

**AN INVESTIGATION INTO THE INTERPLAY OF ATTACHMENT  
AVOIDANCE AND INTERPERSONAL CLOSENESS ON  
CONSUMERS' SHARING INTENTIONS**

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The candidate confirms that the work submitted is her own and that appropriate credit has been given where reference has been made to the work of others.

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*“To become your true self, you must have the courage to conquer both your fears and your limitations. One day, you will look back and be amazed at just how much you have grown.”*

- Doe Zantamata

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## ABSTRACT

Sharing is predicted to be the novel way to consume: *The Time Magazine* (Walsh 2011) stated sharing as one of ten ideas that were predicted to change the world in the future and experts forecast the sharing economy to be worth \$335 billion by 2025 (PwC 2015).

However, little is known about the reason for which some consumers are more willing to provide their personal belongings for sharing than others. The present research aims to fill this gap by investigating consumers' interpersonal sharing behaviour as a function of the individual's level of attachment avoidance - the degree to which individuals avoid closeness and dependency on others. Previous research demonstrates that personal possessions can be perceived as an extension of self, wherefore sharing them with others can be seen as a process of interpersonal interaction. The author provides the first demonstration of this consequence by relating the constructs of sharing and attachment avoidance.

Four studies provide evidence for the assumption that the consumers' level of attachment avoidance predicts the extent to which they were prone to provide their personal possessions for sharing. Specifically, consumers high in attachment avoidance were reluctant to share with close others (study 1), while this effect was reversed if the sharing partner was interpersonally distant (study 2-4) and explained by perceived fear to commit to another person as a mediator (study 4).

Together, these results offer new insights into the role of attachment avoidance in influencing interpersonal behaviour and have important theoretical contributions and managerial implications for marketing managers of sharing schemes. Limitations of this study and avenues for future research are discussed.

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# AN INVESTIGATION INTO THE INTERPLAY OF ATTACHMENT AVOIDANCE AND INTERPERSONAL CLOSENESS ON CONSUMERS' SHARING INTENTIONS

## EXTENDED ABSTRACT

Sharing is predicted to be the novel way to consume. The Time Magazine (Walsh 2011) stated sharing as one of ten ideas that were predicted to change the world in the future. Indeed, a noticeable trend leads towards an innovative consumption mode that is based on short term access to possessions over a restricted period of time. Particularly, the peer-to-peer market in which private individuals offer their possessions for sharing to others experienced a significant growth as mirrored in tech start-ups such as Airbnb fostering private accommodation rental or Drivy enabling private car sharing.

A question that remains unanswered is why some consumers are more willing to provide their personal possessions for sharing than others. While scholars began to empirically investigate drivers and inhibitors of consumer sharing from a *user perspective* (compare Möhlmann 2015), much less attention has been paid to examining whether, when and why consumers' intention to *provide for sharing* may differ. This is surprising from a theoretical point of view as the concept of sharing has been present since mankind (Belk 2010) and providing possessions for sharing is a crucial precondition for interpersonal sharing to take place. From a managerial perspective, it is apparent that peer-to-peer sharing schemes count significantly more users than providers, wherefore current marketing activities of sharing companies such as Airbnb address this imbalance by motivating consumers to engage in sharing as *provider* using monetary incentives.

However, despite the necessity to engage consumers in sharing, thus far, no investigation has attempted to determine personality antecedents of consumer sharing provision. Thus, the present work aims to help understand when and why consumers are more willing to provide their personal possessions for sharing to others from a consumer psychology perspective. Specifically, this research builds on literature demonstrating that personal possessions can be perceived as an extension of self (Belk 1988; Hellwig et al. 2015) and that sharing them with others may foster a sense of community, bonding and social capital (Albinsson and Perera 2012; Jenkins, Molesworth and Scullion 2014). Thus, the author proposes to investigate interpersonal sharing as a process of interpersonal interaction and to apply attachment theory, which predicts behaviour in interpersonal relationships, to the exploration of the sharing phenomenon. Subsequently, the present work explores consumers' interpersonal sharing behaviour as a function of attachment-related avoidance - the degree to which individuals avoid closeness and dependency on others. It is hypothesised that consumers high in attachment avoidance may be reluctant to engage in sharing in order to keep distance to their peers and avoid commitment to another individual.

In order to investigate this proposition, the author employs a quantitative methodology following a logical positivism philosophy that assumes event regularities and suggests that cause-and-effect relationships can be tested in a quantitative manner. Specifically, the hypothesised predictions are tested involving four experimental studies that provide the first demonstration of this consequence by relating the constructs of sharing and attachment avoidance. Study 1 suggests that attachment avoidance has a negative effect on consumers sharing behaviour. Building on interpersonal closeness, the author shows in study 2 that this effect is reversed if the sharing partner is a stranger that is interpersonally distant.

The proposed moderating mechanism is validated involving distinct manipulations of interpersonal closeness and altering the sharing partner as a dissimilar other (study 3) and distant social media contact (study 4). Finally, the researcher provides process evidence by showing that the effect of attachment avoidance on sharing intentions is mediated by perceived fear to commit to another person and demonstrates occurrence of the effect of attachment avoidance on sharing intentions when attachment avoidance is primed (study 4).

Together, these results offer new insights into the role of attachment avoidance in influencing interpersonal behaviour and have important theoretical contributions. From a practitioner perspective, employing website design and marketing messages that do not relate to consumers' attachment styles may help to increase sharing behaviour among unknown peers. Further, distinct social media channels such as LinkedIn could be utilized for marketing more effectively.

## 1 - INTRODUCTION

### 1.1 Sharing is the Future of Consumption

Sharing is predicted to be the novel way to consume (Sacks 2011): The Time Magazine stated collaborative consumption as one of 10 ideas that were predicted to change the world in the future (Walsh 2011). Indeed, a noticeable trend leads towards an innovative consumption mode that is based on the commercial sharing of personal possessions over a restricted period of time. This mode of consumption is often referred to as the *sharing economy*, in which mediating online platforms enable consumers to provide their personal possessions for sharing to unknown peers in transactions that are often nonrecurring and nonreciprocal (Sundararajan 2013). In contrast to traditional, social forms of sharing, this novel mode of consumption enables individuals to engage in sharing transactions with strangers. As such transactions are unable to rely on trust and reciprocity as they extend the intimate circle of close friends and families (Hellwig et al. 2015) they rather rely on economic practices that differ from the communal, societal or collaborative origin of sharing (Belk 2010). Sharing with strangers therefore requires specific formal and economic conditions in order to establish secure transactions (Bardhi and Eckhardt 2012).

Objects that are commonly shared by consumers within the sharing economy comprise cars, household appliances, jewellery or handbags, to which consumers gain short term access over a restricted period of time instead of buying and possessing them (Belk 2010). This is often enabled via mediating online platforms. Popular examples include Drivy for cars, Airbnb for accommodation rentals or Neighbourgoods for household appliances.

An industrial report estimates the global revenue of the sharing economy to be worth 14 billion dollars – and to experience a sharp increase to up to 335 billion dollars by 2025 (PwC 2015; Yaraghi and Ravi 2016). Especially in urban areas, this novel form of consumption has gained increasing popularity and a massive growth of sharing schemes in areas of high population density has been observed over the last decade. Experts assume that our society faces a dichotomy on how to serve consumers' material needs for consumption while refraining from harming the ecosystem and life quality in urban areas (Prettenthaler and Steininger 1999). For instance, research suggests that urban population accounts for more than half of the global population, and its growth will continue to increase by 1.84% per year until 2020 (WHO 2017). Therefore, opposed to material consumption, sharing offers a form of dematerialized consumption that promotes flexibility and adaptability (Bardhi and Eckhardt 2017) in favour of the environment. Car sharing is one popular example that holds the potential to reduce emissions, vehicle ownership, energy use and the amount of vehicles driven in urban areas (Prettenthaler and Steininger 1999).

## **1.2 The Sharing Economy - An Oxymoron?**

Unlike forms of traditional sharing which express a desire for connection to other humans (Durkheim 1964), the emergence of the sharing economy extends the circle of close individuals and involves a public, nation- or worldwide sharing circle enabled via digital technologies and the internet (Albinsson and Perera 2012). Belk (2010) classifies this novel sharing with strangers as “sharing out”, while referring to the traditional, social sharing as “sharing in”. Particularly, commercial forms of sharing are often based on economic principles of the market in which users pay a short-term access fee in order to share a good that is owned by another individual or a company. Thus, the short-term

access is oftentimes acknowledged and terminated by a monetary payment rather than by reciprocal social behaviour (Hellwig et al. 2015). Although the term sharing economy indicates a form of sharing, the described business concept is lately termed as “*sharewashing*” (Belk 2016) or “*pseudo-sharing*” (Belk 2014, 1597), in order to refer to “commodity exchanges wrapped in a vocabulary of sharing”. In line with Belk’s (2014) idea of pseudo sharing, the author therefore concludes that the term *sharing economy* involves an oxymoron in itself by combining two contradicting terms in conjunction - first *sharing* as social act that is based on trust and reciprocity; and second *economy* which describes an economic idea of exchange. As a result, it is imperative to investigate what implications sharing with strangers may have as opposed to the traditional sharing phenomenon based on the principles of social exchange.

### **1.3 Research Motivation**

It is evident that the traditional concept of sharing has a plethora of similarities, however also differences from the novel mode of sharing as established through the sharing economy. Over the last decade, the sharing economy developed rapidly with a predicted value of \$14 billion in 2014 that is expected to rise up to \$335 billion by 2025 (Yaraghi and Ravi 2016). Thus, the sharing economy is of particular importance to marketers and academics as the novel mode of sharing has spurred worldwide and increasingly disrupts traditional economies (Parente 2018; Sacks 2011). Particularly peer-to-peer schemes gain popularity, involving a triadic relationship between platform enablers (e.g. Airbnb), who enable sharing between peers that provide for sharing and consumers using the asset (Kumar, Lahiri and Dogan 2018). For instance, Airbnb experienced a significant growth by offering private accommodation services that are oftentimes more than 50 percent cheaper than traditional hotels (Sacks 2011).

In Europe, five key sectors of the sharing economy have been identified that are predicted to be worth around 570 billion Euros by 2025 and include “collaborative finance, peer-to-peer accommodation, peer-to-peer transportation, on-demand household services and on-demand professional services” (PwC 2016).

Despite country specific debates regarding employment rights, rules and appropriate regulations of the new form of consumption (Yaraghi and Ravi 2016), the sharing economy continues its worldwide growth, making it one of the most fascinating phenomenon that emerged in the history of consumption. While the sharing economy is known to have its roots in Europe and Western America (Pettenthaler and Steininger 1999), sharing schemes saw a rapid growth in China over the years 2016 and 2017, involving the sharing of bikes, umbrellas, beds or books, wherefore China has developed into the number one sharing economy globally (Yan 2017). Chinese sharing schemes continue to expand nationally as well as internationally, with the latest bike sharing schemes entering European countries such as the United Kingdom in 2017 (Pennington 2017).

As a result of the growing significance of the sharing economy for economy and private individuals at large, the present research is motivated by understanding the construct of sharing and the particular implications that peer-to-peer sharing with strangers may have as opposed to the traditional sharing with the extended circle of family and friends. Particularly, building on previous literature that demonstrates that personal possessions can be perceived as an extension of self (Belk 1988; Hellwig et al. 2015) and that sharing them with others consequently fosters a sense of community, bonding and social capital (Albinsson and Perera 2012; Jenkins, Molesworth and Scullion 2014), the author proposes to investigate interpersonal sharing as process of interpersonal interaction and apply theories that explain consumer behaviour in interpersonal relationships to the intended investigation.

Due to the particular importance of social and psychological factors involved in interpersonal sharing, it is important to understand what role an individuals' relationship style (Bowlby 1969) may play in order to predict consumers' sharing behaviour. Following the idea to investigate sharing as process of interpersonal interaction, it may be valid to propose the application of attachment theory to consumers' sharing behaviour. Attachment theory describes attachment working styles in adults that are able to predict consumers' behaviour in interpersonal interactions. Indeed, attachment styles describe an individuals' view of self and others, and may therefore play an important role in understanding whether and why consumers may engage into providing their personal possessions for sharing to others. For example, research has shown that attachment avoidant individuals avoid closeness and dependency on others and may be reluctant to commit to another person while being rather self-reliant. Further, they are expected to refrain from self-disclosure, are reluctant to trust other people, and aim to avoid intimacy in order to suppress potential threats from others (Shaver and Mikulincer 2003; Rom and Mikulincer 2003; Shaver and Hazan, 1993). As a result, it may be valid to assume that attachment avoidant individuals would equally be reluctant to share with others as to not facilitate a process of interpersonal interaction.

Particularly, the present work is stimulated by the idea to uncover the explanatory mechanism of the effect of attachment working styles on behavioural outcomes. Building on prior literature that identified that attachment avoidant individuals are inclined to avoid closeness and dependency on others (Beck et al. 2014) and strive to maintain self-reliance (Mikulincer and Shaver 2003), the consumers' level of perceived fear to commit to another individual when engaging in sharing as a process of interpersonal interaction is investigated.

From a consumer psychology perspective, this research is moreover prompted by the need to understand how sharing with psychologically close individuals, such as



friends or family members, may differ to a sharing interaction with strangers, which are perceived as psychologically distant (Dubois, Bonezzi and De Angelis 2016). While attachment styles are able to predict an individual's behaviour in interpersonal interactions triggered by past experiences in close relationships, notwithstanding the above, perceptions of interpersonal closeness to another person do not involve a temporal continuum and solely refer to the perceived psychological distance to another individual at a specific point in time. For instance, a friend is perceived as interpersonally close, while a stranger is perceived as interpersonally distant. The same may account for a person that is similar (close) as opposed to dissimilar (distant) to the consumer. In fact, the concept of interpersonal closeness describes "feelings of connectedness stemming from the perceived affective, cognitive and behavioural overlap between two people" (Dubois, Bonezzi and De Angelis 2016, 713). Thus, interpersonal closeness can be triggered by overlaps as simple as the same birthday or the same initial letter of one's given name (Miller et al. 1998; Pelham, Carvalho and Jones 2005), but is expected to serve as important behavioural predictor for interpersonal relationships (Dibble, Levine and Park 2012; Dubois, Bonezzi and De Angelis 2016).

Thus, this research aims to investigate sharing for the first time as process of interpersonal interaction, and is motivated by the idea to understand the relationship between attachment styles, perceived interpersonal closeness to the sharing partner and consumers' sharing behaviour within peer-to-peer sharing scenarios.

#### **1.4 Gaps in the Literature**

Scholars suggest that the construct of sharing has been largely overlooked in research in general and prior literature in particular (Belk 2010). Nonetheless, a recent interest in

the construct of sharing of academics all around the world can be observed. This interest may be fuelled by the rise of the sharing economy as a novel way of consumption.

Particularly, literature started to investigate drivers of consumers' engagement in the sharing economy as user from a consumer behaviour perspective. Scholars agree that consumers that engage in economic sharing are largely driven by the utilitarian and functional benefits the scheme has to offer. This includes for example the functional utility of the object (Bardhi and Eckhardt 2012; Gruen 2017; Hennig-Thurau, Henning and Sattler 2007; Lamberton and Rose 2012; Möhlmann 2015), the availability and flexibility of short term access driven by a convenience orientation (Moeller and Wittkowski 2010; Eckhardt and Bardhi 2017), and the cost savings through sharing rather than owning (Möhlmann 2015). Also, a social motivation has been uncovered in schemes such as toy libraries or sharing events, where users' engagement is driven by a desire for community (Philip, Ozanne and Ballantine 2015; Albinsson and Perera 2012) and the social utility of sharing (Ozanne and Ballantine 2010; Lamberton and Rose 2012). Moreover, trust (Decrop and Graul 2015; Möhlmann 2015) is a key component that facilitates sharing transactions. Further, studies propose individual difference variables as important impact factors that positively relate to sharing as a user, including the individual's orientation towards political consumerism (Philip, Ozanne and Ballantine 2015), anti-consumption (Ozanne and Ballantine 2010), idealism (Hellwig, Morhart, Girardin and Hauser 2015) and sustainability (Sheth, Sethia and Srinivas 2011). On the other hand, variables such as possession importance (Moeller and Wittkowski 2010), materialism (Graul 2016) and possessiveness (Abkar, Mai and Hoffmann 2016) were demonstrated to hinder consumers' sharing intentions. Also, fear of negative reciprocity - which describes the failure to return the object due to intentional opportunistic or unintentional damaging behaviour (Bardhi and Eckhardt 2012; Philip, Ozanne and Ballantine 2015) - and the search cost of sharing that may

lead to more effort and time consumption as opposed to purchasing (Ozanne and Ballantine 2010) were shown to inhibit sharing intentions.

In conclusion, an extensive review of previous literature shows that there is particular need to investigate sharing in peer-to-peer scenarios from a *provider perspective*, as extant research has focused on investigating usage motives and antecedents for consumers as *user* of shared goods (Abkar, Mai and Hoffmann 2016; Bardhi and Eckhardt 2012; Lamberton and Rose 2012; Möhlmann 2015). This is surprising from a theoretical point of view as a consumers' provision of personal possessions for sharing is a crucial precondition for interpersonal sharing to take place. From a managerial perspective, it is further apparent that peer-to-peer sharing schemes count significantly more users than providers, wherefore current marketing activities of companies such as Airbnb address this imbalance by focusing extensively on motivating consumers to engage in sharing as provider. However, despite the necessity to engage consumer in sharing, thus far, no investigation has attempted to determine personality antecedents of consumer sharing provision.

Following extant literature, sharing schemes vary regarding their "degree of market mediation, degrees of money, socialization, and community that are involved." (Davidson, Habibi and Laroche 2018). As a result, it may be valid to propose that consumers' motivations to provide their personal belongings for sharing is a function of two competing variables, namely personal values and economic necessity (Bucher, Fieseler and Lutz 2016).

First, sharing is suggested to be conceptually different from gift-giving and commodity exchange as it is nonreciprocal with no elements that may trigger emotionality (e.g. personalization or ritual of gift giving) (Arnould and Rose 2016; Belk 2010). Nonetheless, scholars acknowledge that the lines are imprecise (Belk 2010) and propose that even gift giving itself is never entirely altruistic and may at times be

motivated by social, but not utilitarian self-interest (Arnould and Rose 2016). Likewise, consumers may engage in sharing for altruistic or socially motivated reasons, including generosity, kinship and caring for the other individual which may particularly be evident in forms of “sharing in” (Belk 2007) where the sharing process takes place among circles of family or friends. The voluntarily sharing of possessions, homes or meals may not involve the expectation of utilitarian benefits, could however be socially motivated (Ozanne and Ballentine 2010).

Further, political motives (Davidson, Habibi and Laroche 2018) as well as consumers’ idealism (Hellwig, Morhart, Girardin and Hauser 2015) or idealistic orientation towards anti-consumption (Albinsson and Perera, 2012) are expected to play a role in enhancing sharing participation.

