Who Owned It Before? Moral Contagion and Consumer Reactions to Secondhand Products

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ABSTRACT ENGLISH

Title: Who Owned It Before? Moral Contagion and Consumer Reactions to Secondhand Products

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Secondhand consumption is growing in popularity, but consumers may still have concerns related to previous ownership. This study investigates how the moral character of a product's prior owner and the condition of the product (new vs. secondhand) shape consumer reactions. A 2 (seller morality: prosocial vs. antisocial) × 2 (product condition: new vs. secondhand) between-subjects experimental design was used, with 134 participants randomly assigned to one of two conditions involving a fictional seller profile and a T-shirt product.

The results revealed main effects of seller morality across all dependent variables: participants reported higher purchase intention, willingness to interact, identity alignment, and perceived product experience when the item was associated with a prosocial seller compared to an antisocial one. In contrast, product condition did not significantly influence any of the outcome measures, and the expected interaction between seller morality and product condition was not supported.

These findings suggest that consumers respond to who owned the product more than whether the product is new or secondhand. The moral character of the previous owner can shape how desirable the product appears, regardless of its condition. This extends prior work on moral contagion by highlighting how positive moral associations can influence consumer reactions even in the absence of physical contact.

Keywords: Positive contagion, secondhand clothing consumption, motives and barriers to purchase, contamination concerns, prosocial, moral character, moral contagion, contagion effects, self-extension, identity and values

RESUMO

Título: Quem já teve? Contágio moral e reações do consumidor a produtos em segunda mão

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O consumo de segunda mão está a crescer em popularidade, mas os consumidores ainda podem ser influenciados por preocupações relacionadas com a propriedade anterior. Este estudo investiga como o caráter moral do proprietário anterior de um produto e a condição do produto (novo versus usado) moldam as avaliações do consumidor. Foi utilizado um design experimental entre sujeitos 2 (moralidade do vendedor: pró-social vs. anti-social) × 2 (condição do produto: novo vs. de segunda mão), com 134 participantes designados aleatoriamente para uma de duas condições envolvendo um perfil de vendedor fictício e um produto de camiseta.

Os resultados revelaram os principais efeitos da moralidade do vendedor em todas as variáveis dependentes: os participantes relataram maior intenção de compra, disposição para interagir, alinhamento de identidade e experiência percebida do produto quando o item estava associado a um vendedor pró-social em comparação com um vendedor anti-social. Em contraste, a condição do produto não influenciou significativamente nenhuma das medidas de resultados, e a interação esperada entre a moralidade do vendedor e a condição do produto não foi apoiada.

Essas descobertas sugerem que os consumidores respondem mais a quem possui o produto do que se o produto é novo ou de segunda mão. O caráter moral do proprietário anterior pode moldar o quão desejável o produto parece, independentemente de sua condição. Isto amplia o trabalho anterior sobre o contágio moral, destacando como as associações morais positivas podem influenciar as reações do consumidor, mesmo na ausência de contato físico.

Palavras-chave: Contágio positivo, consumo de roupas usadas, motivos e barreiras para compra, preocupações de contaminação, pró-social, caráter moral, contágio moral, efeitos de contágio, autoextensão, identidade e valores

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Being able to choose a topic of personal interest and explore it within a scientific framework has made this process engaging. Today, I can confidently say that I have learned a great deal, and the insights I have gained will positively influence how I approach research in the future.

I would also like to thank my supervisor for his support and guidance throughout the semester.

TABLE OF CONTENTS

LIST OF TABLES

GLOSSARY OF KEY CONCEPTS

These definitions are based on key theoretical concepts used in this thesis.

Contamination

The emotional **response** that something feels unpleasant after being used or touched by someone else. Contamination can occur **psychologically** or **physically**. This feeling can happen even when there is no physical dirt or damage, and is often linked to discomfort, disgust, or avoidance (Kim & Jin, 2021; Hingston & Whelan, 2024).

Contagion

The principle that invisible qualities (emotions, or personality traits) can transfer from one object or person to another through physical contact. This idea comes from the "law of contagion" in sympathetic magic (Rozin et al., 1986) and helps explain why people sometimes react strongly to previously used items.

Positive Contagion

A type of contagion where contact with a desirable person (e.g., a celebrity or attractive individual) makes an object seem more valuable or appealing. This effect has been shown in consumer contexts (Argo et al., 2018; Newman et al., 2011).

Moral Contagion

The belief that a person's **moral character** can be transferred to others or to objects through contact. This belief can lead people to avoid items associated with morally questionable individuals (Nemeroff & Rozin, 1994; Kupfer & Giner-Sorolla, 2021).

Essence Transfer

The idea that part of a person's identity — such as their morality, energy, or emotions can "stick" to the things they touched or owned (Rozin et al., 1986; Nemeroff & Rozin, 1994).

CHAPTER 1: INTRODUCTION

1.1 **Problem statement**

When and why do consumers choose to purchase secondhand clothing? The popularity of secondhand fashion has increased due to environmental, financial and uniqueness-related motivation (Yan et al., 2015; Ferraro & Brace-Govan, (2016). However, despite these positive drivers, one of the concerns why consumers do not adopt this consumption is contamination**.** Existing research has extensively examined contamination concerns (Argo et al., 2018; Rozin et al., 1986) and their role in secondhand consumption choices (Kim & Jin, 2021).

However, less is known about whether the moral character of a previous owner affects how contamination is experienced. Whether moral traits are viewed as positive or negative, and how these shape purchase intention in everyday consumer contexts. This paper investigates how knowledge about the previous owner, particularly their moral character, may reduce or increase these concerns and influence purchase intentions. From a practical standpoint, findings could assist secondhand retailers and sustainable fashion brands to develop marketing strategies to understand to what degree contamination concerns influence consumer reactions and purchase intentions in this fast-developing market.

The responsibility of this paper is to address this research question:

RQ: How does the moral character of a previous owner (prosocial vs. antisocial) influence contagion-related responses and purchase intention in the context of secondhand fashion?

1.2 **Thesis outline and research approach**

The dissertation is structured into five chapters. **Chapter 1** introduces the research topic and outlines the problem statement, establishing the context and relevance of the study. **Chapter 2** presents the theoretical framework and the development of hypotheses. This chapter begins by exploring the motives and barriers associated with secondhand consumption. A particular focus is placed on **contamination concerns**, an essential barrier for many consumers. The chapter first discusses traditional views on contagion, followed by more nuanced perspectives, including the concept of **positive and moral contagion**. The role of **moral character** specifically, the influence of **prosocial traits** is then examined, highlighting its relevance to consumer reactions and behavior. The discussion further includes **values and identity** as essential aspects of moral character, before concluding with a summary of the key theoretical insights and the formulation of hypotheses.

Chapter 3 outlines the methodology and research design, providing information on experimental procedures, sample, and approach. **Chapter 4** presents the results of the study, followed by **Chapter 5**, which discusses the findings in light of the theoretical framework established in Chapter 2. This final chapter also offers conclusions, addresses the study's limitations, and proposes directions for future research.

CHAPTER 2: THEORETICAL BACKGROUND

2.1 Consumers motives and barriers to purchase secondhand clothing

To approach and discuss the research question, it is important to establish and understand why people choose to purchase secondhand clothing and what are the barriers and motives of purchase. Consumers purchase secondhand clothing due to economic aspects, the need for self-expression, uniqueness and environmental concerns (Yan et al., 2015). Auxtova et al. (2025) conducted an ethnographic study of UK charity shops and identified key emotional and moral motives for secondhand shopping. Their findings indicate that motives include the pursuit of pleasure, the avoidance of guilt and the experience of the shopping environment (Auxtova et al., 2025).

Kawulur et al. (2022) investigates factors influencing generation Z intention to purchase secondhand clothing, focusing on motivations such as price, desire for uniqueness and trust in product quality. Their key findings point to these consumers being highly motivated by the affordability of secondhand clothing and the desire for individual expression when searching for unique products (Kawulur et al., 2022). Trusting the product quality is also an important aspect for these consumers (Kawulur et al., 2022).

Similarly to the findings described above, Guiot and Roux (2010) developed a motivation scale to understand why consumers purchase secondhand and to examine the effects of these motivations on attitudes and behaviors. The findings from the study identified five main motivational factors that drive secondhand shopping: Economic motivations, environmental, treasure hunting, shopping as an enjoyable activity and the desire for self-expression (Guiot & Roux, 2010).

Borusiak et al. (2020) integrated the Theory of Planned Behavior (TPB) and the Norm Activation Model (NAM) to understand secondhand buying intentions. The researchers found that both self-interest motives (economic benefits) and prosocial motives (environmental

concern) significantly influence purchase intentions. However, while many consumers prefer secondhand items, several barriers reduce their willingness to purchase. These include sanitary concerns, aesthetic doubts regarding the product condition, and psychological risks related to self-image (Koay et al., 2024). Sanitary risks, linked to cleanliness, were found to be the primary barrier, particularly when coupled with aesthetic risks (condition of the item) and psychological risks (self-image and social perception) (Koay et al., 2024). Tangri and Yu (2023) also discovered that contamination concerns were a barrier for consumers in secondhand consumption. These concerns include cleanliness of the product and the fear of receiving a product not as described (Tangri & Yu, 2023). On the other hand, some consumers are concerned about social perceptions and potential stigma associated with secondhand items (Tangri & Yu, 2023). Social perceptions are linked to the fear of being judged and the feeling that secondhand clothing consumption is socially embarrassing (Silva et al., 2021).

Recent work demonstrates that inexperienced secondhand consumers tend to have negative experiences when purchasing secondhand clothing. Whereas experienced consumers primarily justify their choices based on sustainability and show less concern about hygiene issues (Silva et al., 2021). These findings highlight the complex interplay of both motivations and barriers of secondhand consumption.

2.2 The extended self and identity

According to the extended self-theory, consumers are more likely to integrate objects into their identity when the prior owner shares similar values or beliefs (Belk, 1988). Belk's extended self-theory argues that possessions are essential to our self-identity (Belk, 1988). People use products to express who they are or aspire to be. Hawkins and Rome (2019) give insight into how items can support consumer identity development. Their findings indicate that items are not static possessions, but a dynamic tool used to navigate identity (Hawkins & Rome, 2019). These items serve as a reminder of past and present history (Hawkins & Rome, 2019). These findings suggest that when a prior owner shares similar values, the item is more likely to be a part of the self, since possessions carry interpersonal meaning.

