



# The principle of Rarity on Vintage and Second- Hand Jewelry:

Consumers' preferences

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## Abstract

**Title:** The Principle of Rarity on Vintage and Second-Hand Jewelry: Consumer's preferences

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Rarity is a topic that has been widely discussed in consumer behavior as scarcity can shape how much consumers value a product. Even though the rarity effect has been studied in the clothing realm, jewelry should also be considered. Especially, Vintage and Second-Hand jewelry, considering that these products are often associated with unique and rare finds. Thus this study experimentally tests the effects of rarity on Vintage, Second-Hand, and New Collection jewelry, comparing the three. Through an online survey, participants were exposed to one of the three product type conditions (Vintage, Second-Hand, New Collection) paired with two condition of availability cues (rarity, abundance). Results showed a significant interaction between product type and availability cues. Vintage and Second-Hand jewelry both received significantly more positive attitudes when presented with rarity cues whereas in the New-Collection condition no significant differences were found. Overall, findings indicate that only Second-Hand and Vintage jewelry benefit in value from rarity cues, suggesting that rarity is a key factor for Vintage and Second-Hand jewelry.

**Keywords:** *vintage, second-hand, new collection, jewelry, pre-owned, preference, consumer behavior*

## Sumário

**Título:** O Princípio da Raridade em Joalheria Vintage e em Segunda-Mão: Preferências dos Consumidores

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A Raridade é um tópico que tem sido amplamente discutido no comportamento dos consumidores, visto que a escassez consegue moldar quanto é que os consumidores valorizam um produto. Apesar do efeito da raridade já ter sido estudado no domínio do vestuário, a joalheria também deve ser considerada. Especialmente, joalheria Vintage e em Segunda-Mão, tendo em conta que estes produtos são frequentemente associados a achados únicos e raros. Este estudo testa então experimentalmente os efeitos da raridade em Joalheria Vintage, de Segunda-Mão e de Nova Coleção, comparando os três. Através de um questionário online, os participantes foram expostos a uma das três condições (Vintage, Segunda-Mão, Nova Coleção) e duas condições de disponibilidade (raridade, abundância). Os resultados mostraram uma interação significativa entre o tipo de produto e a disponibilidade. Tanto a joalheria Vintage como a joalheria em Segunda-Mão receberam significativamente mais atitudes positivas quando apresentadas com pistas de raridade enquanto que na condição de Nova Coleção não foram encontradas diferenças significativas. As conclusões indicam que apenas a joalheria Vintage e a joalheria em Segunda-Mão podem beneficiar das pistas de raridade, sugerindo que a raridade é um fator chave para estes tipos de joalheria.

**Palavras-chave:** *vintage, segunda-mão, nova coleção, joalheria, previamente-usado, preferência, comportamento do consumidor*

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## 1. Introduction

Even though Covid-19 was very detrimental to most sectors, one that was able to surpass those difficult times without damage was the Resale market; in fact, this sector was already booming before the pandemic only growing bigger with the Covid-19 outbreak. One explanation for this can be the general society's cultural shift – for which Generation Z and younger Millennials should take most of the credit – where consumers are more and more conscious about their shopping habits and concerned about being sustainable and environmentally-friendly (Mckinsey & Company, 2020; Mckinsey & Company, 2021). The pandemic also drastically changed consumers' habits, e-commerce gained even more importance as people spend most of their time at home and consumers, in general, bought less apparel considering the overall crisis; simultaneously, people started to see the resale market as an opportunity to make extra money by selling pieces they no longer have use for or just as a way to buy more sustainably (McKinsey & Company, 2020; McKinsey & Company, 2021; ThredUp, 2022). Moreover, for Millennials and Generation Z consumers, thrifting is part of a lifestyle in which they are able to not only be environmentally conscious and save money but also differentiate themselves with unique looks (Refinery29, 2020).

Within the Resale market, two concepts stand out: Vintage and Second-Hand. Often mistaken for one another these two different terms can sometimes blend, adding to the confusion. Nevertheless, these two types of products have their differences regarding type of consumers, their motivations, and general characteristics. Vintage products are often associated with rarity, authenticity, and value due to their age (Gerval, 2008; Sarial-Abi et al., 2017). Whereas second-hand garments include all pieces that have been used despite their age (Cervellon et al., 2012; Turunen & Leipämaa-Leskinen, 2015). Simultaneously, the profile of their consumers and motivations for purchasing these type of products are also described as being typically very dissimilar: while vintage consumers are usually motivated by nostalgia and a strong need for uniqueness (Cervellon et al, 2012), second-hand shoppers' main motivation is frugality and environmental consciousness (Cornett et al., 2010; Cervellon et al., 2012; Kessous & Valette-Florence, 2019).

Included in the resale market, pre-owned luxury items – mainly watches and jewelry – are worth €21 billion (BCG, 2020). Pre-loved jewelry is particularly interesting to study since several authors have already explored pre-owned clothing and there is a lack of information about pre-owned jewelry, adding to that the fact that pre-owned jewelry is part of a continuously growing market. Furthermore, even though being part of the resale market, the jewelry market has its own different types of pre-owned jewelry - Antique, Vintage, and Estate Jewelry.

One key factor that enhances the appeal of the resale market is the uniqueness of its pieces (Turunen et al., 2020); and many studies have explored the connection between uniqueness and vintage products, and how rarity is a critical aspect for vintage consumption (Cervellon et al., 2012; McColl et al., 2013; Amatulli et al., 2018). Nevertheless, this has only been tested through correlational, exploratory, and qualitative studies, and mostly focusing on the clothing realm. Therefore, the paper presented aims to bring newness to the field by adding a new type of product – jewelry – and also by conducting an experimental research, through a survey. Thus, the present study analyzes the hypothesis that the rarity principle is a key factor for pre-owned jewelry by manipulating the variables of rarity vs. abundance and Vintage vs. Second-Hand vs New Collection items, in relation to consumers' preferences. That said, the following research questions are addressed in this paper: In general, do consumers value more a jewelry piece when perceived as rare? Can rarity significantly increase the perceived value of Vintage jewelry? Can rarity significantly increase the perceived value of Second-Hand/Estate jewelry? Can rarity significantly increase the perceived value of new collection jewelry? And, are there significant differences in how rarity can increase the perceived value of pre-owned jewelry (vintage, second-hand) in comparison to new collection jewelry?

## **2. Literature Review**

### **2.1. The Resale Market**

The resale market has been growing steadily in recent years; in 2021 the second-hand market reached \$36B and is projected to double in the next five years, reaching \$77B by 2025; resale, the sector of second-hand that includes a more curated variety, is driving this growth. Furthermore, the resale market is expected to grow 11 times faster than the broader retail clothing sector (ThredUp, 2022). The latter can be explained by several factors. First, it is important to mention that thanks to the increase of ecommerce, particularly online resale platforms it is easier than ever for people to sell and buy garments.

Another factor of uttermost importance is the role of younger generations in powering the rise of the second-hand market; over 40% of Millennials and Gen Z consumers have shopped secondhand apparel, shoes, or accessories in the past 12 months (ThredUp, 2022). For them thrifting is a “lifestyle”; the act of thrifting offers the chance to differentiate themselves from their peers by looking unique; a way to “save the planet” as well as saving money. (Refinery29, 2020).

Covid-19 it’s also a key element for explaining why the resale market growth is surpassing the retail industry. Since the pandemic, the global fashion industry has faced exceptionally challenging conditions (McKinsey & Company, 2022). During this time, consumers bought less apparel overall, but many started thrifting as a “new pandemic habit” that is expected to continue; in 2020 33M consumers bought second-hand apparel for the first time and resale is projected to grow 5.4 times over the next five years, accelerating post-Covid (ThredUp, 2022). The pandemic also intensified the on-going and pre-existing critique to consumerism and fast fashion while also increasing the importance of sustainability and more conscious shopping habits for consumers (McKinsey & Company, 2021). These factors, added to the need for unique finds and saving money, are possible explanations for the shifting from traditional first-hand fashion to second-hand.

As the future of resale is fast-growing and seems to be gaining significance in the eyes of the consumer, it is not only important but also interesting to explore this matter.

### **2.1.1. Vintage and Second-hand**

Vintage and Second-hand are two different concepts that are frequently confused. The word vintage derives from the French vendange which means grape harvest and it was commonly used among winemakers to describe wines from superior quality (Castelvetere, 2017). Currently, this term is used not only for wine but in a wider sense across different categories including clothing, accessories, cars, furniture, etc. that were designed and manufactured in the 20<sup>th</sup> century (Castelvetere, 2017). More specifically in the fashion industry, this denomination is used to describe “a rare and authentic piece that represents the style of a particular couturier or era” (Gerval, 2008). Another definition identifies fashion garments, including jewelry, as vintage “when it is produced in the period between the 1920s and the 1980s” (Cornett et al., 2010; Cervellon et al., 2012; Kessous & Valette-Florence, 2019). Vintage garments are usually associated with value since they are a representation of a past era and tend to become more precious and prized with time due to their age and scarcity (Sarial-Abi et al, 2017). It is also important to mention that these objects even though being previously owned don’t necessarily have to be used to be considered vintage (Sihvonen & Turunen, 2016).

By contrast, the term second-hand includes all pieces of fashion garments that have been pre-owned and used despite their age. (Cervellon et al., 2012; Turunen & Leipämaa-Leskinen, 2015). Second-hand shopping is usually associated with good deals and finds that are advantageous to the buyer due to lower prices in comparison to first-hand products (Roux & Guiot, 2008). Second-hand buying is also defined as “the acquisition of used objects through often specific modes and places of exchange that are generally distinct from those for new products” (Guiot & Roux, 2008 pag.66). However, these “places of exchange” can often be the same for second-hand and vintage garments, especially through online platforms. Even though this fact might add to the confusion, as well as the possible overlap between the two terms it is important to understand the difference between them and use them correctly. This is especially important when taking

into consideration the fact they represent a completely different type of consumer and purchase motivation that will be explored in the next chapter.

Even though some literature might consider an overlap between these two terms (some vintage pieces might be second-hand, and some second-hand pieces might be vintage) for the purpose of this research, when mentioning vintage and second-hand it will be based on the definitions already mentioned that are based on the available literature, and with no overlap between them.

### **2.1.2. Purchasing Motivations and consumer types**

Different studies have explored the motivations behind buying pre-owned fashion pieces, but few have compared the different motivations for buying vintage and second-hand pieces. The research of Cervellon, Carey, and Harms (2012) analyzed this matter and showed that the profile of Vintage fashion consumer and the Second-hand fashion consumer are very distinct as well as what drives them to buy these products.

Vintage customers are motivated by nostalgia and a strong need for uniqueness, therefore are typically described as consumers that are looking for rare and precious items with heritage. Another driver is fashion involvement, the more involved in fashion the consumer is the more they buy vintage garments. Education also plays an important role when characterizing vintage consumers considering that “the knowledge of the relevant fashion history as well as the knowledge of good sources for obtaining original artifacts is [. . .] an important component of their (sub) cultural capital” (Jenss 2005, p. 182), the higher level of education of the consumer the higher the purchasing intention of vintage fashion pieces. Furthermore, typically vintage fashion consumers have higher income in comparison to second-hand consumers, taking into consideration the usual high prices of vintage fashion pieces. (Cervellon et al., 2012)

Alternately, second-hand consumers’ main motivation is frugality. Consumers interested in buying second-hand items are usually looking for good finds, singular pieces but at lower prices (Cervellon et al., 2012). Second-hand consumers’ can also be described by being environmentally conscious consumers. In fact, another important motivation for

buying second-hand goods is following a sustainable lifestyle that rejects consumerism and fast-fashion (Cervellon et al., 2012; Roux & Korchia, 2006; Guiot and Roux, 2010; Carrigan et al., 2013; Turunen & Leipämaa-Leskinen, 2015).

