

[DOI: 10.20472/IAC.2018.043.008](https://doi.org/10.20472/IAC.2018.043.008)

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WHAT INFLUENCES MOST ON ANCHORING WILLINGNESS TO PAY? CONSUMER SELF-CONFIDENCE AND HEDONIC-UTILITARIAN CONSUMPTION AS UNDERLYING FACTORS FOR PRICE-ANCHORING SUSCEPTIBILITY

Abstract:

Prior research on anchoring indicates that arbitrary values can influence human judgment and decision-making. However, the findings differ regarding the magnitude of this effect, implying that in some circumstances the anchoring phenomena may not occur at all. The present research suggests that this behavior is not universal and attempts to identify how consumer self-confidence (CSC), a personal trait, and product category (hedonic vs. utilitarian) may affect consumers' susceptibility to anchoring effect on participants' willingness to pay. Although the moderation relationship could not be proved, it was statistically demonstrated that the kind of consumption (utilitarian/hedonic) accounts for 25% of the variability of consumer's willingness-to-pay. Overall, this research contributes to the literature on Consumer Behavior, by shedding light on personal traits and product features that can shape anchoring response.

Keywords:

Anchoring Effects, Consumer Self-Confidence, Hedonic-utilitarian consumption, Consumer Behavior; Marketing.

JEL Classification: D12, M31

INTRODUCTION

Over the past few decades, anchoring research has received extensive attention due to its widespread applicability and its strong effect sizes. Prior research has demonstrated that price estimation can be affected by irrelevant numerical baits (e.g., Kahneman & Tversky, 1979; Krishna, A., 1991; Ariely, Loewenstein, & Prelec, 2003; Simonson & Drolet, 2004; Adaval & Wyer Jr, 2011; Fudenberg, Levine, & Maniadis, 2012; Sugden, Zheng, & Zizzo, 2013; Alevy, Landry, & List, 2015).

Nevertheless, several studies have demonstrated that this effect can be very weak (e.g. Bergman, Ellingsen, Johannesson, & Svensson, 2010; Sugden et al., 2013) and sometimes it might have no effect at all (e.g., Fudenberg et al., 2012; Alevy et al., 2015). Even though it is clear that anchoring effects have broad implications, little is known about the cognitive mechanisms that drive these effects.

Alevy et al. (2015) performed a field experiment, where subjects were recruited at a real market, and found no evidence that experienced individuals are influenced by anchors. Although Alevy et al. (2015) explain these findings as a consequence of a real market place environment, it could also be driven by the fact that it was based on utilitarian goods instead of hedonic ones, contributing to the suspicion that anchoring effects can be neutralized or increased according to products' characteristics.

According to Sugden et al. (2013), there has been little systematic investigation of the determinants that might affect the power and strength of anchoring effects. Most studies do not consider consumers' personality traits when investigating price-anchoring intensity, suggesting that there is a gap in consumer behavior literature.

Even though there are numerous previous studies regarding anchoring effects in price evaluation, the existent investigation focus on reasons for the psychological phenomena, rather than understanding the relationship between anchoring effects and personal traits or product characteristics (e.g., Brown & Gregory, 1999; Peters, Slovic, & Gregory, 2003; Plott & Zeiler, 2005). Proving that there is hedonic-utilitarian consumption and consumer self-confidence are possible factors that affect how much a person is susceptible to anchoring effects is the main contribution of this paper.

Wilson et al. (1996) found that participants who reported to be more knowledgeable about the topic were less influenced by anchors when estimating this value. On the other hand, Northcraft and Neale (1987) have found that expert knowledge doesn't immunize consumers against the anchoring effect. Some authors relate the magnitude of anchoring effect in price evaluation to previous information consumers have on product's attributes (Mukherjee & Hoyer, 2001) or to external factors that were considered incidental environmental anchoring (Koças & Dogerliouglu-Demir, 2013).

The main objective of this thesis is to evaluate possible reasons for divergent outcomes on prior experiments to estimate the effects of anchoring on the evaluation of consumer WTP,

assessing two possible factors that can influence anchoring effects: consumer self-confidence and the price-range due to differentiation of the anchored products. This paper attempts to evaluate if consumer self-confidence, a personal trait, affects the robustness of anchoring effects in the same way as product category (hedonic versus utilitarian).

Judgments are made considering a substantial number of potentially influential personally generated and externally provided references. Research on anchoring has demonstrated that individual decisions are influenced by such external references, even when they are completely irrelevant to the judgment. Understanding how consumers incorporate or ignore those arbitrary references when making judgments plays an essential role in pricing strategies in Consumer Behavior. Even though there is numerous previous studies regarding anchoring effects in WTP, the existent investigation concentrates on measuring the impact of anchoring primes in WTP (e.g., Brown & Gregory, 1999; Peters, Slovic, & Gregory, 2003; Plott & Zeiler, 2005).

The fact that prior studies referring arbitrary values and consumer valuation have not reached a consensus reinforces the relevance of this thesis and the importance of assessing and replicating their experimental design. Besides, mixed results have been found demonstrating the effect of underlying mechanisms on anchoring effects, which according to Furnham and Boo (2011) opens up new room for research explaining the influence of anchoring effect, since no single mechanism can fully account for the phenomena.