Nemeroff and Rozin, (1994) explores the concept of the "self" in relation to contagion effects, more specifically the concept of "distance from self" is important in understanding how people perceive products or other individuals as either familiar or foreign. The "self" is defined in relation to the "not-self," and the boundaries between the two are often fluid (Nemeroff and Rozin, 1994). When something is perceived as socially distant such as a product associated

with an unfamiliar culture, a disliked celebrity, or an individual from a different social group it can be seen as threatening or negatively contaminating. For instance, consumers may avoid products that are linked to individuals or brands they feel are too socially distant from their values or identity, as contact with these "foreign" influences can be perceived as introducing undesirable elements into their personal space (Nemeroff and Rozin, 1994). This helps explain how negative contagion effects can arise when a brand or product is associated with something or someone socially distant from the consumer's self-image. Their study concluded that contagion is relevant to the study of personality and the "self", due to the large individual differences and the way we view the world differently than others (Nemeroff and Rozin, 1994).

2.3 The law of contagion and contamination concerns

The law of contagion, a principle of sympathetic magic, suggests that physical contact transfers the essence of one object to another (Rozin et al., 1986). This can lead to feelings of contamination, even in the absence of visible dirt/bacteria (Argo et al., 2006). Contamination concerns are a significant reason why consumers reject secondhand products, and these concerns originate from both physical and symbolic associations with previous owners (Argo et al., 2018). One of the main reasons for rejecting secondhand products is contamination concerns caused by the previous owner (Argo et al., 2018).

Nemeroff and Rozin (1994) extended this idea by showing that moral essence can transfer symbolically. In one study, participants were less willing to wear a clean sweater if it belonged to a murderer, compared to someone they admired, even though there was no physical evidence of contamination (Nemeroff & Rozin, 1994). This highlights how psychological discomfort can be triggered by symbolic associations, not just hygiene concerns.

Kim and Jin (2021) studied contamination concerns in the secondhand market and found that both product type and the context of the seller influence how consumers react to contamination concerns. Their research has shown that consumers who choose to buy products from private sellers (C2C) express concerns about hygiene and/or freshness of the item and the fear of receiving an unauthentic product (Kim & Jin, 2021). The type of item also influenced contamination concerns, for instance purchasing a used handbag directly from the precious owner showed lower contamination concerns since the degree of contact is perceived to be lower for those items (Kim & Jin, 2021). To assess which products would be considered high and low-contact items Kim and Jin. (2021) conducted a pretest to assess perceived physical contact of fashion items, and results show that shirts were identified as high-contact items,

while handbags were considered low-contact. (Kim & Jin, 2021). Their findings indicate that high-contact items are more likely to evoke contamination concerns (Kim and Jin., 2021). In a more recent experimental study, Kim et al. (2023) found that a longer ownership duration, compared to a shorter one, led to greater contamination concerns among consumers. However, the study did not account for important factors, such as the number of times the item had been worn or its product condition (Kim et al., 2023).

2.4 Contagion effects

Contagion is not only physical, but it can also be psychological. Hingston and Whelan (2024) examined how individuals felt personally attached to an object, a phenomenon called psychological ownership. Across four experiments, the authors examined how both trait-level sensitivity to contamination and situational cues (e.g., clean vs. dirty environments) influenced participants' feelings of ownership toward various targets (Hingston & Whelan, 2024). These targets include physical items (e.g., a café table) and abstract targets (e.g., brands, movies, and music bands) (Hingston & Whelan, 2024). The studies identified that contamination concerns could increase this psychological ownership, by making people feel a stronger need to mentally claim or protect the object as their own (Hingston & Whelan, 2024). These concerns are not limited to situations where the object itself is contaminated but extends to non-material targets such as brands and movies which do not have any actual contamination risk (Hingston & Whelan, 2024). This expands the traditional view that contamination concerns only affect physical products.

However, contagion is not always negative. Research has shown that items previously owned by celebrities or aspirational figures could increase product value and purchase intentions (Newman et al., 2011). This suggests that positive social attributions may not reduce contamination itself, but make it feel less negative or even desirable. The study by Newman et al. (2011) explores why individuals purchase objects previously owned by celebrities but also by despised individuals such as serial killers and notorious dictators. Contagion appears to be a critical factor affecting the valuation of celebrity possessions. Individuals in the study wanted more contact with positive celebrity items but less contact with negative ones suggesting that individuals perceive these celebrities in various ways depending on their individual preferences (Newman et al., 2011).

Hingston et al. (2017) argue that when individuals believe an object carries the essence of a previous user through physical contact, this belief can shape how they evaluate others who

interact with that object. If someone behaves inconsistently with the traits of the celebrity linked to the object, individuals make stronger character-related judgments about them. This occurs because contact with the object sets expectations about the owners' behavior (Hingston et al., 2017).

People often preferred to interact with items that were more strongly associated with a morally offensive/wrong source (e.g., *Mein Kampf*) over items that had physical contact with that source (e.g., Hitler's personal dictionary) (Fedotova & Rozin, 2018). In other words, individuals' avoidance appears to be driven less by what the object symbolizes, and more by discomfort with having physical contact with an item associated with a negatively perceived individual.

However, another interesting finding suggested that touching someone immoral through a handshake can make people feel morally affected, the feeling of guilt (Eskine et al., 2013). The researchers tested moral transfer directly through handshakes and indirectly (e.g., sitting in the same chair as an immoral individual) (Eskine et al., 2013). Across the two experimental studies, findings show that people did feel more guilty after contact with a morally offensive source and this was evident through direct and indirect contact (Eskine et al., 2013).

Nonetheless, another study challenges the idea that discomfort with objects associated with immoral individuals is due to symbolic essence transfer and propose it could reflect impression management concerns (Kupfer & Giner-Sorolla, 2021). Through multiple studies, discomfort was significantly higher for consumers when the immoral item was on public display, especially in front of an audience, while on the other hand skin contact with the item had little to no effect (Kupfer & Giner-Sorolla, 2021). Interestingly, observers judged people who wore the item visibly more harshly than those who only made physical contact with it. Overall, the findings suggest that what looks like contagion effects may really be about protecting your own reputation (Kupfer & Giner-Sorolla, 2021).

2.5 Moral character and prosocial associations

Moral character influences how we evaluate the people around us and our possessions. We tend to judge people more by their morality than by how friendly or socially warm they seem (Goodwin et al., 2014). The researchers tested moral character in multiple studies and the results indicated that we view moral traits as core to who someone is – their identity (Goodwin et al., 2014).

Prosocial individuals are perceived as morally good, and associations with them may transfer positive moral value to objects rather than contaminate them. Prosocial behavior refers to actions intended to benefit others or society (Schwartz, 1977). The Norm Activation Model (NAM) suggests that awareness of environmental issues, feelings of responsibility, and personal norms drive prosocial behavior (De Groot & Steg, 2009). In their study, this model was supported in the context of environmentally friendly behaviors, such as energy conservation and car use reduction (De Groot & Steg, 2009). While they did not examine consumer reactions to secondhand goods directly, their findings suggest that exposure to prosocial cues like knowing a product was donated by a charitable person could similarly activate personal norms.

Individuals who behave prosocial by showing trust, cooperation and mutual support are generally more likely to form positive social bonds and encourage similar behavior in others (Yamagishi et al., 2013). This creates an environment where pro-social individuals are likely to be perceived as more trustworthy and appealing, leading to higher likability, especially in collaborative or group-oriented settings (Yamagishi et al., 2013).

Prior research defines prosocial behavior as voluntary actions aimed at benefiting others (Penner et al., 2005). The definition of this behavior is analyzed through a multilevel framework consisting of three levels: *Micro level* consisting of individual differences, genetics, personality, and early development that shape these prosocial tendencies (Penner et al., 2005). *Meso level* – Situational factors, social relationships, and norms influence helping behavior (Penner et al., 2005). Lastly the macro level focusing on cultural, institutional, and societal structures that shape collective prosocial actions (Penner et al., 2005). This work highlights how prosocial behavior is driven by both internal dispositions and external influences (Penner et al., 2005). These findings suggest that knowing a person is prosocial may influence our perceptions and consumer reactions.

2.6 Sensitivity to contamination

Some individuals are naturally more sensitive to contagion effects than others. Those high in contagion sensitivity are more likely to incorporate the previous user's "essence" into their judgments. Those low in contagion sensitivity do not show this effect, reinforcing that contagion beliefs drive this bias (Hingston et al. 2017).

Eskine et al., (2013) investigated whether moral essence can be transferred between individuals through physical contact (both direct and indirect) and how disgust sensitivity influences this

contagion. People who encounter a morally tainted person may feel an increase in personal immorality (e.g., felt guilt) (Eskine et al., 2013). Individuals with high disgust sensitivity experience stronger psychological contagion (Eskine et al., 2013). This suggests that disgust sensitivity plays a key role in consumer reactions to contamination.

2.7 Hypothesis development

Previous research has shown that people often feel uncomfortable with secondhand products due to hygiene concerns or the idea that something unwanted has been transferred from the previous owner (Rozin et al., 1986; Argo et al., 2006; Kim & Jin, 2021). Other studies suggest that these concerns can also be symbolic, especially when related to the moral character of the previous owner (Nemeroff & Rozin, 1994; Newman et al., 2011). For example, Eskine et al. (2013) found that people felt more guilt after physical contact with someone described as immoral, and Hingston and Whelan (2024) found that contamination concerns can make people feel a stronger need to mentally "own" or protect their items. At the same time, Kupfer and Giner-Sorolla (2021) suggest that discomfort may come from impression management, rather than believing in actual moral transfer.

Based on these findings, this study looks at how both the moral character of the seller and whether the item is secondhand affect how people react to these concerns. More importantly, how these factors interact with each other. By doing so, this research adds to existing knowledge by showing how both who owned the item and the fact that it is secondhand can influence how people react and make evaluations feel about the product and the person selling it, something that past studies have not fully explored.

Based on these theoretical insights, the following hypotheses are proposed:

HYPOTHESES

H1: New items will lead to higher purchase intention and greater willingness to interact (touch, hold or wear it) with the product than secondhand items.