The recreational experience of shopping is one topic that is also interesting to explore. Even though being important common ground for both types of consumers Cervellon, Carey, and Harms (2012) argue that they value different aspects of this recreational shopping experience. Second-hand consumers have a price sensitivity mindset, so they enjoy the possibility of finding a remarkable piece at a cheap price; shoppers derive pleasure not only from finding the gem but specifically from finding the gem “at just 99cts” (Bardhi, 2003, p. 375). For Vintage consumers the enjoyment comes from finding a unique piece and hunting for a treasure.

A more recent study by Kessous and Valette-Florence (2019), added the purchasing motivations of first-hand consumers to the discussion. This research showed that when compared to second-hand and vintage consumers of luxury products, first-hand consumers of luxury items tend to “display their power, look for social recognition and want to be recognized as an expert”.

## **2.2. The Pre-owned Jewelry Market**

The market for pre-owned luxury items—mainly jewelry and watches—is worth about €21 billion worldwide and growing at 8% a year, faster than the luxury industry overall (BCG, 2020). This fast-growing market, that is still in the early stages, creates an opportunity for brands and retailers that want a piece of the pie.

Watches are the main player of this market, being responsible for about 75% of second-hand sales, with jewelry occupying the remaining 25% (BCG, 2020). This expansion was already ongoing before Covid-19, but the pandemic and the global slowdown accelerated it. The increase in online sales, the changing consumer preferences, and the rising interest and concern about the sustainability of luxury goods also contributed to the growing sales (BCG, 2020).

The financial uncertainty during the Covid-19 crisis created a special environment where more clients saw buying second-hand luxury as an investment for their future. Because

with second-hand luxury goods there is no immediate drop in value as opposed to brand new items. In 2020, “62% of luxury consumers said that they would consider buying a second-hand luxury item and 25% indicated that they made such a purchase in the past year (18% of whom purchased watches and jewelry)” (BCG, 2020).

### **2.2.1. Estate, Antique and Vintage Jewelry**

As explained before, pre-owned fashion garments (clothing, accessories) can be distinguished between Vintage and Second-hand. However, jewelry has its own different categories: Antique, Vintage, and Estate jewelry. Since this research will be focused on the pre-owned jewelry market it is crucial to analyze these classifications and understand their relation to the literature explored previously. The broadly accepted main factor to categorize a jewelry piece is its age. “An Antique piece of jewelry was created at least 100 years ago; Vintage pieces are at least 25 years old; Estate jewelry is usually defined as any jewelry that is sold, then resold, and comes back into the marketplace. It could have been created last month, last year, or up to 25 years ago” (The Three Graces, 2019). Here we can see a connection between the term “estate” used for jewelry and “second-hand” used for clothing, both must have been used and age is not an important factor. The term “vintage” used for clothing and jewelry also has its similarities, for clothing the period is from 1920s up until 1980s and for jewelry the period is extended until 1990s.

Other aspects, like style, also play a role when describing jewelry. For example, when considering an Art Deco engagement ring this piece should have been created in the Art Deco period (1925-1935), if it was created anytime later but made to resemble that style then it is not an original piece but a reproduction. However, this fact does not influence if the ring is considered vintage or not. For instance, if the Art-Deco style ring was manufactured in 1950 it is a reproduction but still considered vintage (The Three Graces, 2019). Thus, even though the style is an important factor when analyzing the value of a jewelry piece this research will only focus on the main category.

When it comes to the different motivations behind buying estate and vintage jewelry and the profile of these consumers the literature explored before for fashion garments will also be applied in the jewelry realm, since fashion garments include accessories. Therefore, for the purpose of this research, the focus will be on estate and vintage jewelry

only (excluding antique jewelry) so that the parallel with the analyzed literature can be preserved.

### **2.3. The Rarity principle**

Rarity is a topic that has been widely discussed in consumer behavior and it is especially relevant when talking about luxury products. Luxury and rarity come hand in hand, as a big part of luxury appeal is its exclusivity (Catry, 2003). Marshall (1920) provided one of the earliest discussions about the human desire for social distinction by obtaining goods that others cannot buy. Brock (1968) further proposed a commodity theory of value. In this theory, he argued that the more unavailable a commodity is the more valuable it is. He also framed a hypothesis around the idea that people might prefer scarce commodities instead of more available ones in order to boost their sense of personal uniqueness. Vigneron and Johnson (1999) stated that demand for luxury products consists in several components, one of them being the snob effect. The “snob effect” is related with the perceived unique value of a product. For snob consumers the price of a good is an indicator of privilege as well as low availability so they avoid using popular brands; there is a motivation towards separation from other individuals (Uzgoren & Guney, 2012). Lastly, rarity goods are the opposite of network goods since with rarity goods the value of ownership to each owner decreases as the number of owners increases (Koford & Tschoegl, 1998).

#### **2.3.1. Heuristics of Scarcity**

The principle of rarity has also been explored in other fields outside the luxury products realm. For example, Frank (1985) argued that when choosing their professional occupations, people are partly influenced by the perceived rarity of those positions; he revealed that people are willing to accept a lower salary if that means having a more prestigious (scarce) position. In fact, scarcity can shape how we react to commodities and enhance the value of anything that can be possessed (Verhallen & Robben, 1994) whether that is a job position, a car, or a jewelry piece. Some commodities naturally have the requirements to be scarce, for example, an antique piece. Others become rare, not from

natural causes but thanks to marketing strategies designed to increase purchases. However, Oruc (2015) argues that what is truly relevant is that in both cases there is a limited opportunity to purchase, whether the product is scarce by natural causes or marketing manipulation.

Scarcity is generally divided into two types: product scarcity and resource scarcity. Product scarcity is related to “access to goods and services for purchase” and resource scarcity is associated with “scarcity of the resources necessary to purchase goods and services” (Hamilton et al., 2019). There are also two types of “scarcity messages” that are often used: limited-time and limited-quantity. In a limited-time scarcity message, the offer is only available for a limited and predefined time; In a limited-quantity scarcity message, the offer is only available for a limited and predefined quantity of the product. (Aggarwal et al., 2011).

Consumers’ perception of rarity shapes their thinking, creating a sense of urgency and raising the product’s perceived value. As a result, people buy more quantity of the product with shorter searches. As pointed out by a study by Knishinsky in 1982, in which subjects that were told that soon there would be a scarcity of beef purchased twice the amount of beef as compared to those that did not receive this scarcity message. (Aggarwal et al., 2011). Furthermore, when confronted by a promotion of limited time consumers are not only more willing to buy but also more motivated to accelerate the purchase so they can benefit from the promotion in time and therefore there is less possibility to search for other options (Aggarwal & Vaidyanathan, 2003). The latter consumer behavior happens because our brain uses shortcuts -heuristics- to make decisions; with the scarcity heuristic, the brain immediately associates the value of a product with how rare that product is (Cialdini, 1984; Lee & Choi, 2014). In his book, Cialdini points out the importance of potential loss in the decision-making process showing various examples of how people are more motivated by the idea of losing something compared to the idea of gaining something of the same value; so, for example when faced with a situation of limited-time promotion the consumer will be influenced by the idea of potential loss that comes with not taking the opportunity. Furthermore, it is also stated that limited opportunities -scarcity- act as a psychological way of limiting our freedoms and the need to “retain our freedoms makes us desire them (as well as the goods and services associated with them) significantly more than previously” (Cialdini, 1984 pag. 184).

It is also important to add that even though rarity is a critical aspect of the value of vintage products this relationship has never been experimentally tested, only tested through correlational and qualitative studies. It is then important to experimentally test this relationship to prove the proposal that rarity is a key factor for vintage products, such that without it the product will devalue more than a new product would under the same circumstances.

#### **2.4. Need for uniqueness through rarity**

The notion of consumers' need for uniqueness derives from Snyder and Fromkin's (1977) theory of uniqueness. According to this theory, self-perception of uniqueness is threatened when people perceive themselves as being highly similar to other people and thus feel "motivated to seek some sense of difference relative to others" (pag. 34). Furthermore, consumers' need for uniqueness has been defined as "the trait of pursuing differentness relative to others through the acquisition, utilization and disposition of consumer goods for the purpose of developing and enhancing one's social and self-image" (Tian et al., 2001 p. 52); in fact, some products, categorized as conspicuous consumption goods, have this ability to satisfy social needs and can be used to communicate and express people's uniqueness (Gierl et al., 2010). Additionally, consumers' need for uniqueness can be manifested in three different ways: creative choice counter conformity, unpopular choice counter conformity, and avoidance of similarity (Tian et al., 2001). The first one is the most common way for people to express their individuality, they do so through the creation of a personal style by acquiring material goods that are original and that represent the self. Creative counter conformity reflects that the consumer tries to differentiate itself from others but at the same time wants to choose products that are accepted and valued by the same others. Inversely, through unpopular choice to counter conformity people pursue differentiation by purchasing goods that deviate from the consumer norms and so risk social disapproval, however, this behavior may also enhance the consumer's self-image and social image. Lastly, the third demonstration of consumers' need for uniqueness is by avoiding similarity; in this dimension, consumers lose interest in possessions that are mainstream in order to reaffirm their individuality (Tian et al., 2001; Cervellon et al., 2012).

Whichever way the consumer chooses to manifest their need for uniqueness, one attractive option to satisfy this necessity is through purchasing scarce products (Amaldoss & Jain 2005). This idea was first explored in the Commodity Theory (Brock 1968) which presupposed that people might prefer scarce commodities because these would enhance the possessor's sense of uniqueness.

As mentioned before, several authors have made a connection between vintage products and the uniqueness factor and explored how the latter is a key factor for vintage consumption (Cervellon et al., 2012; McColl et al., 2013; Amatulli et al., 2018). In her study, Cervellon investigated the main drivers of vintage consumption and showed that one of the main motives behind acquiring vintage fashion is 'consumers need for uniqueness'; the study's method consisted of a survey on which participants had to grade on a seven-point scale their agreement with statements concerning their future behavior intentions towards vintage pieces. (Cervellon et al., 2012). McColl's research is an exploratory study where one of the main purposes is defining vintage fashion through the perspective of vintage retail store's managers and in their definition it is mentioned that vintage fashion is "valued for their uniqueness and authenticity" (McColl et al., 2013 p. 148); in order to get to this conclusion, interviews were conducted to managers and proprietors of vintage retail stores in which they were asked to define the typical vintage consumer and vintage fashion. In addition, a recent work of Amatulli et al 2018 showed the main eight attributes of luxury vintage products, one of them being uniqueness. Those eight main attributes are then connected with seven psychological consequences, one of them being distinction. It is also revealed in the study that "the strongest relationship of the overall map is the one linking the unique attribute to distinction" (Amatulli et al, 2013 p. 6); and that distinction, the psychological consequence mentioned more by respondents, also "appears related to the traditional concept of uniqueness of luxury products indicating that much of the value of luxury (vintage) products is derived from their exclusivity" (Amatulli et al, 2013 p. 5). This research consisted of interviews in which participants were asked to indicate typical attributes of luxury vintage products and then from a list of eight attributes of luxury vintage products had to select three that they believed were able to best identify their purchase habit.