ANCHORING: CURRENT THEORIES

According to Koças and Dogerlioglu-Demir (2013), anchoring occurs when individual's numeric decisions are affected by a reference number that is activated before the decision is made. As originally shown by Tversky and Kahneman (1979), the first piece of information made available during a decision-making process strongly affects our judgments, even when the anchor is completely arbitrary and we know it. Tversky and Kahneman (1979) found results that were extremely positively correlated with the anchor prime.

Over the past forty years, theories of the anchoring-effect mechanism have risen, but unfortunately, extant theories have not fallen. In order to understand the underlying mechanisms of anchoring effect, it is necessary to outline the most-accepted perspectives of psychological processes that contribute to the anchoring:

(a) Anchoring-and-adjustment: According to this theory, established by Tversky and Kahneman's (1979), anchor values serve as a reference for respondents to adjust the boundary of the range of plausible values for the question, even when the anchor provided does not hold any information on the estimated good. Consequently, the consumer uses

this anchor as a reference in order to estimate a value, that tends to be biased towards the value of the anchor (Tversky & Kahneman, 1979).

(b) Theory of Selective Accessibility: Mussweiler (2003) developed this theory based on the cognitive bias of confirmation. According to this theory, individuals test out the hypothesis that the correct answer corresponds to the anchor value. The given reference stimulates thoughts about the features of the products that might be sold at these prices. In this case, features accessible in memory are recalled. This theory is the current dominant view of the anchoring paradigm and suggests that the anchoring effect results from the activation of information that is consistent with the anchor presented. It works as a confirmatory search mechanism, through which people focus more on the similarity between the target and the anchor than on differences between them.

(c) The attitudinal perspective of anchoring: a recent perspective of numeric anchoring has arisen from the attitudes and persuasion literature. The Attitudinal Perspective contends that individuals process numeric anchors and persuasive messages in similar ways (Wegener, Petty, Blankenship, & Detweiler-Bedell, 2010). This theory asserts that the anchor is treated as a persuasive message, such that the individual treats the anchor as a conversational hint. Consistent with this notion, Zhang and Schwarz (2013) found that anchors with precise numbers (e.g., 3478) resulted in larger anchoring effects than comparable round anchors (e.g., 3500) because individuals use the precision of the presented anchor as a means of assessing the quality of the anchor information. As noted by Wegener et al. (2010), an anchor from a credible source should result in a larger anchoring effect than an anchor from a less credible source.

(d) The scale distortion theory of anchoring: The most recent addition to the growing collection of anchoring theories is the Scale-distortion theory of anchoring proposed by Frederick and Mochon (2012). According to this theory, individuals map judgments to an underlying response scale. The presentation of an anchor does not shift individuals' subjective representation of the target item (Mussweiler, 2003), but informs the individual about the scale used to make the judgment. This theory proposes that the anchor informs the scale with which the judgment is made.

The theories differ considerably with regard to how the anchor influences judgments: according to anchoring-and-adjustment theory, the anchor provides a meaningful starting point to begin the elaborative iteration process. Selective accessibility theory, on the other hand, suggests that the anchor acts as a cue that elicits a confirmatory hypothesis test; increasing the accessibility of anchor consistent knowledge.

Despite these differences, all the above theories share the proposition that the anchor is a source of information, in one way or another, that influences judgments. Although anchoring appears to be a robust psychological phenomenon, not all individuals (nor products) are equally influenced by anchoring cues. The identification of factors that influence how and in what ways a person is susceptible to anchoring effects is the main

contribution of this research. Thus, this paper intends to investigate if (a) Consumer Self-Confidence, or (b) product differentiation, reflected on the range of attainable market prices a good may assume, can be influential factors for the magnitude of the anchoring effect in consumers' willingness-to-pay.

HEDONIC-UTILITARIAN CONSUMPTION

There are conflicting results between findings of anchoring experiment, mainly on the robustness of the anchor. Some found very strong effects, whereas other studies found almost no relationship between anchoring prices and consumer's willingness-to-pay. Even though Alevy et al (2015) justify the studies that found no anchoring effect as a result of the experiment being conducted in a real market place context, these divergence could also be driven by other factors. For example, the fact that the product tested by Alevy et al (2015) was a commodity (peanut), an utilitarian product with no differentiation could have influenced the consumer susceptibility to anchoring effects.

According to Sugden et al (2013), there has been little systematic investigation of the determinants that might affect the power and strength of anchoring effects. Most studies do not consider the type of product consumption as regulator for anchoring intensity. . Nevertheless, there are future research calls suggesting a product-base view to examine the impact of different types of products on anchoring effects in WTP (e.g., Koças and Dogerliouglu-Demir, 2013).

According to Khan and Dhar (2004) hedonic goods are multisensory and its consumption provides fun, pleasure and excitement. The consumption of these products enhances in emotional pleasure and evokes feelings of happiness within the consumer.

Utilitarian consumption, on the other hand, consist of basic requirements of life that cannot be avoided or denied, such as food (Khan; Dhar & Wertenbroch, 2004, p.4), and is motivated by functional product aspects. On the other hand, the classification of a utilitarian good is slowly expanding as society advances and new products like phones, computers and fridge, among others (Khan; Dhar & Wertenbroch, 2004, p. 4).