In contrast to sharing that may be motivated based on personal, non-profit values is *for-profit sharing*, which represents a major part of the sharing economy. In consumer-to-consumer for-profit sharing, consumers that provide for sharing act as “micro-entrepreneurs” (Kumar, Lahiri, and Dogan 2018), and can therefore gain a monetary advantage when sharing products or services in schemes based on monetarization (e.g. TaskRabbit, Airbnb or Drivy). While such sharing practices can equally reduce environmental impact and conserve resources (Belk 2017), they are in the majority of cases not motivated by social motives or personal values and “characterised by non-bonding “sharing out” or “pseudosharing”” (Belk 2017, 249; Belk 2014; Bardhi and Eckhardt 2015) where economic motives are paramount to the consumers. Applying financial motives to their marketing strategy, platforms even advertise the amount of money consumers would be able to gain through sharing their assets in order to recruit new providers (e.g. Airbnb “Frankfurt Homes can earn 1091 Dollars/ month”). In extreme cases, consumers may not only be motivated to share by

monetary incentives, but it may even be an economic necessity for them to rent out their assets over a limited period of time in order to pay their salary.

The monetarization of the act of sharing is however not the focal point of interest of the present research endeavour. Rather, this research is motivated by the idea to uncover consumers' individual differences with regard to experiences in close relationships and how they impact upon sharing in general as a process of interpersonal interaction with other individuals. Particularly, while first contributions started taking individual difference variables (e.g. materialism) and their effect on sharing behaviour into consideration, no research to date has acknowledged the characteristic of sharing as process of interpersonal interaction sufficiently. While prior research accounts for the idea that social sharing relates to perceptions of ownership and perceptions of the self (Belk 2010, 727), no study has yet attempted to recognise the role that constructs explaining consumer behaviour in interpersonal relationships play when engaging in interpersonal sharing behaviour. Hence, there is a lack of research that investigates sharing as interpersonal interaction. As an extension, the present research identifies literature on attachment theory that suggests that distinct working models of attachment are able to predict consumer behaviour in interaction with others (Mikulincer and Shaver 2003). Specifically, there is need to investigate sharing behaviour based on the theoretical assumptions of the behavioural attachment system which "responds to the needs of dependent others" (Collins and Read 1994, 819).

A vast body of research provides compelling evidence for the fact that attachment styles are able to predict social behaviour of adult individuals. While scholars have started to conceptualize altruistic helping and voluntarism with regard to attachment theory (Mikulincer, Shaver, Gillath and Nitzberg 2005), sharing as related but distinct interpersonal behaviour needs to be better understood from a consumer psychology perspective. Indeed, while altruistic helping and volunteering imply costly

contributions of the donor in many cases (e.g. taking someone's place in a distressing situation or providing financial help (Mikulincer, Shaver, Gillath, and Nitzberg 2005)), providing for sharing is conceptually different in the way that short-term access to the providers' personal possession will be granted while the ownership of the asset in question remains with the provider (Belk 2000). In order to contribute to previous research on attachment theory and sharing in light of the growing importance of the sharing economy and sharing practices worldwide, it is therefore imperative to investigate sharing as process of interpersonal interaction in depth in order to understand important implications for theory and practice. However, to the author's knowledge, no prior research has applied the concept of attachment to consumers sharing behaviour yet.

### **1.5 Research Aim**

While scholars began to empirically investigate drivers and inhibitors of consumer sharing from a *user perspective* (compare (Bardhi and Eckhardt 2012; Lamberton and Rose 2012; Möhlmann 2015)), much less attention has been paid to examining how particular constructs may influence consumers' intention to *provide for sharing*. This void is astonishing as a consumers' provision of personal possessions for sharing is a crucial precondition for interpersonal sharing to take place, both in social and commercial contexts.

The author aims to fill this void by building on previous literature that demonstrates that personal possessions can facilitate an interpersonal interaction between two individuals (Belk 1988; Hellwig et al. 2015) and that sharing them with others nurtures a sense of community, bonding and social capital (Albinsson and Perera 2012; Jenkins, Molesworth and Scullion 2014). Thus, by utilizing attachment theory as

a theoretical framework which allows conducting a first investigation of sharing as a process of interpersonal interaction, this research aims to shed light into the sharing phenomenon from a provider perspective. While other context driven variables such as the locus of control or the consumers' level of self-construal were considered as potential variables that may plausibly affect intentions to share, this research focuses on attachment avoidance as theory that explains interpersonal behaviour best from an interpersonal perspective and was shown to have the highest relevance when investigating interpersonal interactions between two individuals. Particularly, "the relationship between working models of attachment and social [...] adaption in adults" (Bartholomew and Horowitz 1991, 227) was suggested to offer an important theoretical angle for investigators of consumer behaviour. Opposed to this approach, locus of control accounts as core self-evaluation trait which involves "bottom-line evaluations that individuals hold about themselves" (Judge and Bono 2001, 80; Judge, Locke and Durham 1997), and may therefore lack the combination of evaluation of self and evaluation of others as combined in working models of attachment (Bartholomew and Horowitz 1991).

From an attachment theory perspective, particularly attachment avoidant individuals were shown to refrain from interpersonal interactions and to be reluctant to engage in close and interdependent relationships (Collins and Read 1994) and may therefore be reluctant to share when the process of sharing involves an interpersonal interaction. Subsequently, the present research aims to investigate the relationship between attachment avoidance and consumers' intention to provide their personal possessions for sharing. In addition, the role of the perceived interpersonal closeness to the sharing partner is aimed to be investigated in more depth in order to draw distinct conclusions to consumers' intention to share with interpersonally close individuals (e.g. friends or family) as opposed to interpersonally distant individuals (e.g. strangers).

Further, it is aimed to investigate the explanatory mechanism of the relationship between attachment avoidance and sharing intentions and to provide process evidence for the effect of attachment avoidance on sharing intentions by investigating the role of perceived fear of commitment to another individual. As a result, the research objectives presented in the subsequent section emerge for the present research.

## **1.6 Research Objectives**

After having identified the research motivation and the gaps in the literature that are relevant for the intended research, the following research is required to be carried out in order to achieve the stated research aim:

1. To assess the current state of academic knowledge on whether, why and when consumers engage in sharing by undertaking a comprehensive literature review of the constructs of interest.
2. To understand which factors influence consumers' engagement in peer-to-peer sharing and examine theory driven boundary conditions of the proposed effects.
3. To investigate whether sharing can be seen as a process of interpersonal interaction and if attachment theory offers a valid framework to investigate consumers' intention to provide their personal possessions for sharing.
4. To understand whether a consumers' degree of attachment avoidance is able to predict their sharing intention.
5. To establish process evidence for the proposed effect of attachment-related avoidance on sharing intentions by examining the role of perceived fear to commit to another person as mediating mechanism.



6. To extend the current body of knowledge by examining the role of perceived interpersonal closeness to the sharing partner in order to predict consumers' sharing intention.

### **1.7 Research Contributions and Values of the Study**

The present research aims to extend the current body of academic knowledge in three important ways. First, the study will contribute to demonstrating the important role that adult attachment styles play in order to explain and understand consumers' interpersonal sharing behaviour. Specifically, the intended research will suggest that sharing can be seen as a process of interpersonal interaction and be the first to the author's knowledge to propose the application of attachment theory to the process of sharing in order to understand consumers' sharing behaviour.

Second, this study contributes over and above the existing literature on attachment styles and their effect on consumer behaviour by examining the distinct process of the sharing of personal possessions and how the consumers' level of attachment avoidance, the degree in which individuals tend to avoid closeness and dependency due to holding a "*negative model of others*" (Bartz and Lydon 2004, 1390), is able to predict consumers' sharing behaviour. Indeed, the study contributes to prior knowledge by investigating the mediating mechanism that explains the effect of attachment avoidance on sharing intentions and considering the particular role of perceived fear of commitment as potential mediator to provide process evidence.

Third, this research combines attachment theory with perceived levels of interpersonal closeness to others in order to establish a theory driven boundary condition of the proposed effect by examining the perceived psychological proximity to

the sharing partner which may have important implications for peer-to-peer sharing with strangers.

Together, these findings bridge literature on the two theoretical concepts of sharing and attachment and extend current theoretical frameworks on social and economic sharing interactions.

## **1.7 Organisation of the Study**

In order to achieve the presented research aim and objectives, the author will conduct and present the following steps within this work:

First, the researcher will start off by reviewing the literature on the constructs of interest in depth and provide a comprehensive overview of the current state of knowledge. Thus, the second chapter will present a comprehensive review of the academic literature addressing the main concepts of interest relevant to the investigation of the relationship between sharing and attachment avoidance. In particular, sharing is elucidated from a historical and cultural perspective and implications for sharing through the development of a novel phenomenon of consumption often referred to as the sharing economy is discussed. In the following, attachment theory is proposed as theoretical framework for the indented investigation and respective literature will be presented. Particular emphasis will be paid to attachment avoidance in sharing and the role of perceived fear to commit to another individual. Then, the construct of interpersonal closeness will be reviewed and its implications within the relationship of sharing and attachment avoidance will be elucidated based on previous literature.

Second, chapter three aims to develop a conceptual framework that will serve as base for the intended research and to present solid research hypotheses based on the extensive literature review presented.

Next, as this research follows a quantitative approach, the intended research methodology and the particular characteristics of quantitative research and experimental design will be discussed with regard to the underlying philosophy in chapter four.

Chapter five, six, seven and eight will present the results of the data analysis conducted. Four quantitative studies have been conducted and will be presented within this work in order to achieve the presented research objectives. While study 1 will present the results of the investigation of the proposed main effect of attachment avoidance on sharing intentions, study 2 and 3 investigate theory driven boundary conditions based on the ideas of interpersonal closeness. Study 4 replicates the demonstrated effects of the prior studies and adds to the understanding by providing process evidence and showing that perceived fear of commitment functions as mediating mechanism of the effect of attachment avoidance on sharing intentions.

Finally, chapter nine will discuss the presented results and draw specific conclusions based on the results of the data analysis. Then, theoretical contributions and managerial implications will be presented and avenues for future research will be discussed.

## **2 - REVIEW OF THE LITERATURE**

### **2.1 Chapter Overview**

The structure of this chapter is three-fold and draws on extensive review of the academic literature addressing the main concepts of interest relevant to the investigation of the relationship between sharing and attachment avoidance. First, the concept of sharing and its historical and cultural relevance is reviewed in depth and illustrated in relationship to a novel phenomenon of consumption often referred to as the sharing economy (Sacks 2011). Second, attachment theory is proposed as theoretical framework for the indented investigation and respective literature on working models of attachment in adults and their importance for consumer judgement and decision making will be presented with particular regard to attachment avoidance. Third, the role of perceived fear of commitment in avoidant consumer behaviour and the construct of interpersonal closeness will be reviewed. Finally, its importance and implications within the relationship of sharing and attachment avoidance will be elucidated based on previous literature.

### **2.2 The Origins of Consumer Sharing**

Historically, sharing refers to an interpersonal behavioural act between individuals or groups of individuals in order to portion, part or access various goods mutually (Belk 2000). As such, the construct of sharing demonstrates a social behaviour, which has been present across various countries, cultures and communities since human beings exist (Sahlins 1972). This includes forms of interpersonal sharing of goods or property

among close individuals or family members (Eckhardt and Bardhi 2016). Within the scope of the present research, the author grounds this work on the definition of sharing as “the act and process of distributing what is ours to others for their use as well as the act and process of receiving something from others for our use” (Belk 2007, 126). Following the notion of two-sidedness within the selected definition, it is crucial to notice that the process of social sharing involves two parties, namely a sharing provider and a sharing user, that are in the following referred to as *provider* and *user* respectively.

For instance, the sharing of private goods such as clothes, household appliances or property is a common practice between family members all over the world (Eckhardt and Bardhi 2016). This may account for the sharing of a siblings’ jacket or bike, a family-owned vehicle or an accommodation shared by several family generations or collective community members simultaneously (Belk 2010). Further, shared time, experience and care have historically been regarded as intimate practices that occur among the inner circle of families or local communities (Price 1975). As inter-social transaction of tangible or intangible goods, sharing traditionally refrained from involving formal structures or agreements with regard to the lengths, condition and context of usage (Price 1975); but rather relied on the principle of trust and reciprocity guided by the individual’s emotions (Belk 2007).

The idea of consuming collaboratively has been introduced by Felson and Spaeth (1978) who define events “in which one or more person consume economic goods or services in the process of engaging in joint activities” (614) as collaborative consumption. Specifically, sharing fosters relational transactions that can generate a linkage between the sharing provider and user by fostering human bonding (Belk 2010) and is known to express a desire for connection to other humans in intimate circles (Durkheim 1964). Those traditional forms of sharing have been referred to as the

collaborative consumption of goods or services within the circles of family members or friends.

### **2.2.1 Social Factors of Sharing**

As defined previously, this stream of research is concerned with consumer-to-consumer sharing, in which two parties - a consumer as sharing provider and a consumer as user of the shared possession - are represented. In the following section, the social and psychological factors of such person-object-person relationships in which no transfer of ownership over the object takes place are reviewed in depth.

Prior research has documented the importance of sharing as pro-social act, which is often associated with altruistic behaviour, particularly if no immediate reciprocity for the sharing provider is in prospect (Belk 2010; Hellwig et al. 2015). While engaging into pro-social sharing may therefore increase the providers' moral self-perception (Hellwig et al. 2015) and as a result be motivated by social desirability (Ariely and Norton 2009), it was also shown that social sharing holds the potential to foster community and bonding among individuals (Albinsson and Perera 2012). This is grounded in the idea of general reciprocity in which a good deed or unusual act of kindness would be generally returned or recompensated by the sharing partner (Albinsson and Perera 2012; Putnam 2000). However, the recompensation may take place with temporal distance and involve a completely different situation and act of good deed unrelated to the original sharing transaction. In line with this traditional form of sharing "without calculating returns" (Price 1975, 4), the social and emotional component is paramount. As a result, the level of trust between two individuals involved in the sharing process must be high in order to successfully manage and accept

the evoked uncertainty and short-term imbalance of good deeds between provider and user (Hellwig et al. 2015).

The reoccurrence of this process can translate into social capital, a “connection among individuals social networks and the norms of reciprocity and trustworthiness that arise from them” (Putman 2000, 19). Over time, the process of sharing is hence able to create and maintain inter-social relationships between the sharing provider and the sharing user (Jenkins, Molesworth and Scullion 2014) through the ongoing creation of social capital and bonding. This fosters community building and an increased feeling of connectedness. Nonetheless, in close circles of the community, a second form of borrowing emerges which can be characterized as unauthorised by the provider. This concept of covert borrowing (Tinson and Nuttall 2007) in which individuals allow themselves access to another persons’ belonging without permission (Eckhardt and Bardhi 2017) illustrates that despite social norms may subsist, they are not omnipresent and particular individuals may break or ignore those norms in exceptional cases.

To summarize, this paragraph has illustrated the social implications of interpersonal sharing, and the role that social norms, trust and reciprocity play in order to foster community and interpersonal belonging through the process of social sharing. As opposed to social sharing, the following section illustrates a novel form of sharing that is conducted with strangers and exceeds the circle of close family members or friends.

### **2.2.2 Sharing with Strangers**

Albeit scholars suggest that the construct of social sharing has been largely overlooked in prior literature (Belk 2010), sharing as phenomenon has recently fuelled particular attention from scholars all around the world. The growing interest in the construct of

sharing is assumed to be fostered by the rise of a novel way of sharing that exceeds the borders of intimate circles. Unlike forms of traditional sharing which express a desire for connection to other humans (Durkheim 1964), the emergence of the sharing economy (Sacks 2011) latterly enables consumers to provide their personal possessions for sharing to unknown peers in transactions that are often nonrecurring and nonreciprocal (Sundararajan 2013). Thus, commercial sharing systems that are often referred to as access-based consumption (Bardhi and Eckhardt 2012) or the sharing economy (Sacks 2011), describe a novel way of sharing that enables strangers to shared access of goods, often based on economic principles, in which users pay a short-term access fee in order to share a good that is owned by another individual or a company.

In contrast to sharing with close friends and family members, this involves a public, nation- or worldwide sharing circle enabled via digital technologies and the internet (Albinsson and Perera 2012) in which mediating online platforms bring provider and user together (Graul 2014a). Belk (2010) classifies this novel sharing with strangers as “sharing out”, while referring to the traditional, social sharing as “sharing in”. Popular examples of mediating online platforms that enable sharing between strangers include Airbnb for accommodation, Drivy for vehicles or Neighbourgoods for the sharing of household items and various sporting equipment. While the platforms per se do in their original form not possess the actual object that is being shared, their role is to facilitate the transaction between two individuals as mediator.

Further, platforms contribute to fostering successful sharing transactions by introducing safety mechanisms such as consumer ratings, verified profiles and insurances that provide a suitable base for a safe sharing transaction (Usrey and Graul 2017). This may be a first step closer towards an approximation of traditional sharing norms that characterize “sharing in”, such as social capital, communal reciprocity and trust (Putnam 2000). As “sharing out” often takes place between unknown peers, the



creation of social capital is not given and trust between the two parties has not been established yet. Therefore, sharing transactions with strangers need to rely on novel forms of trust-building mechanisms obtained by accumulating experiences of prior users in consumer ratings (Usrey and Graul 2017). Particularly, when sharing with strangers, individuals may choose on a case based scenario whether to engage in one-sided sharing, which involves either the user or the provider perspective; or two-sided sharing, which involves both perspectives simultaneously. Individuals can participate in the sharing economy as provider of goods, user of goods, or pursue both roles simultaneously and provide their personal belongings for sharing while gaining access to other individuals' belongings, often involving a plethora of different schemes (Philip, Ozanne and Ballantine 2015). This implies an imbalance which is however solved as sharing with strangers frequently involves a monetary payment to reimburse the provider for the non-recurring sharing transaction (Hellwig et al. 2015).

However, some of the possessions that are offered for sharing to strangers within the sharing economy – such as accommodations, vehicles or sporting gear – can form an important part of the owners' extended self-concept (Belk 1988). As a result, a sharing process where personal possessions are offered for sharing to close family members or friends as opposed to strangers may have different implications for the relationship establishing interactions between provider and user (Hellwig et al. 2015) and for the link between the property and the self (Belk 2010; Ferraro, Escalas and Bettman 2011). Those psychological factors of sharing are reviewed next.

### **2.2.3 Psychological Factors of Sharing**

An important question that arises when individuals provide their personal belongings for sharing to another individual is how the person-object-person relationship impacts

upon the relationship between the two individuals from a psychological perspective. Research on the importance of possessions has established a link between personal possessions and the extended self (Belk 1988), suggesting that belongings are often considered as part of an individual's identity and are in numerous cases integrated in a person's concept of extended self (Hellwig et al. 2015). This is in line with research that suggests that objects that belong to an individuals' possession are classified by their owners as "me" and "self" (Weiss and Johar 2013; Weiss and Johar 2016) and that the proprietor may in turn even categorize himself based on his belongings' characteristics (Weiss and Johar 2016), which can result in the assimilation of the object and the self.

As a result, providing a material object that has been incorporated into the extended self for sharing to another individual may psychologically account as a process of interpersonal interaction. This process can psychologically facilitate the provider's relationship to the other individual (Jenkins, Molesworth and Scullion 2014; Douglas 2001; Miller 1987). While research has shown that objects are psychologically perceived differently by the people that are using them in various contexts (Jenkins, Molesworth and Scullion 2014), objects were assumed to convert into personal possessions in particular through the process of entering the proprietor's world (Miller 1987).