All these studies indicate how crucial uniqueness and therefore rarity is for vintage products. However, this hypothesis has only been tested with correlational and qualitative

studies and never tested through an experimental study. Therefore, in this study it will be explored and tested how the effect of rarity on value is moderated by the products category; in other words how rarity is a crucial component for vintage products, increasing their value. Focusing specifically on the jewelry realm, uniqueness, and therefore rarity carries an important weight. In fact, the trading of rare fine jewelry is a discreet, “even secretive” world where the value of a piece depends on these conditions. If an item has been seen by too many people “it’s considered burnt” because people don’t want “stuff that’s been all over the place” (Financial Times, 2021). It is thus hypothesized that:

**H1.** Vintage jewelry pieces when presented with rarity cues are perceived as more valuable than when presented with abundance cues.

Furthermore, for the purpose of this study, the concept of estate jewelry is linked to the second-hand market. As mentioned previously, the ultimate goal of second-hand consumers is to find good pieces at a lower price. (Cervellon et al., 2012). Therefore, it is hypothesized that estate-jewelry won’t benefit as much from uniqueness and therefore rarity cues when compared to vintage jewelry.

**H2.** Vintage jewelry pieces benefit more in value from rarity cues than Estate- jewelry pieces would under the same circumstances.

Still regarding estate-jewelry, even though price sensitivity is the key factor for second-hand consumerism, there is also interest in the recreational experience of finding a “gem” (Bardhi, 2003, p. 375). That said, it is hypothesized that even though the moderating effect of rarity is higher for vintage jewelry than estate jewelry, it still has a positive impact in the value of estate jewelry, especially in comparison with new-collection jewelry pieces. When it comes to the first-hand market, uniqueness is not the main concern for this type of consumers. First-hand consumers are motivated by display of power and social status (Kessous & Valette-Florence, 2019). So, even though rarity has a positive impact on all types of products, new collection jewelry will benefit less from the attribute of uniqueness through rarity cues when compared to vintage jewelry and estate jewelry. That said, the following hypotheses were formulated:

**H3.** Vintage jewelry pieces benefit more in value from rarity cues than New-collection jewelry pieces would under the same circumstances.

**H4.** Estate-jewelry pieces benefit more in value from rarity cues than New-collection jewelry pieces would under the same circumstances.

## **2.5. Overview**

The importance of the attribute “uniqueness” for the vintage market has been explored before in several studies as authors argue that it is one of the key elements for buying pre-owned garments. Therefore, it can be hypothesized that uniqueness is in fact valuable for vintage jewelry and, consequently, H1 will hold true.

However, even though various studies have investigated the importance of uniqueness for the vintage market, the existence and degree of this relation have only been tested through correlational studies. Thus, this paper aims to test how much the manipulation of uniqueness, through rarity cues, can impact the value of different categories of products and compare them. Given that uniqueness plays a more important role for vintage products than for second-hand products, as mentioned before, H2 will presumably hold true.

Moreover, given that first-hand consumers are motivated by other attributes other than uniqueness, H3 and H4 should hold true.

### **3. Methodology**

The following chapter explores the methodology used to answer the hypotheses formulated in this study and the research question. Primarily, it will be given an overview of the sample collected followed by a description of the variables and measures. Finally, further information about the study will be presented.

#### **3.1. Participants**

The data was collected through a survey that was distributed online via social networks, namely WhatsApp, LinkedIn, and Facebook groups (Appendix I), and all respondents participated in the study on a volunteer basis.

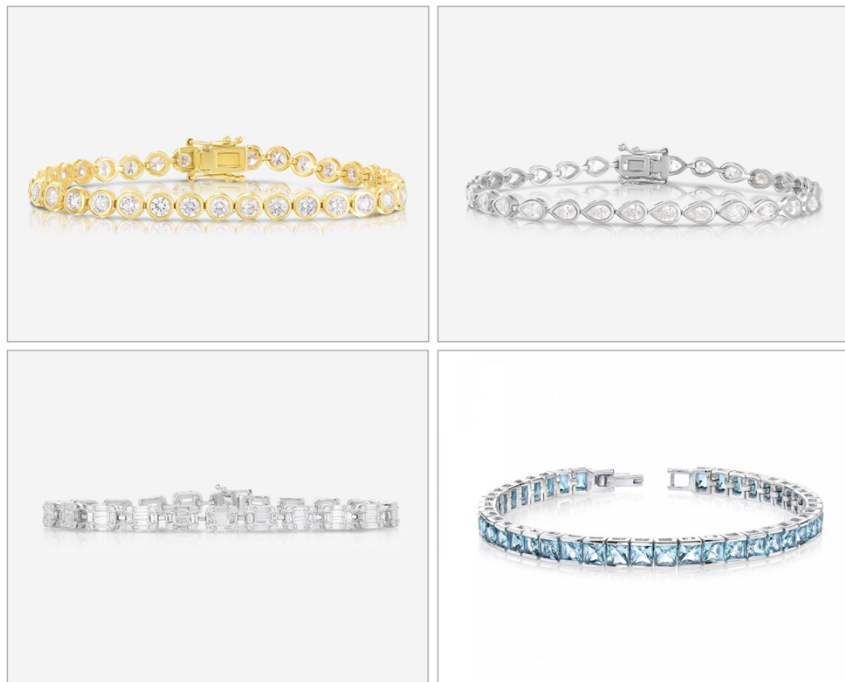
There were initially registered a total of 255 responses, however, 16 were incomplete and therefore excluded from the study. Of the remaining and accounted 239 participants, 129 were female, 101 male, 1 non-binary and 8 preferred not to say. In regard to age, an open response was used, and participants ranged between 15 and 65 years old, having most of them being in their twenties- about 62% are among 23 and 26 years old. The questionnaire was available in English in order to reach participants from different nationalities and responses came from a total of 23 countries providing validity to the study across cultures.

## 3.2. Materials

### 3.2.1. Independent Variables

In order to validate the hypotheses, two independent variables were manipulated, *product type* and *availability cues*. Within the independent variable availability cues there were two conditions - *rare* and *abundant* – and three conditions for product type: *Vintage*, *Second-Hand (Estate Jewelry)* and *New Collection*.

In the beginning of the survey participants were asked to access a link that would remit them to one of the three mentioned conditions, Vintage, Second-Hand (Estate Jewelry) or New-Collection. In each of the conditions there was a first message providing some context to the participant, and each message was different accordingly to the type of product. (see Appendix II for the three different messages).



In all of the three conditions participants were shown the same 4 tennis bracelets (see Figure 1). In order to make sure that the 4 different bracelets were perceived as esthetically equal in terms of its perceived value and desirability, a first questionnaire was conducted. The questionnaire included 12 different tennis bracelets and from those 12, the 4 pictures used in this survey were chosen due to their perceived similarity regarding a different number of attributes, namely their value and uniqueness. Also, the bracelets don't show linkage to any brand or jewelry marking in order to not influence consumer's preferences.

In order to manipulate the second independent variable, availability cues, a tag was connected to each bracelet providing information about its availability (All tags with correspondent bracelet in Appendix III). Therefore, in each condition of type of product, was presented to the participants two *rare* bracelets and two *abundant* bracelets. Creating the 6 conditions studied in this research: *Vintage Abundancy*, *Vintage Rarity*, *Second-Hand Abundancy*, *Second-Hand Rarity*, *New Collection Abundancy* and *New Collection Rarity*.

### **3.2.2. Dependent Variables**

The dependent variables were designed to analyze the participants opinions and preferences towards vintage, second-hand and new collection jewelry pieces, paired with rarity or abundancy cues. The main dependent variables analyzed in this study are discussed in the following paragraphs.

#### *Perception of Rarity/Uniqueness*

The perception of the bracelet's rarity was measured through four different questions: "To what extent is this bracelet unique?", "How rare do you perceive this bracelet to be?", "To what extent do you think this bracelet is owned by many people?" and "How common do you think this bracelet is?". The four questions used the same scale from 0 ("not at all") to 10 ("extremely"). The following questions were assessed to control and certificate that the rare products were perceived as such, same for the abundant ones.

### Attitudes Towards the Product

Three different questions were used to measure the attitudes towards each bracelet: “To what extent do you like this bracelet?”, “To what extent do you find this bracelet desirable?” and “To what extent do you find this bracelet valuable?”. The three questions used the same scale from 0 (“not at all”) to 10 (“extremely”). The objective of these questions was to understand the general attitude towards each different bracelet.

### Purchase Likelihood and Willingness to Pay

A question about the purchase likelihood was asked once for each bracelet: “How likely are you to purchase this bracelet for you or for a loved one?”. The question included the option of buying for someone else in order to include all participants, regardless of their gender identification. The question, like the ones before, followed the same scale from 0 (“not at all”) to 10 (“extremely”).

Another question included in the study was in regard of the participants’ willingness to pay. This question was formulated through a text entry; therefore participants were able to choose whichever numeric value with EUR currency. This question was formulated this way in order to avoid influencing participants about the real value of the bracelet.

‘Attitudes towards the product’ was the main dependent variable to measure consumer’s preferences. However, purchase likelihood and willingness to pay were used to support the study learn more about consumer’s behaviors.

### **3.2.3. Control Variables**

More questions were asked at the end of the survey to further gain insight about consumers' behavior and preferences.

#### *Importance Given to Uniqueness and Rarity*

It was relevant to understand if participants in general value uniqueness and rarity, and more importantly, control that no significant differences were found between types of product. To assess the latter three questions were included in the study: "Do you feel good when you wear different pieces from the majority of the people?", "How important is it for you to own pieces that are considered original?" and "How important is it for you to feel unique?". The three questions used the same scale from 0 ("not at all") to 10 ("extremely").

#### *Attitudes towards Jewelry*

It was also relevant to understand how much participants value jewelry in general and what are their shopping habits regarding jewelry. Therefore, three different questions were asked in that sense: "Do you buy jewelry for you or for others?" (From 0- "Never" to 10- "All the time"), "Do you buy pre-owned (vintage/estate) jewelry?" (From 0- "Never" to 10- "All the time") and "Do you value jewelry" (From 0- "Not at all" to 10- "Extremely"). Once again, the first question included buying for someone else in order to include everyone.

### General Levels of Self-Expression

General Levels of Self-Expression were also measured to further gain insight into whether participants value expressing themselves through jewelry and also, understand if they value expressing their individuality at all. Thus, four questions were asked following the same scale as before: “How important it is for you to express yourself through your consumer decisions?”, “To what extent do your consumer decisions allow you to express your identity and individuality?”, “To what extent do you think the consumption of fashion products and accessories, like jewelry, is a form of self-expression?” and “To what extent do you express your individuality through your clothing and accessories?”.

### Sustainability and Environmental Concerns

Finally, it was interesting to measure participants’ sustainability and environmental concerns. Even though not being directly linked to the research question, it added more information about consumers’ shopping habits. The following set of three questions was added to the study: “How concerned are you with the sustainability of your consumer decisions?”, “How important is it for you to make sustainable and environmentally friendly consumer decisions?” and “To what extent are you concerned about the environmental consequences of indulgent consumption behavior?”.

