009)
Education	0.006 (0.182)	-0.088 (0.184)	-0.403** (0.160)
Emotional connection	0.226* (0.124)	0.171* (0.090)	0.146* (0.082)
Frequency of donations	0.263 (0.170)	-0.374* (0.189)	0.172 (0.185)
Constant	2.013** (0.781)	2.686*** (0.903)	3.323*** (0.702)
Observations	100	94	89
R2	0.095	0.165	0.199
Adjusted R2	0.026	0.095	0.130
Note:	*p<0.1	**p<0.05	***p<0.01