H2: Items associated with a prosocial individual will lead to higher purchase intention and greater willingness to interact than items associated with an antisocial individual.

H3: The effect of the seller`s moral character on contamination-related responses will be stronger when the item is new than when it is secondhand.

CHAPTER 3: METHODOLOGY

3.1 Research approach

The goal of this dissertation is to explore how the moral character of a previous owner influences consumers' willingness to interact with an item and their purchase intention for secondhand clothing. A quantitative approach was chosen for this study to allow for statistical testing of differences between experimental groups and to identify patterns and trends.

The study used primary data, collected through an experimental online survey created in Qualtrics. The experimental design was inspired by Experiment 1 of Newman et al. (2011), which studied how celebrity association influenced the value of objects. Specifically, their measures of object value (adapted from Frazier et al., 2009), perceived contagion, and liking of the individual were adapted to measure the current study's context.

The experiment followed a 2 (seller morality: prosocial vs. antisocial) × 2 (product condition: new vs. secondhand) between-subjects design. Participants were randomly assigned to one of four conditions and asked to evaluate a clothing item. In secondhand conditions, the item was described as either sold by a prosocial or antisocial individual. The moral character descriptions were inspired upon the findings from Goodwin et al. (2014).

Participants then rated the product using a 7. Point Likert scale measuring purchase intention, contamination concerns, and product experience and perception. All responses were anonymous, and the survey concluded with demographic questions.

The final dataset was analyzed using SPSS, with a focus on main effects and interactions using ANOVA.

3.1.1 Moral character

From experiment 1 in the celebrity contagion paper, they used moral valence (positive, negative or mixed) to manipulate the character of the individual. I choose two prewritten descriptions of the moral characters (prosocial and antisocial) to provide more clear character descriptions (Goodwin et al., 2014). This choice was made to make the manipulation of the moral descriptions (prosocial and antisocial) more controlled instead of relying on participants to generate names. This increased validity and reduced noise.

3.1.2 Product type

The choice of item for this study is based upon the findings from Kim and Jin (2021) and their discovery of low and high contact items. Their findings indicate that a shirt was considered as

a high-contact item. Based on these results, the study chose a plain white t-shirt for all four scenarios. The item should also reflect gender neutrality and be simple and modern so participants would relate to the clothing.

3.1.3 Valuation

To measure valuation and purchase intention this paper directly replicated measures from Experiment 1 in Newman et al. (2011). The participants were asked about their desire to own the item, the likelihood of purchase if the item was on sale and whether participants would keep or discard it. This paper adopted these questions to assess perceived value.

3.1.4 Contagion

The measurement for contagion asked about participants desire to have physical contact with the person selling the item and with the item itself. If they wanted to give the person a hug or shake their hand. Finally, how much would they like to hold this item in their hands (Newman et al. 2011).

3.1.5 Identity-related measures

The identity-related measures asked participants about their values and how much they liked the person selling the item. A question including self-extension was also included based on the theory of Belk (1988) to test whether participants perceived the previous owner as part of the self-concept which is relevant to moral contagion and consumer identity.

3.2 Participants

The study recruited 134 participants through multiple social media platforms and the survey took approximately six minutes to complete. The platforms used was LinkedIn to reach colleagues and WhatsApp to gain insights from fellow students at Catolica Lisbon School of Business & Economics. In addition, a data collection platform called SurveySwap allows students from other universities to share their survey and reach participants from other countries and regions. There were no requirements to complete the survey. Still, participants in this study were required to be at least 18 years old and understand basic English knowledge.

To gather demographic information participants had to fill in their age using an open response (slider). As for gender, participants identified as female, male, non-binary/third gender, transgender male, transgender female, prefer to self-describe and prefer not to say. Annual household income as well as level of education was collected to identify who is taking this

survey and to compare responses across different socioeconomic groups. Lastly, they were asked how often they purchase secondhand clothing.

3.3 Materials

The independent variables consisted of product condition (new vs. secondhand) and seller type (prosocial vs. antisocial). Participants were randomly assigned to one of two product conditions: new t-shirt or secondhand t-shirt. Participants were then presented with a description of the previous owner of the item either prosocial or antisocial.

	New	**Secondhand**
Prosocial Seller	Prosocial x New	Prosocial x Secondhand
Antisocial Seller	Antisocial x New	Antisocial x Secondhand

Table 1: 2X2 Between Subjects-Design

Study 3 in Goodwin et al. (2014) wanted to examine if moral character traits have a stronger influence on overall impressions of a person rather than warmth and competence traits. This study found that moral traits had the greatest impact on overall impressions of a person (Goodwin et al., 2014). Being honest and fair mattered more for how positive a person was judged than being sociable or intelligent. Goodwin and colleagues showed that moral traits like honesty and fairness are the most important traits people use when they judge others. In fact, people care more about whether someone is a good or bad person rather than how smart or friendly they are. The character traits used to describe the seller "Sam" were inspired on findings from Goodwin et al. (2014).

For the prosocial description, "Sam" was described with moral traits including honesty, empathy, fairness, integrity, and helpfulness. Aligning with the traits of strong moral character (Goodwin et al., 2014):

Prosocial character: *Sam is a socially responsible individual known for their honesty, empathy, and fairness. They consistently help others and are trusted for their integrity. Their actions are motivated by a genuine concern for the well-being of others, making them a positive influence in their community.*

The moral opposites of these traits were then reflected in the antisocial condition: Self-serving which reflects lack of empathy and fairness, unethical practices which reflects dishonesty and fairness and lack of trust which is the opposite of trustworthiness. The following description of an antisocial moral character in the experiment is as follows:

Antisocial character: *Sam is a self-serving corporate executive who prioritizes personal gain over others' well-being. They are known for unethical practices and a disregard for fairness, often exploiting others for their benefit. Their actions lead to a lack of trust and negative perceptions from those around them.*

The first dependent variable was **valuation** and was measured on a 7. point Likert scale. The same scale was used on all the dependent variables to interpret the variables and understand how they relate to one another. For valuation the following questions were asked: "How much would you like to own this item?" (1 = Not at all, 7 = Very much). "How likely would you be to purchase this item if it were for sale?" (1 = Not at all, 7 = Very much) and "If this item were given to you, would you keep it or discard it?" (1 = Discard, 7 = Keep). (Newman et al., 2011; Frazier et al., 2009).

The second dependent variable was the **contagion measurement,** and the following questions were asked: "How much would you want to hug or shake hands with the person who owned this item?" "How much would you want to hold this item in your hands?" How much would you like to wear this item" (1=Not at all, 7=Very much).

The third dependent variable was the **identity-related measures,** and the participants were asked: "How much do you like the person who is selling this item?" For the variable extended self, the following questions were asked: "How much do you feel this person reflects your own values and character?" How much do you feel owning an item from this person would be an extension of yourself?" (1 = Not at all, 7 = Very much).

Lastly the participants rated how they would feel when using either the new or secondhand item on a matrix table on a scale ranging from (1= Not at all) to 7= Extremely) across the following dimensions: Stylish, Attractive, Comfortable, Confident, Ethical, Empathetic, Intelligent, Smart and Sustainable.

3.4 Control variables

As a manipulation check for the moral character of the previous owner, participants were asked to rate how moral they perceived the person to be on a 7-point Likert scale (1 = Not at all, 7 = Very much). This was done to ensure that the prosocial and antisocial character descriptions were perceived as intended by the participants. An attention check in the middle of the survey were also conveyed: "This is an attention check, please leave this space blank." Participants

failing this attention check will not be included in this study and their response will be removed from the data.

3.5 Design

The final study design is a 2 (seller morality: prosocial vs. antisocial) × 2 (product condition: new vs. secondhand) between-subjects experiment. This structure enables a focused test of whether a seller's moral character influences evaluations of contagion-related measures and purchase intentions depending on whether the product is new or secondhand. To keep the sample size manageable, the product type (t-shirt) and seller description will remain constant across conditions, with adjustments in product description to reflect the manipulation. For a potential Study 2, participants could evaluate two different products (a T-shirt and a handbag) to examine whether the type of product moderates the effect of seller morality. This follow-up would serve as a conceptual replication, reinforcing the findings of Study 1 while exploring generalizability across product categories.

3.6 Procedure

Upon opening the survey link, participants were presented with a short introduction explaining the main purpose of the study, the importance of anonymity, and contact information for any concerns. To continue, participants were required to provide informed consent and complete a CAPTCHA verification.

Participants were then randomly assigned to one of four scenarios: *prosocial-new, prosocial-secondhand, antisocial-new, or antisocial-secondhand.*

To immerse participants in the task, the survey began with a brief shopping scenario. They were asked to imagine browsing an online marketplace that offers both new and secondhand items while looking for something casual and comfortable, such as a t-shirt or a bag for everyday use. This was followed by an image and description of a neutral t-shirt, which participants were informed was shown only to help them visualize the item. This context was chosen to provide a natural and relatable setting for evaluating the product, making it easier for participants to envision themselves buying the item from the seller "Sam".

Next, participants were shown a description of the individual selling the item, named Sam, who was described either as prosocial or antisocial depending on condition. After this, participants answered a set of questions measuring the following dependent variables: Valuation measures, contagion, liking of the individual and identity-related measures.

To ensure data quality, an attention check was included to confirm that participants were actively reading the scenarios. Further, participants were asked to imagine having purchased and worn the T-shirt in a typical everyday setting. A short timer was used to ensure they paused to reflect before rating how the experience would feel on multiple dimensions. The survey concluded with several demographic questions and an appreciation for their time completing this survey.

CHAPTER 4: RESULTS

4.1 Data cleaning and results

After collecting 160 responses in Qualtrics, the dataset was exported to SPSS for analysis. Before running any tests, the data had to be cleaned and prepared. I began by removing columns that did not provide any relevant information for the analysis, such as start and end date, IP address, duration, finished status, and recorded date. I then deleted 17 preview responses that had been completed by myself during testing—these were identified by a 0 in the dataset.

Next, I reviewed the "progress" column to identify incomplete responses. Based on this, I removed six responses with progress levels of 2% and 73%. As part of the survey's introduction, participants were required to give consent to participate. Two individuals did not provide consent and were therefore excluded. The survey also included an attention check, where participants were instructed to leave a textbox blank. One participant entered "yes" and was excluded on that basis. Two participants did not fill out the demographic information but since they had a progress level of 90 %, they were kept in the dataset.