As "episodes of temporary possession" (Jenkins, Molesworth and Scullion 2014, 132) emerge through sharing, , the act of sharing a material object with others facilitates triggers interpersonal interactions between provider and user. Examples may include the physical exchange of the object, talking about the usage of the object, and arranging for a meeting in person in order to return the object. These exemplary stated interpersonal processes frequently take place when sharing with strangers and are expected to have a significant psychological impact upon the providers' psychological perceptions of the

object and the relationship to the other individual involved in the sharing process in the sharing economy.

## **2.3 The Emergence of the Sharing Economy**

### **2.3.1 Sharing Terminologies**

Different terminologies were introduced by academics in order to describe the novel consumption form of commercial sharing, involving signs of dissension within their conceptualizations (Graul 2014a). While literature defines the overall trend as “the sharing economy” (Sacks 2011), individual conceptualizations range from “collaborative consumption“ (Botsman and Rogers 2010; Belk 2014) over “access-based consumption” (Bardhi and Eckhardt 2012) or “commercial sharing systems” (Lamberton and Rose 2012).

In particular, Bardhi and Eckhardt (2012) describe access-based consumption as transactions between provider and user which are carried out under the commercial principle of the market and involve a market mediated access in which ownership always remains with the proprietor of the possession. Lamberton and Rose (2012) provide a very similar definition of commercial sharing schemes in which they equally exclude ownership transfer from their conceptualization of schemes as “marketer-managed systems that provide customers with the opportunity to enjoy product benefits without ownership” (109).

Following the specific idea of commercial consumption, Belk (2014) introduces the broader term of collaborative consumption as “people coordinating the acquisition and distribution of a resource for a fee or other compensation”, (2014, 1597), which he defines as a subset of the conceptualization put forward by Bardhi and Eckhardt (2012).

However, an important conceptual difference between the two definitions needs to be emphasized: While sharing schemes that incorporate the transfer of ownership or joint ownership such as reselling (EBay) or swapping (Free Markets) of objects are included within Belk's definition of collaborative consumption, Bardhi and Eckhardt solely refer to the commercial access of goods against the payment of a short-term rental fee where no transfer of ownership takes place. Incorporating consumption forms such as bartering, swapping and trading of objects broadens Belk's definition of collaborative consumption to be applicable to a plethora of sharing schemes that emerged over the last decade.

Interestingly, a similar term has been used in the work of Botsman and Rogers (2010). However, in their work, the term collaborative consumption has been defined at a larger scope, involving "systems of organized sharing, bartering, lending, trading, renting, gifting, and swapping" (Botsman and Rogers 2010, 1). This broad definition however received strong criticism from scholars as failing to provide a clear specification as well as confusing the distinct forms of (social) sharing, the gift giving culture and general exchanges in the marketplace (Belk 2014; Graul 2014a).

Nonetheless, Belk's (2014) definition of collaborative consumption may also be criticized for an important factor, as excluding sharing without compensation from the conceptualization of collaborative consumption may be misleading. For instance, the peer-to-peer network couch surfing which allows consumers to spend a night at another's person's house for free is excluded from Belk's definition. This however contradicts a wealth of prior research and media publications stating couch surfing as one popular example of the sharing economy, together with Airbnb or Zipcar (Bardhi and Eckhardt 2012; Sacks 2011). Finally, albeit the author agrees with Belk's idea to define commercial sharing schemes as forms of "pseudo-sharing" that are commercial rather than social forms of sharing (Belk 2014, 1597), there is need to re-evaluate

previously introduced conceptualizations and the inclusion of lending or borrowing as “borderline cases” of collaborative consumption (Belk 2014).

In addition to the presented conceptualization, other terminologies such as “sharing” for social sharing and digital file sharing (Hennig-Thurau, Henning and Sattler 2007; Belk 2010), “experiential access” for the access of exhibition goods (Chen 2009), “product sharing systems” (Sheth et al. 2011), “nonownership services” (Lovelock and Gummesson 2004) and “access-based services” (Schaefers, Wittkowski, Benoit and Ferraro 2016) for commercial schemes have been utilized interchangeably by scholars within their research.

While the present work aims to investigate sharing as a construct in diverse contexts that involve sharing scenarios with both friends and strangers, the author follows Belk’s definition of the concept of sharing as “the act and process of distributing what is ours to others for their use as well as the act and process of receiving something from others for our use” (Belk 2007, 126). However, the current state of research reiterates the need for an overarching framework that may help academics, public policy makers and practitioners to understand the wide-ranging faces and implications of sharing economy schemes. As a result, in the following section, the author attempts to fill this void and solve the confusion of unclear terminologies by proposing a detailed classification of sharing schemes.

### **2.3.2 Sharing Scheme Classification**

In the following, a scheme classification is developed based on an extensive explorative review of the academic literature as well as in-depth research into businesses and tech start-ups that emerged within the sharing economy. An overview table which classifies

actual schemes based on their distinct characteristics has been enriched by exemplary names of businesses in order to facilitate its understanding (table 1).

Table 1: Scheme Classification of the Sharing Economy.

	Transfer of Ownership			No Transfer of Ownership				
	C2C	C2B	B2B	B2C	C2C	C2B	B2B	B2C
Monetary Fee	Tangible (Product)	Craigslist, Gazelle, Ebay,	Us.Zilok	Give Printers/Ca shops etc to other businesses	Ebay	Spinlister, Relay Rides, Toy Libraries	Enterprise Carshare, Floow2	Zipcar, DriveNow, Car2Go
	Intangible (Service)	Zopa, Zaarly, Airtasker, Sidetour	Amazon Mechanical Turk, Sidetour, Airtasker	Green America Exchange	Crowdsourcing, Gigwalk	Task Rabbit, Airbnb	Share your Office	Netflix
Other Compensation	Tangible (Product)	Yerdle, Ridejoy, Swapstyle, BookMooch, Seed Swap	Small Knot	U-Exchange, Barter Business Unlimited	Barter Quest, U-Exchange	Pumpi pumpe	data.gov, London Data Store	data.gov, London Data Store
	Intangible (Service)	Chegg, Sitting Around	Ushahidi	Start some Good, Barter Business Unlimited	Tradeaway	Wikipedia, Fon, 9Flats	Mesh companies	Edinburgh Garden Partners, MyCity Garden

As illustrated within table 1, it is apparent that sharing economy transactions exist in four different domains (Graul 2014a). First, the service can be provided from a company to other businesses (Business-to-Business (B2B)), as seen in the example of the sharing of business parks, car fleets or office spaces. Second, the shared good can be offered by a company, however be directly marketed to the end consumer (Business-to-Consumer (B2C)) as seen in diverse short-term rental schemes that allow consumers shared access to bikes or cars for a little rental fee to the company. While transaction offered by businesses are fruitful, the rise of digitalization and mediating online platforms further enables the private consumer to act as entrepreneurial provider of goods and services to others. Therefore, the third domain describes a private person that can share their expertise with companies or engage in collaborative production (Consumer-to-Business (C2B)) or offer personal skills or goods for sharing to other consumers, as seen in a plethora of peer-to-peer lending or service platforms such as Airbnb or Drivy (Consumer-to-Consumer (C2C)).

Following the distinction between provider and user in four different combinations, the next classification is based on the tangibility of the good that is being shared. Every sharing transaction can either contain a tangible good such as a bike, car or household appliances, or at the other hand refer to an intangible asset commonly seen in the forms of services, digital file sharing or the sharing of knowledge.

Third, it is important to note that both non-profit and for-profit market intermediaries exist. In numerous cases, sharing between strangers may involve the payment of a monetary fee such as a rental payment via Airbnb, or be free of charge as seen in the example of Couchsurfing, in which consumers stay at a peer's accommodation for free. As a result, the monetary reciprocation describes a third important characteristic integrated within the proposed framework.

Finally, although this research refers to sharing as a transaction that involves short-term access to a good while no transfer of ownership takes place, current conceptual definitions leave the reader uncertain about whether the transfer of ownership can be included in the overarching term of the sharing economy (Belk 2014; Bardhi and Eckhardt 2012; Schaefers et al. 2016), as in numerous cases transactions such as swapping events, free markets (Albinsson and Perera 2012) or C2C-transactions via EBay have been referred to as being part of the sharing economy. As a result, schemes are assumed to differ with regard to their involvement of ownership transaction versus short-term access where the ownership remains with the provider (Graul 2014a). The resulting framework as illustrated in table 1 aims to provide a comprehensive overview of the plethora of commercial sharing schemes that are currently present within the market and together constitute a multibillion dollar industry that is continuously growing and expanding to various countries (Sacks 2011).

To summarize, the present research endeavour is concerned with consumer-to-consumer sharing transactions in which consumers share their private belongings with other peers (compare “C2C” in table 1). Hereby, the ownership remains with the providing consumer and the object will only be shared over a limited period of time (compare “No transfer of ownership” in table 1). While the effect of sharing including a monetary fee or other compensation does not represent the focal point of this research, it will be empirically addressed if monetary compensation (compare “monetary fee” in table 1) interact with the effect of attachment avoidance on consumers’ sharing behaviour.



### 2.3.3 Facilitating Factors of Sharing

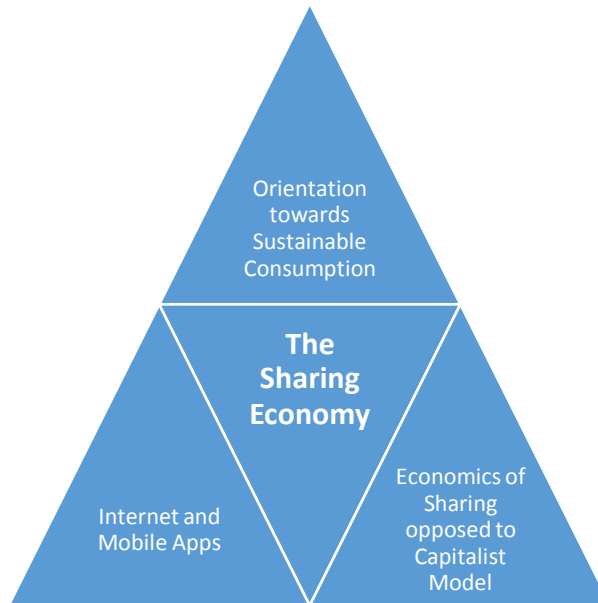
Practitioners presage the beginning of a “post-ownership economy” based on short-term access (Belk 2014, 1599) that describes a favourable development regarding consumption reduction and urban living solutions, wherefore it is of continuing importance to public policy makers and academics. With regard to external impacts and influences on the consumer, the three main factors that have been proposed to explain the development of the sharing economy can be stated as first the development of mobile technology, second the need for sustainable consumption solutions and third the general resistance towards capitalism. The three main facilitating factors are summarized in figure 1 and elucidated in depth hereafter.

First, the rapid development of the internet and the society’s acceptance of mobile apps is one crucial factor that enables sharing transactions between strangers. Ample research has documented the importance of the internet to connect provider and user of shared goods and the ubiquity of mobile platforms and apps that facilitate location-independent transactions between them (Möhlmann 2015; Bardhi and Eckhardt 2017; Philip, Ozanne and Ballantine 2015). Both, the sharing of intangible goods such as digital music or movie files (Belk 2014) as well as tangible goods such as bikes or accommodation is in numerous cases enabled via mediating, digital platforms that bring provider and user together (Graul 2014a; Lamberton and Rose 2012). In addition, fast and secure payment options that are nowadays embedded within mobile apps provide consumers with the structures required to successfully conduct a trusted, economic transaction.

Second, experts presume that fuelled by the accelerated growth of global megacities and increasing urbanisation (Allen and You 2002), a dichotomy emerged in which institutions were obliged to fulfil the citizens’ needs for mobility and home

appliances, while simultaneously respecting sustainable consumption practices. Particularly in mega cities, the societies' need for urban life quality and reduced greenhouse gas emissions in favour of the environment represents a pressing issue. This is particularly due to the significant growth urban areas have experienced over the last decade. A report revealed that 2009 described the first year in which more citizens lived in urban areas as compared to rural outskirts (Siemens AG 2013). Further, the forecast predicts that the number of urban citizens will rise to 70% by 2050. As a result, sharing economy innovations such as car sharing or bike sharing hold the potential to provide attractive mobility solutions that are flexible, individual and on-demand (Graul 2017, Meyer and Shaheen 2017). The alignment of consumers' need for utile mobility solutions with responsible and sustainable consumption behaviour subsequently benefits society, businesses and the consumer. The need to avert from environmental pollution and global warming is therefore assumed to have fostered the popularity of sharing schemes (Belk 2014; Lamberton and Rose 2012).

Third, albeit Botsman and Rogers (2010) emphasize the importance of the new consumption scheme exceeding the recession, practitioners assume a connection to the economic crisis when investigating the rapid growth of the sharing economy in Western countries (Graul 2014a). Main factors include the corresponding financial restrictions for individuals as well as the consumers' reluctance to support the capitalist economic model (Albinsson and Perera 2012). In line with this postulate, research suggests that consumers' renting behaviour is positively related to financial restrictions as seen in the example of comparatively low-income classes which are more favourable towards renting (Durgee and O'Connor 1995). Commercial service systems can be seen as short-term rent (Belk 2010) and may subsequently fulfil consumers' need for an economically profitable way of consumption due to the potential of significant savings or monetary benefits (Botsman and Rogers 2010).



*Figure 1: Facilitators of the Sharing Economy Growth (Own Illustration).*

Ample research has documented the importance of the sharing economy and related practices within the academic literature. A review of contributions that were concerned with or relevant to a further understanding of the development of the sharing economy resulted in a selection of 52 manuscripts that were relevant to be investigated in depth (see appendix 6)<sup>1</sup>. The manuscripts were evaluated based on their research aim, contribution, as well as theoretical and methodological focus. The results of the literature review demonstrate that 24 contributions were of qualitative and 14 of conceptual nature, whereby only 17 contributions (32%) involved empirical investigations. This imbalance demonstrates that scholars and practitioners to date were largely concerned with the conceptualization and classification of the construct of sharing. This also evidences that the stream of research on sharing is at an embryonic stage and in need of further development. This trend is only recently followed by a

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<sup>1</sup> The identification of all articles that dealt directly with the concept of sharing and were relevant to this research was ensured by carrying out a comprehensive literature review of distinguished articles that have been published in peer-reviewed journals that are established and recognized in the field of marketing and consumer behaviour research and hold a minimum ranking of two stars awarded by the Association of Business Schools (ABS 2015). Digital libraries such as JSTOR and google scholar helped facilitate this search. Keywords employed were: sharing, sharing economy, collaborative consumption, access, access-based consumption and sharing services.

rising growth in quantitative studies that examine the cause and effect relationship between sharing behaviour and other constructs, with the present work being one contribution to such quantitative studies. Specifically, antecedents and outcomes of sharing that have been proposed by academics in prior literature are reviewed next.

#### **2.3.4 Antecedents of Sharing**

In the following, the main antecedents of sharing as identified in prior contributions on consumer user behaviour are summarized and discussed. Table 2 provides an overview of the antecedents as structured into functional motivations, social motivations and individual difference variables, which are canvassed thoroughly thereafter.

Table 2: Antecedents and Outcomes of Sharing as User.

	Construct	Outcome	Reference
<b>Functionally motivated</b>	Utilitarian and functional benefits of the object, potential for substitutability		Gruen 2017; Hennig-Thurau, Henning and Sattler 2007; Lambertson and Rose 2012; Möhlmann 2015
	Convenience orientation, need for flexibility, detached lifestyle		Bardhi and Eckhardt 2012; Eckhardt and Bardhi 2017; Moeller and Wittkowski 2010
	Cost savings through sharing as opposed to traditional rental solutions or cost of owning		Möhlmann 2015; Ozanne and Ballantine 2010; Hennig-Thurau, Henning and Sattler 2007
<b>Socially motivated</b>	Desire for community	Consumers may be inclined and motivated to engage in diverse forms of sharing as user	Philip, Ozanne and Ballantine 2015; Albinsson and Perera 2012
	Social utility of sharing; formation and maintenance of relationships		Jenkins, Molesworth and Scullion 2014; Ozanne and Ballantine 2010
	Approval by reference groups		Lamberton and Rose 2012
	Trust		Decrop and Graul 2015; Möhlmann 2015
	Scheme familiarity		Möhlmann 2015; Ozanne and Ballantine 2010
<b>Individual differences</b>	Political consumerism	Consumers may be reluctant to engage in diverse forms of sharing as user	Philip, Ozanne and Ballantine 2015
	Anti-consumption / anti-industry		Ozanne and Ballantine 2010; Hennig-Thurau, Henning and Sattler 2007
	Idealism		Hellwig, Morhart, Girardin and Hauser 2015
	Sustainability		Sheth, Sethia and Srinivas 2010
	Possession importance / Possessiveness		Abkar, Mai and Hoffmann 2016; Moeller and Wittkowski 2010
	Materialism		Abkar, Mai and Hoffmann 2016; Graul 2016
	Fear of negative reciprocity		Philip, Ozanne and Ballantine 2015
	Search cost of sharing		Ozanne and Ballantine 2010
	Risk of product scarcity	Lamberton and Rose 2012	

First, scholars agree that consumers that engage in economic sharing are driven by the utilitarian and functional benefits the scheme has to offer. This includes for example the monetary savings and the functional utility of the object that is being accessed (Gruen 2017; Hennig-Thurau, Henning and Sattler 2007; Lambertson and Rose 2012; Möhlmann 2015). For instance, in the context of car sharing, consumers may share a car in order to cover a ride or transportation of bulky home appliances which they could not manage to cover otherwise.

Second, ample research proposes that consumers may extensively focus on the derived utility from the object they share. This is supported by the fact that car sharing users were shown to refrain from engaging with the object in a way that would “transform this use value into sign value” (Gruen 2017, 276) and do not want to identify with the object or the car sharing community (Bardhi and Eckhardt 2012), which may lead to a lack of perceived responsibility towards the cars within the scheme (Gruen 2017). Utility can also be derived from intangible objects: For example, the utility consumers can derive from digital file sharing online as opposed to DVD rental has shown to be a crucial factor fostering online file sharing, as such on-demand access facilitates the utility of the shared file (Hennig-Thurau, Henning and Sattler 2007).

In addition, another factor that motivates consumers to engage in sharing is a convenience orientation (Moeller and Wittkowski 2010; Eckhardt and Bardhi 2017), which describes the often flexible and on-demand usage that the consumer is enabled to by relying on sharing schemes. In numerous cases, shared objects can be accessed or booked via mobile apps and are available on-demand and without the need to pre-book or encountering waiting times. In line with a general need for a flexible and detached lifestyle (Eckhardt and Bardhi 2017), research proposes that consumers are expected to value a consumption system that incorporates a high level of ease of usage, speed and liquidity that may fit their lifestyle.