The categorization of hedonic-utilitarian consumption has important implications for Consumer Behavior studies, inasmuch as product attributes may influence consumers' choice between different products. It has been demonstrated that a consumer is more likely to consume a hedonic good when presented individually to it, in comparison to a utilitarian good (Okada, 2005, p. 45). Nevertheless, when utilitarian goods are presented jointly with hedonic goods, consumers tend to choose the utilitarian good, inasmuch as they can justify their decision (Okada, 2005, p. 51).

CONSUMER SELF-CONFIDENCE

According to Adelman (1987), consumer self-confidence reflects subjective evaluations of one's ability to generate positive experiences as a consumer in the marketplace. Individuals with low consumer self-confidence tend to be more inclined to inconsistent decision making, inasmuch as they are more subject to environmental circumstances (Mossman & Ziller, 1968). Parker and Stone (2014) note that one of the most common findings in behavioral decision research is that people have unrealistic judgements about how much they know, and they suggest it can affect consumer's decision-making and their willingness to pay. Mossman and Ziller (1968) have confirmed that individuals that are considered to have low self-confidence are more inclined to make inconsistent decision than those who perform higher in self-confidence. However, research on how consumer self-confidence could influence the impact of anchoring effects are scarce.

Originally, self-esteem measures adopted from psychology were used to explore the concept of self-confidence in marketing and consumer behavior research (Fleming & Courtney, 1984; Blascovich & Tomaka, 1991; Tomas & Oliver, 1999). As a critique against the use of self-esteem measures to deduce self-confidence, Bearden, Hardesty and Rose (2001) developed a consumer self-confidence scale for specific use in consumer behavior research, since the definition of consumer self-confidence (CSC) encompasses an individual's subjective evaluation of confidence in own abilities and authority to act in a specific context in the market place (Clark et al, 2008; Moorman et al., 2001).

Parker and Stone (2013) observe that one of the most common findings in behavioral decision research is that people have unrealistic beliefs about how much they know, and they have labeled the lack of correspondence between knowledge and confidence in that knowledge as 'unjustified confidence', and they suggest it can affect consumer's decision-making and their Willigness-to-pay. According to Bearden, Hardesty, and Rose (2001, p.122), CSC is defined as "the extent to which an individual feels capable and assured with respect to his or her marketplace decisions and behaviors".

The Bearden et al. (2001) scale consisted of two main dimensions: decision-making self-confidence and consumer protection. As stated by Clark et al. (2008), the first dimension refers to the ability of consumers to make effective decisions in the marketplace by acquiring and using information; whereas the second one describes a customer's capacity to protect himself or herself from business messages aimed at misleading, deceiving, and treating customers unfairly. Table 1 review some prior studies that used Bearden, Hardesty, and Rose scale (BHR Scale), whereas the original scale can be found on Appendix A.

Table 1 - Different Approaches on Consumer Self-Confidence adopting BHR Scale

Reference	How CSC was measured?	Main subject	Sample	Method	Main Results
Brown and Krishna (2004)	The study focused on one single dimension (Protection) to measure Marketplace Metacognition: 11 scale items from the two Protection subscales of the CSC scale developed by Bearden, Hardesty, and Rose (2001)	The Skeptical Shopper: A Metacognitive Account for the Effects of Default Options on Choice. This paper aims to measure how MM (Marketplace Metacognition) affects consumer's choice.	Study 2: 60 undergraduates	Factor Analysis	It was demonstrated that the size and direction of the default effect depend on whether social intelligence (MM) is invoked and how it changes the interpretation of the default.
Loibl, Cho, Diekmann and Batte (2009)	CSC was measured by a slightly revised version of the Bearden, Hardesty, and Rose Scale (2001). The purchasing aspect of the scale and the market interface measure were excluded from the new CSC scale	Consumer Self-Confidence in Searching for Information. The study examines a multidimensional concept of CSC to determine its influence on acquiring information. This act has been hypothesized as a key predictor of high-quality decisions, and, presumably, positive marketplace experiences.	Multinomial Logistic Regression Analysis Mail survey (n=787) Response rate: 26.4%	Factor and Cluster Analysis	The findings empirically support a multidimensional measurement of self-confidence to predict search behavior and suggest avenues to enhance the self-confidence needed to produce positive marketplace experiences.

Source: self-made table based on prior research

CONCEPTUAL FRAMEWORK

Schkage and Johnson (1989) were pioneer in developing an experimental design that is now the most widely-used protocol for experiments that estimate anchoring effects. There are some small variations, but the experimental design usually follows the same basic steps. Consumers first assess whether they are willing to buy a certain product at a specific price (with a low or high anchor), and then they indicate the highest price they would accept to pay for the product. (e.g., Ariely, Loewenstein, and Prelec 2002; Jacowitz and Kahneman 1995; Tversky and Kahneman 1974). In all the studies mentioned in this paper, the anchors were experimenter provided and followed the standard anchoring paradigm.

The products that were tested for anchoring effect on their price evaluation are summarized in table 2.