The variables mentioned before were also relevant to control whether significant differences were to appear between the three categories, in order to preserve the validity of the study.

### Demographics

In order to build a demographic profile of the respondents, it was asked for them to indicate their gender, age, and their country of origin. Regarding gender, participants were asked to select one option from a set of four: Male, Female, Non-Binary/Third Gender and ‘Prefer not to say’. Both age and country of origin were measured through

open-ended questions. Country of origin was preferred to nationality in order to simplify, given that people might have multiple nationalities.

### **3.3. Procedure**

Participants were sent a survey link that would remit them to a debrief page, in which they were asked to give consent to participate in the research and were granted anonymity and confidentiality. In the same page a link was provided to continue the survey, this link served as a randomizer for the three types of product being studied. Therefore, each participant was only assigned to one of the three condition of type of product: Vintage, Second-Hand and New Collection.

The survey started with a message that provided some context about the survey, namely that they were supposedly shopping for a tennis bracelet and where they were shopping for it. Naturally, this message was different for each condition of type of product. This initial text also explained to the participant that they were looking to buy a tennis bracelet that a set of four bracelets were gathered as possible options. Thus, they were asked to give their opinion about the latter.

The participants were shown the pictures of the tennis bracelets one at a time and each picture was attached to a tag that added some information about the bracelet. Like mentioned before, the tag provided the availability cues, rarity or abundancy. Therefore, participants were presented firstly with two ‘abundant’ tennis bracelet and then two ‘rare’ tennis bracelets. Following each image of the bracelet and the tag, a set of questions were asked in the order that follows. Firstly, preferences were measured concerning how much respondents liked, desired, and valued the specific bracelet and the extent to which they were likely to purchase it and their willingness to pay. Secondly, participants were asked questions on their perception on how unique and rare the product shown was. The same questions were repeated for each one of the four bracelets. In the second part of the study, participants were asked a set of questions to measure how they feel about uniqueness and rarity in order to understand how important it is for them to feel unique. Followed by questions to measure their general attitude towards jewelry and pre-owned jewelry. Then, an attention check was added, in which participants were asked to select the type of store

they supposedly went during the study. Finally, two more sets of questions were added to the study, in which respondents were presented with a scale to measure the extent to which they are concerned about sustainability and the environment followed by questions about their self-expression and individuality.

At the end of the study, in addition to demographic questions such as gender, age and country of origin, respondents were asked to state whether their answers were carefully read and truthfully answered or whether they would advise the researcher not to include them in the dataset for the study, given that they did not pay enough attention when responding to the survey.

### **3.4. Experimental Design**

The experiment followed a three Product Type (Vintage, Second-Hand, New Collection) x 2 availability cues (rarity, abundance) between subjects' design.

## **4. Results and Discussion**

This next chapter explores the analysis and results of the quantitative data. Firstly, a characterization of the sample collected, then the tests of the hypotheses, and a presentation of the statistical results.

### **4.1. Sample**

The present research had a total of 255 responses, of which 16 were excluded from the sample given that the answers were incomplete. Out of the accounted participants, 54% were female, 42% male, 0,05% non-binary and the rest preferred not to disclose. The age ranged between 15 and 65 years old, with 62% of the participants being from 23 to 26 years old (Mdn=25). Responses came from 23 countries, with the majority coming from Portugal (82%); although most answers are from Portugal, a good heterogeneity could still be guaranteed given that the remaining 18% include participants from almost every continent, with exception of Oceania. (Appendix: Gender, Age, Country of Origin).

## 4.2. Hypothesis Testing

### 4.2.1. Attitudes towards Products

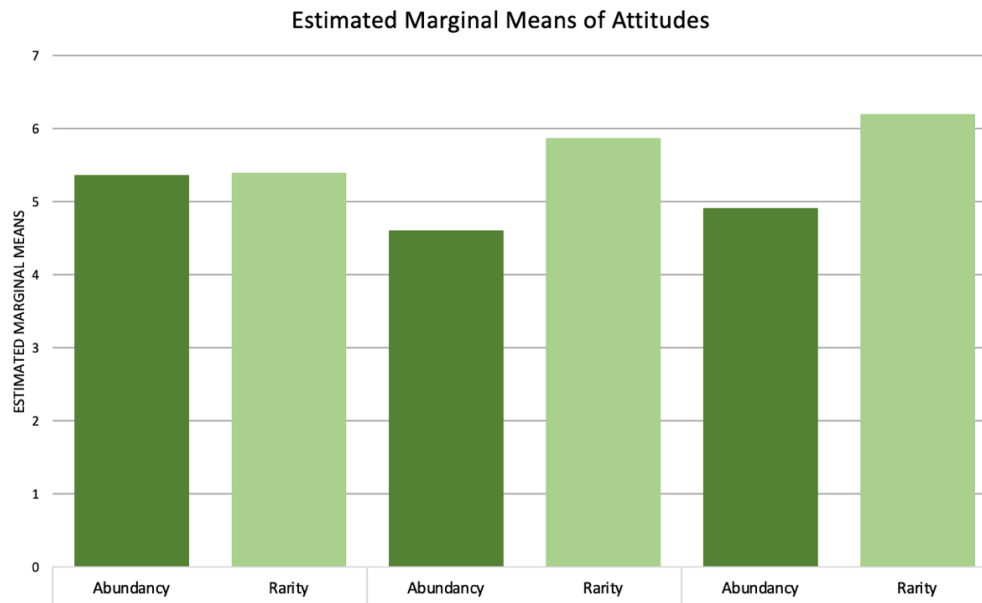
As mentioned before, respondents were asked questions about their attitudes towards different tennis bracelets. In order for the interaction between product type and availability cues could be studied, an ANOVA of 3 product type x 2 availability cues was performed in regard of the registered attitudes. This test revealed a significant main effect of the independent variable ‘availability cues’ ( $F=52.303$ ,  $p<.001$ ) indicating that when the bracelet is presented with rarity cues, and therefore perceived as more unique and rarer, it leads to higher levels of positive attitudes towards the tennis bracelet ( $M_{rarity}=5.812$ ,  $SE=0.115$ ;  $M_{abundancy}=4.950$ ,  $SE=0.126$ ). Additionally, no significant main effect of the independent variable ‘product type’ was found ( $M_{vintage}=5.55$ ,  $SE=0.181$ ;  $M_{NewCollection}=5.37$ ,  $SE=0.192$ ;  $M_{SecondHand}=5.22$ ,  $SE=0.169$ ;  $F=0.847$ ,  $p=.430$ ). Yet, we found a significant interaction between the variables product type and availability cues ( $F=11.383$ ,  $p<.001$ ).

This results suggest that the first hypothesis can be considered true ( $M_{VintageRarity}=6.19$ ,  $SD=1.796$ ;  $M_{VintageAbundancy}=4.90$ ,  $SD=2.151$ ;  $p<.001$ ).

#### Attitudes towards the product

Availability Cues	Product Type	Mean	St. Deviation
Abundancy	New Collection	5.35667	1.63790
	Second-Hand	4.59111	1.93637
	Vintage	4.90084	2.15086
	Total	4.91771	1.94761
Rarity	New Collection	5.38952	1.58460
	Second-Hand	5.85556	1.87383
	Vintage	6.19093	1.79551
	Total	5.82992	1.78832

Table 1: ANOVA descriptive statistics “Attitudes towards the product”



Graph 1: Interaction effect between availability cues and product type on attitudes towards the product.

The interaction suggests that the difference between the rarity and abundance condition is significant for the Second-Hand type of product ( $M_{rarity}= 5.86$ ,  $SD=1.87$ ;  $M_{abundance}= 4.59$ ,  $SD=1.94$ ;  $t(89)= -6.102$ ,  $p<.001$ ), it suggests that the difference between the rarity and the abundance condition is also significant for the Vintage type of product ( $M_{rarity}= 6.19$ ,  $SD=1.80$ ;  $M_{abundance}=4.90$ ,  $SD=2.15$ ;  $t(78)= -6.102$ ,  $p<.001$ ), but it is non-significant for the New Collection type of product ( $M_{rarity}= 5.39$ ,  $SD= 1.58$ ;  $M_{abundance}= 5.36$ ,  $SD= 1.64$ ;  $t(69)= -0.143$ ,  $p=.887$ ). That being said, even though there is a general rarity effect in which people tend to like more rare products, the significant interaction of the type of product shows that the effect is particularly strong for vintage and second-hand products.

Furthermore, as we can see in Graph 1, both Vintage category as well as Second-Hand category, benefit from rarity cues when it comes to attitudes towards the product. Therefore, H2, which indicated that Vintage pieces benefit more in value from rarity cues than Estate-Jewelry Pieces (Second-Hand), will probably be rejected.

In order to test this, an ANOVA of 2 product type x 2 availability cues was performed to analyze attitudes towards the products in the rarity and abundance condition, comparing Vintage and Second-Hand. The results showed a significant main effect of the availability cues, as already seen, ( $F=85.161$ ,  $p<.001$ ). However, the interaction between availability

cues and product type in non-significant ( $F=0.009$ ,  $p=.926$ ). This result rejects H2.

Regarding H3, which states that Vintage jewelry pieces benefit more in value from rarity cues than New-Collection jewelry pieces, an ANOVA of 2 product type x 2 availability cues was done to analyze the interaction between product type and availability cues. The results showed a significant interaction ( $F=16.25$ ,  $p<.001$ ) and that the effect of the availability cue is significantly higher in the Vintage condition ( $M_{rarity}= 6.19$ ,  $SD= 1.80$ ;  $M_{abundancy}= 4.90$ ,  $SD= 2.15$ ) than in the New Collection condition ( $M_{rarity}= 5.39$ ,  $SD= 1.58$ ;  $M_{abundancy}= 5.36$ ,  $SD= 1.64$ ). Therefore, we can conclude that H3 holds true.

Furthermore, a paired sample t-test was done to further analyze differences between rarity and abundance in the New Collection condition. Showing once more that availability cues are non-significant for New Collection.

Regarding H4, this hypothesis indicated that Estate Jewelry pieces (Second-hand) benefit more in value from rarity cues than New Collection pieces. In order to analyze the interaction between product type and availability cues an ANOVA of 2 product type x 2 availability cues was conducted for the registered attitudes, for the Second-hand and New Collection conditions. This test revealed a significant main effect on the independent variable 'availability cues' ( $F= 20.20$ ;  $p<.001$ ).

The interaction suggests that the effect of rarity is significantly larger for Second-Hand than for New Collection. Therefore, we can conclude that H4 is correct.