Further, research has identified that cost savings through sharing as opposed to traditional rental solutions or owning have been a crucial factor for consumer engagement into the sharing economy (Möhlmann 2015). For example, the costs associated with car ownership such as purchasing, maintenance and insurance costs, would not be affordable for a huge customer segment including students, young professionals or families with lower income. However, sharing a car over a short-term may be as cost intense as 30 cents per minute and therefore is a realistic achievement for

the majority of people. Similarly, renting a peer-to-peer accommodation such as Airbnb or booking a peer-to-peer driving service such as Uber may lead to cost savings as opposed to booking traditional hotels or taxis (Möhlmann 2015) and is therefore able to attract a plethora of consumers.

Another factor that was shown to foster consumers engagement, particularly in peer-to-peer sharing, is socially motivated and describes a desire for community (Philip, Ozanne and Ballantine 2015), which is particularly relevant in sharing events such as Really Really Free Markets (RRFM). Here, community refers to the group of likeminded people that participate in the same sharing practice or events such as RRFM, in which consumers often engage driven by the communal aspect and the prospect to communicate with others in order to be part of the community itself (Albinsson and Perera 2012). This motivating advantage derived from the social utility of sharing has also been evidenced in the example of peer-to-peer toy libraries (Ozanne and Ballantine 2010) and is hypothesised to be conveyed through approval by particular reference groups (Lamberton and Rose 2012).

Moreover, trust (Decrop and Graul 2015; Möhlmann 2015) is a key component that may facilitate sharing transactions within the peer-to-peer environment. Not only is it a necessary precondition for consumers to trust the providing or mediating company, but also trust into their peer-to-peer sharing partners needs to be established. As a result, scholars emphasize the importance of rating and review systems within the sharing economy.

Moreover, studies propose individual difference variables as important impact factors with regard to a positive relationship with sharing, including the individual's orientation towards political consumerism (Philip, Ozanne and Ballantine 2015), anti-consumption (Ozanne and Ballantine 2010), idealism (Hellwig, Morhart, Girardin and

Hauser 2015) and sustainability (Sheth, Sethia and Srinivas 2011). Ample research proposes that individuals that score high on the listed factors are more eager and motivated to engage in diverse forms of sharing as such are perceived to be in line with sustainable and idealistic ideas of this particular consumer segment.

On the other hand, some individual difference variables may also hinder consumers' engagement in sharing. For instance, research has demonstrated that variables such as possession importance (Moeller and Wittkowski 2010), materialism (Graul 2016) and possessiveness (Abkar, Mai and Hoffmann 2016) were shown to hinder consumers' sharing intentions. For instance, consumers that value possessions as important part of their self-identity (Abkar, Mai and Hoffmann 2016) and as central to their life's (Graul 2016) are reluctant to engage in sharing *as user*. However, the role of individual difference variables with regard to the provision of personal possessions to others has not adequately been investigated yet.

Also, fear of negative reciprocity - which describes a fear of being unable or failing to return the object in its original state due to intentional opportunistic or unintentional damaging behaviour (e.g. "What would happen if I break it?") (Bardhi and Eckhardt 2012; Philip, Ozanne and Ballantine 2015) - and the search cost of sharing (Ozanne and Ballantine 2010) were shown to inhibit sharing intentions. This emphasizes the need for practitioners to understand the importance of providing well maintained objects on a flexible, on-demand base with sufficient coverage that allows for a low level of search costs and convenient access.

The following table summarizes selected research outlets on the antecedents of sharing from a consumer perspective (table 3). An extensive table summarizing the review of the general literature on sharing and the sharing economy can be found within the appendix (see appendix 6). From the selected contributions presented in table 3, it is



apparent that scholars started to investigate a plethora of different sharing economy schemes from a consumer behaviour perspective; including car sharing (Bardhi and Eckhardt 2012; Gruen 2017; Möhlmann 2015; Lamberton and Rose 2012), bike sharing (Lamberton and Rose 2012); accommodation rental (Möhlmann 2015) and peer to peer rental (Phillip, Ozanne and Ballentine 2015; Jenkis, Molesworth and Sullion 2015; Ozanne and Ballentine 2010; Moeller and Wittkowski 2010).

The analysis of the selected contributions demonstrates that the majority of the work approaches the sharing phenomenon from a *user perspective*, identifying different drivers for individuals to engage in sharing practices as users (compare table 2 for overview of antecedents). Interestingly, based on the intended focus of the identified antecedent, each contribution draws to a different theory that aligns the antecedent for sharing with the selected scheme of investigation. Thus, property rights theory, risk perception theory, practice theory and utility theory including an augmented utility model were applied by scholars in order to examine functionally motivated forms of sharing (Gruen 2017; Hennig-Thurau, Henning and Sattler 2007; Moeller and Wittkowski 2010; Lamberton and Rose 2012; Ozanne and Ballantine 2010); while theories of liquid modernity (Eckhardt and Bardhi 2017) were applied in order to emphasize the detached and flexible mode of consumption that sharing applies.

The concept of liquid modernity was originally introduced by Bauman (2000), suggesting that modern consumers refrain from security with the aim to enjoy more freedom, in which individuals become detached from the traditional ties of possessions. Specifically, liquid consumption hereby refers to a form of consumption in which individuals aim to unleash themselves from traditional, ownership-based forms of consumption and emotional identification with material objects – a trend to “shape and transform what consumers value in the marketplace, how they consume, the nature of

marketplace artifacts, the nature of market institutions, and consumer identity” (Bardhi and Eckhardt 2017, 583).

With regard to exploring forms of socially motivated engagement in sharing, actor network theory (Jenkins, Molesworth and Sullion 2015) as well as community theory (Albinsson and Perera 2012) were utilized in order to identify that sharing practices may be crucial to establish and maintain social relationships and to facilitate community building and belonging.

Overall, the review of the literature confirms that the stream of research on sharing practices is at an embryonic stage and in need of further development, particularly with regard to the perspective of the sharing provider. Specifically, it is apparent that there is need to identify a theoretical explanation for consumers’ motivation to provide for sharing that is based on the consumers’ level of an individual difference variable and hence applicable to a plethora of sharing scheme practices.

Further, the analysis of prior contributions has shown that only little research to date involves empirical data in order to justify assumptions with regard to the sharing economy; yet no stream of research has sufficiently applied experimental designs to their quantitative methodology in order to identify sharing antecedents. This is a crucial limitation of prior contributions that needs to be addressed, as results of self-reporting measures are limited and laboratory studies that involve experimental designs have been proven as most appropriate method in order to investigate proposed causal claims (Cozby 2011). As illustrated within the last row of table 3, the present stream of research aims to address prior study’s limitations by involving four different sharing schemes, quantitative, experimental methods and by drawing to attachment theory in order to explain sharing behaviour as process of interpersonal interaction.

Table 3: Selected Literature on Sharing from a Consumer Perspective.

Year	Authors	Journal	Research Objective	Q	C	I	D	E	n	Domain	Theory	Contribution
2017	Eckhardt & Bardhi	JCR	Introduction of a new dimension of consumption as liquid or solid.		x				()	Various	Theory of Liquid Modernity	New trend to consumer mirrors consumption orientation around values of flexibility, adaptability, fluidity, lightness, detachment, and speed.
2016	Gruen	JMM	Exploration of design and creation of Meaningful Consumption Practices in Access based Consumption	x		x			13	Carsharing (Autolib)	Practice Theory	Access based consumption may threaten the relationship between consumers and objects (focus solely on utility of the object). Can design change the practices of access-based consumption?
2016	Schaefers, Lawson & Kukar-Kinney	ML	Investigation into the effect of ownership burdens such as risk perception (financial, performance, social) on ownership versus access-based services.				x		776	Carsharing	Risk Perception Theory	When consumers perceive ownership (risk, responsibilities) as high risk, this increases their usage of access-based services. Risk perception theory focuses on the subjectively perceived level of risk.
2016	Lawson, Gleim, Perren & Hwang	JBR	Exploration into the role of Freedom from Ownership with regard to Access-based Consumption	x			x		72, 220	()	Motivational Theory	Identification of four different motivation segments: four distinct groups of consumers with varying dispositions toward access based consumption: Fickle Floaters, Premium Keepers, Conscious Materialists and Change Seekers.
2015	Moehlmann	JCB	Development and empirical test of framework on the determinants of choosing a sharing option.				x		236, 187	Carsharing car2go, Airbnb		Utility, trust, cost savings, and familiarity identified as main drivers. No effect was found of the constructs environmental impact, internet capability, smartphone capability, and trend affinity.
2015	Philip, Ozanne & Ballantine	JMM	Examination of peer-to-peer rental schemes regarding temporary disposition and acquisition.	x		x			19	P2P Rental Websites	Six dimensions of access-based consumption (Bardhi and Eckhardt 2012)	P2P characterised as a self-service exchange with extensive co-creation and a balanced market-mediated exchange involving short-term intermittent transactions. Drivers: desire for community, political consumerism. Inhibitors: fear of negative reciprocity, the high involvement nature of the transaction, limited access to products and the inflexible nature.
2014	Jenkins, Molesworth & Scullion	JCB	Investigation into inter-personal borrowing and the ambiguity in borrowing	x		x			18,10	Student Sharing Behaviour	Actor Network Theory and Epistemology	Suggests that borrowing is significant in forming and maintaining relationships, study identifies unique characteristics of borrowing.
2012	Bardhi & Eckhardt	JCR	Access based consumption from a consumer perspective, 6 dimensions of access	x		x			52	Carsharing Zipcar	Theory of Access	Access is investigated in contrast to ownership. Six dimensions are identified to distinguish among the range of access-based consumption: temporality, anonymity, market mediation, consumer involvement, the type of accessed object, and political consumerism.
2012	Lamberton & Rose	JM	3 studies on perceived risk of product scarcity, probability of engaging in sharing programs	x			x		369, 123, 105	Zipcar, AT&T, US Bike Sharing	Augmented Utility Model	Augmented Utility Model based on Hennig-Thurau et al. 2007; Typology of shared goods, Drivers: degree of substitutability, social utility of sharing, functional utility of sharing. Inhibitors: perceived product scarcity risk.
2012	Albinsson & Perrara	JCB	Investigation into non-monetary-based private and public sharing events with regard to sustainability and overconsumption.	x		x			10, 36	Really Really Free Markets (RRFM)	Community Theory	Sharing of knowledge and possessions (peer-to-peer). Driver: sense of community. Novel sense of exchange and reciprocity.

Year	Authors	Journal	Research Objective	Q	C	I	D	E	n	Domain	Theory	Contribution
2010	Ozanne & Ballantine	JCB	Exploration of sharing as for of anti-consumption drawing to the example of toy libraries				x		397	Toy Library Users		Investigate whether consumers that reduce consumption through choosing to share rather than own are motivated by anti-consumption reasons. The study reveals four groups – Socialites, Market Avoiders, Quiet Anti-Consumers and Passive Members. Drivers: price of ownership, frugality, anti-consumption, social utility of sharing, sharing knowledge. Inhibitors: materialism, search cost of sharing.
2010	Moeller & Wittkowski	MSQ	Examination into the reasons for preferring renting as opposed to ownership	x					461	Online Peer-to-Peer Sharing Networks	Property rights theory, services marketing theory	Suggest that demand for non-ownership services is negatively influenced by possession importance and positively influenced by trend orientation and convenience orientation, but not motivated by price consciousness or environmentalism.
2007	Hennig-Thurau, Henning, Sattler	JM	Investigate threat of consumer file sharing of motion pictures to DVD rental, purchase and theatre visits (annual revenue losses of \$300 million in Germany)	x		x	x		10.000 (Panel)	New Motion Pictures	Utility Theory (extend and refine utility theory approach)	Utility and costs of the original versus utility and costs of the illegal copy, build on Rochelandet and Le Guel's (2005) utility theory approach but substantially refine and extend this approach in several ways. Drivers: price of ownership, frugality, anti-industry, social utility of sharing. Inhibitors: search cost of sharing.
	Present Study		Examination of sharing as relationship-building process, interplay of attachment avoidance and interpersonal closeness.				x	x	128, 103, 160, 142	Household Items, Flat sharing, Carsharing, Bike sharing	Attachment Theory	Suggests that interpersonal sharing behaviour can be seen as a function of attachment-related avoidance. Establishment of theory driven boundary condition by examining psychological proximity to the sharing partner. Process evidence by perception of fear.

Notes Table 3: Selected Literature on Sharing from a Consumer Perspective

Q: Qualitative
C: Conceptual
I: Interviews
D: Empirical Data
E: Experiment
n: Number of observations

## 2.5 Attachment Theory

The previous section has reviewed the key findings derived from the academic literature relevant to various forms of sharing, including a review of published contributions, their variables of interest and theoretical anchorage (table 3). The review of the literature on the concept of sharing and its social and psychological consequences leads to the assumption that a sharing interaction can be seen as a process of interpersonal interaction between the sharing provider and the sharing user. Thus, in order to be fully able to predict consumers' intention to provide their personal possessions for sharing, the author proposes that relationship theories need to be taken into account in order to comprehend sharing from an interpersonal interaction perspective.

To the author's knowledge, no research to date has sufficiently examined the connection between ownership and the self, with particular regard to implications for the person-object-person relationship when providing personal belongings for sharing to close individuals as opposed to interpersonally distant ones. As a wealth of research has documented the importance of sharing provision for interpersonal interaction initiating purposes and for fostering connections to other individuals, this paragraph reviews literature on relationship styles in adults in order to pursue suitable explanations of whether, when and how consumers' sharing behaviour can be predicted based on relationship theories. Hence, attachment theory which describes an individuals' attachment style guiding his behaviour towards other people will be reviewed in order to fill this void.

Based on attachment theory, individuals develop working models of attachment that guide their interaction with others based on their experiences in close relationships throughout childhood and the entire life span (Beck, Pietromonaco, DeVito, Powers and Boyle 2014; Mikulincer and Shaver 2008). Such interpersonal experiences hereby refer

to attachment figures, such as parents or romantic partners, and translate into a persons' attachment styles (e.g. to avoid attachment or to be anxiously attached to other individuals) that explain an individuals' behaviour towards others in a plethora of situations. As a result, attachment theory (Bowlby 1969) provides a theoretical framework for the indented investigation into sharing as a process of interpersonal interaction and its implications for sharing with close individuals as opposed to distant others. For example, a person that is attachment avoidant and hence aims to avoid attachment and commitment to another individual, may equally be reluctant to engage in sharing as interpersonal interaction due to fear of commitment. In order to provide insights into the antecedents and consequences of adult attachment styles, the concept of attachment and its characteristics are reviewed in this section in more detail, followed by an illustration of potential consequences of low and high attachment avoidance for consumer behaviour.

### **2.5.1 Internal Working Models of Attachment**

Bowlby (1969) originally introduced the main assumptions underlying attachment theory for infants who tend to draw on attachment figures that are characterized as “stronger and wiser” individuals in times of emotional uncertainty or when in need for help (Gillath, Mikulincer, Fitzsimons, Shaver, Schachner and Bargh 2006). Literature proposes that this process is the result of an evolutionary, inborn process, which fosters survival through the seeking of aid from more experienced others (Mikulincer, Gillath and Shaver 2002). The resulting interactions between individuals and their attachment figures have been demonstrated to lead to the development of concrete mental representations concerning the view of others and the view of the self – which the

present research refers to as internal working models of attachment (Ainsworth, Blehar, Waters and Wall 1978; Beck et al. 2014).

A wealth of empirical evidence supports the idea that models of attachment are formed internally and serve as working models that regulate the individual's interaction with others (Beck et al. 2014). As a result, research proves the theory's validity to understand specific social behaviour and social compartment (Bartholomew and Horowitz 1991; Hazan and Shaver 1987; Shaver and Hazan 1993). P.

Prior literature on attachment styles in adults proposes that every individual collects a multitude of experiences in close relationships through childhood and the entire life span (Bartholomew and Horowitz 1991), which include interpersonal relationships to attachment figures such as parents and siblings, but also close family members, friends and romantic partners in the course of adulthood (Bartz and Lydon 2004). Particularly with regard to romantic partners, the seeking of aid and proximity has been demonstrated to be omnipresent, fostered by the expectation to draw on a romantic relationship partner as a resource of support and security (Mikulincer, Gillath and Shaver 2002).

However, attachment theory (Bowlby 1969) proposes that individuals take compensatory strategies if a reliable and secure relationship to an attachment figure is not given (Mikulincer and Shaver 2008), which can either be *deactivating*, and therefore aim to avoid attachment, closeness and dependency based on a negative model of others; or *hyper activating*, leading to a form of anxious attachment and uncertain anxiety based on a negative model of the self (Bowlby 1973).

The first dimension of adult attachment is commonly referred to as attachment avoidance and associated with a "negative model of others" and a tendency to avoid closeness and dependency (Bartholomew and Horowitz 1991, 228). Ample research has

shown that attachment avoidance is related with the goal to maintain personal control and to maximize interpersonal distance to others (Abeyta, Routledge, Wildschut and Sedikides 2015; Fraley, Waller and Brennan 2000). Thus, a high level of attachment avoidance is negatively related to a concern for others (Fritz and Helgeson 1998) as other individuals are perceived as less trustworthy. The second working model is known as attachment anxiety, which describes a “negative model of self” and a fear of rejection by other individuals (Bartz and Lydon 2004, 1390; Bartholomew and Horowitz 1991). As a result, the attachment working models that individuals hold internally translate into their behaviour in interpersonal interactions towards others.

Previous research has started out by investigating three different working models of attachment, involving the categories 1) secure, 2) attachment avoidant and 3) attachment anxious (Hazan and Shaver 1987). Individuals that were scoring low on both dimensions, attachment avoidance and attachment anxiety, were expected to hold a secure model of attachment, which involves a positive model of self as well as a positive model of others. However, attachment avoidant individuals would hold a positive model of self, paired with a negative model of others; while attachment anxious individuals would hold a positive model of others but a negative model of self. This three-category model has however shown to involve important limitations, which will be explained and addressed in the following.

Because research has proposed that both dimensions, attachment avoidance and attachment anxiety, are two dimensions of attachment that can be present simultaneously in either a high or a low level, the four-category model (Bartholomew and Horowitz 1991) has been introduced as most appropriate model to illustrate the interrelation of the two different dimensions of adult attachment and their respective levels of concrete attachment styles in low versus high (figure 2).



		<b>Model of Self</b>	
		<b>Positive</b>	<b>Negative</b>
		<b>Low Anxiety</b>	<b>High Anxiety</b>
<b>Model of Others</b>	<b>Positive</b>	<b>Low Avoidance</b>	<b>Secure</b> <b>Preoccupied</b>
	<b>Negative</b>	<b>High Avoidance</b>	<b>Dismissive</b> <b>Fearful</b>

*Figure 2: Four-Category Model for Attachment Styles in Adults.  
Adapted from Bartholomew and Horowitz 1991.*

Thus, the four-category model as displayed in figure 2 includes all four combinations of attachment anxiety (low vs. high) and attachment avoidance (low vs. high), defined as 1) secure, 2) preoccupied, 3) dismissive and 4) fearful attachment styles (Bartholomew and Horowitz 1991). While the three-category model classifies individuals into secure, attachment avoidant and attachment anxious (Hazan and Shaver 1987), the four category model introduces “fearful” as a fourth category which secures that respondents are not forced to classify themselves wrongly by making a forced choice between a high level of attachment avoidance or a high level of attachment anxiety (Brennan, Shaver and Tobey 1991; Wei, Russell, Mallinckrodt and Vogel 2007). In contrast, low scores on both dimensions involve a positive model of the self as well as a positive model of others, which may result in a secure attachment orientation (Lopez and Brennan 2000; Mallinckrodt 2000).