After these adjustments, the final sample consisted of 134 participants. To make the dataset easier to navigate, the next step was to rename variables in the variable view to match the content of the corresponding survey questions.

4.2 Composite variables

4.2.1 Intellectual

A composite variable labelled *Intellectual* was created by combining the dimensions Smart and Intelligent. These dimensions were strongly correlated ($r = .919$, $p < .001$) (Appendix 3), and the reliability analysis showed a *Cronbach's alpha* of .956 (Appendix 3). Due to their statistical relationship and conceptual similarity, the two measures were created into a single measure. The variable Intellectual reflected participants' perceptions of the product experience of feeling intellectual.

4.2.2 Appearance

The composite variable *Appearance* was created by averaging the dimensions Stylish and Attractive. The two items were highly correlated (r = .864, p < .001) (Appendix 3), and the resulting *Cronbach's alpha* was .926 (Appendix 3). These items were combined based on their shared focus on appearance-related impressions when wearing the product.

4.3 ANALYSIS

4.3.1 Crosstabulation check

The crosstabulation of seller type and product condition indicates a generally well-balanced distribution in the 2×2 design. The total of 134 participants, and no missing data (Appendix 4). Of the 134 participants, 33 were assigned to the prosocial-new condition (24.6%), 30 to prosocial-secondhand (22.4%), 40 to antisocial-new (29.9%), and 31 to antisocial-secondhand (23.1%) (Appendix 4). While the antisocial-new group was slightly overrepresented compared to the others, the overall distribution remains sufficiently equal to support valid comparisons across conditions.

4.3.2 Manipulation check

An independent samples *t*-test was conducted to compare moral character ratings between the prosocial and antisocial seller conditions. The analysis revealed a significant difference in perceived morality.

Participants rated the prosocial seller significantly higher (M = 6.08, SD = 1.36) than the antisocial seller (M = 1.92, SD = 1.32), t (132) = 17.99, p < .001, 95% CI [3.71, 4.62]. The effect size was large, with Cohen's d = 3.11, indicating a strong manipulation effect. This confirms that the manipulation of seller type (prosocial vs. antisocial) was successful, as participants clearly distinguished between the two seller profiles in terms of perceived morality.

4.3.3 Two-way ANOVA

To analyze the results a two-way ANOVA allows to test the main effect of seller type, product condition and the interaction between them. This type of analysis explores the following aspects: Does the morality of the seller influence perceptions of contagion, valuation and identity? Do people react differently to new vs. secondhand products and does the effect of the seller type depend on whether the item is new or secondhand?

4.4 Hypothesis testing

To test the proposed hypotheses, the results are presented across the relevant dependent variables. A summary of the findings is provided at the end of the section.

Contagion measurement – willingness to interact with the item

4.4.1 Touching the seller

A 2 (seller type: prosocial vs. antisocial) × 2 (product condition: new vs. secondhand) ANOVA was conducted on the first dependent variable of contagion (hug or shake hands). There was a significant main effect of seller type, F (1, 130) = 62.14, $p < .001$, $\eta^2 = .323$, indicating that participants in the prosocial seller condition (M = 4.11, SD = 2.02) felt significantly more comfortable with physical contact than those in the antisocial condition (M = 1.85, SD = 1.19). No significant main effect of product condition or interaction effect was found.

4.4.2 Touching the item

The two-way ANOVA analysis conducted of participants comfort with physically touching the item also indicates a significant main effect of seller type, F (1, 130) = 34.81, $p < .001$, $\eta^2 = .211$, showing that participants in the prosocial seller condition (M = 4.21, SD = 1.60) felt significantly more comfortable touching the item than those in the antisocial seller condition (M = 2.68, SD = 1.39). No significant main effect was found for product condition, F (1, 130) = 2.56, $p = .112$, $\eta^2 = .019$. The interaction between seller type and product condition was also not significant, F (1, 130) = 1.36, $p = .247$, $\eta^2 = .010$.

4.4.3 Wearing the item

Finally, assessing participants' willingness to wear the item, which serves as a more intimate form of willingness to interact again indicated a significant main effect of seller type, F (1, 130) = 40.71, $p < .001$, $\eta^2 = .238$, showing that participants in the prosocial seller condition (M = 4.33, SD = 1.77) were significantly more willing to wear the item compared to those in the antisocial seller condition (M = 2.52, SD = 1.51). No significant effect was found for product condition, F (1, 130) = 2.03, $p = .156$, $\eta^2 = .015$. Similarly, the interaction between seller type and product condition was not significant, F (1, 130) = 0.35, $p = .557$, $\eta^2 = .003$.

Valuation measurements

To test Hypothesis 2, 3 and 4, the dependent variables examining valuation, includes purchase intention and whether participants want to keep or discard the item was measured. A 2 (seller type: prosocial vs. antisocial) × 2 (product condition: new vs. secondhand) ANOVA was conducted on these variables.

4.4.4 Owning the item

There was a significant main effect of seller type, F (1, 130) = 70.17, $p < .001$, $\eta^2 = .351$, with participants in the prosocial seller condition (M = 4.48, SD =1.53) rating the item as significantly more desirable than those in the antisocial seller condition (M = 2.31, SD =1.47). There was no significant main effect of product condition, F (1, 130) = 3.61, $p = .060$, $\eta^2 = .027$, and no significant interaction effect, F (1, 130) = 0.77, $p = .381$, $\eta^2 = .006$.

4.4.5 Willingness to keep or discard the item

A 2 (seller type: prosocial vs. antisocial) × 2 (product condition: new vs. secondhand) ANOVA was conducted on participants' willingness to keep or discard the item.

There was a significant main effect of seller type, F (1, 130) = 42.92, $p < .001$, $\eta^2 = .248$, with participants in the prosocial seller condition (M = 6.03, SD = 1.32) significantly more likely to keep the item compared to those in the antisocial seller condition (M = 4.10, SD = 2.00). There was no significant main effect of product condition, F (1, 130) = 1.69, $p = .196$, $\eta^2 = .013$, and no interaction effect, F (1, 130) = 0.06, $p = .807$, $\eta^2 = .000$.

4.4.6 Purchase intention

The results for participants intention to purchase the item if it were on sale revealed a significant main effect of seller type, F (1, 130) = 55.00, $p < .001$, $\eta^2 = .297$, indicating that participants in the prosocial seller condition (M = 4.86, SD = 1.75) reported significantly higher purchase intentions than those in the antisocial seller condition (M = 2.73, SD = 1.58). No significant main effect was found for product condition, F (1, 130) = 2.30, $p = .132$, $\eta^2 = .017$. The interaction between seller type and product condition was also not significant, F (1, 130) = 0.03, $p = .853$, $\eta^2 = .000$.

Hypothesis 1 predicted that new items lead to higher purchase intentions and greater willingness to interact (touch, hold or wear it) with the product than secondhand items. **This hypothesis is not supported**. While a strong main effect of seller type was found, no significant interaction effects were observed across any of the dependent measures for the contagion measures and valuation of the item.

Hypothesis 2 predicted that items associated with a prosocial individual would lead to higher purchase intention and greater willingness to interact with the item than those associated with an antisocial individual. Across all three valuation-related measures (item valuation, willingness to keep the item, and purchase intention), participants in the prosocial seller condition consistently reported significantly higher scores than those in the antisocial condition. In addition, all three contagion-related measures (touching the seller, touching the item, and wearing the item), showed significant main effects of seller type. Participants reported significantly greater comfort and willingness to interact with items when the seller was described as prosocial compared to antisocial. Based on these significant results, **hypothesis 2 is supported.**

Hypothesis 3 predicted an interaction effect, that the impact of the seller's moral character depends on the product condition. **This hypothesis was not supported.** Although the main effect of seller type was consistently observed, no significant interaction effects were found between seller type and product condition on any of the dependent measures examining contagion related variables or valuation of the item.

Identity-related measures

4.4.7 Reflecting personal values

A 2 (seller type: prosocial vs. antisocial) × 2 (product condition: new vs. secondhand) ANOVA was conducted to measure the extent to which participants felt the item reflected their personal values. The analysis revealed a very strong main effect of seller type, F (1, 130) = 239.91, p < .001, η^2 = .649, with participants in the prosocial seller condition (M = 5.19, SD = 1.38) perceiving the item as significantly more aligned with their values than those in the antisocial seller condition (M = 1.62, SD = 1.26). There was no significant main effect of product condition, F (1, 130) = 1.06, p = .306, η^2 = .008, and no interaction effect, F (1, 130) = 0.45, p = .504, η^2 = .003.

4.4.8 Self-extension

To measure participants feeling of self-extension, to what extent they perceived the item to be a part of themselves, the results indicate a significant main effect of seller type, F (1, 130) = 38.64, p < .001, η^2 = .229, with participants in the prosocial seller condition (M = 3.59, $SD \approx$ 1.82) reporting significantly stronger self-extension than those in the antisocial seller condition (M = 1.92, $SD \approx$ 1.20). There was no significant main effect of product condition, F (1, 130) =

0.02, $p = .880$, $\eta^2 = .000$, and no significant interaction effect, F (1, 130) = 0.51, $p = .477$, $\eta^2 = .004$.

4.4.9 Liking the seller

Whether the participants liked the seller, the ANOVA show a very strong main effect of seller type, F (1, 130) = 168.25, $p < .001$, $\eta^2 = .564$, indicating that participants liked the prosocial seller ($M = 4.92$, $SD = 1.54$) significantly more than the antisocial seller ($M = 1.73$, $SD = 1.28$). There was no significant main effect of product condition, F (1, 130) = 0.05, $p = .819$, $\eta^2 = .000$. The interaction between seller type and product condition approached significance, F (1, 130) = 3.87, $p = .051$, $\eta^2 = .029$. This suggests that the difference in seller likability may have been slightly stronger in one of the product conditions, but the result did not meet the conventional threshold ($p < .05$).