#### **4.2.2. Purchase Likelihood**

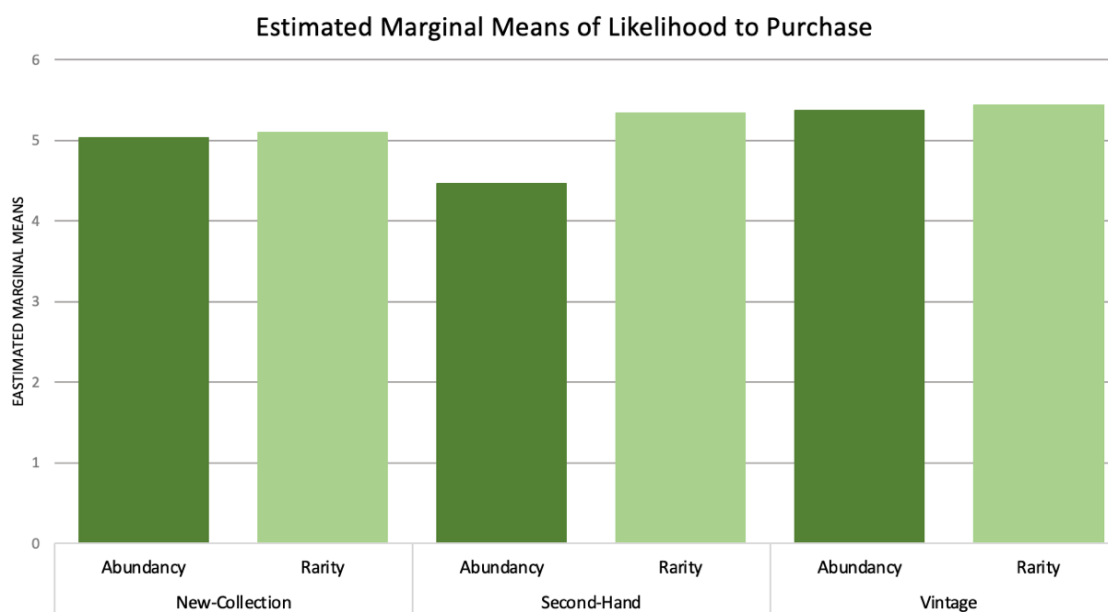
In order to explore this measure, an ANOVA of 3 product type x 2 availability cues was performed, revealing a significant main effect of the independent variable 'availability cues' ( $F= 6.893$ ,  $p= .009$ ) suggesting that there is a general preference for rare products ( $M_{rarity}=5.29$ ;  $M_{abundancy}=4.952$ ). We did not find a significant main effect of the independent variable 'product type' ( $M_{vintage}= 5.40$ ,  $SE=0.243$ ;  $M_{NewCollection}= 5.06$ ,  $SE =0.259$ ;  $M_{SecondHand}= 4.90$ ,  $SE=0.228$ ). Yet, we found a significant interaction between product type and availability cues ( $F= 4,607$ ,  $p= .011$ ).

#### **Purchase Likelihood**

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Availability Cues	Product Type	Mean	St. Deviation
Abundancy	New Collection	5.02857	2.37115
	Second-Hand	4.46111	2.12823
	Vintage	5.36709	2.74645
	Total	4.92678	2.43829
Rarity	New Collection	5.10000	2.21425
	Second-Hand	5.33333	2.33440
	Vintage	5.43671	2.44997
	Total	5.29916	2.33340

Table 2: ANOVA descriptive statistics “Purchase Likelihood”



Graph 2: Interaction between availability cues and product type on purchase likelihood.

The interaction suggests, and as we can see in the graphic above, that there is a general preference for rare products. However, the differences between rarity and abundance are only significant in the Second-Hand condition. To further analyze this t-tests were performed. In the Second-Hand condition, significant differences between likelihood to purchase rare and abundant products were found ( $M_{rarity}= 5.33$ ,  $SD= 2.33$ ;  $M_{abundance}= 4.46$ ,  $SD= 2.13$ ;  $t(89)= -0.449$ ,  $p<.001$ ). However, the same did not happen for the Vintage category. Even though a preference for rare products was shown, the difference between likelihood to purchase rare and abundant products is non-significant ( $M_{rarity}= 5.44$ ,  $SD= 2.45$ ;  $M_{abundance}= 5.37$ ,  $SD= 2.75$ ;  $t(78)= -0.519$ ,  $p= .605$ ). For the New-Collection the results follow the same line. There were no significant differences between likelihood to purchase rare and abundant products ( $M_{rarity}= 5.10$ ,  $SD= 2.21$ ;  $M_{abundance}= 5.03$ ,  $SD= 2.37$ ;  $t(69)= -0.234$ ,  $p= .816$ ).

The results found in the New Collection and Second-Hand category show a similar pattern to the results from the 'attitudes towards the product'. However, the same did not happen for the Vintage type of product. The latter might be explained by the variable itself. Given that 'purchase likelihood' might not be the best way to measure and analyze consumer preferences (Kalwani & Silk, 1982).

That said, the variable 'likelihood to purchase' was not given the same importance as the 'attitudes towards the product'. Although, these findings are in line with H4.

### **4.2.3. Willingness to Pay**

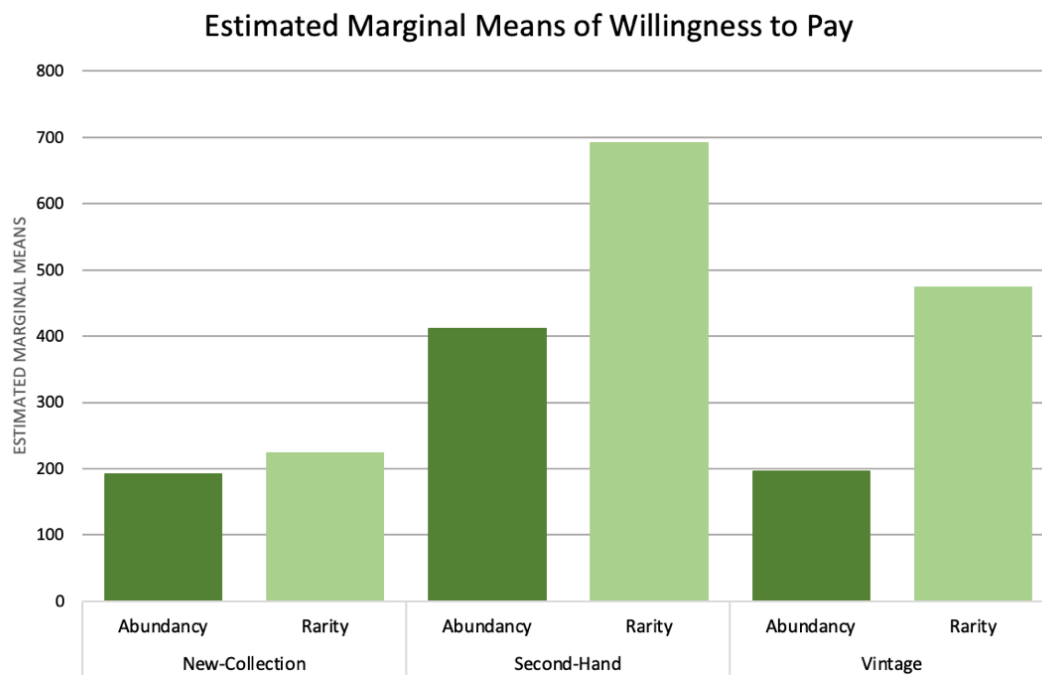
An ANOVA of 3 product type x 2 availability cues was performed for the Willingness to Pay. This test revealed a significant main effect of the independent variable 'availability cues' ( $F=17.855$ ,  $p<.001$ ) indicating that when the bracelet is in the rarity condition it leads to higher levels of willingness to pay ( $M_{rarity}=426.673$ ,  $SE=83.925$ ;  $M_{abundance}=266.320$ ,  $SE=48.262$ ). We did not find a significant main effect of the independent variable 'product type' ( $M_{vintage}=334.4$ ,  $SE=111.414$ ;  $M_{NewCollection}= 207.6$ ,  $SE=118,360$ ;  $M_{SecondHand}= 551.6$ ,  $SE=104.384$ ;  $F=2.496$ ,  $p=.085$ ). Yet, we found a marginally significant interaction between product type and availability cues ( $F=2.987$ ,  $p= .052$ ).

#### **Willingness to Pay**

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Availability Cues	Product Type	Mean	St. Deviation
Abundancy	New Collection	192.143	411.414
	Second-Hand	411.683	1112.03
	Vintage	195.133	325.513
	Total	275.803	746.613
Rarity	New Collection	223.007	640.404
	Second-Hand	691.456	1877.45
	Vintage	473.557	809.470
	Total	482.228	1299.26

Table 3: ANOVA descriptive statistics “Willingness to Pay”



Graph 3: Interaction between availability cues and product type on willingness to pay.

The interaction suggests, and as we can also see in the graphic above, that the differences between rarity and abundancy are non-significant for the New Collection condition ( $M$

$rarity = 223, SD = 640.4; M_{abundance} = 192.1, SD = 411.4; t(69) = -0.769, p = .445$ ), but it also suggests that for the Second-Hand condition ( $M_{rarity} = 691.5, SD = 1877.4; M_{abundance} = 411.7, SD = 1112.03; t(89) = -0.2885, p = .005$ ) and for the Vintage condition ( $M_{rarity} = 473.6, SD = 809.5; M_{abundance} = 195.3, SD = 325.5; t(78) = -3.574, p < .001$ ) the difference is significant. So even though there is a general willingness to pay more for rare products ( $M_{rarity} = 462, SD = 83.9; M_{abundance} = 266.3, SD = 48.3$ ) the effect of availability cues is non-significant in the New Collection condition and significant for the Second-Hand and Vintage condition, further supporting the acceptance of the hypotheses formulated.

It is also relevant to add that in general participants were willing to pay more for Second-Hand products ( $M_{SecondHand} = 551.6, SE = 104.384$ ) than for Vintage products ( $M_{Vintage} = 334.4, SE = 111.414$ ), followed by New Collection products ( $M_{NewCollection} = 207.6, SE = 118.360$ ). However, these results might lead to misleading conclusions given that participants were free to insert any amount of money and so it did not follow the same scale as the other variables. Therefore, the variable ‘willingness to pay’ – similarly to likelihood to purchase – was used to gain further insight but was kept separate from ‘attitudes towards the product’ to assess participants’ preferences.

#### **4.2.4. Perception of rarity and uniqueness**

In order to control and make sure that participants perceived rare products as such, and the same for abundant ones, paired t-tests were performed. The results showed that the perception of uniqueness was significantly different ( $t(1) = -13.246, p < .001$ ) for products in the rarity condition ( $M_{rarity} = 5.92, SD = 1.577$ ) and products in the abundant condition ( $M_{abundance} = 3.99, SD = 1.685$ ).

#### **4.2.5. Control Variables- Results**

### Importance Given to Uniqueness and Rarity

In general, respondents showed to care about uniqueness and rarity ( $M_{Total}= 6.57$ ,  $SD= 2.14$ ) and no significant differences were found between the different conditions of product type ( $M_{NewCollection}= 6.82$ ,  $SD=1.99$ ;  $M_{SecondHand}= 6.26$ ,  $SD= 2.34$ ;  $M_{Vintage}= 6.72$ ,  $SD= 1.99$ ;  $F=1,634$ ;  $p=.197$ ). These results are relevant because, if one of the conditions shown a highly importance given to uniqueness this could influence the results of the study.