Table 2 – Products targeted on prior studies on Anchoring Effects in Consumer WTP

References	Products evaluated
Ariely, Loewenstein and Prelec (2003)	Cordless trackball; Cordless keyboard; Bottles of wine (average and rare); Design book; Belgian Chocolates.
Simonson and Drolet (2004)	Toaster; Phone; Backpack; Radio headphone. (pictures of the product).
Adaval, Wyer Jr. (2011)	CD; Camera; Leather Handbag; German Car; Electronic products; Clothing.
Fudenberg, Levine and Maniadis (2012)	Class organizer; Cordless keyboard; Financial calculator; Designer book; Pack of quality chocolates; Cordless mouse.
Alevy, Laundry and List (2015)	Peanuts and collectible cards

Source: self-made table

The conceptual framework proposed in this research is basically a statistical model that connects consumer self-confidence (individual trait) and product category (hedonic- utilitarian consumption) to the power of anchoring effects on participants' willingness-to-pay valuation, both working as moderate variables.

In order to evaluate this relation, three hypotheses were formulated.

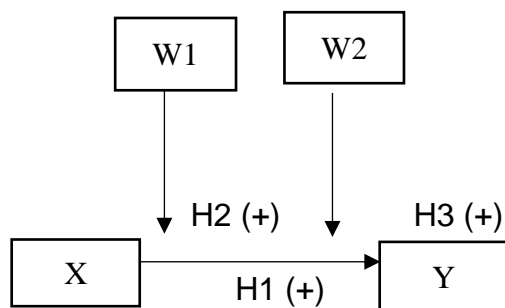
H1: There is a positive relationship between the anchor and consumer's willingness-to-pay (anchoring effect).

H2: The anchoring effect will be greater in individuals with higher consumer self-confidence.

H3: The anchoring effect will be greater in individuals when they consume hedonic products than when they consume utilitarian products.

Figure 1 represents graphically the hypotheses above:

FIGURE 1 – Model representation:



Source: Self-made figure.

Y: Willingness-to-pay

X: Anchor (high or low)

W1: Consumer Self-Confidence

W2: Product Category (hedonic or utilitarian)

The methodological approach used to conduct empirical research for this experiment was designed in a quantitative approach, consisting of a 2x2x2 between-subjects design experiment. A total of 229 undergraduate students (219 clean results as sample), from two North American universities, were randomly assigned to one of the four products: high-end pen (*Montblanc* style); low-end pen (*Bic* style); high-end bathtub (large *Jacuzzi*); low-end bathtub (plastic Bathtube) – no brands were given or shown. The product was manipulated with an anchor that could be low or high. The values of this anchor were not necessarily closed to the product price, inasmuch as according to Furnham and Boo (2011), the two anchoring mechanisms advocate that the use of an extreme value as anchor (beyond the range of plausible answers) do not increase the anchoring effect. Prior

research also suggests that both plausible and implausible anchors can influence reference prices (e.g., Lichtenstein and Bearden 1989; Urbany, Bearden, and Weilbaker 1988).

The respondents fulfilled a questionnaire that adopted the BHR Consumer Self-Confidence scale (2001). After this task, they have stated how much confident they considered themselves as a consumer, for manipulation check.

The products that were shown were labelled in the database as: (0) pen; (1) bathtub. To differentiate the product category, it was used 0 for utilitarian consumption and 1 for hedonic consumption. Finally, in order to separate anchor values, it was use 0 for the lower anchor and 1 for the higher one. All the combination above resulted in eight possible scenarios for each respondent. To summarize the data collected, tables 3 and 4 represent the sample size and the answered value of willingness-to-pay for each product combination:

TABLE 3: Sample size (n):

	<i>Low Anchor</i>	<i>High Anchor</i>	<i>Total</i>
<i>Pen</i>	56	80	136
<i>Utilitarian</i>	29	40	69
<i>Hedonic</i>	27	40	67
<i>Bathtub</i>	45	36	81
<i>Utilitarian</i>	21	21	42
<i>Hedonic</i>	24	15	39
<i>Total</i>	101	116	217

Source: self-made table

TABLE 4 – Answered Willingness-to-pay (average)

	<i>Low Anchor</i>	<i>High Anchor</i>	<i>Market Price^(*)</i>
<i>Pen</i>			
<i>Utilitarian</i>	US\$ 0.60	US\$ 15.64	US\$ 0.43
<i>Hedonic</i>	US\$ 4.20	US\$ 197.95	US\$ 450.00
<i>Bathtub</i>			
<i>Utilitarian</i>	US\$ 223.33	US\$ 582.14	US\$ 80.00
<i>Hedonic</i>	US\$ 5,089.17	US\$ 8,269.00	US\$ 14,000.00

Source: self-made table

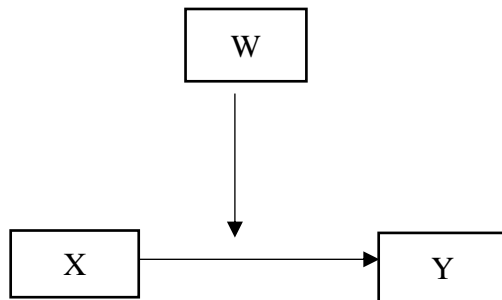
(*) Market price was based on Amazon website, visited on December, 2017.

Given the data collected, some moderation analyses were performed, considered the three previous hypotheses.