As a result, the selected model was evaluated as best model to be applied to the present research as it extends the original three-category model by one category and successfully addresses prior limitations of the original model (Hazan and Shaver 1987). The chosen measure further allows the researcher to allocate respondents into low and high avoidant and low and high levels of attachment anxiety respectively in order to control for potential confounds empirically.

While the presented model includes dimensions of attachment anxiety and attachment avoidance, the present research employs the model in order to examine the respondents' level of attachment avoidance solely. Thus, the present work concentrates on the dimension of attachment avoidance in adult attachment styles; while attachment anxiety will be controlled for empirically. Given that individuals high in attachment avoidance avoid closeness and dependency and aim to maintain distance to others (Bowlby 1969; Brennan, Shaver and Tobey 1991), it is particularly important to understand how levels of attachment avoidance may affect an individual's sharing behaviour following extant work that supports the authors' suggestion that sharing can be seen as process of interpersonal interaction, wherefore sharing would contradict avoidant individuals' aim to maintain distance to others. Thus, the author expects attachment avoidance to be transferred to the sharing process and to trigger a fear to commit to another person, resulting in a reluctance to share for attachment avoidant individuals. Building upon the theoretical concept of attachment avoidance, the following paragraph reiterates the role of attachment avoidance as individual difference variable and reviews literature on consequences of a high level of attachment avoidance.

### **2.5.2 Attachment Avoidance as Behavioural Predictor**

In the literature on adult attachment, attachment styles were demonstrated to be "related in theoretically meaningful ways to mental models of self and social relationships" (Hazan and Shaver 1987, 511) and are subsequently able to affect consumer judgements of self and others as well as consumer behaviour and decision making (Mikulincer and Shaver 2007). In particular, highly avoidant individuals refrain from self-disclosure and are notably more self-reliant (Rom and Mikulincer 2003; Shaver and Mikulincer 2003; Shaver and Hazan, 1993).

In contrast, individuals low in attachment avoidance have been shown to be more comfortable with a high degree of dependency on others and also with acceptancy to have individuals depend on them. Further, low avoidant individuals tend to be content with interpersonal closeness to others (Beck et al. 2014) as they tend to trust others in a positive manner and rely on their expected availability and responsiveness if required by them (Abeyta et al. 2015; Mikulincer and Shaver 2003).

Attachment styles were moreover examined as a function of interpersonal behaviour and demonstrated to impact upon mood and tolerance (Mikulincer and Shaver 2001), the seeking of help (Larose, Bernier, Soucy, and Duchesne 1999), the development of compassionate feelings for others (Mikulincer, Shaver, Gillath, and Nitzber 2005) and perceived relationship quality (Birnbaum, Reis, Mikulincer, Gillath and Orpaz 2006). Further, anxious attachment styles were found to be related to materialism and loneliness (Norris, Lambert, DeWall, and Fincham 2012) as compensatory mechanism for anxious individuals to substitute interpersonal relationships. An extensive overview of attachment avoidance as behavioural predictor of other constructs is provided in table 4 in the following.

Table 4: Attachment Avoidance as Behavioural Predictor.

<b>Attachment Avoidance in Consumer Behaviour</b>		
<b>Positively related to:</b>	<b>Construct</b>	<b>Reference</b>
	Self-reliance and Self-preservation	Bartholomew and Horowitz 1991; Beck, Pietromonaco, DeVito, Powers and Boyle 2014; Mikulincer and Shaver 2003; Rholes et al. 1999; Rom and Mikulincer 2003; Shaver and Mikulincer 2003; Van Lange, Otten, De Bruin and Joireman 1997
	Maintenance of relational distance to other individuals	Bartz and Lydon 2006; Beck, Pietromonaco, DeVito, Powers and Boyle 2014; Murray, Holmes and Collins 2006; Simpson, Rholes and Nelligan 1992
	Suppression of attachment-related needs and restricted emotionality	Abeyta, Routledge, Roylance, Wildschut and Sedikides 2015; Bartholomew and Horowitz 1991; Beck, Pietromonaco, DeVito, Powers and Boyle 2014; Mikulincer and Shaver 2007
	Reluctance to engage in interpersonal interactions	Bartz and Lydon 2004; Beck et al. 2014; Mikulincer and Shaver 2008
	Avoidance of Intimacy and restricted Emotionality	Bartholomew and Horowitz 1991; Bowlby 1979; Hazan and Shaver 1987; Simpson and Rholes 2012
	Distrust of others	Bartholomew and Horowitz 1991
	Excessive Coldness	Bartholomew and Horowitz 1991
<b>Negatively related to:</b>	<b>Construct</b>	<b>Reference</b>
	Provision of support and solicitation	Mikulincer et al. 2005; Wilson, Simpson, and Rholes 2000; Simpson, Rholes and Nelligan 1992
	Expressiveness	Bartholomew and Horowitz 1991
	Capacity to rely on others	Bartholomew and Horowitz 1991
	Expression of need or support signalling emotions	Bartholomew and Horowitz 1991; Feeney 1995; Larose, Bernier, Soucy, and Duchesne 1999; Simpson, Collins, Tran and Haydon 2007; Simpson, Rholes and Phillips 1996
	Exposure to others' appreciation for them	Beck and Clark 2009
	Relational interpretation of partners' responsive behaviours	Bartz and Lydon 2006; Beck and Clark 2010
	Self-disclosure	Bartholomew and Horowitz 1991; Beck, Pietromonaco, DeVito, Powers and Boyle 2014
	Comfort with closeness and dependence on others	Abeyta et al. 2015; Beck, Pietromonaco, DeVito, Powers and Boyle 2014; Collins and Feeney 2000; Rholes, Simpson, Campbell and Grich 2001
	Voluntarism	Mikulincer et al. 2003
	Development of compassionate feelings for others	Mikulincer, Shaver, Gillath, and Nitzber 2005; Mikulincer et al. 2003; Westmaas and Silver 2001
	Altruism and Empathy	Mikulincer, Shaver, Gillath, and Nitzberg 2005
	Mood	Mikulincer and Shaver 2001
	Perceived relationship quality	Birnbaum, Reis, Mikulincer, Gillath and Orpaz 2006
	Tolerance	Mikulincer and Shaver 2001
	Level of romantic involvement	Bartholomew and Horowitz 1991
	Exploitability	Bartholomew and Horowitz 1991
	Nurturing	Bartholomew and Horowitz 1991

However, no prior research has examined the relationship between attachment styles and consumers' sharing behaviour to date. Following extant investigations, the author proposes that attachment avoidance could be transferred to sharing as a process of interpersonal interaction and to trigger a fear to commit to another person, resulting in a reluctance to share for attachment avoidant individuals. As a result, the following paragraph aims to account for a review of related constructs that may help to explain a potential relationship between attachment avoidance and sharing. Subsequently, for the scope of this work, the author proposes that the model of others as reflected in the level of attachment avoidance is most influential and it is important to understand whether, when and how attachment avoidance may affect consumers' intention to provide personal possessions for sharing.

### **2.5.3 Attachment Avoidance in Sharing and the Role of Perceived Fear**

Previous research has provided evidence for the fact that individuals that vary in their level of attachment avoidance as reflected in their working models of attachment significantly differ in their predisposition for distinct behaviour, feelings and cogitations (Collins 1996). While individuals low in attachment avoidance hold a positive view of others and do not refrain from interpersonal closeness, individuals high in attachment avoidance rather employ strategies to ignore and eliminate close relationships and their need for attachment figures (Beck et al. 2014; Mikulincer and Shaver 2008). These compensatory strategies lead individuals high in attachment avoidance to execute "thoughts and behaviours that maintain a sense of self-reliance" and relational distance (Beck 2014, 165). Thus, avoidant individuals strive to maintain their goal of interpersonal independence from others in order to safeguard themselves from the risk

of potential rejection (Murray, Holmes and Collins 2006) and may be fearful to commit to another person within interpersonal interactions.

A vast body of research has evidenced a relationship between attachment avoidance and altruism respectively pro-social behaviour. For instance, when investigating reactions to other individuals in need, Mikulincer and colleagues (2001; 2005) find that a high level of attachment-related avoidance decreases willingness to help, voluntarism, compassion and altruism. Individuals high in attachment avoidance were expected to “distance themselves from others’ suffering, resulting in decreased empathy and altruistic helping” (Mikulincer et al. 2005, 819). Further, research has found that attachment avoidance leads to decreased motivations to provide support to close friends that are negatively perceived as too dependent when seeking for help (Wilson, Simpson, and Rholes 2000). This is in line with prior research that identified that avoidant individuals would experience less compassion towards a person with a diagnosed severe disease such as cancer (Westmaas and Silver 2001).

In contrast, research supports the assumption that securely primed individuals that hold a low level of attachment avoidance are more inclined to conduct care-oriented and altruistic behaviour (Mikulincer, Shaver, Gillath, and Nitzberg 2005) and generally care more about the welfare of other close relationship partners (Mikulincer et al. 2003).

Investigating sharing as distinct construct and under the premise of defining sharing as a process of interpersonal interaction expands the scope of prior work examining altruistic behaviour and compassion. Specifically, while the present research aims to uncover mechanisms that explain consumers’ sharing provision behaviour, a situation in which individuals engage in providing their personal possessions to others is the focus of attention. Opposed to that, altruistic helping and volunteering has previously been investigated implying highly costly contributions of the donor in many cases (e.g. taking someone’s place in a distressing situation that involves touching a

tarantula or providing financial help (Mikulincer, Shaver, Gillath, and Nitzberg 2005)), demonstrating that sharing is conceptually different from such situations (Belk 2000). Indeed, when providing a personal possession for sharing, individuals allow other peers short-term access to their belongings, while the ownership however remains with the provider.

Prior literature has established a link between attachment avoidance and the reluctance to engage in interpersonal interactions or interpersonal commitment (Bartz and Lydon 2004; Beck et al. 2014; Mikulincer and Shaver 2008). This proposition is aimed to be tested within the context of sharing, defined as a process of interpersonal interaction in which the sharing provider interacts with the sharing user at a specific point in time. With regard to the effect of attachment avoidance, a wealth of empirical evidence supports the idea that avoidant individuals desire relational distance as a mechanism to protect themselves from potential negative experiences in interaction with close others (Abeyta et al. 2015; Rholes, Simpson, Campbell and Grich 2001). Literature refers to those strategies as “defensive strategies” (Abeyta et al. 2015). As a result, it can be assumed that when asked to share their personal possessions with others, attachment avoidant individuals would equally trigger a fear to commit to the other person and be reluctant to engage in interpersonal sharing with close members of the family or friends in order to not engage into interpersonal interaction and keep a self-protecting distance to other individuals (Mikulincer and Shaver 2008).

Subsequently, an explanatory mechanism is required that may provide process evidence for the effect of attachment avoidance on the reluctance to interact with others. Hazan and Shaver (1987) propose that avoidant individuals fear intimacy and commitment to another individual, while Bowlby (1979) originally anticipated that avoidant people would be “terrified of allowing themselves to rely on anyone else” (138). This may be due to the fact that the attachment system was naturally activated

when experiencing forms of distress and fear (Simpson and Rholes 2012). Subsequently, the concept of perceived fear of commitment seems to provide an answer to the question of process evidence and is therefore examined more closely in the context of interpersonal sharing.

Fear can be defined as “basic emotion typically produced by the presence or anticipation of a specific danger or threat” (Dunn and Hoegg 2014, 152). Thus, fear generally describes an emotional response that has shown to impact significantly upon consumer behaviour (Dunn and Hoegg 2014; LaTour and Rotfeld 1997). Prior research has related the concept of fear to behavioural outcomes in the domain of marketing, suggesting that the emotion of fear positively impacts upon elaboration and persuasion (Block and Keller 1998) and increases the individuals’ willingness to avoid fearful outcomes (Passyn and Sujana 2006; Dunn and Hoegg 2014), wherefore it was employed to develop effective advertising (Passyn and Sujana 2006).

Of primary interest to this research is subsequently the mechanism that sharing may trigger when experienced by individuals that are fearful of engaging in interpersonal sharing with others due to a fear to commit to another person. Such regulation of emotions triggered by a fear of commitment is regarded as “a persons’ spontaneous attempt to intensify, attenuate, or maintain a given emotional state” (Dunn and Hoegg 2014,153; Cohen, Pham and Andrad 2008). Particularly, with regard to interpersonal sharing, it may be valid to assume that individuals that score high on attachment-related avoidance aim to refrain from commitment to others. Thus, avoidant individuals are expected to choose routes of defensive strategies (Abeyta et al. 2015) in order to maintain their self-reliance and avoid commitment to others (Mikulincer and Shaver 2003).

This mechanism is expected to function based on the attachment avoidant individual’s distrust in others. While literature has identified trust as a main component



of sharing interactions (Belk 2014; Möhlmann 2015), based on attachment theory, a fear of commitment and negative interpersonal experiences may very likely be related to a high level of distrust in others and therefore serve as more suitable process evidence for the effect of attachment avoidance on sharing intentions. The author suggests that this distrust does in turn fuel the individuals' fear of interpersonal transactions that are interwoven in sharing. As a consequence, attachment avoidance may trigger a fear to commit to another individual, which is able to attenuate avoidant consumers' sharing intentions in order to protect themselves from emotional pain or negative emotional experiences in interaction with others (Bowlby 1973; Shaver and Mikulincer 2002).

## **2.6 Interpersonal Closeness**

### **2.6.1 Definition of Interpersonal Closeness**

The review of the literature suggests that the role of attachment avoidance in sharing provides a fruitful void for further, empirical investigation in order to assess the validity of the proposed defensive strategies of avoidant individuals in interpersonal sharing. It is hereby assumed that the relevance of attachment avoidance as behavioural predictor for consumers sharing behaviour will largely depend on the psychological perception of the person who the provider intends to share with. Particularly, this may apply to perceptions of interpersonal closeness and describe whether the sharing partner is perceived as being psychologically close or psychologically distant. One form of differing sharing partners based on their perceived extent of psychological distance could therefore be sharing with a friend versus with a stranger. The review of extant literature in chapter 2.2 and 2.3 has shown that sharing can be classified into social sharing and commercial sharing; whereby one major difference lies in the sharing

partner of the transaction. For instance, while social sharing transactions may take place between individuals that are interpersonally close (circles of family and friends), commercial sharing which involves a pre-defined one-time transaction often takes place among strangers and unknown peers, which can be assumed to be interpersonally more distant (Belk 2007; Eckhardt and Bardhi 2016). However, based on the assumptions of interpersonal closeness, also friends or acquaintances can be perceived differently with regard to their level of psychological distance (Dubois, Bonezzi and De Angelis 2016). Subsequently, the focus of this research is to not only oppose commercial with social sharing schemes, but to investigate the construct of interpersonal sharing behaviour in sharing transactions with users that are perceived differently from a psychological distance perspective.

Thus, in the present section, literature on the concept of interpersonal closeness between two individuals is reviewed from a consumer behaviour perspective. After defining the construct, a summary overview of established manipulations of interpersonal closeness is provided that serves as starting point for the present research. Subsequently, previous literature concerned with interpersonal closeness relevant to consumer behaviour is presented.

Interpersonal closeness describes “feelings of connectedness stemming from the perceived affective, cognitive and behavioural overlap between two people” (Dubois, Bonezzi and De Angelis 2016, 713) and serves as important behavioural predictor for interpersonal relationships (Dibble, Levine and Park 2012; Dubois, Bonezzi and De Angelis 2016). In line with this theorizing, the present research is based on the concept of interpersonal closeness as the individual’s perceived degree of connection towards another individual and the resulting perceived psychological proximity between himself and the other person (Gino and Galinsky 2012). Thus, the author assumes that an individual’s perception of interpersonal closeness and connectedness to another

individual may have important implications for consumers' sharing behaviour, as elucidated hereinafter.

### **2.6.2 Triggers of Interpersonal Closeness**

Feelings of interpersonal closeness can be evoked through different social or emotional situations and originate from diverse factors that will be reviewed in the following. For instance, factors such as the occupancy of a similar identity or the shared belonging of individuals to a specific group or ties can evoke a higher level of perceived interpersonal closeness (Tajfel, Billig, Bundy and Flament 1971; Tajfel 1982). Research has demonstrated that interpersonal closeness can emerge from meaningful conversations (Sedikides et al. 1999) and from identifying similar attributes with another individual, for example an equivalent date of birth (Miller et al. 1998) or similarities in their given names (Pelham, Carvallo and Jones 2005). As a result, constructs of similarity (vs. dissimilarity) are expected to trigger distinct perceptions of interpersonal closeness (Gino and Galinsky 2012).

In line with research that suggests that physical proximity results in higher interpersonal closeness (Vohs, Baumeister and Ciarocco 2005), also the mere act of taking another persons' perspective within a given situation evokes a feeling of interpersonal closeness to the respective person (Gunia, Sivanathan and Galinsky 2009). In addition, literature suggests that a tendency towards a perception of interpersonal closeness to another person can also be stimulated by the individual's cognitive mindset: this may account for interdependent as opposed to independent individuals that tend to evaluate themselves in terms of greater relatedness to their surrounding individuals and perceive a higher degree of interpersonal closeness to them (Kuhnen, Hannover and Schubert 2001). Another interesting factor that evokes closeness lies in the usage of

linguistic pronouns and markers in languages such as German or French which differ in familiar versus unfamiliar versions of ‘you’ (Brown and Gilman 1964; Dubois, Bonezzi and De Angelis 2016).

Based on extant research on triggers of interpersonal closeness, the following table has been developed illustrating most relevant manipulations used to capture interpersonal closeness with regard to the scope of the present work (table 5). Herein, eight different manipulations of interpersonal closeness and the respective tasks that have been employed by researchers in order to trigger the aimed level of closeness are illustrated in column 1 and 2. Column 3 incorporates concrete references to publications in which such manipulations and tasks have been utilized in order to manipulate respondents’ perceived level of interpersonal closeness to another individual. References to specific experimental studies are provided.