### Attitudes towards Jewelry

No significant differences were found between the different conditions of product type, when it comes to attitudes towards jewelry in general ( $M_{NewCollection}= 4.78$ ,  $SD= 1.92$ ;  $M_{SecondHand}= 4.96$ ,  $SD= 2.43$ ;  $M_{Vintage}= 4.41$ ,  $SD= 2.18$ ;  $F= 1.328$ ;  $p= .267$ ). However, in the Vintage condition, participants showed to value jewelry slightly less and, even though there are no significant differences, this could be a possible explanation for why participants in the Vintage condition were less willing to purchase rare jewelry (when compared to the other conditions) and why participants in the Vintage condition were willing to pay less money for the bracelets in general in comparison with participants in the Second-Hand condition.

### General Levels of Self-Expression

Generally, participants revealed to value self-expression and to express themselves through jewelry ( $M_{Total}= 6.140$ ,  $SD= 1.99$ ) and no significant differences were found between the different conditions of product type ( $M_{NewCollection}= 6.30$ ,  $SD= 1.99$ ;  $M_{SecondHand}= 6.15$ ,  $SD= 1.97$ ;  $M_{Vintage}= 5.99$ ,  $SD= 2.04$ ;  $F= 0.446$ ;  $p=.641$ ).

### Sustainability and Environmental Concerns

Although not being directly linked to the study in question it was interesting to see that in general participants showed to be environmentally and sustainably conscious about their shopping habits ( $M_{Total}= 6.26$ ,  $SD= 2.23$ ) and no significant differences were found between the different conditions of product type ( $M_{NewCollection}= 6.59$ ,  $SD= 1.70$ ;  $M_{SecondHand}= 6.20$ ,  $SD= 2.48$ ;  $M_{Vintage}= 6.02$ ,  $SD= 2,32$ ;  $F=1.272$ ;  $p=.282$ ).

## **5. Conclusion and Further Research**

### **5.1. Main Findings and Conclusions**

The purpose of this research was to understand if rarity is an essential aspect for the value of Second-Hand and Vintage Jewelry. Therefore, in order to assess this, we analyzed how availability cues affect consumers' preferences towards pre-owned products (Vintage and Second-Hand) in comparison to new collection products.

In general terms, a preference was found for rare over abundant products, but the results also showed a significant interaction between product type and availability cues. This interaction revealed that the difference between rarity and abundancy are stronger for Vintage and Second-Hand jewelry and non-significant for New Collection jewelry. Therefore, this is an indication that what makes Pre-Owned Jewelry valuable, what distinguishes it from New Collection jewelry is this rarity aspect, as hypothesized by the current study.

It was also interesting to understand that, in contrary to what was initially thought, Vintage jewelry does not benefit more in value from rarity cues than Second-Hand jewelry, there are no significant differences in that aspect. The results showed that, when it comes to consumers' preferences, Second-Hand products are perceived in the same way as Vintage.

Regarding purchase likelihood and willingness to pay, the study also found a significant effect. Concerning likelihood to purchase, the interaction found suggested that the differences between rarity and abundancy are only significant for Second-Hand products. This result was surprising because it was expected to also be significant for Vintage

products. However, this might be explained by the fact that participants in the Vintage condition showed to value jewelry in general terms less than participants in the Second-Hand condition.

In addition, even if statistically non as significant, the pattern found through the measure willingness to pay was similar to what was already seen through the attitudes. In general, participants were willing to pay more for rare products , however this was especially true in the Second-Hand and Vintage condition, whereas in the New-Collection condition no significant differences in willingness to pay where found. This further proves that rarity is extremely crucial for pre-owned jewelry.

## **5.2. Managerial and Academic Implications**

This research contributes to the comprehension of consumer behavior and preferences in relation to rarity within the pre-owned and new collection jewelry; focusing on the differences in preferences according to the availability cues in Vintage, Second-Hand and New-Collection jewelry. This study aims to add the experimental dimension to the previous correlational, exploratory and qualitative studies and also, branch out of the clothing category, that has been already highly studied, by exploring the jewelry market. To the best of our knowledge, consumer behavior and preferences towards jewelry and the jewelry market in general has not been a common topic of study.

Academically, the research provides insights into the differences between Vintage and Second-Hand, two concepts that are frequently confused, exploring not only their definitions but also the different types of consumers associated to each of them and their purchasing motivations. Nevertheless, it is important to add that even though being to different categories and typically having dissimilar characteristics, when looking at the results, these two categories are perceived as the same regarding the impact of availability cues. In addition, insights into the jewelry market are provided, exploring the different types of pre-owned jewelry. The study also highlights the heuristics of scarcity: specifically how consumers' perception of rarity is able to shape their thinking and ultimately influence and change their preferences. Like the results showed, this effect of rarity appeared to interact differently according to the type of product, Vintage, Second-

Hand or New-Collection. As a matter of fact, rarity appeared to only influence participants attitudes towards pre-owned jewelry in a significant way, whereas when it comes to New-Collection jewelry, even though rare products were preferred to abundant ones, this difference was non-significant.

This study also added the jewelry realm to the conversation, therefore, on a managerial perspective, findings can be useful for jewelry stores' owners and managers. Specifically, when deciding which marketing approach should be used for each type of product. In order to Vintage and Second-Hand jewelry be valued and appreciated more, in terms of preferences and money, these garments should be marketed as unique and rare finds. Moreover, Vintage and Second-Hand stores should, if possible, focus on selling older pieces, given that in the jewelry market age is often associated with rarity. Regarding jewelry stores that only sell New-Collection pieces, findings suggest that, even though people tend to prefer rare products, the difference is non-significant, therefore it might be indifferent for new-collection products to be marketed as rare or abundant. However, according to the findings regarding willingness to pay, it might be beneficial for these stores to invest on Second-Hand jewelry, given that participants in that condition were willing to pay more money for the bracelets.

In conclusion, both academically and managerially, it is interesting to see how consumers preferences differ according to the type of product and availability cues, regardless of the type of consumers and whether they are used to buy pre-owned products or not.

### **5.3. Limitations and Future Research**

It is important to consider that the present study has its several limitations. First, regarding the results found through the measure 'likelihood to purchase'. It was expected significant differences on how participants were likely to purchase a rare Vintage product and an abundant Vintage product, which did not happen. The reason might be related with the fact that participants in the Vintage condition value slightly less jewelry in general terms, in comparison with Second-Hand participants. About sample size and sample characterization, responses from participants that did not pass the attention check also were included in the study, since it was believed that those participants were equally distributed in the three conditions of product type. Nevertheless, the study might have been more reliable if those participants were not included in the data. Moreover, the sample showed a prevalence of females. Even though jewelry is often associated with women and, at first it might appear to be more beneficial to have more answers from females, nowadays those gender associations are often invalid, given that men also buy jewelry for themselves and for other people. Therefore, the sample could have been more representative if the gender was more balanced. Lastly, taking into consideration that this is an experimental study, it would have been more interesting if it was conducted in a real-life store scenario.

That said, regarding future research, it would be valuable to conduct a similar study but in a real-life environment in order to mimic a real shopping experience in which participants' choices and preferences would supposedly manifest in a more natural way. Also, it might be interesting to add to this survey study a final question in which participants would ultimately choose one of the four bracelets and explain why they chose it, in order to gain further insight about consumer's behavior. Lastly, a similar study that includes more participants from other countries would be valuable so that the research could be further globally significant.

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## APPENDIX I: Survey

**Introductory message:** (see Appendix II for the correspondent message of each condition type of product)

### **Block 1: Introduction**

Imagine that you went out for a stroll and run some errands in your favorite shopping area. You stop by a jewelry store and decide to look for a tennis bracelet. You realize that this is a Vintage jewelry store where all pieces are at least 25 years old. After looking around you gather four possible options of tennis bracelets. You will be shown the four options you are considering purchasing and will be asked to judge them in different aspects. Please consider each of the following options.

### **Block 2: Condition (Vintage, Second-Hand or New Collection) Rarity**

*Bracelet 1Rare (see appendix IV for pictures of bracelets with correspondent tag)*

Here is one of the options. Next to the bracelet is a tag that provides you with some information about the piece.

#### ***Likelihood to purchase and attitudes towards the product:***

Please answer the following questions about this bracelet on a scale from 0 “Not at all” to 10 “Extremely”

- How likely are you to purchase this bracelet for you or for a loved one?
- To what extent do you like this bracelet?
- To what extent do you find this bracelet desirable?
- To what extent do you find this bracelet valuable?

#### ***Willingness to Pay:***

How much money would you be willing to pay for the bracelet shown (in EUR)?

#### ***Perception of Rarity/Uniqueness:***

- To what extent is this bracelet unique?
- How rare do you perceive this bracelet to be?
- To what extent do you think this bracelet is owned by many people?
- How common do you think this bracelet is

*Bracelet 2 Rare (see appendix IV for pictures of bracelets with correspondent tag)*

Here is one of the options. Next to the bracelet is a tag that provides you with some information about the piece.

***Likelihood to purchase and attitudes towards the product:***

Please answer the following questions about this bracelet on a scale from 0 “Not at all” to 10 “Extremely”

- How likely are you to purchase this bracelet for you or for a loved one?
- To what extent do you like this bracelet?
- To what extent do you find this bracelet desirable?
- To what extent do you find this bracelet valuable?

***Willingness to Pay:***

How much money would you be willing to pay for the bracelet shown (in EUR)?

***Perception of Rarity/Uniqueness:***

- To what extent is this bracelet unique?
- How rare do you perceive this bracelet to be?
- To what extent do you think this bracelet is owned by many people?
- How common do you think this bracelet is?

**Block 3: Condition Vintage Abundancy**

*Bracelet 3 Abundant (see appendix IV for pictures of bracelets with correspondent tag)*

Here is one of the options. Next to the bracelet is a tag that provides you with some information about the piece.

***Likelihood to purchase and attitudes towards the product:***

Please answer the following questions about this bracelet on a scale from 0 “Not at all” to 10 “Extremely”

- How likely are you to purchase this bracelet for you or for a loved one?
- To what extent do you like this bracelet?
- To what extent do you find this bracelet desirable?
- To what extent do you find this bracelet valuable?

***Willingness to Pay:***

How much money would you be willing to pay for the bracelet shown (in EUR)?

***Perception of Rarity/Uniqueness:***

- To what extent is this bracelet unique?
- How rare do you perceive this bracelet to be?
- To what extent do you think this bracelet is owned by many people?
- How common do you think this bracelet is?

*Bracelet 4 Abundant (see appendix IV for pictures of bracelets with correspondent tag)*

Here is one of the options. Next to the bracelet is a tag that provides you with some information about the piece.

***Likelihood to purchase and attitudes towards the product:***

Please answer the following questions about this bracelet on a scale from 0 “Not at all” to 10 “Extremely”

- How likely are you to purchase this bracelet for you or for a loved one?
- To what extent do you like this bracelet?
- To what extent do you find this bracelet desirable?
- To what extent do you find this bracelet valuable?

***Willingness to Pay:***

How much money would you be willing to pay for the bracelet shown (in EUR)?

***Perception of Rarity/Uniqueness:***

- To what extent is this bracelet unique?
- How rare do you perceive this bracelet to be?
- To what extent do you think this bracelet is owned by many people?
- How common do you think this bracelet is?

**Block 4: Importance Given to Uniqueness and Rarity**

Please answer the following questions about this bracelet on a scale from 0 “Not at all” to 10 “Extremely”

- Do you feel good when you wear different pieces from the majority of the people?
- How important is it for you to own pieces that are considered original?
- How important is it for you to feel unique?