As expected, participants liked prosocial sellers more than the antisocial seller. Although average liking scores were slightly higher in secondhand condition overall, the prosocial seller was liked most when selling a new item, and the difference in likability between prosocial and antisocial sellers was greatest for new items. While this may help clarify the marginal interaction observed, it should be interpreted with caution and does not challenge the primary conclusion.

Product experience

The product experience measured how participants would feel during a typical day in their lives. They were instructed to consider various dimensions of how they would feel when using the product.

4.4.10 Intellectual

After combining the variables smart and intelligent to the variable intellectual (Table 2 & 3) A 2 (seller type: prosocial vs. antisocial) × 2 (product condition: new vs. secondhand) ANOVA was conducted on participants' intellectual perceptions of the item (how smart and intelligent they would feel).

A significant main effect of seller type was found, F (1, 128) = 17.41, $p < .001$, $\eta^2 = .120$, showing that participants felt more intellectual wearing the item sold by a prosocial seller ($M = 3.99$, $SD = 1.68$) than from an antisocial seller ($M = 2.86$, $SD = 1.46$). No significant main effect of product condition was observed, F (1, 128) = 1.47, $p = .228$, $\eta^2 = .011$, and the

interaction between seller type and product condition was not significant, F (1, 128) = 0.02, p = .887, η^2 = .000.

4.4.11 Appearance

The two dimensions, attractiveness and stylishness were also combined into a single variable labeled appearance (Table 4 & 5). A 2 (seller type: prosocial vs. antisocial) × 2 (product condition: new vs. secondhand) ANOVA was then conducted test whether participants felt when wearing the item (attractive and stylish). A significant main effect of seller type was found, F (1, 128) = 19.86, p < .001, η^2 = .134, indicating that participants felt more stylish and attractive wearing items from the prosocial seller (M = 4.31, SD = 1.23) than from the antisocial seller (M = 3.28, SD = 1.49). The main effect of product condition was not significant, F (1, 128) = 3.19, p = .076, η^2 = .024, nor was the interaction effect, F (1, 128) = 0.85, p = .359, η^2 = .007.

4.4.12 Sustainable

To understand if participants felt sustainable when wearing the item during a typical day in their everyday life the ANOVA revealed a strong main effect of seller type, F (1, 128) = 84.51, p < .001, η^2 = .398, indicating that participants felt more sustainable when wearing items sold by the prosocial seller (M = 5.76, SD = 1.30) significantly more than those sold by antisocial seller (M = 3.06, SD = 1.95). There was no significant main effect of product condition, F (1, 128) = 0.79, p = .375, η^2 = .006, and no significant interaction, F (1, 128) = 0.02, p = .882, η^2 = .000.

4.4.13 Ethical

How the product experience would be in terms of ethicality again showed a very strong main effect of seller type, F (1, 128) = 144.50, p < .001, η^2 = .530, the results show that participants felt more ethical wearing an item from a prosocial seller (M = 5.39, SD = 1.64) significantly more than from an antisocial seller (M = 2.20, SD = 1.42).

The main effect of product condition approached significance, F (1, 128) = 3.50, p = .063, η^2 = .027. However, the difference in *means* between new (M = 3.86) and secondhand items (M = 3.51) was small, suggesting that product condition had limited impact on ethical perceptions in this context. However, the interaction between seller type and product condition was not significant, F (1, 128) = 0.91, p = .341, η^2 = .007.

4.4.15 Comfort

How comfortable the item would feel show a significant main effect of seller type, F (1, 128) = 38.27, $p < .001$, $\eta^2 = .230$, with participants feeling more comfortable with items from the prosocial seller (M = 5.24, SD = 1.25) than from the antisocial seller (M = 3.66, SD = 1.82). There was also a significant main effect of product condition, F (1, 128) = 12.05, $p = .001$, $\eta^2 = .086$, showing that new items (M = 4.80) were perceived as more comfortable than secondhand items (M = 3.93). The interaction between seller type and product condition was not significant, F (1, 128) = 0.95, $p = .332$, $\eta^2 = .007$.

4.4.16 Empathetic

The dimension empathy was measured to understand how empathetic they believed the item made them appear. There was a significant main effect of seller type, F (1, 128) = 45.35, $p < .001$, $\eta^2 = .262$, with participants in the prosocial seller condition (M = 4.29, SD = 1.50) perceiving themselves as significantly more empathetic compared to wearing an item from the antisocial seller condition (M = 2.59, SD = 1.43). The main effect of product condition was not significant, F (1, 128) = 2.81, $p = .096$, $\eta^2 = .021$. The interaction between seller type and product condition was also not significant, F (1, 128) = 0.08, $p = .782$, $\eta^2 = .001$.

4.4.17 Confidence

The last dimension measured was whether the participants felt confident when wearing the item. Results showed a significant main effect of seller type, F (1, 128) = 24.05, $p < .001$, $\eta^2 = .158$, with participants reporting higher confidence with items from the prosocial seller (M = 4.47, SD = 1.39) than from the antisocial seller (M = 3.31, SD = 1.46). There was also a significant main effect of product condition, F (1, 128) = 7.94, $p = .006$, $\eta^2 = .058$, with new items (M = 4.15) led to participants feeling more confident than wearing a secondhand item (M = 3.51).The interaction between seller type and product condition was not significant, F (1, 128) = 0.47, $p = .493$, $\eta^2 = .004$.

CHAPTER 5: DISCUSSION AND CONCLUSION

5.1 Main findings

This chapter discusses the results and aligns the findings with existing literature in the field. The research question is addressed and answered. Recommendations for managers and

practitioners are also presented. Finally, the findings are critically evaluated to provide direction for future studies and to acknowledge limitations.

5.1.1 Research question and main findings

The aim of this study was to examine how the moral character of a previous owner influences contagion related responses and purchase intention in the context of secondhand fashion. The results indicate that there was no interaction effect between product condition and seller type. So, whether the item was new or secondhand did not significantly impact consumer evaluations in interaction with the seller`s moral character.

However, seller morality showed a strong and consistent effect across all dependent variables. Participants evaluated items from the prosocial seller more favorably than those associated with the antisocial seller. This was evident across dimensions such as willingness to interact, purchase intention, identity alignment, and perceived product experience. These findings support **Hypothesis 2**, which proposed that items associated with a prosocial individual would lead to higher purchase intention and greater willingness to interact with the product than items associated with an antisocial individual.

To better understand these outcomes, it is necessary to reflect on relevant theories in light of the findings and consider alternative explanations that may influence future studies and directions.

5.1.2 The moral character

Participants not only liked the prosocial seller “Sam” more but also felt more aligned with their values, and viewed items associated with them as more reflective of their own identity. When asked whether owning an item from Sam would feel like an extension of the self, participants expressed significantly more agreement in the prosocial condition, aligning with the theory from Belk (1988).

These results are also consistent with **Hypotheses 2**, as they show that positive moral information about the seller increased consumer reactions towards the item. Furthermore, the prosocial seller condition influences more favorable evaluations of the product overall, regardless of whether it was new or secondhand.

5.1.3 Reframing contamination

One of the main expectations of the study was that secondhand items associated with antisocial individuals would be perceived as more negatively contaminated than those linked to prosocial

individuals. However, the findings did not support this prediction. No significant interaction was found between product condition and seller type.

This result contradicts **Hypotheses 1 and 3,** which predicted that new items would lead to greater willingness to interact with the product and higher purchase intention than secondhand items, and that these effects depend on the seller morality. Instead, the results suggest that contamination concerns may be symbolic or psychological, rather than dependent on physical contact or product condition. These findings align with Hingston and Whelan, (2024), who show that contamination concerns can influence psychological responses even in the absence of physical contact. In this study, participants reacted negatively to the antisocial seller despite never physically touching or wearing the item. This supports the idea that symbolic associations with the previous owner can shape product evaluations independently of hygiene or physical condition.

For instance, one product experience variable that showed a significant effect was comfort. Participants were asked how comfortable they would feel wearing the T-shirt during a normal day in their lives. Those in antisocial condition reported feeling less comfortable, even though the item was described as new. This suggests that discomfort may come from imagined social or moral judgments, rather than physical contamination. This is important, because it suggests that their discomfort was not just about how the shirt might feel physically, it was likely about how they would feel about wearing something from someone "immoral/antisocial."

Participants also reported feeling less confident wearing secondhand items compared to new ones. These results point toward the influence of social and reputational concerns. Although Kupfer and Giner-Sorolla (2021) do not explicitly discuss confidence, their findings show that people experience greater discomfort when morally questionable items are visible in public, suggesting that discomfort may arise from anticipated social judgment. This supports the idea that both confidence and comfort reflect a kind of social vulnerability, and that people may feel uneasy wearing secondhand items because they worry about how others might judge them.

5.2 Academic and managerial implications

Presenting information about the sellers' moral traits matters to people. Academically, this study contributes to the work on contagion effects, showing that the moral character even in the absence of physical contact may influence individuals' willingness to purchase or interact with items. For marketers and other industry leaders, the findings suggest that presenting traits of

the sellers can work as tool to create positive consumer reactions and again increase purchase intention.

Managers should encourage sellers on secondhand platforms to present their identity and values when selling items on various platforms. For instance, a short bio including their values and engagement: “I donate some of the money to animal shelters”. To extend this idea sellers on this platform could use tags like: “Verified seller”, or “Gives back to the community”. At least the sellers should be able to connect with the buyers on platforms to create an emotional connection. The findings from the study show that people are more likely to trust and identify with sellers who appear morally aligned with themselves. These recommendations could therefore reduce psychological contamination.

5.3 Limitations and future research

This study used a 2 (seller morality: prosocial vs. antisocial) × 2 (product condition: new vs. secondhand) design, with 134 participants. While this sample size allowed for the detection of main effects, some results were only marginally significant. A larger sample could help determine whether these patterns would become stronger or reveal new effects. A formal power analysis in future studies could also confirm whether sample size was a limiting factor.

Although the sample size (N = 134) was suitable for the study’s design, it was not fully representative of the broader population. Most participants were young, highly educated, and female. These demographic patterns may have influenced how participants responded to the scenarios, and caution should be taken when applying the findings beyond this group. Broader and more diverse samples would help strengthen the generalizability of the results.