RESULTS

The moderation analysis was performed through the PROCESS for SPSS. Figure 2 represents the framework of a simple moderation model, whereas figure 3 represents the double-moderation model.

FIGURE 2: Simple Moderation Model



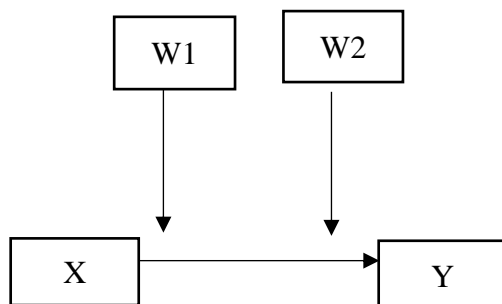
Source: self-made figure

Y: Willingness-to-pay

X: Anchor

W: Product Category or Consumer Self Confidence

FIGURE 3: Double Moderation Model



Y: Willingness-to-pay

X: Anchor

W1: Consumer Self-Confidence

W2: Product Category (hedonic or utilitarian)

Source: self-made figure

Simple Moderation: Category | Product Bathtub (1)

Y: Willingness-to-pay

X: Anchor

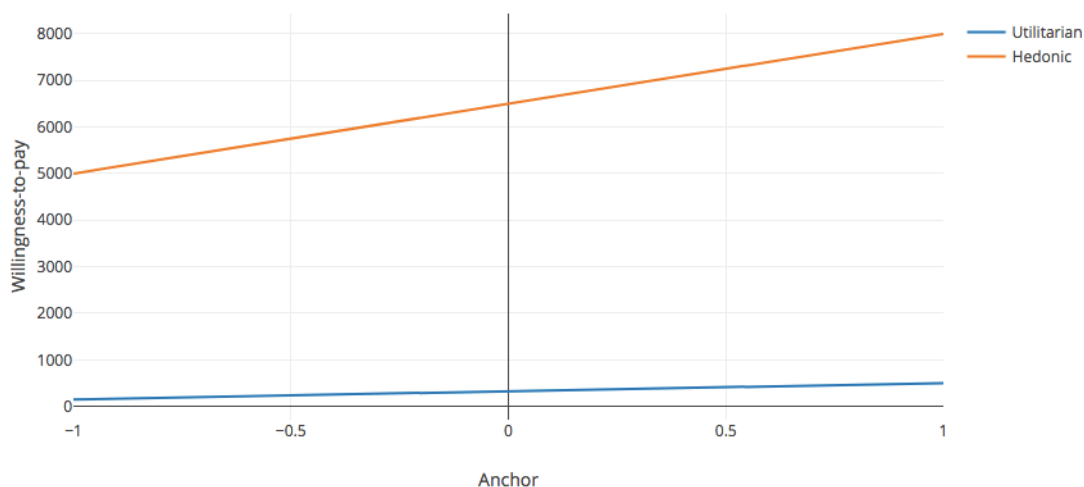
W: Category

R	R-sq	p-value
0.4994	0.2494	0.0001

Statistically significant model (p-value <0.05), which accounts for 25% of the variability of Willingness-to-pay.

	coefficient	p-value
constant	3540,91	0,00
Anchor	1769	0,17
Category	6276	0,00
Int_1	2821	0,27

FIGURE 4: Model data plot



Source: self-made figure

There is a significant effect between the moderating variable and the dependent variable, ie, Product category influences Willingness-to-pay (p-value <0.05). Utilitarian Category has lower Willingness-to-pay values, while Hedonic Category has higher Willingness-to-pay values. The interaction between the moderator variable and the independent variable is not significant (p-value > 0.05), i.e., there is no interaction between Anchor and Product category.

Simple Moderation: Category | Product Pen (0)