#### **Block 5: Attitudes towards Jewelry**

Please answer the following questions about this bracelet on a scale from 0 “Never”/“Not at all” to 10 “Extremely”

- Do you buy jewelry for you or for others?
- Do you buy pre-owned (vintage/estate) jewelry?
- Do you value jewelry?

#### ***Attention Check:***

Which jewelry store did you supposedly go during the study?

- Vintage Jewelry Store
- Second-hand Jewelry Store
- New collection Jewelry Store

#### **Block 6: Sustainability and Environmental Concerns**

Please answer the following questions about this bracelet on a scale from 0 “Never”/“Not at all” to 10 “Extremely”

- How concerned are you with the sustainability of your consumer decisions?
- How important is it for you to make sustainable and environmentally friendly consumer decisions?
- To what extent are you concerned about the environmental consequences of indulgent consumption behavior?

#### **Block 7: General Levels of Self-Expression**

Please answer the following questions about this bracelet on a scale from 0 “Never”/“Not at all” to 10 “Extremely”

- How important it is for you to express yourself through your consumer decisions?

-To what extent do your consumer decisions allow you to express your identity and individuality?

-To what extent do you think the consumption of fashion products and accessories, like jewelry, is a form of self-expression?

-To what extent do you express your individuality through your clothing and accessories?

### **Block 7: Demographics**

What is your gender?

- Male
- Female
- Non-binary/third gender
- Prefer not to say

What is your age?

What is your country?

Did you carefully read all the questions and answered to all of them truthfully?

- Yes, you can count my answers as valid and use them for your search.
- No, I am sorry, but I did not pay enough attention and it is better for you not to use my answers in your research.

## APPENDIX II: **Introductory Messages**

### **Vintage Condition:**

Imagine that you went out for a stroll and run some errands in your favorite shopping area. You stop by a jewelry store and decide to look for a tennis bracelet. You realize this is a vintage jewelry store where all pieces are at least 25 years old. After looking around you gather four possible options of tennis bracelets. You will be shown the four options you are considering purchasing and will be asked to judge them in different aspects. Please consider each of the following options.

### **Second-Hand Condition:**

Imagine that you went out for a stroll and run some errands in your favorite shopping area. You stop by a jewelry store and decide to look for a tennis bracelet. You realize this is a second-hand jewelry store where all pieces are estate jewelry. Estate Jewelry is any piece that is sold then resold and comes back into the marketplace. After looking around you gather four possible options of tennis bracelets. You will be shown the four options you are considering purchasing and will be asked to judge them in different aspects. Please consider each of the following options.

### **New Collection Condition:**

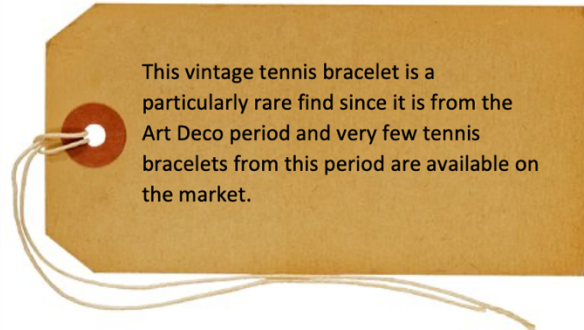
Imagine that you went out for a stroll and run some errands in your favorite shopping area. You stop by a jewelry store and decide to look for a tennis bracelet. After looking around you gather four possible options of tennis bracelets.

You will be shown the four options you are considering purchasing and will be asked to judge them in different aspects. Please consider each of the following options.

## APPENDIX III: Bracelets and tags



Figure 2: Bracelet condition Vintage, Rarity

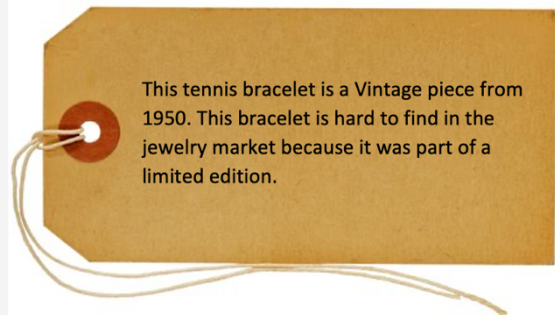


### Vintage Rare 1:

### Vintage Rare 2:



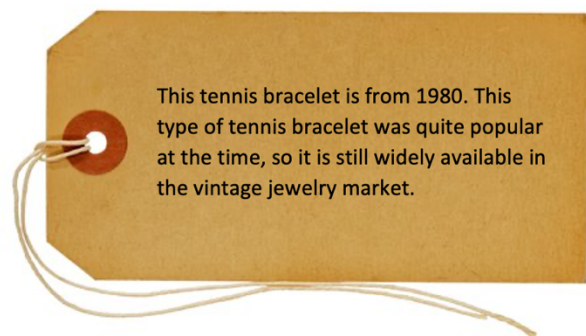
Figure 3: Bracelet condition Vintage, Rarity



### Vintage Abundancy 1



Figure 4: Bracelet condition Vintage, Abundancy



**Vintage Abundancy 2:**



This tennis bracelet is an iconic vintage piece from the 70s. This particular piece was a trend during the late seventies, so it was widely distributed. This tennis bracelet is still easy to find in most vintage jewelry stores.

*Figure 5: Bracelet condition Vintage, Abundancy*

**Second-Hand Rare 1:**



This tennis bracelet is an estate jewelry piece from the early 2000s. This particular piece is a rare find since it is part of a limited edition and only very few are available on the market.

*Figure 6: Bracelet condition Second-Hand, Rarity*

**Second-Hand Rare 2:**



This estate tennis bracelet is from 2010. This particular piece is quite rare to find since there are few ones available in the market.

*Figure 7: Bracelet condition Second-Hand, Rarity*

**Second-Hand Abundancy 1:**



This tennis bracelet is an estate jewelry from the early 2000s. This particular piece was widely popular at the time, so it is still very easy to find in most jewelry stores around the world.

*Figure 8: Bracelet condition Second-Hand, Abundancy*

**Second-Hand Abundancy 2:**



This tennis bracelet, from our new collection, is part of a limited edition called "Winter glam" and very few pieces are available on the market.

*Figure 9: Bracelet condition Second-Hand, Abundancy*

**New Collection Rare 1**



This tennis bracelet, from our new collection, is part of a limited edition called "Winter glam" and very few pieces are available on the market.

*Figure 10: Bracelet condition New Collection, Rarity*

**New Collection Rare 2:**



This tennis bracelet is one of the pieces from our new collection. This tennis bracelet is part of a limited edition called "Blue Ocean" and only a few pieces are available.

*Figure 11: Bracelet condition New-Collection, Rarity*

**New Collection Abundancy 1:**



This tennis bracelet is one of the pieces from our new collection. This particular piece is widely available and will come back every year.

*Figure 12: Bracelet condition New Collection, Abundancy*

**New Collection Abundancy 2:**



This tennis bracelet is one of the pieces from our new collection. This particular piece is widely available in our many stores around Portugal.

*Figure 13: Bracelet condition New Collection, Abundancy*

## APPENDIX IV: Results

### Sample Description:

#### Conditions

	Frequency (units)	Percent (%)
VINTAGE	79	33.054%
SECOND-HAND	90	37.657%
NEW COLLECTION	70	29.289%
TOTAL	239	100%

Table 4: Attributed conditions.

#### Gender

	Frequency (units)	Percent (%)
MALE	129	53.975%
FEMALE	101	42.259%
NON-BINARY/THIRD GENDER	1	0.4184%
NOT PROVIDED	8	3.3473%
TOTAL	239	100%

Table 5: Gender

#### Age

MINIMUM	MAXIMUM	MEAN	STD. DEVIATION	MEDIAN
15	65	29.15	10,251	25

	Frequency (units)	Percent (%)
15	1	0.4348%
20-25	139	60.435%
26-31	45	19.565%
32-37	9	3.9130%
38-43	10	4.3478%
44-49	7	3.0435%
50+	19	8.2609%
TOTAL	230	
NOT PROVIDED	9	
ADJUSTED TOTAL	239	

Table 6: Age

## Country of Origin

	Frequency	Percent
ANDORRA	1	0.42%
AUSTRIA	1	0.42%
BANGLADESH	1	0.42%
BRAZIL	1	0.42%
CHINA	3	1.26%
FRANCE	1	0.42%
GERMANY	6	2.51%
GREECE	1	0.42%
IRAN	1	0.42%
ITALY	1	0.42%
KAZAKHSTAN	1	0.42%
LUXEMBOURG	1	0.42%
MOROCCO	1	0.42%
NETHERLANDS	2	0.84%
NORWAY	1	0.42%
PALESTINE	1	0.42%
PORTUGAL	194	81.17%
ROMANIA	1	0.42%
SPAIN	4	1.67%
TURKEY	1	0.42%
UK	2	0.84%
USA	3	1.26%
VENEZUELA	1	0.42%
NOT PROVIDED	9	3.77%
TOTAL	239	100%

Table 7: Country of Origin

## Attitudes towards the product:

### Paired T-Test (Vintage)

	Mean	Std. Deviation	Standard Mean Error	Inferior	Superior	t	df	p unilateral	p bilateral
Attitudeproduct Abundant – Attitudeproduct Rare	-1.29008	1.879149	0.211421	-1.7109	-0.86918	-6.10	78	<.001	<.001

(a) Confidence Interval of Difference= 95%

Table 8: Paired T-Test “Attitudes towards abundant products vs attitudes towards rare products” in the vintage condition.

### Paired T-Test (Second-Hand)

	Mean	Std. Deviation	Standard Mean Error	Inferior	Superior	t	df	p unilateral	p bilateral
Attitudeproduct Abundant – Attitudeproduct Rare	-1.26444	1.718808	0.181178	-1.62444	-0.90445	-6.98	89	<.001	<.001

(a) Confidence Interval of Difference= 95%

Table 9: Paired T-Test “Attitudes towards abundant products vs attitudes towards rare products” in the second-hand condition.

### Paired T-Test (New-Collection)

	Mean	Std. Deviation	Standard Mean Error	Inferior	Superior	t	df	p unilateral	p bilateral
Attitudeproduct Abundant – Attitudeproduct Rare	-0.32857	1.923925	0.229953	-0.49160	-0.42589	-0.14	69	.443	.887

(a) Confidence Interval of Difference= 95%

Table 10: Paired T-Test “Attitudes towards abundant products vs attitudes towards rare products” in the new collection condition.