*Table 5: Selected Manipulations used to capture Interpersonal Closeness.*

<b>Manipulation</b>	<b>Task</b>	<b>Author (Year)</b>
Similarity vs. Dissimilarity	Statement prior to Experiment; Description	Gino and Galinsky E3 (2012); Liviatan, Trope and Liberman E1, E3, E4 (2008)
Close Friends vs. Acquaintances	Description	Dubois, Bonezzi and De Angelis E1, E4 (2016)
Strangers vs. Friends	Description	Bar-Anan, Liberman and Trope 3B (2006)
Social Media Platform Facebook vs. LinkedIn	Description	Dubois, Bonezzi and De Angelis E3 (2016)
Perspective Taking	Writing Task	Gino and Galinsky E1, E4 (2012); Gunia et al. (2009), Williams, Stein and Galguera (2014)
Interdependent Mindset	Priming, Writing Task	Gino and Galinsky E2 (2012), Gunia et al. E4 (2009)
Relationship Closeness	Induction Task	Dubois, Bonezzi and De Angelis E2 (2016); Vohs, Baumeister and Ciarocco (2005); Sedikides et al. (1999)
Feelings of Closeness vs. Distance	Description	Dubois, Bonezzi and De Angelis E1 (2016)

### 2.6.3 Interpersonal Closeness as Behavioural Predictor

A vast body of research has evidenced that perceptions of interpersonal closeness may impact upon diverse consumer behaviour. For instance, interpersonal closeness influences the willingness of individuals to disclose personal information (Altman and Taylor 1973), the reach and diffusion of information (Burt 1992), and the valence of communicated information via shared word of mouth content (Dubois, Bonezzi and De Angelis 2016). Further, interpersonal closeness was related to the degree of influence of others on an individual's new product adaption (Aral 2011) and has been demonstrated to impact upon an individual's moral concept in a way that unethical behaviour such as dishonesty or self-centeredness of another person leads the individual to follow the unethical behavioural pattern when the other is perceived as interpersonally close (Gino and Galinsky 2012). The explanatory process underlying the effect was shown to be vicarious justification, which led individuals to behave in unalignment with their prior moral values (Gino and Galinsky 2012).

Interestingly, with regard to pro-social behaviour, the degree of psychological proximity between parties was also related to consumers' willingness to cooperate (Batson et al. 2002) and to financially support the other party in times of monetary needs (Aron, Aron, Tudor and Nelson 1991). Scholars further suggest that "caregiving might be more strongly activated in response to a close relationship partner's needs as compared with the needs of a stranger" (Mikulincer et al. 2005, 834; Gillath, Shaver, and Mikulincer 2005).

In line with this theorizing, research demonstrates that high feelings of closeness lead individuals to be more eager to help the person in question (Cialdini, Brown, Lewis, Luce, and Neuberg 1997); and that reducing closeness in turn triggers a reduction in helping and lower levels of compassion (Cialdini et al. 1997; Mikulincer et al. 2005).

Despite first attempts of bringing the concepts of interpersonal closeness and compassion together, it is important to note that interpersonal sharing is conceptually different from altruistic behaviour. The author argues that while helping behaviour has been classified as an output of an altruistic caregiving system (Mikulincer et al. 2005), interpersonal sharing rather involves giving another peer access to a personal possession over a short period of time, while the possession is returned thereafter. Subsequently, as no research to date has examined the role of the consumers' level of interpersonal closeness to another person with regard to their sharing behaviour yet, it is important to fill this void and to help understand theoretical differences between the concepts of altruism and sharing (Belk 2000).

## **2.7 Chapter Summary**

The review of the literature on sharing illustrates the importance of social sharing as a crucial form of consumer behaviour which has however been highly overlooked in academic research to date (Belk 2000). It was demonstrated that the development of the so called sharing economy introduces a novel form of sharing which enables stranger to short-term access of goods owned by their peers through the help of mediating online platforms.

With this novel development comes the opportunity to share not only within the social circle of family and friends, but also with unknown people and strangers. Based on a review of the social and psychological aspects of sharing, it can be proposed that sharing describes a process of interpersonal interaction. As a result, the concept of attachment avoidance and its potential interplay with perceived interpersonal closeness of the sharing partner was demonstrated to serve as a fruitful area for future

investigation in order to understand consumers' intention to provide their personal belongings for sharing.

In the following chapter, concrete hypotheses will be developed based on the extensive review of the literature on the key concepts for the scope of this work. In particular, the investigation of the effect of attachment avoidance on consumers' intention to provide for sharing and related moderating and mediating mechanisms will be discussed in the next chapter.

### **3 - HYPOTHESES DEVELOPMENT**

#### **3.1 Chapter Overview**

While previous chapters have elucidated the importance of an in-depth investigation into the concept of sharing and its distinct relevance within the novel concept of the sharing economy, the aim of the third chapter is as follows. First, based on extensive review of the literature as illustrated in chapter 2, a concrete interplay between the constructs of sharing and attachment avoidance is suggested. Next, specific hypotheses are derived from the review of the literature in order to allow for rigorous investigation of the suggested interaction effect of the two variables. Third, the role of perceived fear of commitment as explanatory mechanism is discussed and the respective construct is suggested as mediator. Finally, this chapter closes by presenting the resulting conceptual framework which will serve as a base for the intended investigation involving a series of quantitative studies.

#### **3.2 The Role of Attachment Avoidance in Sharing**

The attachment system can be described as a system that guides and controls consumers' behaviour based on the individuals' previous experiences in close relationships (Bowlby 1982). Particularly, attachment avoidance can be defined as individual difference variable that describes behaviour that leads to avoid attachment, closeness and dependency based on a negative model of others (Bowlby 1969). A vast body of research provides evidence for the fact that individuals high in attachment avoidance employ compensatory strategies to ignore and eliminate close relationships and their need for attachment figures (Beck et al. 2014; Mikulincer and Shaver 2008). These



compensatory strategies lead them to execute “thoughts and behaviours that maintain a sense of self-reliance” and relational distance (Beck 2014, 165). Thus, it is apparent that avoidant individuals strive to maintain their goal of interpersonal independence from others in order to safeguard themselves from the risk of potential rejection (Murray, Holmes and Collins 2006).

Subsequently, it can be assumed that this behavioural pattern may apply to all forms of behaviour that trigger perceptions of interpersonal relationships for attachment avoidant individuals. Particularly in line with previous literature on interpersonal sharing, it can be suggested that the sharing of personal possessions entails important implications for the relationship between the sharing provider and the short-term user of the possession. This prediction is based on the notion that personal possessions can extend their pure functional benefits (Belk 1988; Csikszentmihalyi and Rochberg-Halton 1981) and facilitate an interpersonal interaction among two individuals. In support with this assumption, an interpersonal sharing process in which two individuals share an object with each other can be regarded as a *person-thing-person interaction* between the provider, the object and the user. This indicates the importance of the possession within the transaction and demonstrates its potential to facilitate a connection between the owner of the object and another individual through interpersonal sharing (Belk 1988). Following extant literature, avoidant individuals were however shown to be reluctant to engage in interpersonal interactions (Bartz and Lydon 2004; Beck et al. 2014; Mikulincer and Shaver 2008). Thus, referring to attachment theory, individuals with a high level of attachment-related avoidance may strive to maintain their independence and use strategies such as distancing or deactivating (Mikulincer and Shaver 2003; Mikulincer et al. 2005) in order to avoid sharing as mechanism to initiate interpersonal interaction.

While a pro-social sharing interaction among two individuals is grounded on general reciprocity in which a good deed or unusual act of kindness would be generally returned or recompensated by the sharing partner (Albinsson and Perera 2012; Putnam 2000), the recompensation may take place with temporal distance and involve a completely different situation and act of good deed unrelated to the original sharing transaction. In line with this traditional form of sharing “without calculating returns” (Price 1975, 4), the social and emotional component is paramount. As a result, a wealth of research exists to support the claim that social sharing holds the potential to foster community and bonding among individuals (Albinsson and Perera 2012) and results in interpersonal relationships over the span of time. Thus, this research argues that providing one’s personal possessions for sharing to other individuals can be seen as a process of interpersonal interaction.

Accordingly, the investigation of interpersonal sharing is intended to be conducted by applying the theoretical assumptions of attachment theory (Bowlby 1969). According to this logic, the author suggests that an individual’s level of attachment avoidance (high vs. low) would systematically predict the consumers’ intention to provide their personal possessions for sharing. Specifically, the author suggests that attachment avoidant individuals reject closeness and intimacy to others and refrain from behaviour that involves a process facilitating interpersonal interaction which involves the dependency and reliance on others (Miculinker et al. 2000; Abeyta et al. 2015). This argument is based on the prediction that avoidant individuals aim to maintain their self-reliance and refrain from interpersonal closeness as a form of pre-protective mechanism in order to avoid potential disappointment or negative experiences (Collins and Feeney 2004; Rholes et al. 2001). Fuelled by a fear of commitment and dependence, individuals high in attachment avoidance would therefore apply “defensive strategies” (Abeyta et al. 2015) when they experience fear of interpersonal interactions and commitment to other

individuals. This proposition is consistent with research showing that attachment avoidance leads individuals to evade closeness and dependency (Bartz and Lydon 2004) and is negatively related to a concern for others. In contrast, individuals low in attachment avoidance envision others more positively, are inclined to rely on others and have no concern with being close to their peers (Mikulincer and Shaver 2008).

As a result, consumers high in attachment avoidance may be reluctant to share their personal possessions with close others (e.g. the extended family or friends), as such behaviour is consistent with their aim to keep distance to other individuals and avoid interpersonal interactions (Norris et al. 2012). In particular, the author suggests that attachment avoidance will negatively affect consumers' intention to share their possessions with other individuals as they may be reluctant to engage into behaviour initiating interpersonal interaction and are willing to avoid closeness and dependency on others. Based on this argument, consumers high in attachment avoidance would strive to avoid providing their private possessions for sharing as the interpersonal sharing interaction would lead to an unwanted relationship with other individuals (Albinsson and Perera 2012; Putnam 2000). Based on this argumentation, the following hypothesis emerges:

**H1: Attachment avoidance will have a negative effect on the intention to share with other individuals.**

### **3.3 The Mediating Role of Perceived Fear in Sharing**

As explanatory mechanism of the suggested effect of attachment avoidance on sharing behaviour, the author proposes that fear of commitment may play a crucial role. Fear can be defined as "basic emotion typically produced by the presence or anticipation of a

specific danger or threat” (Dunn and Hoegg 2014, 152). Thus, fear describes an emotional response that has shown to impact significantly upon consumer behaviour (Dunn and Hoegg 2014; LaTour and Rotfeld 1997). Prior literature suggests that individuals that entail a high level of attachment avoidance have taken this compensatory route as a result of disappointment and negative experiences in close relationships with others (Bartz and Lydon 2004). Thus, avoidant individuals are expected to choose routes of defensive strategies (Abeyta et al. 2015) in order to maintain their self-reliance and avoid dependence (Mikulincer and Shaver 2003).

A vast body of research has found that avoidant individuals’ fear of commitment and dependence is able to explain why they are reluctant to engage in behaviour that initiates interpersonal interaction (Abeyta et al. 2015; Bowlby 1969; Mikulincer et al. 2005). As a result, the researcher hypothesizes that this fear of commitment to another individual translates into avoiding closeness and dependency on others and is therefore the mediating variable that explains attachment avoidant individuals’ interpersonal sharing behaviour. This proposition is consistent with research that suggests that individuals high in attachment avoidance lean towards protecting themselves from potentially expected emotional pain or negative emotional experiences (Bowlby 1973; Shaver and Mikulincer 2002).

Based on these assumptions, the effect of attachment avoidance on intention to provide for sharing is expected to be mediated by the individual’s perceptions of fear of commitment:

**H2: Perceived fear will mediate the effect of attachment avoidance on intention to share.**

### 3.4 The Moderating Role of Interpersonal Closeness in Sharing

Interpersonal closeness describes the individual's perceived degree of connection towards another individual and the resulting perceived psychological proximity between himself and others (Gino and Galinsky 2012). While social sharing as discussed in the previous chapter involves the provision of personal possessions to members of the family or the extended circle of friends, it can be suggested that the perceived interpersonal closeness between the sharing provider and the short-term user of the shared possession is perceived as very high (Dubois, Bonezzi and De Angelis 2016). Ample research supports this claim and argues that "feelings of connectedness stemming from the perceived affective, cognitive and behavioural overlap between two people" evoke perceptions of interpersonal closeness (Dubois, Bonezzi and De Angelis 2016, 713).

Given the fact that attachment avoidant individuals follow a defensive strategy and aim to avoid behaviour initiating interpersonal interaction due to perceived fear to commit to another individual, it is valid to assume that their reluctance to share is driven by their willingness to defend interaction with interpersonally close individuals (Beck et al. 2014). However, why would attachment avoidant individuals react defensively if the sharing situation does not involve a risk to lead to an ongoing relationship with another individual?

Prior research has found that individuals high in attachment avoidance negatively react to closeness and relationship maintaining behaviour due to their fear of commitment and dependence (Abeyta et al. 2015). In contrast, however, an interaction with another individual that is interpersonally distant and perceived as psychologically more detached should reduce attachment avoidant persons' fear of commitment and

subsequently their desire to engage in protective or defensive strategies. Based on this argument, the present work suggests that a sharing partner involving interpersonal distance may be able to attenuate the proposed negative effect of attachment avoidance on intentions to provide personal possessions for sharing.

Prior research has found that one example of altering interpersonal closeness is involving a person perceived as a friend (interpersonally close) versus stranger (interpersonally distant) in a behavioural situation (Dubois, Bonezzi and De Angelis 2016). Following this notion, in contrast to the previously elucidated form of interpersonal sharing, the sharing economy provides the ground for enabling sharing transactions between interpersonally distant individuals with the help of mediating online platforms (Belk 2007; Eckhardt and Bardhi 2016). The rationale of the author's prediction rests on the idea that sharing can be distinguished into two different forms of sharing. On the one hand, literature defines sharing with family or friends as a social, non-market mediated process (Eckhardt and Bardhi 2016) which "expands the sphere of extended self by expanding the domain of common property" (Belk 2010, 726). On the other hand, scholars characterize sharing with strangers as seen in the sharing economy as economic exchange, which may be market mediated (Eckhardt and Bardhi 2016).

Due to mediating online platforms, consumers are provided with the novel option to engage in a sharing process not only with their family and friends, but also with strangers (Belk and Llamas 2011; Eckhardt and Bardhi 2016). This recent development accentuates the importance of investigating the concept of sharing with regard to the role of the perceived interpersonal closeness of different sharing partners involved in the transaction and a potential interplay between the sharing provider's level of attachment avoidance. Thus, it can be suggested that this novel concept of sharing entails important implications with regard to the perceived interpersonal closeness of

the sharing partner, who is perceived as being close in social sharing transactions, however distant in transactions with strangers.

Indeed, commercial sharing (Belk 2007; Eckhardt and Bardhi 2016) involves a pre-defined one-time transaction that is often non-recurring and non-reciprocal. As a result, attached individuals would be expected to perceive less fear of committing to another individual or getting too close to the sharing partner based on the pre-defined regulations of the transaction and their reliance on a structure of economic formality (Ikkala and Lampinen 2015). This may be explained by the perceptions of interpersonal closeness that differ between friends and strangers (Dubois, Bonezzi, and De Angelis 2016). Previous applications of altering interpersonal closeness include investigating the differential effects of strangers as opposed to friends (Bar-Anan, Liberman, and Trope 2006), as well as dissimilar actors versus similar actors (Liviatan, Trope, and Liberman 2008), and Facebook versus LinkedIn connections (Dubois, Bonezzi, and De Angelis 2016).

However, the interplay of attachment avoidance and interpersonal closeness with regard to sharing behaviour has not been investigated yet. As the alteration of a sharing partner as interpersonally close versus distant to the sharing provider may impact upon attachment avoidant consumers' intention to provide their personal possessions for sharing to the respective individual, the present work aims to fill this void involving an empirical account.

In particular, combining the concept of interpersonal closeness with attachment theory, the author proposes that people high in avoidance may evaluate sharing their personal possessions with individuals that are perceived as being interpersonally close as entailing a higher potential to build close relationships than with individuals that are perceived as being interpersonally distant. Therefore, the researcher hypothesizes that attachment avoidant individuals would tend to avoid sharing with other individuals that

they perceive as interpersonally close to themselves. However, engaging in sharing with distant individuals could be perceived as entailing a significantly lower risk to lead to intimate relationships, which particularly accounts for non-recurring and non-reciprocal transactions.

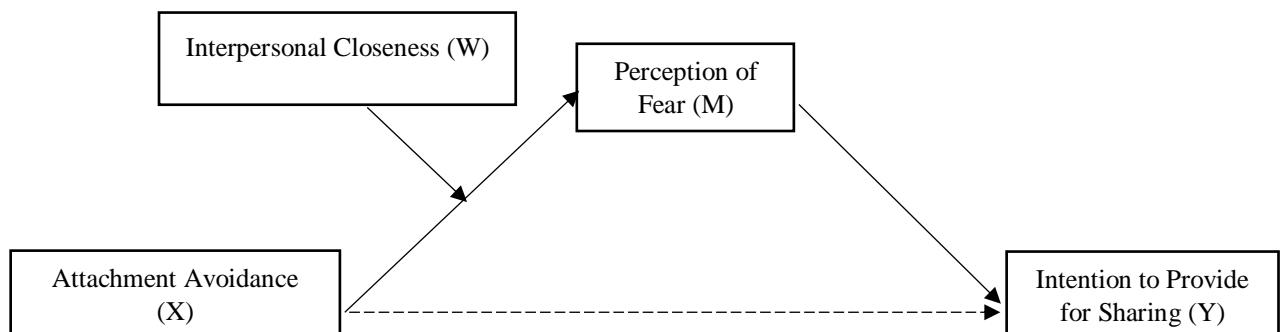
Drawing to attachment theory (Bowlby 1969), the author expects that attachment avoidant individuals will be eager to avoid a sharing process with the extended family or friends. However, engaging in the sharing process with strangers could be perceived as entailing a significantly lower risk to lead to intimate relationships, and therefore people high in avoidance would be less reluctant to share their personal possessions with them. As a result, the following hypothesis emerges suggesting a moderating role of interpersonal closeness:

**H3: Attachment avoidance will have a negative (vs. positive) effect on the intention to share with an interpersonally close (vs. distant) sharing partner.**



### 3.5 Conceptual Framework

Based on the development of the specific hypotheses derived from an intensive review of the literature on sharing, attachment avoidance and interpersonal closeness, the following conceptual framework emerges summarizing all proposed relationships. While the individuals level of high versus low attachment avoidance is proposed to impact upon the intention to provide personal possessions for sharing (H1), this effect is assumed to be moderated by the perceived interpersonal closeness to the sharing partner as close versus distant (H3). The explanatory mechanism underlying the hypothesised effect is expected to be the individuals' perception of fear of commitment (H2). The interrelation between the constructs is illustrated in figure 3.



*Figure 3:* Conceptual Framework. Effect of interpersonal closeness on intention to provide as a function of attachment avoidance mediated by perception of fear.

### **3.5 Chapter Summary**

The illustrated conceptual model and the related hypotheses represent the initial starting point for this research. The review of the literature has shown it is absolute imperative to investigate the relationship between attachment avoidance and consumers' sharing behaviour in light of the current development of the sharing economy as novel mode of consumption. In fact, as this novel economy involves mediating online platforms that enable individuals to provide their possessions for sharing to strangers in transactions that are often non-recurring and non-reciprocal, the role of interpersonal closeness between the sharing partners requires particular attention in the present investigation. Further, the concept of perceived fear of commitment is expected to play a mediating role within the hypothesised relationship. In order to investigate the presented hypotheses appropriately, this work will present a series of four quantitative studies in which data collection has been conducted following an experimental design. Thus, the chosen method, methodology and results of the four experimental studies conducted will be discussed in the remaining chapters of the present work.