One possible limitation is how the product condition was described. Participants were told whether the item was new or secondhand, but no detail was given about how much it had been used. For instance, they did not know whether the secondhand item had been worn once or every day for a year. This lack of clarity may have made the difference between new and secondhand items. Future studies could give more specific descriptions of prior use to test whether consumer evaluations and reactions increase with more frequent contact.

Another limitation of this study is that the manipulation of product condition may not have clearly communicated the relationship between the seller and the item. The phrasing “sold by Sam” may have implied different levels of ownership or use, which could have influenced participants' perceptions. It is unclear whether participants evaluated the seller “Sam” as

someone who owned and used the product, simply owned it, or reselling it on behalf of someone else. Future research should examine how different types of seller–item relationships—such as "owned and used," "owned but never used," or "not owned, just selling"—influence moral contagion. This would help clarify whether contamination effects depend on personal ownership, physical contact, or association with the seller.

The use of a single product type, a plain white t-shirt was another limitation. While this helped control for other factors, it may have reduced the emotional or symbolic impact of the item. It is possible that more intimate or personal items, like jewelry or underwear, would create stronger contamination concerns. Future research should test different product categories and also consider showing visual signs of wear in secondhand condition to make the manipulation more realistic.

Lastly, the study used two contrasting seller profiles—prosocial and antisocial. This was useful for testing strong effects, but it does not reflect the complexity of moral traits in real life. Future research could explore more subtle moral differences or look at how culture shapes what is seen as moral or immoral in secondhand contexts.

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APPENDICES

Appendix 1: Qualtrics survey questions

Introduction for all participants:

Welcome and thank you for taking part in this study.

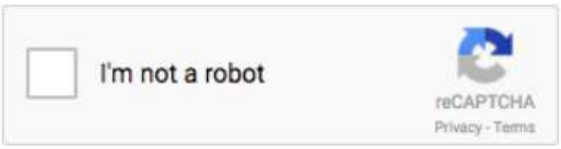
This study explores how the moral character of a previous owner influences your perceptions and intentions towards secondhand and new items. Your responses will be kept anonymous and confidential. Thank you for your participation, the survey will take approximately 5-6 minutes.

If you have any questions or concerns about this study, please send an email: s-lknudsen@ucp.pt.

Do you consent to participate in this survey?

- ○ Yes I Consent
- ○ No I do not Consent

Before you proceed to the survey, please complete the captcha below.



Antisocial new

Imagine you are shopping online for clothing. You are browsing through a marketplace that offers both new and secondhand items, and you are specifically looking for something casual and comfortable, maybe a T-shirt or a bag for everyday use.

As you scroll through listings, one product catches your attention - a high-quality, stylish, and comfortable T-shirt that is brand new, with tags still attached and never worn. The listing is made by a private seller. On the next page, you will be shown some personal information about the person offering the item.

Note: The image is provided solely to help you better visualize the item. Please focus on imagining how you would feel owning it, regardless of its exact color or style.

Item listed as: New with tags.

This t-shirt is being sold by Sam and below is some personal information about the seller. Please read the description carefully before proceeding:

Sam is a self-serving corporate executive who prioritizes personal gain over others' well-being. They are known for unethical practices and a disregard for fairness, often exploiting others for their own benefits. Their actions lead to a lack of trust and negative perceptions from those around them.

Antisocial secondhand

As you scroll through listings, one product catches your attention - a high-quality, stylish, and comfortable secondhand t-shirt. The listing is made by a private seller. On the next page, you will be shown some personal information about the person offering the item.

Note: The image is provided solely to help you better visualize the item. Please focus on imagining how you would feel owning it, regardless of its exact color or style.

Item listed as: Secondhand

This t-shirt is being sold by Sam and below is some personal information about the seller. Please read the description **carefully** before proceeding:

Sam is a self-serving corporate executive who prioritizes personal gain over others' well-being. They are known for unethical practices and a disregard for fairness, often exploiting others for their own benefits. Their actions lead to a lack of trust and negative perceptions from those around them.

Prosocial new

As you scroll through listings, one product catches your attention - a high-quality, stylish, and comfortable t-shirt that is brand new, with tags still attached and never worn. The listing is made by a private seller. On the next page, you will be shown some personal information about the person offering the item.

Note: The image is provided solely to help you better visualize the item. Please focus on imagining how you would feel owning it, regardless of its exact color or style.

Item listed as: **New with tags.**

This T-shirt is being sold by Sam and below is some personal information about the seller. Please read the description carefully before proceeding.

Sam is a socially responsible individual known for their honesty, empathy, and fairness. They consistently helps others and is trusted for their integrity. Their actions are motivated by a genuine concern for the well-being of others, making them a positive influence in their community.

Prosocial secondhand

As you scroll through listings, one product catches your attention - a high-quality, stylish, and comfortable secondhand t-shirt. The listing is made by a private seller. On the next page, you will be shown some personal information about the person offering the item.

Note: The image is provided solely to help you better visualize the item. Please focus on imagining how you would feel owning it, regardless of its exact color or style.

Item listed as: Secondhand

This t-shirt is being sold by Sam and below is some personal information about the seller. Please read the description carefully before proceeding:

Sam is a socially responsible individual known for their honesty, empathy, and fairness. They consistently helps others and is trusted for their integrity. Their actions are motivated by a genuine concern for the well-being of others, making them a positive influence in their community.

Based on the description you have read, please answer the following questions:

	Not at all 1	2	3	4	5	6	Very much 7
How moral do you think Sam is?	○	○	○	○	○	○	○

	Not at all 1	2	3	4	5	6	Very much 7
How much would you like to own this t-shirt?	○	○	○	○	○	○	○

	Discard 1	2	3	4	5	6	Keep 7
If this t-shirt were given to you, would you keep or discard it?	○	○	○	○	○	○	○

	Not at all 1	2	3	4	5	6	Very much 7
How likely would you be to purchase this t-shirt if it were for sale?	○	○	○	○	○	○	○

	Not at all 1	2	3	4	5	6	Very much 7
How much would you want to hug or shake hands with Sam who is selling this t-shirt?	○	○	○	○	○	○	○
How much would you want to hold this t-shirt in your hands?	○	○	○	○	○	○	○
How much would you like to wear this t-shirt?	○	○	○	○	○	○	○

This is an attention check. Please do not write anything in the space below. Just leave it blank.

	Not at all 1	2	3	4	5	6	Very much 7
How much do you feel Sam reflects your own values and character?	○	○	○	○	○	○	○
How much do you feel owning an item from Sam would be an extension of yourself?	○	○	○	○	○	○	○
How much do you like Sam, who is selling this t-shirt?	○	○	○	○	○	○	○

Now, please imagine that you purchased this T-shirt and wore it during a typical day in your life. Perhaps you stopped for a coffee, ran a few errands, or interacted with some friends or colleagues. Take a moment (about 5 seconds) to picture yourself wearing and using this item in real life. Think about how it would feel, and how you might feel while wearing it.

How would you feel when using this t-shirt? Consider the following dimensions

	Not at all 1	2	3	4	5	6	Extremly 7
Stylish	○	○	○	○	○	○	○
Attractive	○	○	○	○	○	○	○
Comfortable	○	○	○	○	○	○	○
Confident	○	○	○	○	○	○	○
Ethical	○	○	○	○	○	○	○
Emphatetic	○	○	○	○	○	○	○
Intelligent	○	○	○	○	○	○	○
Smart	○	○	○	○	○	○	○
Sustainable	○	○	○	○	○	○	○

Demographics

What is your age?

What is your gender?

- ○ Male
- ○ Female
- ○ Non-binary / third gender
- ○ Transgender man
- ○ Transgender woman
- ○ Prefer to self-describe
- ○ Prefer not to say

What is the highest level of education you have completed?

- ○ High school
- ○ Some college/university
- ○ Bachelor`s degree
- ○ Master`s degree
- ○ Doctoral degree
- ○ Prefer not to say

What is your annual household income?

- ○ Less than $25,000
- ○ $25,000-$49,999
- ○ $50,000-$74,999
- ○ $75,000-$99,999
- ○ $100,000 or more
- ○ Prefer not to say

How often do you purchase secondhand items?

- ○ Never
- ○ Rarely
- ○ Occasionally
- ○ Frequently
- ○ Always

Appendix 2: Demographics overview

Question		Frequency	Percent	Valid Percent	Cumulative Percent
Gender	Male	35	26,1	26,5	26,5
	Female	94	70,1	71,2	97,7
	Non-binary / third gender	1	0,7	0,8	98,5
	Transgender man	1	0,7	0,8	99,2
	Prefer to self-describe	1	0,7	0,8	100,0
Age	18	3	2,2	2,3	2,3
	19	2	1,5	1,5	3,8
	20	3	2,2	2,3	6,1
	21	4	3,0	3,0	9,1
	22	13	9,7	9,8	18,9
	23	11	8,2	8,3	27,3
	24	15	11,2	11,4	38,6
	25	10	7,5	7,6	46,2
	26	14	10,4	10,6	56,8
	27	13	9,7	9,8	66,7
	28	9	6,7	6,8	73,5
	29	7	5,2	5,3	78,8
	30	7	5,2	5,3	84,1
	31	4	3,0	3,0	87,1
	32	3	2,2	2,3	89,4
	33	1	0,7	0,8	90,2
	34	1	0,7	0,8	90,9
	35	3	2,2	2,3	93,2
	36	1	0,7	0,8	93,9
	37	2	1,5	1,5	95,5
	38	1	0,7	0,8	96,2
	39	1	0,7	0,8	97,0
	40	1	0,7	0,8	97,7
	42	1	0,7	0,8	98,5
	43	1	0,7	0,8	99,2
	60	1	0,7	0,8	100,0
Education	High school	7	5,2	5,3	5,3
	Some college/university	16	11,9	12,1	17,4
	Bachelor`s degree	65	48,5	49,2	66,7
	Master`s degree	43	32,1	32,6	99,2
	Prefer not to say	1	0,7	0,8	100,0
Annual household income	Less than $25,000	46	34,3	34,8	34,8
	$25,000-$49,999	29	21,6	22,0	56,8
	$50,000-$74,999	30	22,4	22,7	79,5
	$75,000-$99,999	8	6,0	6,1	85,6
	$100,000 or more	9	6,7	6,8	92,4
	Prefer not to say	10	7,5	7,6	100,0
Secondhand purchase frequency	Never	10	7,5	7,6	7,6
	Rarely	47	35,1	35,6	43,2
	Occasionally	43	32,1	32,6	75,8
	Frequently	25	18,7	18,9	94,7
	Always	7	5,2	5,3	100,0