### ANOVA 3 product type x 2 availability cues

Dependent Variable: attitudes towards the product

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Noncent. Parameter	Observed Power (b)
Intercept	13694.598	1	13694.598	2649.121	<.001	0.918	2649.121	1.000
Availability_cues	87.959	1	87.959	52.303	<.001	0.181	52.303	1.000
Product_type	8.754	2	4.377	0.847	.430	0.007	1.693	1.94
Availability_cues*Product_type	38.287	2	19.144	11.383	<.001	0.088	22.767	0.993
Error	396.885	236	1.682					

b) Computed using alpha=0,05

Table 11: ANOVA "Attitudes towards the product"

### ANOVA 2 product type x 2 availability cues

Dependent Variable: attitudes towards the product

**Vintage vs Second-Hand**

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Noncent. Parameter	Observed Power (b)
Intercept	9758.461	1	9758.461	1647.228	<.001	0.908	1647.228	1.000
Availability_cues	137.270	1	137.270	85.161	<.001	0.338	85.161	1.000
Product_type	8.754	1	8.754	1.478	.226	0.009	1.478	0.227
Availability_cues*Product_type	0.014	1	0.014	0.009	.926	0.000	0.009	0.051
Error	269.183	167	1.612					

b) Computed using alpha=0,05

Table 12: ANOVA "Attitudes towards the product" (Vintage vs. Second-Hand condition)

## ANOVA 2 product type x 2 availability cues

Dependent Variable: attitudes towards the product

### *New Collection vs Vintage*

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Noncent. Parameter	Observed Power (b)
Intercept	8849.793	1	8849.793	1844.627	<.001	0.926	1844.627	1.000
Availability_cues	32.478	1	32.478	17.988	<.001	0.109	17.988	0.988
Product_type	2.216	1	2.216	0.462	.498	0.003	0.462	0.104
Availability_cues*Product_type	29.332	1	29.332	16.245	<.001	0.100	16.245	0.980
Error	265.418	147	1.806					

b) Computed using alpha=0,05

Table 13: ANOVA "Attitudes towards the product" (New Collection vs. Vintage).

## ANOVA 2 product type x 2 availability cues

Dependent Variable: attitudes towards the product

### *New Collection vs Second-Hand*

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Noncent. Parameter	Observed Power (b)
Intercept	8842.239	1	8842.239	1874.259	<.001	0.922	1874.259	1.000
Availability_cues	33.134	1	33.134	20.200	<.001	0.103	18.205	0.989
Product_type	1.766	1	1.766	0.374	.542	0.002	0.374	0.093
Availability_cues*Product_type	29.332	1	29.332	16.245	<.001	0.100	16.245	0.980
Error	259.168	158	1.640					

b) Computed using alpha=0,05

Table 14: ANOVA "Attitudes towards the product" (New Collection vs. Second-Hand)

## Likelihood to Purchase:

### Paired T-Test (Vintage)

	Mean	Std. Deviation	Standard Mean Error	Inferior	Superior	t	df	p unilateral	p bilateral
PurchasingLikelihoodAbundant – PurchasingLikelihoodRare	-0.69620	1.192213	0.134134	-0.33666	0.197421	-0.52	78	.303	.605

(a) Confidence Interval of Difference= 95%

Table 15: Paired T-Test “Likelihood to purchase abundant products vs likelihood to purchase rare products” in the vintage condition.

### Paired T-Test (Second-Hand)

	Mean	Std. Deviation	Standard Mean Error	Inferior	Superior	t	df	p unilateral	p bilateral
Attitudeproduct Abundant – Attitudeproduct Rare	-0.87222	2.017565	0.212670	-1.29479	-0.44965	-4.10	89	<.001	<.001

(a) Confidence Interval of Difference= 95%

Table 16: Paired T-Test “Likelihood to purchase abundant products vs likelihood to purchase rare products” in the second-hand condition.

### Paired T-Test (New Collection)

	Mean	Std. Deviation	Standard Mean Error	Inferior	Superior	t	df	p unilateral	p bilateral
Attitudeproduct Abundant – Attitudeproduct Rare	-0.07143	2.555593	0.305452	-0.68079	0.537931	-0.23	69	0.408	0.816

(a) Confidence Interval of Difference= 95%

Table 17: Paired T-Test “Likelihood to purchase abundant products vs likelihood to purchase rare products” in the new collection condition.

### ANOVA 3 product type x 2 availability cues

Dependent Variable: likelihood to purchase

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Noncent. Parameter	Observed Power (b)
Intercept	12404.884	1	12404.884	1325.284	<.001	0.849	1325.284	1.000
Availability_cues	13.490	1	13.490	6.893	0.009	0.028	6.893	0.744
Product_type	21.900	2	10.950	1.170	0.312	0.010	2.340	0.255
Availability_cues*Product_type	38.287	2	19.144	11.383	<.001	0.088	22.767	0.993
Error	2208.999	236	9.360					

(b) Computed using alpha=0,05

Table 18: NOVA "Likelihood to purchase"

### Willingness to Pay:

#### Paired T-Test (Vintage)

	Mean	Std. Deviation	Standard Mean Error	Inferior	Superior	t	df	p unilateral	p bilateral
WillignesstoPay Abundant -WillignesstoPayRare	-278.424	692.3779	77.8986	-433.508	-123.339	-3.58	78	<.001	<.001

(a) Confidence Interval of Difference= 95%

Table 19: Paired T-Test "Willingness to pay for abundant products vs willingness to pay for rare products" in the vintage condition.

#### Paired T-Test (Second-Hand)

	Mean	Std. Deviation	Standard Mean Error	Inferior	Superior	t	df	p unilateral	p bilateral
WillignesstoPay Abundant -WillignesstoPayRare	-279.772	920.0504	96.9818	-472.473	-87.0714	-2.89	89	0.002	0.005

(a) Confidence Interval of Difference= 95%

Table 20: Paired T-Test "Willingness to pay for abundant products vs willingness to pay for rare products" in the second-hand condition.

**Paired T-Test (New Collection)**

	Mean	Std. Deviation	Standard Mean Error	Inferior	Superior	t	df	p unilateral	p bilateral
WillignesstoPay Abundant -WillignesstoPayRare	-30.8643	335.9531	40.1541	-110.969	-49.2409	-0.77	69	0.222	0.445

(a) Confidence Interval of Difference= 95%

Table 21: Paired T-Test “Willingness to pay for abundant products vs willingness to pay for rare products” in the new collection condition.

**ANOVA 3 product type x 2 availability cues**

Dependent Variable: likelihood to purchase

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Noncent. Parameter	Observed Power (a)
Intercept	62841537	1	62841537	32.041	<.001	0.120	32.041	1.000
Availability_cues	4559083,6	1	4559083.6	17.855	<.001	0.070	17.855	0.988
Product_type	9789616.34	2	4894808.17	2.496	0.085	0.021	4.991	0.498
Availability_cues*Product_type	1525609.03	2	762804.515	2.987	0.052	0.025	5.975	0.576
Error	60258854.5	236	255334.129					

(b) Computed using alpha=0,05

Table 22: NOVA “Willingness to Pay”

## Perception of Rarity and Uniqueness:

### Paired T-Test (Rarity vs. Abundancy)

	Mean	N	Std. Deviation	Standard Mean Error
PerceivedUniquenessAbundancy	3.99519	239	1.684929	0.108989
PerceivedUniquenessRarity	5.91943	239	1.576704	0.101989

Table 23: Descriptive statistics "Perception of rarity and uniqueness"

	Mean	Std. Deviation	Standard Mean Error	Inferior	Superior	t	df	Unilateral p	Bilateral p
PerceivedUniquenessAbundancy - PerceivedUniquenessRarity	-1.924238	2.245845	0.14527	-2.2104	-1.6381	-13.3	238	<.001	<.001

Table 24: T-test "Perception of Uniqueness" (rarity and abundancy condition)

## Importance Given to Uniqueness and Rarity:

### One way ANOVA (Vintage, Second-Hand and New Collection)

	N	Mean	Std. Deviation	Standard Mean Error	Inferior Limit	Superior Limit	Min	Max	Variance between components
New Collection	70	6.8190	1.99975	0.23902	6.3422	7.2959	2.33	10.00	
Second-Hand	90	6.2574	2.33456	0.24608	5.7684	6.7464	0,00	10.00	
Vintage	79	6.7173	1.99650	0.22462	6.2701	7.1645	2.00	10.00	
Total	239	6.5739	2.13686	0.13822	6.3016	6.8462	0.00	10.00	
Fixed effects (Model)			2.13119	0.13786	6.3023	6.8455			
Random effects (Model)				0.17678	5.8133	7.3345			0.03636

Table 25: ANOVA descriptive statistics

	Sum of Squares	df	Mean Square	F	Sig.
Between groups	14.846	2	7.423	1.634	0.197
In the Groups	1071.903	236	4.542		
Total	1086.450	238			

Table 26: ANOVA "Importance given to Uniqueness and rarity"

## Attitudes towards Jewelry:

### One way ANOVA (Vintage, Second-Hand and New Collection)

	N	Mean	Std. Deviation	Standard Mean Error	Inferior Limit	Superior Limit	Min	Max	Variance between components
New Collection	70	4.77619	1.922593	0.229794	4.31776	5.23462	0.667	9.000	
Second-Hand	90	4.96296	2.426675	0.255794	4.45471	5.47122	0.000	10.000	
Vintage	79	4.41350	2.181387	0.245425	3.92490	4.90211	0.000	10.000	
Total	239	4.72664	2.210794	0.143004	4.44492	5.00835	0.000	10.000	
Fixed effects (Model)			2.207755	0.142808	4.44530	5.00798			
Random effects (Model)				0.164885	4.01720	5.43608			0.020166

Table 27: ANOVA descriptive statistics

	Sum of Squares	df	Mean Square	F	Sig.
Between groups	12.945	2	6.472	1.328	0.267
In the Groups	1150.307	236	4.874		
Total	1163.252	238			

Table 28: ANOVA "Attitudes towards jewelry"

## Sustainability and Environmentally Concerns:

### One way ANOVA (Vintage, Second-Hand and New Collection)

	N	Mean	Std. Deviation	Standard Mean Error	Inferior Limit	Superior Limit	Min	Max	Variance between components
New Collection	70	6.59286	1.703373	0.203592	6.18670	6.99901	2.000	10.000	
Second-Hand	90	6.20000	2.479781	0.261392	5.68062	6.71938	0.000	10.000	
Vintage	79	6.02110	2.319459	0.260960	5.50157	6.54063	0.667	10.000	
Total	239	6.25593	2.226376	0.144012	5.97223	6.53963	0.000	10.000	
Fixed effects (Model)			2.223833	0.143848	5.97254	6.53932			
Random effects (Model)				0.162533	5.55660	6.95525			0.016995

Table 29: ANOVA descriptive statistics

	Sum of Squares	df	Mean Square	F	Sig.
Between groups	12.945	2	6.472	1.328	0.267
In the Groups	1150.307	236	4.874		
Total	1163.252	238			

Table 30: ANOVA "Sustainability and Environmental concerns"

## General Levels of Self-Expression:

### One way ANOVA (Vintage, Second-Hand and New Collection)

	N	Mean	Std. Deviation	Standard Mean Error	Inferior Limit	Superior Limit	Min	Max	Variance between components
New Collection	70	6.29643	1.988323	0.237650	5.82233	6.77053	0.000	10.000	
Second-Hand	90	6.15278	1.973381	0.208013	5.73946	6.56609	0.000	10.000	
Vintage	79	5.98734	2.038452	0.229344	5.53075	6.44393	1.000	10.000	
Total	239	6.14017	1.994798	0.129033	5.88598	6.39436	0.000	10.000	
Fixed effects (Model)			1.999455	0.129334	5.88537	6.39496			
Random effects (Model)				0.129334	5.58369	6.69665			-0.027932

Table 31: ANOVA descriptive statistics

	Sum of Squares	df	Mean Square	F	Sig.
Between groups	3.569	2	1.784	0.446	0.641
In the Groups	943.486	236	3.998		
Total	947.054	238			

Table 32: ANOVA "General levels of Self-Expression"