Y: Willingness-to-pay

X: Anchor

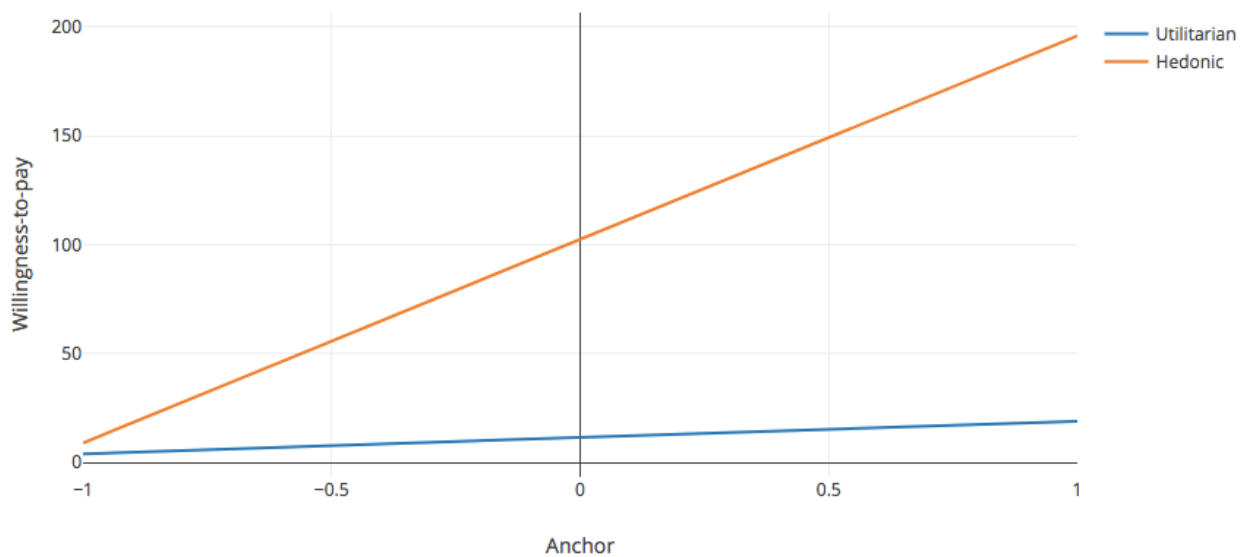
W: Category

R	R-sq	p-value
0,1886	0,0356	0,1873

The model is not statistically significant ($p\text{-value} > 0.05$), which explains 4% of Willingness-to-pay variability.

	coefficient	p-value
constant	54,5976	0,1744
Anchor	104,398	0,194
Category	92,9592	0,2471
Int_1	178,709	0,2659

FIGURE 5: Model data plot



Source: self-made figure

The interaction between the moderator variable and the independent variable is not significant ($p\text{-value} > 0.05$), i.e., there is no interaction between Anchor and Product category.

Simple Moderation: CSC | Product Bathtub (1)

Y: Willingness-to-pay

X: Anchor

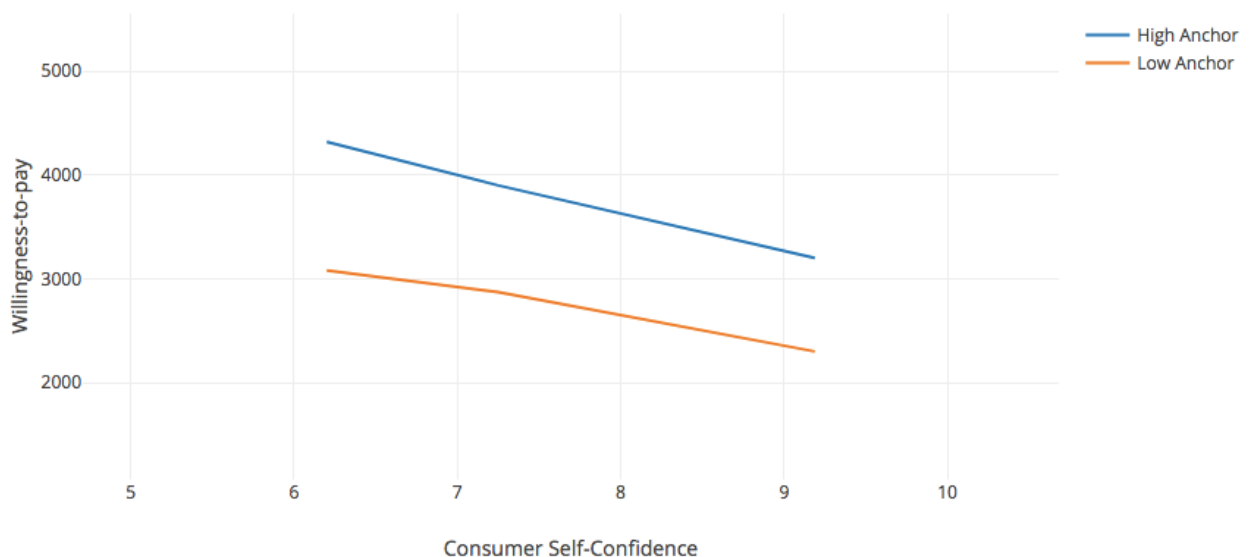
W: CSC

R	R-sq	p-value
0,0999	0,01	0,8548

The model is not statistically significant ($p\text{-value} > 0.05$), which explains only 1% of Willingness-to-pay variability.

	coefficient	p-value
constant	5569,33	0,1778
Anchor	2154,88	0,7932
CSC	-300,21	0,5769
Int_1	-144,43	0,8931

FIGURE 6: Simple Moderation CSC for Bathtub (Data plot)



Source: self-made figure

The interaction between the moderator variable and the independent variable is not significant ($p\text{-value} > 0.05$), i.e., there is no interaction between Consumer self-confidence and Product category. But the model explicit that the relationship would be negative, as expected.

Simple Moderation: CSC | Product Pen (0)