## **4 – RESEARCH METHODOLOGY**

### **4.1 Chapter Overview**

Following the review of the literature, the development of research hypotheses and the design of an overarching conceptual framework, the fourth chapter of this thesis illustrates the implications and characteristics of the chosen quantitative research methodology with particular regard to experimental designs. Thus, logical positivism will be discussed as the underlying research philosophy and issues of causality and validity of experiments will be illustrated. In particular, the nature of one-way and factorial designs as well as between and within-subject designs will be discussed. Then, particular strategies with regard to data collection and statistical data analysis of the present stream of research will be presented. The chapter closes with an overview of the intended data collection and data analysis strategy.

### **4.2 Research Philosophy**

The present research aims to investigate the relationship between attachment avoidance and consumers' intention to provide their personal possessions for sharing with particular regard to the role of interpersonal closeness to the sharing partner. The starting point for this investigation lies in the hypotheses presented in the previous chapter three. In order to examine the proposed relationships, a quantitative approach has been chosen that allows the researcher to quantitatively investigate the differential effects of the independent variables attachment avoidance (low versus high) and interpersonal closeness (close versus distant) on the dependent variable consumers' sharing intention via statistical software. Thus, the chosen methodology is grounded on

the idea of a logical positivism philosophy (Benton and Craib 2010) that assumes the regularity of events and suggests that cause-and-effect relationships can be tested in a quantitative manner and “analysed in numerical form” (Gelo 2012, 113).

A causal relationship can be defined as “an object followed by another, and where all the objects, similar to the first, are followed by objects similar to the second. Or, in other words, where if the first object had not been, the second never had existed” (Hume 1748/1963, Section VII). This implies the notion of replicability of the causal relationship with comparable entities and suggests that the existence of the second entity is enabled solely as a result of the first entities’ existence (Graul 2014b). Thus, in line with the suggested epistemology, the causal effect is assumed to be *observable* and can be *assembled* over time as a result of various observations made by the human mind (Davidson 1967).

With regard to epistemology, following this approach involves the belief that knowledge can be acquired and derived from observations of an external reality (Graul 2014b) and subsequently, the proposed research questions within the present work can be investigated by drawing conclusions from observations and the statistical analysis of the results obtained. Consequently, following the philosophy of logical positivism, the author believes in the idea that verification respectively falsification of hypotheses can be obtained through multiple observations for the intended analysis (Thorpe 2017) in order to confirm and extend suggested theories.

### **4.3 Research Design**

In line with logical positivism philosophy, implementing an experimental research design was chosen as most appropriate method in order to investigate the suggested hypotheses and test the proposed causal claims (Cozby 2011). Within social science

research, the quasi-experimental design has proven its suitability for testing causal relationships in a controlled setting, in which “the causal or independent variables are manipulated in a relatively controlled environment” (Malhotra, Birks, and Wills 2012, 108). In the following, matters of causality, validity, advantages and disadvantages of experimental designs will be discussed and the author will conclude the most appropriate method for the present stream of research.

#### **4.3.1 Causality in Experimental Designs**

An experimental design describes a well-established method in social sciences research that allows investigating a proposed cause-effect-relationship in a quantitative manner. Thus, based on a factor with different levels, a stimulus for each level can be created and tested under identical conditions in a relatively controlled environment (Malhotra et al. 2012). As a result, a change in the dependent variable will be attributed to a change in the levels of the independent factors implied. Thus, it is crucial to follow the order of occurrence correctly, involving an exposure to the stimuli followed by a measurement of the dependent variable. In fact, in order to conclude for a causal relationship to exist, three conditions need to be fulfilled: the “concomitant variation, time order of occurrence of variables, and absence of other possible causal factors” (Malhotra et al. 2012, 252). By following these conditions, the causal effect of independent variables on dependent variables can be analysed with the help of empirical data (Gelo 2012) that is collected *after* the exposure to the experimental stimuli, commonly involving self-report measures of the operationalized factors within a self-reporting survey (Graul 2014b).

In order to test for causality, the author follows the method of falsification in order to evaluate whether the empirical data provides sufficient evidence to support or reject the null hypothesis (Graul 2014b). Following the philosophical ideas of Popper

and Lakatos (Benton and Craib 2010), there is need to emphasize that in case of a provisional rejection of the null hypothesis, the opposed claim that suggests that a causal relationship between the two variables exists can be provisionally accepted. Nonetheless, while falsification can be conducted, an omniferous *validation* of the hypothesis as a result of an observed phenomenon would be impossible to obtain; due to the potential for flawed and erroneous observations by the human mind (Benton and Craib 2010).

#### **4.3.2 Internal and External Validity**

Internal validity describes the degree to which the experimental stimuli can be identified as the responsible cause for the changes observed in the dependent variable within each experimental condition, and is usually assumed to be high within experimental designs due to the high level of environmental control (Campbell and Stanley 2015). A high level of internal validity is therefore a crucial precondition for every experimental design. In particular, the conduction of experimental and quasi-experimental designs allows for the test of a cause-effect-relationship in an environment that resembles a laboratory setting and therefore reduces the complexity of real life settings in favour of the intended investigation. As a result, a setting in which “variables are manipulated and their effects upon other variables observed” can be created (Campbell and Stanley 2015).

A highly controlled setting entails high levels of consistency throughout the study and the potential to eliminate and/or control for plausible cofounds and environmental factors influencing results (Monette et al. 2005). Thus, the author designed all presented studies carefully and conducted all experiments following “well designed, carefully controlled, and meticulously measured” characteristics as suggested within the literature (Druckman 2011, 28).

External validity rather describes the degree to which the experimental findings are generalizable to other populations, segments or measurement variables (Campbell and Stanley 2015) and replicable in various contexts. As such, laboratory experiments can be criticized for their lack of transferrable results that are applicable to real life situations. In support of this criticism, researchers have long expressed apprehension that “there exists a concern that much of consumer research, and behavioural research in general, is not generalizable” due to the gathering of artificial data (Calder et al. 1981, 197).

One possible solution lies in the conduction of additional field experiments, in which previously established results from a laboratory setting can be piloted “under actual market conditions in a real-life-setting” (Malhotra et al. 2012, 272). However, this entails a very low level of control wherefore the risk to gather faulty results that are influenced by confounding variables is omnipresent.

Consequently, it can be concluded that internal validity may in numerous cases jeopardize external validity of experimental research, and vice versa. Thus, the higher the degree of internal validity, the higher the risk to lower the levels of external validity – whereas the higher the external validity, the higher the risk for confounding influences (Campbell and Stanley 2015). This challenge is often addressed by involving a combination of different data collection strategies (such as online experiment, laboratory experiment, field experiment) and various forms of manipulations of the independent variables in order to demonstrate the effects’ robustness within different settings. To conclude, the author notes that scholars suggest the sheer impossibility to fully control an experimental setting (Lewis 1973) and therefore aims to employ different mechanisms in order to obtain the highest possible level of internal and external validity.

### 4.3.3 Elaboration of Experimental Methods

While the previous paragraph has introduced the implications for internal and external validity with regard to experimental designs, the present paragraph will conclude with an overview of the resulting advantages and limitations of experimental research.

First, experimental settings are most suitable in order to test causal relationships within social science research. The ability to identify factors that cause distinct changes in outcome variables makes the experimental design the most powerful tool for causation testing (Creswell 2013). Second, an experimental setting allows for controlling a plethora of extraneous variables in a precise environment. Thus, reliable and internally valid results can be obtained to a much higher degree as compared to other research methods (Lipsey 1990). Third, numerous experimental designs that involve textual or visual stimuli can easily be implemented within surveys or online questionnaires and in addition, diverse stimuli variations can be employed and tested in a controlled way. This allows not only for creative implementations of diverse stimuli, but also for the possibility of replication and validation drawing to the experiment's high potential for replicability (Creswell 2013).

While a controlled experimental setting implies ample advantages, limitations emerge due to the artificial nature of the collected data. Thus, internal validity may jeopardize the desired external validity, and obtained results may not be applicable to real life scenarios. Further, despite a high level of control, distinct variables unknown to the researcher, such as health related issues, may not be controllable, and may affect the results obtained in a particular way. Personal biases and unreliable samples are therefore potential risks when conducting experiments.



In conclusion, despite acknowledging limitations of experimental research designs, the author proposes to follow a quasi-experimental design in order to examine the proposed causal hypotheses as the proposed method was identified as most suitable in order to answer the presented research objectives.

#### **4.4 Design of Studies**

In order to test the causal relationships between the independent variables attachment avoidance and interpersonal closeness and the dependent variable sharing intentions as hypothesised in previous chapters, a quasi-experimental design was chosen as most appropriate method. Thus, the effect of the two independent factors can be investigated in a relatively controlled environment and changes in the outcome variable can be attributed to changes in the experimental stimuli with a high likelihood. In the following, the specific characteristics of one-way and factorial designs as well as between and within-subjects designs will be reviewed, followed by an overview of the applied data collection and data analysis strategy involved within the present research.

##### **4.4.1 One-Way and Factorial Designs**

While a one-way experimental design is concerned with the main effect of changes in one independent variable on the outcome variable, thus only involves *one* independent variable and its respective levels; a factorial design allows to take changes of *diverse* factors, thus two or more independent variables with their different levels and respective interplay, into consideration. Consequently, within the scope of this research, a one-way design will be carried out in order to test the main effect of attachment avoidance and its two levels (low vs. high) on sharing intentions. Next, in order to investigate the

hypothesized interplay of the two factors attachment avoidance and interpersonal closeness, a factorial design will be applied that allows for testing the interaction of the different levels of the two factors. As a result, the following four groups emerge for the factorial designs applied within this stream of research (table 6).

*Table 6:* Factorial Design. Factors of Attachment Avoidance and Interpersonal Closeness.

		<b>Factor 1: Attachment Avoidance</b>	
		<b>Low</b>	<b>High</b>
<b>Factor 2: Interpersonal Closeness</b>	<b>Close</b>	Group A	Group B
	<b>Distant</b>	Group C	Group D

#### 4.4.2 Between and Within Subjects Designs

In order to collect data in the most appropriate way aligned with the proposed factorial design and the research question posed, the author suggests drawing to between-subjects experimental designs for the intended data collection based on the following three reasons.

First, while a within-participant design exposes all recruited respondents to each of the designed experimental stimuli, a between-participants design allocates different respondents to one of the experimental groups solely. As a result, within-participant designs bear a higher risk to jeopardize the independence of the exposure to diverse stimuli and as a result a risk to lead to erroneous conclusions regarding the causal estimates (Charness, Gneezy and Kuhn 2012). Second, research suggests that in a

simplified way, demand effects are expected to be higher when incorporating within-participants designs, as a result of a specific pattern that participants may aim to follow based on their envisioned research objective of the experiment (White 1977). Third, the between-subjects design has been proven to be particularly accurate for investigating problems or choices that are close to the consumers' real behaviour in the marketplace (Charness, Gneezy and Kuhn 2012).

To conclude, the most appropriate method to examine how different factors influence the consumers' sharing intention within the scope of the intended research, taking attachment avoidance and interpersonal closeness into consideration, is expected to be the between-subjects design.

#### **4.4.3 Data Collection Strategy**

While this research aims to incorporate between-subjects experimental designs, a quantitative survey has been chosen as most appropriate method to investigate the proposed hypotheses with the aim to produce unbiased results (Shuttleworth 2008). Thus, the stimulus was aimed to be designed involving visual and textual components that can easily be incorporated within a survey format, and the constructs of interest were in the following surveyed involving a carefully designed questionnaire.

Due to the nature of the experimental design, a random assignment of respondents has been chosen as correct sampling method in which each participant holds equal chances to be randomly allocated to one of the experimental conditions. Respondents were recruited online from Amazon's Mechanical Turk, involving a non-probability and self-selecting sample (Malhotra et al. 2012). While the author is aware of issues concerning self-selection biases with regard to online surveys (Thompson,

Surface, Martin and Sanders 2003), due to restrictions in time and money, this method has been evaluated as most applicable.

Amazon's Mechanical Turk (AMT) is a novel source of data collection that emerged with the rapid development of online technology and the internet. Hence, it is important to note the implicit characteristics of data collected via AMT. AMT describes an online platform that brings "requesters" that are looking for respondents to complete their tasks (e.g. a survey) and "workers" that are interested in completing digital tasks (e.g. responding to a survey or writing task) together. Thus, AMT allows scholars to publish their survey programmed with an external survey tool such as Qualtrics on the platform in order to recruit respondents in a rapid and inexpensive way (Buhrmester, Kwang and Gosling 2011).

As AMT involves an integrated payment system in which participants get compensated for their "task" and Amazon requests a commission on top of the reward amount, scholars are able to individually set the reward for completing the task. Consequently, a significant growth in publications that rely on AMT samples has been observed recently, with over 400 publications allocated within the field of social sciences (Paolacci and Chandler 2014). Despite research has shown that the speed of the data collection may in numerous cases be influenced by the task length and the rate of the compensation (Buhrmester, Kwang and Gosling 2011), data quality seems to remain unaffected by compensation rates.

Albeit data collection via AMT is expected to provide a cost- and time efficient solution to the previous reliance on laboratory studies and student samples (Buhrmester, Kwang and Gosling 2011) and has been shown to be an efficient tool to gather reliable results overall (Goodman, Cryder and Cheema 2013), it also involves two important drawbacks. First, participants' attention level may be lower than in student samples,

wherefore it is important to insert filter or attention check questions; and second respondents recruited via AMT may hold different financial and/ or social ideas and constraints than traditional samples (Goodman, Cryder and Cheema 2013). After carefully weighting the advantages and disadvantages of internet samples in comparison to traditional samples, the author suggests to rely on AMT as a fruitful tool for data collection that employs great efficiency benefits within a restricted timeframe (Goodman and Paolacci 2017).

#### **4.4.4 Data Analysis Strategy**

The data collection is intended to involve solely quantitative results based on online questionnaires that involve multiple experimental stimuli. Thus, the questionnaire will expose respondents to textual stimuli and in the following measure the constructs of interest involving close ended 7-point Likert scales and established item batteries that “require the participants to indicate a degree of agreement or disagreement” (Malhotra et al. 2012, 213). Particularly in the case of self-reporting surveys, non-forced rating scales were chosen as most appropriate measure as the utilization of a neutral option limits the risk of biases towards one direction of the construct (Tullis and Albert 2013). Validity and reliability of the measures implied was thus ensured by deriving established item batteries from the literature and employing 7-point Likert scales that provide a neutral mid point that prevents respondents from a forced choice. Further, a plethora of covariates was integrated within each survey. Finally, respondents for the intended experiments were recruited via Amazon’s Mechanical Turk and data was collected with the help of the survey software Qualtrics. Particularly, the occurrence of missing data was circumvented by applying custom validation via Qualtrics. Thus, a validation procedure was applied that forced respondents to answer a question before

they were able to proceed to the following page of the survey. In case participants would not complete all questions on one page of the survey and attempt to proceed regardless, a message was shown informing them that they could only proceed once all questions were answered.

The analysis of all surveyed data was conducted with the help of the statistical analytic programme IBM SPSS Statistics 23. First, in order to investigate the hypothesised main effect of attachment avoidance on sharing intention, a one-way ANOVA was conducted in order to compare the means of sharing intentions as dependent variable between respondents low and high in attachment avoidance. Second, the hypothesised interaction effect of attachment avoidance and interpersonal closeness on sharing intentions was analysed involving a two-way ANCOVA, ANOVA or respectively the General Linear Model within SPSS. Finally, in order to test the hypothesised explanatory mechanism of the effect, a custom dialog was added on to SPSS which allows performing the Preacher and Hayes' (2013) PROCESS method in order to test for mediation. Particularly, a moderated mediation analysis (model 8) with perceived fear of commitment as mediator and interpersonal closeness as moderator of the effect of attachment avoidance on sharing intentions was conducted, involving an estimated bias-corrected 95% confidence interval and 5000 bootstrap samples.

#### **4.5 Chapter Summary**

The present chapter reviewed the implications of conducting experimental research, with special regard to the involved philosophical assumptions, issues of data collection and particular data analysis strategies. As a result, the author reaches the conclusion that the conduction of (online) experimental designs, involving factorial between-subject

designs, is the most appropriate method in order to answer the intended research questions.

In the following, the hypothesised predictions will be tested involving four experimental studies. While study 1 suggests that attachment avoidance has a negative effect on consumers' sharing behaviour, building on psychological proximity, the author shows in study 2 that this effect is reversed if the sharing partner is interpersonally distant. The proposed moderating mechanism was validated next with altering the sharing partner as a dissimilar other (study 3) or a distant social media contact (study 4). Finally, the researcher shows that the effect is mediated by perceived fear of commitment and demonstrates occurrence of the effect when attachment avoidance is primed (study 4). While the respondents' level of attachment avoidance is surveyed in study 1-3, study 4 aims to support the robustness of the effect by involving a prime for attachment avoidance. Finally, in order to provide process evidence for the suggested effect, study 4 tests whether the effect is mediated by perceived fear of commitment. An overview of all studies is provided in table 7 below.

Table 7: Overview of Studies 1-4.

	Variable	Study 1	Study 2	Study 3	Study 4
<b>Participants (n)</b>		<b>128</b>	<b>103</b>	<b>160</b>	<b>142</b>
<b>Hypotheses tested</b>		H 1	H1 & H3	H1 & H3	H1, H2 & H3
<b>Context</b>	<b>Sharing Scheme</b>	Household Items	Flat sharing	Car sharing	Bike sharing
<b>Independent Variable</b>	<b>Attachment Avoidance</b>	Measured	Measured	Measured	Primed
<b>Moderator</b>	<b>Interpersonal Closeness</b>	Close	Close vs. Distant	Close vs. Distant	Close vs. Distant
	<b>Closeness Manipulation</b>	Neighbour	Friend vs. Stranger	Similar vs. Dissimilar	Facebook vs. LinkedIn
<b>Dependent Variable</b>	<b>Sharing Intentions</b>	Measured	Measured	Measured	Measured
<b>Mediator</b>	<b>Fear</b>				Measured
<b>Covariates</b>	<b>Materialism</b>	Measured (6 Items)	Measured (18 Items)		
	<b>Monetary Fee</b>	Manipulated			
	<b>Object Attachment</b>		Measured (3 Items)		
	<b>Psychological Ownership</b>			Measured (3 Items)	
	<b>Impression Management</b>				Measured (4 Items)



## **5 - DATA ANALYSIS AND RESULTS STUDY 1: The Role of Attachment Avoidance in Sharing**

### **5.1 Chapter Overview**

The following chapter illustrates data analysis and results of study 1, investigating the role of attachment avoidance in sharing. First, the aim of the intended study will be presented. Second, a description of the experimental design and the stimuli development will be discussed. Then, a description of the measured variables and covariates within the questionnaire will follow. Next, the results of the data analysis will be reported and descriptive and inferential statistics will be presented. Finally, the chapter concludes with a discussion of the obtained results.

### **5.2 Aim of Study 1**

The aim of study 1 was to test whether interpersonal sharing can be seen as a function of attachment avoidance. Based on the first hypothesis, a negative effect of attachment avoidance on sharing intentions is anticipated. Thus, the author intends to test whether individuals high in attachment avoidance would be reluctant to provide their personal possessions for sharing. In addition, the study aims to incorporate two control variables in order to rule out alternative explanations of the effect. First, the study controls for the effect of a payment of a monetary fee as compensation for the short-term rental in order to rule out that this may serve as an alternative predictor for consumers' sharing intentions. Second, the consumers' level of materialism will be surveyed as covariate in order to rule out alternative explanations of the effect by taking the consumers' level of materialism into consideration.