Appendix 3: Composite variables: Intellectual and Appearance

Correlations			
		feel_intelligent	feel_smart
feel_intelligent	Pearson Correlation	1	,919**
	Sig. (2-tailed)		0,000
	N	132	132
feel_smart	Pearson Correlation	,919**	1
	Sig. (2-tailed)	0,000	
	N	132	132

Reliability Statistics	
Cronbach's Alpha	N of Items
0,956	2

Correlations			
		feel_stylish	feel_attractive
feel_stylish	Pearson Correlation	1	,864**
	Sig. (2-tailed)		0,000
	N	132	132
feel_attractive	Pearson Correlation	,864**	1
	Sig. (2-tailed)	0,000	
	N	132	132

Reliability Statistics	
Cronbach's Alpha	N of Items
0,926	2

Appendix 4: Crosstabulation check

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
Seller type * product condition	134	100,00 %	0	0,00 %	134	100,00 %

Seller type * product condition - Crosstabulation					
			Product condition		Total
			New	Secondhand	
Seller type	**Prosocial**	Count	33	30	63
		% within seller_type	52,4%	47,6%	100,0%
		% within product_condition	45,2%	49,2%	47,0%
		% of Total	24,6%	22,4%	47,0%
	Antisocial	Count	40	31	71
		% within seller_type	56,3%	43,7%	100,0%
		% within product_condition	54,8%	50,8%	53,0%
		% of Total	29,9%	23,1%	53,0%
Total		Count	73	61	134
		% within seller_type	54,5%	45,5%	100,0%
		% within product_condition	100,0%	100,0%	100,0%
		% of Total	54,5%	45,5%	100,0%

Appendix 5: Analysis and results

Table 1: Manipulation check – independent sample T-test

Independent Samples Test											
		Levene's Test for Equality of Variances		t-test for Equality of Means							
						Significance				95% Confidence Interval	
		F	Sig.	t	df	One-Sided p	Two-Sided p	Mean Difference	Std. Error Difference	Lower	Upper
moral_rating	Equal variances assumed	0,167	0,684	17,988	132	0,000	0,000	4,16387	0,23148	3,70599	4,62176
	Equal variances not assumed			17,954	129,023	0,000	0,000	4,16387	0,23192	3,70502	4,62273

Group Statistics					
seller_type		N	Mean	Std. Deviation	Std. Error Mean
moral_rating	Prosocial	63	6,0794	1,35957	0,17129
	Antisocial	71	1,9155	1,31743	0,15635

Independent Samples Effect Sizes					
				95% Confidence Interval	
		Standardizer[a]	Point Estimate	Lower	Upper
moral_rating	Cohen's d	1,33739	3,113	2,605	3,616
	Hedges' correction	1,34505	3,096	2,590	3,596
	Glass's delta	1,31743	3,161	2,534	3,780

Table 2: Two-way ANOVA - Valuation

Descriptive Statistics				
Dependent Variable: Valuation				
seller_type		Mean	Std. Deviation	N
Prosocial	New	4,8182	1,30993	33
	Secondhand	4,1000	1,68870	30
	Total	4,4762	1,53305	63
Antisocial	New	2,4250	1,56709	40
	Secondhand	2,1613	1,34404	31
	Total	2,3099	1,46961	71
Total	New	3,5068	1,87915	73
	Secondhand	3,1148	1,79906	61
	Total	3,3284	1,84666	134

Tests of Between-Subjects Effects						
Dependent Variable: Valuation						
Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	165,975[a]	3	55,325	25,010	0,000	0,366
Intercept	1508,513	1	1508,513	681,926	0,000	0,840
seller_type	155,220	1	155,220	70,168	0,000	0,351
product_condition	7,975	1	7,975	3,605	0,060	0,027
seller_type * product_condition	1,708	1	1,708	0,772	0,381	0,006
Error	287,578	130	2,212			
Total	1938,000	134				
Corrected Total	453,552	133				

Table 3: Two-way ANOVA – Purchase Intention

Descriptive Statistics				
Dependent Variable: Purchase intention				
seller_type		Mean	Std. Deviation	N
Prosocial	New	5,0909	1,64628	33
	Secondhand	4,6000	1,84951	30
	Total	4,8571	1,74926	63
Antisocial	New	2,9000	1,59808	40
	Secondhand	2,5161	1,54641	31
	Total	2,7324	1,57623	71
Total	New	3,8904	1,94766	73
	Secondhand	3,5410	1,98808	61
	Total	3,7313	1,96650	134

Tests of Between-Subjects Effects						
Dependent Variable: Purchase intention						
Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	157,059[a]	3	52,353	19,050	0,000	0,305
Intercept	1887,784	1	1887,784	686,910	0,000	0,841
seller_type	151,155	1	151,155	55,001	0,000	0,297
product_condition	6,330	1	6,330	2,303	0,132	0,017
seller_type * product_condition	0,095	1	0,095	0,034	0,853	0,000
Error	357,269	130	2,748			
Total	2380,000	134				
Corrected Total	514,328	133				

Table 4: Two-way ANOVA – Keep or Discard

Descriptive Statistics				
Dependent Variable: Keep or discard				
seller_type		Mean	Std. Deviation	N
Prosocial	New	6,1818	1,15798	33
	Secondhand	5,8667	1,47936	30
	Total	6,0317	1,31944	63
Antisocial	New	4,3000	1,95067	40
	Secondhand	3,8387	2,06715	31
	Total	4,0986	2,00111	71
Total	New	5,1507	1,88319	73
	Secondhand	4,8361	2,05897	61
	Total	5,0075	1,96395	134

Tests of Between-Subjects Effects						
Dependent Variable: Keep or discard						
Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	130,023[a]	3	43,341	14,712	0,000	0,253
Intercept	3370,898	1	3370,898	1144,261	0,000	0,898
seller_type	126,444	1	126,444	42,922	0,000	0,248
product_condition	4,987	1	4,987	1,693	0,196	0,013
seller_type * product_condition	0,177	1	0,177	0,060	0,807	0,000
Error	382,969	130	2,946			
Total	3873,000	134				
Corrected Total	512,993	133				

Willingsness to interact with the product

Table 5: Two-way ANOVA –Touching the person

Descriptive Statistics				
Dependent Variable: Toucing the person				
seller_type		Mean	Std. Deviation	N
Prosocial	New	4,3030	1,97618	33
	Secondhand	3,9000	2,07364	30
	Total	4,1111	2,01695	63
Antisocial	New	1,7500	1,12660	40
	Secondhand	1,9677	1,27760	31
	Total	1,8451	1,19101	71
Total	New	2,9041	2,01497	73
	Secondhand	2,9180	1,96040	61
	Total	2,9104	1,98287	134

Tests of Between-Subjects Effects						
Dependent Variable: Touching the person						
Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	174,788[a]	3	58,263	21,756	0,000	0,334
Intercept	1175,445	1	1175,445	438,930	0,000	0,772
seller_type	166,408	1	166,408	62,139	0,000	0,323
product_condition	0,284	1	0,284	0,106	0,745	0,001
seller_type * product_condition	3,188	1	3,188	1,190	0,277	0,009
Error	348,137	130	2,678			
Total	1658,000	134				
Corrected Total	522,925	133				

Table 6: Two-way ANOVA – Touching the item

Descriptive Statistics				
Dependent Variable: Touching the item				
seller_type		Mean	Std. Deviation	N
Prosocial	New	4,5455	1,48094	33
	Secondhand	3,8333	1,66264	30
	Total	4,2063	1,59797	63
Antisocial	New	2,7250	1,43201	40
	Secondhand	2,6129	1,35837	31
	Total	2,6761	1,39155	71
Total	New	3,5479	1,70816	73
	Secondhand	3,2131	1,62393	61
	Total	3,3955	1,67251	134

Tests of Between-Subjects Effects						
Dependent Variable: Touching the item						
Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	86,359[a]	3	28,786	13,099	0,000	0,232
Intercept	1556,297	1	1556,297	708,204	0,000	0,845
seller_type	76,488	1	76,488	34,806	0,000	0,211
product_condition	5,619	1	5,619	2,557	0,112	0,019
seller_type * product_condition	2,978	1	2,978	1,355	0,247	0,010
Error	285,678	130	2,198			
Total	1917,000	134				
Corrected Total	372,037	133				

Table 7: Two-way ANOVA –Wearing the item

Descriptive Statistics				
Dependent Variable: Wearing the item				
seller_type		Mean	Std. Deviation	N
Prosocial	New	4,6061	1,49874	33
	Secondhand	4,0333	2,00832	30
	Total	4,3333	1,76891	63
Antisocial	New	2,6250	1,58012	40
	Secondhand	2,3871	1,43009	31
	Total	2,5211	1,51053	71
Total	New	3,5205	1,82658	73
	Secondhand	3,1967	1,91328	61
	Total	3,3731	1,86649	134

Tests of Between-Subjects Effects						
Dependent Variable: Wearing the item						
Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	115,768[a]	3	38,589	14,433	0,000	0,250
Intercept	1541,537	1	1541,537	576,565	0,000	0,816
seller_type	108,833	1	108,833	40,706	0,000	0,238
product_condition	5,436	1	5,436	2,033	0,156	0,015
seller_type * product_condition	0,927	1	0,927	0,347	0,557	0,003
Error	347,575	130	2,674			
Total	1988,000	134				
Corrected Total	463,343	133				

Identity-based measures

Table 8: Two-way ANOVA –Reflecting values

Descriptive Statistics				
Dependent Variable: Reflecting values				
seller_type		Mean	Std. Deviation	N
Prosocial	New	5,1515	1,27772	33
	Secondhand	5,2333	1,50134	30
	Total	5,1905	1,37790	63
Antisocial	New	1,4500	1,10824	40
	Secondhand	1,8387	1,41649	31
	Total	1,6197	1,25773	71
Total	New	3,1233	2,19814	73
	Secondhand	3,5082	2,24071	61
	Total	3,2985	2,21760	134