Y: Willingness-to-pay

X: Anchor

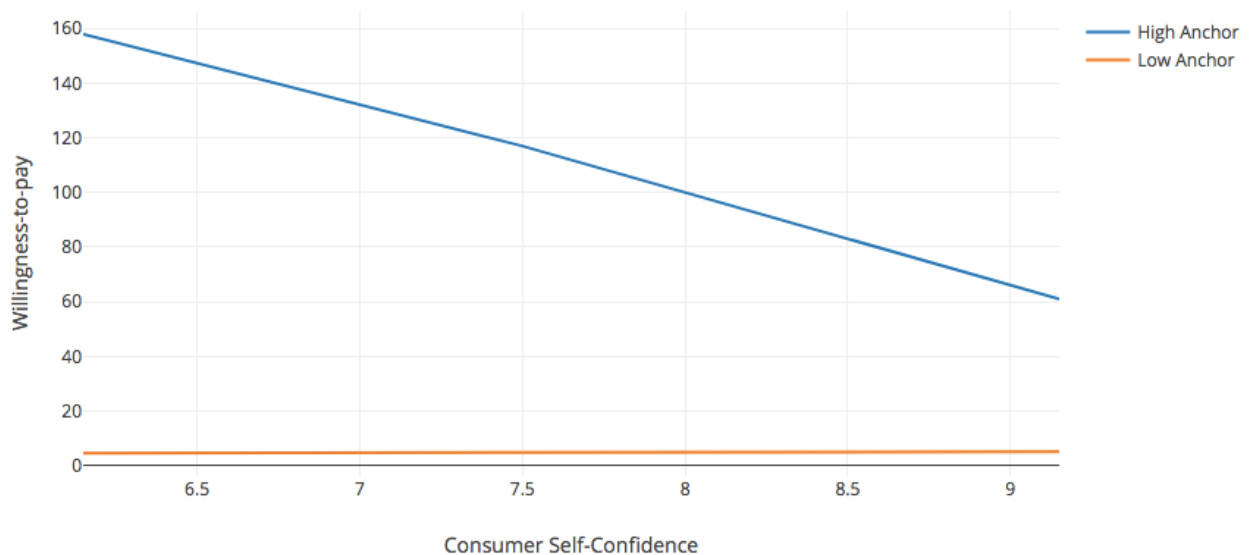
W: CSC

R	R-sq	p-value
0,1395	0,0194	0,4571

The model is not statistically significant ($p\text{-value} > 0.05$), which explains only 2% of Willingness-to-pay variability.

	coeficiente	p-valor
constant	186,6	0,3957
Anchor	369,53	0,4003
CSC	-17,142	0,5487
Int_1	-34,418	0,5471

FIGURE 7: Simple Moderation – CSC for pen



Source: self-made figure

The interaction between the moderator variable and the independent variable is not significant ($p\text{-value} > 0.05$), i.e., there is no interaction between Consumer self-confidence and Product category. However, the graphic shows that the relationship would also be negative.

Double Moderation: Category and CSC | Product Bathtub (1)

Y: Willingness-to-pay

X: Anchor

W: Category

Z: CSC

R	R-sq	p-value
0,5	0,25	0,0005

Statistically significant model ($p\text{-value} < 0.05$), which accounts for 25% of the variability of Willingness-to-pay.

	coefficient	p-value
constant	4272,869	0,2423
Anchor	2868,125	0,6935
Category	6255,463	0,0002
Int_1	2793,497	0,2801
CSC	-95,9831	0,8403
Int_2	-142,288	0,8812

Int_1: Anchor x Category

Int_2: Anchor x CSC

There is a significant effect between the moderating variable Category and the dependent variable, i.e., Category influences Willingness-to-pay ($p\text{-value} < 0.05$). Utilitarian Category (-0.5) has lower Willingness-to-pay values, while Hedonic Category (0.5) has higher Willingness-to-pay values. The interaction between the moderating variable Category and the independent variable Anchor is not significant ($p\text{-value} > 0.05$), which means that there is no interaction between Anchor and Category. The interaction between the CSC

moderator variable and the Anchor independent variable is also not significant ($p\text{-value} > 0.05$), which means that there is no interaction between Anchor and CSC.

Thus, it is not possible to state that Anchor differs from Willingness-to-pay as a function of Category or CSC.

Double Moderation: Category and CSC | Product Pen (0)

Y: Willingness-to-pay

X: Anchor

W1: Category

W2: CSC

R	R-sq	p-value
0,2182	0,0476	0,268

The model is not statistically significant ($p\text{-value} > 0.05$) and explains only 4,8% of willingness-to-pay variability.

	coefficient	p-value
constant	232,1217	0,3029
Anchor	454,4557	0,3132
Category	103,9923	0,2103
Int_1	200,2436	0,2277
CSC	-23,0546	0,4317
Int_2	-45,4408	0,4383

Int_1: Anchor x Category

Int_2: Anchor x CSC

There is no significant effect between the moderating variables and the dependent variable, i.e., CSC and Category have no influence on Willingness-to-pay ($p\text{-value} > 0.05$). The interaction between the moderating variable Category and the independent variable Anchor is not significant ($p\text{-value} > 0.05$), which means that there is no interaction between Anchor and Category. The interaction between the CSC moderator variable and the Anchor independent variable is also not significant ($p\text{-value} > 0.05$), meaning that there is no interaction between Anchor and CSC. Thus, it is not possible to state that Anchor differs from Willingness-to-pay as a function of Category or CSC.

The only relationship that could be statistically proven in this paper was between hedonic-utility consumption and anchoring effect.

As discussed before, the anchoring literature has shown mixed findings on the robustness of its effect. For example, Ariely et al (2003) found that there is a huge effect in many products that were tested, whereas other authors demonstrated a weaker effect (Bergman, Ellingsen, Johannesson, & Svensson, 2010; Sugden et al, 2013) and, in some circumstances, Fudenberg et al. (2012) and Alevy et al. (2015) proved zero anchoring effect. The variety of results could be explained by the type of product/consumption that were used in each study and would also support the main finding of this paper, that hedonic-utility consumption affects the power of the anchoring effects on consumer behavior.

Researchers concluded that, from a consumer's perspective, individuals that are considered to have high self-confidence are less influenced by marketing tactics (Kroppet al., 2005) and that self-confident consumers would be selective, yet focused in their information search (Mourali et al., 2005; Clark et al, 2008; Bishop and Barber, 2012), inasmuch as they either already possess the product knowledge, or know where to find and access the information they require. Self-confident consumers also know how to evaluate product alternatives (Loibl et al., 2009; Bishop and Barber, 2012). Chapman and Johnson (1994) illustrated that a smaller anchoring effect was generated by those with a high certainty about an answer. Supporting their findings, according to Bergman et al. (2010), anchoring effect decreases with higher cognitive ability, which fuels the assumption that price-anchoring effects have a lower influence in self-confident consumers than it has in average consumers. However, the evidence presented and found on prior research could not be achieved in this present paper.

CONCLUSION

Although none of the three hypotheses were totally proved and none of the models ran could statistically suggest the anchoring effect, this findings contributes even more to the current discussion that the anchoring mechanisms are not entirely discovered and there are plenty of space to dig deeper on the topic.

Even though most of research on the subject show a robust anchor effect, this present research brings more controversy to the anchoring theory.

Alevy, Landry and List (2015) first experiment found no evidence that experienced agents were influenced by anchors, contributing to the suspicion that anchoring effects can be neutralized or increasing according to personal characteristic factors. Wilson et al. (1996) found that participants who reported to be more knowledgeable about the number of physicians in the phone book were less influenced by anchors when estimating this value.

Even though there was an indication on literature that consumer self-confidence could be related to anchoring effects, none of the models ran could demonstrate a moderation effect, neither a relationship between consumer self-confidence and willingness-to-pay.

Although the models did not predict a moderation effect of product category and anchoring effect, they did statistically prove that there is a relationship between hedonic-utilitarian consumption and consumer's willingness-to-pay, for both models: when considering the product category as a single moderating variable and when considering product category and consumer self-confidence as both moderating variables. Utilitarian category has lower willingness-to-pay values, while hedonic category has higher willingness-to-pay values.

After evaluating CSC and Product Category as moderator variables for anchoring effects on consumers' willingness-to-pay, it is only possible to state that hedonic-utilitarian consumption has a significant effect on willingness-to-pay for one of the products tested, the bathtub. This could be explained by the fact that the hedonic bathtub were recognized by the respondents as a higher-end quality product, whereas the respondents who were answering about the hedonic pen might have thought that it looked like a replica or a fake imitation of an expensive pen.

As suggestions for future studies, it would be interesting to verify if familiarity to the product could impact the anchoring effect and if external incidental factors as the color of the questionnaire, time restrain and stress conditions would also affect the stated consumer's willingness-to-pay.

APPENDIX

A. BEARDEN; HARDESTY; ROSE SCALE (2001)

CONSUMER SELF-CONFIDENCE SCALE ITEMS

INFORMATION ACQUISITION (IA)

I know where to find the information I need prior to making a purchase.	(.80)
I know where to look to find the product information I need.	(.82)
I am confident in my ability to research important purchases.	(.62)
I know the right questions to ask when shopping.	(.60)
I have the skills required to obtain needed information before making important purchases.	(.64)

CONSIDERATION SET FORMATION (CSF)

I am confident in my ability to recognize a brand worth considering.	(.85)
I can tell which brands meet my expectations.	(.64)
I trust my own judgment when deciding which brands to consider.	(.72)
I know which stores to shop.	(.55)
I can focus easily on a few good brands when making a decision.	(.60)

PERSONAL OUTCOMES DECISION MAKING (PO)

I often have doubts about the purchase decisions I make.	(.81)
I frequently agonize over what to buy.	(.67)
I often wonder if I've made the right purchase selection.	(.73)
I never seem to buy the right thing for me.	(.50)
Too often the things I buy are not satisfying.	(.65)

SOCIAL OUTCOMES DECISION MAKING (SO)

My friends are impressed with my ability to make satisfying purchases.	(.89)
I impress people with the purchases I make.	(.89)
My neighbors admire my decorating ability.	(.53)
I have the ability to give good presents.	(.53)
I get compliments from others on my purchase decisions.	(.68)

PERSUASION KNOWLEDGE (PK)

I know when an offer is "too good to be true".	(.70)
I can tell when an offer has strings attached.	(.73)
I have no trouble understanding the bargaining tactics used by salespersons.	(.62)
I know when a marketer is pressuring me to buy.	(.68)
I can see through sales gimmicks used to get consumers to buy.	(.74)
I can separate fact from fantasy in advertising.	(.61)

MARKETPLACE INTERFACES (MI)

I am afraid to "ask to speak to the manager".	(.79)
I don't like to tell a salesperson something is wrong in the store.	(.79)
I have a hard time saying no to a salesperson.	(.59)
I am too timid when problems arise while shopping.	(.67)
I am hesitant to complain when shopping.	(.77)

The factor loadings based on the six-factor correlated model from the confirmatory factor analysis are shown in the parentheses to the right of each item.

Source: BEARDEN *et al.* (2001)

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