Tests of Between-Subjects Effects						
Dependent Variable: Reflecting values						
Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	428,357[a]	3	142,786	82,242	0,000	0,655
Intercept	1546,524	1	1546,524	890,766	0,000	0,873
seller_type	416,522	1	416,522	239,908	0,000	0,649
product_condition	1,831	1	1,831	1,055	0,306	0,008
seller_type * product_condition	0,779	1	0,779	0,449	0,504	0,003
Error	225,703	130	1,736			
Total	2112,000	134				
Corrected Total	654,060	133				

Table 9: Two-way ANOVA –Self-extension

Descriptive Statistics				
Dependent Variable: Self-extension				
seller_type		Mean	Std. Deviation	N
Prosocial	New	3,6970	1,82833	33
	Secondhand	3,4667	1,83328	30
	Total	3,5873	1,81956	63
Antisocial	New	1,8500	1,16685	40
	Secondhand	2,0000	1,26491	31
	Total	1,9155	1,20412	71
Total	New	2,6849	1,75497	73
	Secondhand	2,7213	1,72367	61
	Total	2,7015	1,73435	134

Tests of Between-Subjects Effects						
Dependent Variable: Self-extension						
Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	94,523[a]	3	31,508	13,406	0,000	0,236
Intercept	1003,356	1	1003,356	426,909	0,000	0,767
seller_type	90,825	1	90,825	38,644	0,000	0,229
product_condition	0,053	1	0,053	0,023	0,880	0,000
seller_type * product_condition	1,196	1	1,196	0,509	0,477	0,004
Error	305,536	130	2,350			
Total	1378,000	134				
Corrected Total	400,060	133				

Table 10: Two-way ANOVA –Liking the seller

Descriptive Statistics				
Dependent Variable: Liking the seller				
seller_type		Mean	Std. Deviation	N
Prosocial	New	5,1212	1,55639	33
	Secondhand	4,7000	1,51202	30
	Total	4,9206	1,53771	63
Antisocial	New	1,5000	1,03775	40
	Secondhand	2,0323	1,49407	31
	Total	1,7324	1,27568	71
Total	New	3,1370	2,22558	73
	Secondhand	3,3443	2,00736	61
	Total	3,2313	2,12367	134

Tests of Between-Subjects Effects						
Dependent Variable: Liking the seller						
Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	347,045[a]	3	115,682	59,492	0,000	0,579
Intercept	1474,966	1	1474,966	758,539	0,000	0,854
seller_type	327,153	1	327,153	168,247	0,000	0,564
product_condition	0,102	1	0,102	0,052	0,819	0,000
seller_type * product_condition	7,520	1	7,520	3,867	0,051	0,029
Error	252,783	130	1,944			
Total	1999,000	134				
Corrected Total	599,828	133				

Product experience dimensions

Table 11: Two-way ANOVA – Intellectual

Descriptive Statistics				
Dependent Variable: Intellectual				
seller_type		Mean	Std. Deviation	N
Prosocial	New	4,1719	1,60448	32
	Secondhand	3,8000	1,76459	30
	Total	3,9919	1,68039	62
Antisocial	New	2,9872	1,45768	39
	Secondhand	2,6935	1,46445	31
	Total	2,8571	1,45747	70
Total	New	3,5211	1,62665	71
	Secondhand	3,2377	1,69953	61
	Total	3,3902	1,66040	132

Tests of Between-Subjects Effects						
Dependent Variable: Intellectual						
Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	45,970[a]	3	15,323	6,223	0,001	0,127
Intercept	1521,798	1	1521,798	618,015	0,000	0,828
seller_type	42,858	1	42,858	17,405	0,000	0,120
product_condition	3,616	1	3,616	1,468	0,228	0,011
seller_type * product_condition	0,050	1	0,050	0,020	0,887	0,000
Error	315,187	128	2,462			
Total	1878,250	132				
Corrected Total	361,157	131				

Table 12: Two-way ANOVA –Apperance

Descriptive Statistics				
Dependent Variable: Appearance				
seller_type		Mean	Std. Deviation	N
Prosocial	New	4,4063	1,13903	32
	Secondhand	4,2000	1,32353	30
	Total	4,3065	1,22593	62
Antisocial	New	3,5641	1,46530	39
	Secondhand	2,9194	1,46684	31
	Total	3,2786	1,49064	70
Total	New	3,9437	1,38499	71
	Secondhand	3,5492	1,52945	61
	Total	3,7614	1,46129	132

Tests of Between-Subjects Effects						
Dependent Variable: Appearance						
Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	42,576[a]	3	14,192	7,660	0,000	0,152
Intercept	1859,036	1	1859,036	1003,372	0,000	0,887
seller_type	36,791	1	36,791	19,857	0,000	0,134
product_condition	5,913	1	5,913	3,191	0,076	0,024
seller_type * product_condition	1,570	1	1,570	0,847	0,359	0,007
Error	237,157	128	1,853			
Total	2147,250	132				
Corrected Total	279,733	131				

Table 13: Two-way ANOVA –Sustainable

Descriptive Statistics				
Dependent Variable: Sustainable				
seller_type		Mean	Std. Deviation	N
Prosocial	New	5,9063	1,05828	32
	Secondhand	5,6000	1,52225	30
	Total	5,7581	1,30177	62
Antisocial	New	3,1538	1,99392	39
	Secondhand	2,9355	1,91373	31
	Total	3,0571	1,94777	70
Total	New	4,3944	2,13461	71
	Secondhand	4,2459	2,18064	61
	Total	4,3258	2,14901	132

Tests of Between-Subjects Effects						
Dependent Variable: Sustainable						
Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	242,126[a]	3	80,709	28,470	0,000	0,400
Intercept	2527,746	1	2527,746	891,654	0,000	0,874
seller_type	239,569	1	239,569	84,507	0,000	0,398
product_condition	2,247	1	2,247	0,793	0,375	0,006
seller_type * product_condition	0,063	1	0,063	0,022	0,882	0,000
Error	362,867	128	2,835			
Total	3075,000	132				
Corrected Total	604,992	131				

Table 14: Two-way ANOVA –Ethical

Descriptive Statistics				
Dependent Variable: Ethical				
seller_type		Mean	Std. Deviation	N
Prosocial	New	5,7500	1,43684	32
	Secondhand	5,0000	1,78113	30
	Total	5,3871	1,64322	62
Antisocial	New	2,3077	1,50707	39
	Secondhand	2,0645	1,31493	31
	Total	2,2000	1,42035	70
Total	New	3,8592	2,26335	71
	Secondhand	3,5082	2,14183	61
	Total	3,6970	2,20665	132

Tests of Between-Subjects Effects						
Dependent Variable: Ethical						
Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	343,700[a]	3	114,567	49,849	0,000	0,539
Intercept	1867,053	1	1867,053	812,373	0,000	0,864
seller_type	332,098	1	332,098	144,499	0,000	0,530
product_condition	8,053	1	8,053	3,504	0,063	0,027
seller_type * product_condition	2,097	1	2,097	0,913	0,341	0,007
Error	294,179	128	2,298			
Total	2442,000	132				
Corrected Total	637,879	131				

Table 15: Two-way ANOVA – Comfortable

Descriptive Statistics				
Dependent Variable: Comfortable				
seller_type		Mean	Std. Deviation	N
Prosocial	New	5,5625	1,16224	32
	Secondhand	4,9000	1,26899	30
	Total	5,2419	1,25038	62
Antisocial	New	4,1795	1,99831	39
	Secondhand	3,0000	1,34164	31
	Total	3,6571	1,82483	70
Total	New	4,8028	1,80174	71
	Secondhand	3,9344	1,61110	61
	Total	4,4015	1,76419	132

Tests of Between-Subjects Effects						
Dependent Variable: Comfortable						
Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	113,401[a]	3	37,800	16,439	0,000	0,278
Intercept	2541,097	1	2541,097	1105,130	0,000	0,896
seller_type	87,998	1	87,998	38,270	0,000	0,230
product_condition	27,701	1	27,701	12,047	0,001	0,086
seller_type * product_condition	2,182	1	2,182	0,949	0,332	0,007
Error	294,319	128	2,299			
Total	2965,000	132				
Corrected Total	407,720	131				

Table 16: Two-way ANOVA –Emphatetic

Descriptive Statistics				
Dependent Variable: Emphatetic				
seller_type		Mean	Std. Deviation	N
Prosocial	New	4,5313	1,48072	32
	Secondhand	4,0333	1,49674	30
	Total	4,2903	1,49740	62
Antisocial	New	2,7436	1,48178	39
	Secondhand	2,3871	1,35837	31
	Total	2,5857	1,42943	70
Total	New	3,5493	1,72203	71
	Secondhand	3,1967	1,64134	61
	Total	3,3864	1,68807	132

Tests of Between-Subjects Effects						
Dependent Variable: Emphatetic						
Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	101,569[a]	3	33,856	15,948	0,000	0,272
Intercept	1531,325	1	1531,325	721,350	0,000	0,849
seller_type	96,272	1	96,272	45,350	0,000	0,262
product_condition	5,960	1	5,960	2,808	0,096	0,021
seller_type * product_condition	0,163	1	0,163	0,077	0,782	0,001
Error	271,726	128	2,123			
Total	1887,000	132				
Corrected Total	373,295	131				

Table 17: Two-way ANOVA –Confident

Descriptive Statistics				
Dependent Variable: Confident				
seller_type		Mean	Std. Deviation	N
Prosocial	New	4,7188	1,41955	32
	Secondhand	4,2000	1,32353	30
	Total	4,4677	1,38751	62
Antisocial	New	3,6923	1,50707	39
	Secondhand	2,8387	1,26746	31
	Total	3,3143	1,46003	70
Total	New	4,1549	1,54594	71
	Secondhand	3,5082	1,45628	61
	Total	3,8561	1,53400	132

Tests of Between-Subjects Effects						
Dependent Variable: Confident						
Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	60,495[a]	3	20,165	10,417	0,000	0,196
Intercept	1948,813	1	1948,813	1006,773	0,000	0,887
seller_type	46,548	1	46,548	24,047	0,000	0,158
product_condition	15,376	1	15,376	7,944	0,006	0,058
seller_type * product_condition	0,915	1	0,915	0,473	0,493	0,004
Error	247,770	128	1,936			
Total	2271,000	132				
Corrected Total	308,265	131				