### 5.3 Design of Study 1

In the following, the design of study 1 will be described. First, the development of the stimuli will be elucidated. Then, the questionnaire employed within study 1 will be described and the measures involved within the questionnaire will be presented.

#### 5.3.1 Design of the Experimental Stimuli Study 1

While a plethora of sharing schemes have evolved over the last decade, study 1 starts out by involving a neighbourhood sharing scheme into the experimental scenario. The scheme description is inspired by the real-life example *pumpipumpe.ch*, a sharing community founded by the *pumpipumpe* association in Switzerland that aims to promote “the conscious use of our consumer goods and wants to improve social interaction in urban neighbourhoods” (Pumpipumpe 2017). Thus, individuals can provide their private household items such as a drill, a ladder, garden tools or toys for sharing to their neighbours. The sharing transaction is aimed to be enabled via stickers that can be stuck on the participating households’ letter box and that display the goods that are offered for sharing (see appendix 4.1). Following this example, respondents in study 1 were exposed to a scenario describing a household sharing scheme that allows neighbours to offer household appliances to others for sharing.

While the original sharing community *pumpipumpe* does not involve the payment of a monetary fee, a plethora of other schemes however ask their users for a short-term rental fee that gets paid to the provider. Thus, study 1 aims to rule out a potential interaction effect between the consumers’ level of attachment avoidance and the involvement of a monetary fee in order to explain consumers’ intention to provide their personal possessions for sharing. As a result, a between-subject experimental

design was used in which half of the respondents read that the short-term rental involved the payment of a small fee to the provider (monetary fee), while the other half reads that the short-term rental was at no charge (no monetary fee).

### **5.3.2 Measured Variables and Questionnaire Design Study 1**

#### ***5.3.2.1 Dependent Variable***

After being exposed to the sharing scheme description, respondents' intentions to provide their personal possessions for sharing within the scheme was surveyed involving a 3-item-battery as primary dependent variable of study 1 by asking participants about their level of agreement with the following statements: "I am likely to participate in the above sharing scheme", "I am inclined to participate in the above sharing scheme", and "I am willing to participate in the above sharing scheme" on a 7-point Likert scale (1 = Strongly Disagree to 7 = Strongly Agree).

#### ***5.3.2.2 Realism Checks***

In order to test whether respondents perceived the scheme description of the neighbourhood sharing scheme involved in study 1 as realistic, a realism check was implemented asking respondents to agree or disagree with the following statement: "I consider the above sharing scheme as realistic" on a 7-point Likert scale (1 = Strongly Disagree to 7 = Strongly Agree).

#### ***5.3.2.3 Independent Variable***

Then, the respondents' level of attachment avoidance was assessed involving four descriptions derived from the four-category attachment model (Bartholomew and Horowitz 1991), which allowed taking both avoidant attachment styles, dismissing-

avoidant and fearful-avoidant, into consideration. This measurement is particularly suitable with regard to the proposed research design as it secures that respondents are not forced to classify themselves wrongly as elucidated in previous chapters (Brennan, Shaver and Tobey 1991). Respondents were asked to select one of the following four descriptions that would be most suitable to describe themselves, while the names in parentheses were not displayed to respondents.

- **[Secure]** - It is relatively easy for me to become emotionally close to others. I am comfortable depending on others and having others depend on me. I don't worry about being alone or having others not accept me.
- **[Dismissive]** - I am comfortable without close emotional relationships. It is very important to me to feel independent and self-sufficient, and I prefer not to depend on others or have others depend on me.
- **[Preoccupied]** - I want to be completely emotionally intimate with others, but I often find that others are reluctant to get as close as I would like. I am uncomfortable being without close relationships, but I sometimes worry that others don't value me as much as I value them.
- **[Fearful]** - I am uncomfortable getting close to others. I want emotionally close relationships, but I find it difficult to trust others completely, or to depend on them. I sometimes worry that I will be hurt if I allow myself to become too close to others.

#### **5.3.2.4 Covariates**

The employed measure of attachment styles allowed the researcher to focus on attachment avoidance as main independent variable, however to also take attachment anxiety into consideration by involving it as covariate into the model. Hence, based on the respondents' self-selected attachment styles, the respondents were allocated into low

or high attachment anxiety. This dummy coded variable was employed as covariate within the empirical analysis. Moreover, the respondents' level of materialism was surveyed. As literature suggests that materialism subsists of three different dimensions, namely success, centrality and happiness, the survey involves the materialism short-version 6-item scale which employs 2 items per subcategory (Richins and Dawson 1992). Sample items include "I admire people who own expensive homes, cars, and clothes" for the success dimension, "I like a lot of luxury in my life" for the centrality dimension or "I'd be happier if I could afford to buy more things" for the happiness dimension (Richins 2004). Responses were surveyed on a 7-point Likert scale (1 = Strongly Disagree to 7 = Strongly Agree). Finally, the respondents' demographics such as gender (male / female), age (5 age groups) and origin (6 origin groups) were surveyed. The detailed questionnaire can be found within the appendix (see appendix 4.1). The questionnaire was programmed in a digital version and distributed online with the help of the survey software Qualtrics.

#### **5.4 Analysis and Results Study 1**

In the following, the results of the data analysis will be illustrated and the respondents' profile, descriptive and inferential statistics will be presented. Following the investigation of the hypothesised effects and the examination of the potential effects of the suggested covariates, the results of the data analysis will be discussed in light of the research aim of this study.

### 5.4.1 Descriptive Statistics

Respondents (n=128) were recruited online with the help of the survey software Qualtrics. The detailed respondents profile (n=128; 69.5% male) involving the demographics gender, age and origin is illustrated in the following table 8.

Table 8: Respondents Profile Study 1.

Gender		Age	Origin				Total
			Asia	North America	South America	Europe	
Male	18 to 24	13	0	1	7	21	
	25 to 34	24	2	0	9	35	
	35 to 44	8	4	0	8	20	
	45 to 54	3	1	0	6	10	
	55 to 64	0	0	0	3	3	
	<b>Total</b>		<b>48</b>	<b>7</b>	<b>1</b>	<b>33</b>	<b>89</b>
Female	18 to 24	2	1	1	2	6	
	25 to 34	3	5	0	6	14	
	35 to 44	4	4	0	5	13	
	45 to 54	0	2	0	1	3	
	55 to 64	0	0	0	3	3	
	<b>Total</b>		<b>9</b>	<b>12</b>	<b>1</b>	<b>17</b>	<b>39</b>
Total	18 to 24	15	1	2	9	27	
	25 to 34	27	7	0	15	49	
	35 to 44	12	8	0	13	33	
	45 to 54	3	3	0	7	13	
	55 to 64	0	0	0	6	6	
	<b>Total</b>		<b>57</b>	<b>19</b>	<b>2</b>	<b>50</b>	<b>128</b>

Respondents of study 1 (n=128) were randomly assigned to one of the two experimental conditions (monetary fee n=75 vs. no monetary fee n=53). Based on their responses to the four-category attachment style measure as illustrated in figure 4, participants were further classified into high (n=58) or low (n=70) attachment avoidant following the four-category model presented in chapter 2. The dummy coded binary variable of attachment avoidance (1=high vs. 0=low) served as main independent variable for the following analysis.

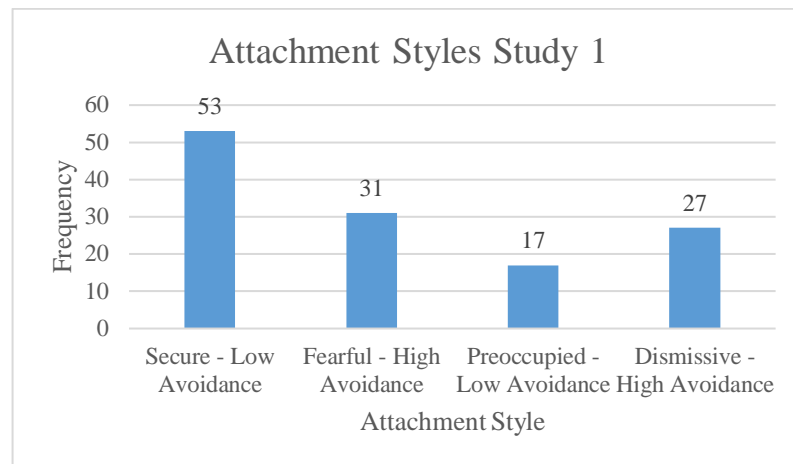


Figure 4: Frequency Distribution of Attachment Styles, Study 1.

Further, reliability analyses of the three items measuring participants' sharing intention suggested that all three items could be merged into one intention factor (Cronbach's Alpha = .908). Also, the six items measuring materialism were merged into one materialism factor based on sufficient scale reliability (Cronbach's Alpha = .876). The following table 9 provides an overview of the descriptive statistics of the final variables of interest of study 1, involving mean, median, minimum, maximum, standard deviation and variance.

Table 9: Descriptive Statistics Study 1.

n=128	Mean	Median	Minimum	Maximum	Std. Deviation	Variance
<b>Attachment Avoidance</b>	0.4531	0.0000	0.00	1.00	0.4998	0.2498
<b>Sharing Intention</b>	5.3880	5.3333	2.00	7.00	1.1984	1.4362
<b>Realism Check</b>	5.0000	5.0000	1.00	7.00	1.3162	1.7323
<b>Materialism</b>	4.3073	4.3333	1.00	7.00	1.1934	1.4241
<b>Gender</b>	1.3000	1.0000	1.00	2.00	0.4621	0.2135
<b>Age</b>	2.3906	2.0000	1.00	5.00	1.0739	1.1533
<b>Origin</b>	3.2969	3.0000	1.00	6.00	2.2947	5.2655

The design of the experimental stimuli was successful in terms of its perceived external validity: the results of the descriptive analysis demonstrate that the majority of the respondents perceived the scheme as realistic ( $M=5.01$ ). Further, intentions to participate in the sharing scheme were generally high ( $M=5.41$ ). In the following, the relationship between the hypothesised variables and the role of the covariates integrated in study 1 will be investigated in more depth.

## **5.4.2 Hypotheses Testing**

### ***5.4.2.1 Covariates***

In the first study, six additional variables were empirically surveyed in order to control for potential effects within the model, namely attachment anxiety, materialism, monetary fee, and the demographics country of origin, gender and age. Results of the correlation analysis reveal that the covariates attachment anxiety, materialism, gender and age were not correlated with the dependent variable ( $p's > 0.1$ ), while monetary fee ( $p = .057$ ) and country of origin ( $p = .005$ ) were correlated with sharing intentions. However there was no interaction effect found between monetary fee (monetary fee vs. no monetary fee) and attachment avoidance (low vs. high) on sharing intentions ( $F(3,124) = .186$ ;  $p=.667$ ;  $\eta^2 = .001$ ). Further, the covariates monetary fee, gender and age were not correlated with the independent variable attachment avoidance ( $p's > 0.1$ ), while attachment anxiety ( $p = .016$ ), materialism ( $p = .009$ ) and country of origin ( $p = .016$ ) were correlated with attachment avoidance. As a result, all covariates were included into the ANCOVA (analysis of covariance) in order to test the overall model as reported in the following.



#### ***5.4.2.2 Hypothesis 1 Main Effect Testing***

Based on the presented research objectives and hypotheses, it was predicted that the consumers' level of attachment avoidance predicts intentions to provide personal possessions for sharing.

In order to test this prediction, an analysis of covariance (ANCOVA) was conducted including all covariates into the model. The results of the data analysis show that respondents' intention to provide their personal possessions for sharing significantly differed across the two attachment avoidance groups;  $F(1, 121) = 6.954$ ;  $p = .009$ ;  $\eta_p^2 = .056$ . Specifically, intention to provide was highest in the low attachment avoidance condition ( $M_{\text{low avoidant}} = 5.66$ ) and lowest in the high attachment avoidance condition ( $M_{\text{high avoidant}} = 5.09$ ). The pattern of results shows that consumers high in attachment avoidance were more reluctant to offer their personal possessions for sharing than their low avoidant counterparts.

### **5.5 Chapter Summary**

Consistent with the first hypothesis, the results of this study provide a first evidence for the assumption that sharing possessions with others can be defined as a process of interpersonal interaction, wherefore attachment theory can be applied to a sharing transaction between individuals. In line with the predicted assumptions, it was demonstrated that this is true for sharing possessions within a neighbourhood sharing scheme, where consumers that by definition aim to avoid closeness and dependency were equally reluctant to engage in sharing of their personal possessions.

As reiterated in chapter three, the author attributes this effect to the perception of interpersonal closeness to the sharing partner (H3) and a perceived fear (H2) to commit to another person and that the sharing transaction may lead to an unwanted

establishment of a close relationship. If the presented hypotheses development is correct, one would however expect that the demonstrated effect will be attenuated when the sharing transaction involves a sharing partner that is perceived by the owner as being interpersonally distant rather than close. Subsequently, the next study 2 aims to investigate this theory-driven boundary condition by altering the perceived interpersonal distance between the owner of the possession and the sharing partner.

## **6 - DATA ANALYSIS AND RESULTS STUDY 2: The Moderating Role of Interpersonal Closeness in Sharing: Friend versus Stranger**

### **6.1 Chapter Overview**

After investigating the proposed main effect of attachment avoidance as independent variable on the dependent variable of consumers' intention to provide for sharing in study 1, this chapter will present research aim and study design of study 2 which aims to extend results of study 1 by investigating the moderating effect of interpersonal closeness. Specifically, the design of the experimental stimuli and the subsequent questionnaire and its measures will be discussed. Then, the data analysis and results of the hypotheses testing will be presented while the chapter concludes with a discussion of the results obtained in study 2.

### **6.2 Aim of Study 2**

The aim of study 2 was to investigate whether the negative effect of attachment avoidance on sharing is attenuated when the sharing partner is perceived as interpersonally distant. Study 1 demonstrates that attachment avoidance has a negative effect on the sharing of personal possessions within a neighbourhood scheme, which includes neighbours as sharing partners who may account as extended circle of friends and are subsequently perceived as interpersonally close. However, following the idea of interpersonal closeness, the author expects this effect to be attenuated when the sharing partner involved is a stranger as opposed to a friend - and thus perceived as interpersonally distant. Precisely, study 2 therefore aims to test the distinct role of interpersonal closeness in the effect of attachment avoidance on sharing intentions.

### **6.3 Design of Study 2**

Building on this notion, study 2 aims to test the moderating role of interpersonal closeness in sharing by altering the sharing partner that the personal possession will be provided to. Thus, study 2 involves a two (attachment avoidance: low vs. high) by 2 (interpersonal closeness: close (friend) vs. distant (stranger)) between-subjects design in order to investigate this prediction. A factorial design has been evaluated as most suitable in order to allow for moderation testing of the suggested factors. Furthermore, the effect demonstrated in study 1 is aimed to be validated in a flat sharing scenario in order to highlight the validity of the effect.

#### **6.3.1 Design of the Experimental Stimuli Study 2**

The peer-to-peer rental of private holiday accommodations is a growing segment within the sharing economy and known to disrupt traditional businesses within the hotel industry at large (Guttentag 2015). Popular examples include Airbnb, an international platform that promotes to offer “Local destinations for a global community” (Airbnb 2017) or Overnight, an American based platform that allows private individuals to “rent your couch, extra room or home” to other peers that travel (Overnight 2017).

Incorporating the original idea of such real-life examples into the experimental stimuli of study 2, the author aimed to design an interpersonally close and interpersonally distant sharing condition, with respondents being randomly assigned to one of the two experimental conditions. In order to design a valid stimulus for the interpersonally distant sharing condition, a scenario was created in which sharing with strangers was enabled via mediating online platforms inspired by real life examples such as Airbnb or Overnight. Thus, in the interpersonally distant condition, respondents

were told about an online platform that enables private consumers to provide their flat for sharing to others. Respondents then read that many unknown people showed interest in coming to the city they live in while they were not around. In contrast, respondents assigned to the interpersonally close condition read a scenario in which they were asked to imagine that a friend of theirs would come to the city they live in while they were not around and asks to stay at their flat (see appendix 4.2).

### **6.3.2 Measured Variables and Questionnaire Design Study 2**

#### ***6.3.2.1 Dependent Variable***

The dependent variable in study 2 was designed conceptually similar to the one in study 1 and adapted to the specific sharing scenario. After reading the stimuli, respondents were asked about their intentions to provide their private flat for sharing to the person they read about (close (friend) vs. distant (stranger)) by enquiring, “Based on the scenario described, how likely would you be to offer your flat?” on a 7-point Likert scale (1 = Not at all likely to 7 = Extremely likely).

#### ***6.3.2.2 Independent Variable***

Measures of attachment avoidance followed and were identical to study 1 involving the four-category attachment model (Bartholomew and Horowitz 1991), that allows the author to dummy code the responses into their respective level of low and high avoidance. Similar to study 1, respondents had to choose one of the four presented descriptions that would best describe themselves.

### **6.3.2.3 Covariates**

As in study 1, the respondents were further allocated into low or high attachment anxiety, while attachment anxiety was empirically employed as covariate. In addition, the consumers' level of materialism was surveyed in line with measures in study 1. However, this time, study 2 involves 18 items to measure materialism; including six items per subcategory (success, centrality, happiness) in order to validate previous results from study 1. Respondents agreement to all 18 statements were surveyed on a 7-point Likert scale (Richins and Dawson 1992) in order to confirm it is appropriate to rule out the alternative explanation of materialism with regard to consumers' sharing intention.

Further, the additional control variable of object attachment was employed, as opposed to study 1, study 2 involves a specific, high value object which is the persons' flat. Thus, if the hypothesised difference in consumers' sharing intentions is attributed to the level of attachment avoidance, no effect of object attachment on the consumers' intention to provide for sharing should be revealed. Object attachment was therefore measured within the questionnaire involving three items adapted from Ball and Tasaki (1992) including "My flat reminds me of who I am"; "If someone destroyed my flat, I would feel a little bit personally attacked" and "If I didn't have my flat, I would feel a bit less like myself". Respondents were asked to rate their level of agreement with these statements on a 7-point Likert scale (1 = Strongly Disagree to 7 = Strongly Agree). The final questionnaire can be found within the appendix (see appendix 4.2). The questionnaire was programmed in a digital version and distributed online with the help of the survey software Qualtrics.

## 6.4 Analysis and Results Study 2

This paragraph illustrates the results of the data analysis, including descriptive and inferential statistics. Following the investigation of the hypothesised interaction effect and the examination of the effects of the suggested covariates, the results of the data analysis will be discussed in light of the research aim of study 2.

### 6.4.1 Descriptive Statistics

Respondents (n=103) were recruited online with the help of the survey software Qualtrics and randomly assigned to one of the two experimental conditions (friend n=48 vs. stranger n=55). Based on their responses to the four-category attachment style measure as illustrated in figure 5, participants were further classified into high (n=60) or low (n=43) attachment avoidant in a procedure similar to study 1. The dummy coded binary variable of attachment avoidance (1=high vs. 0=low) served as main independent variable for the following analysis.

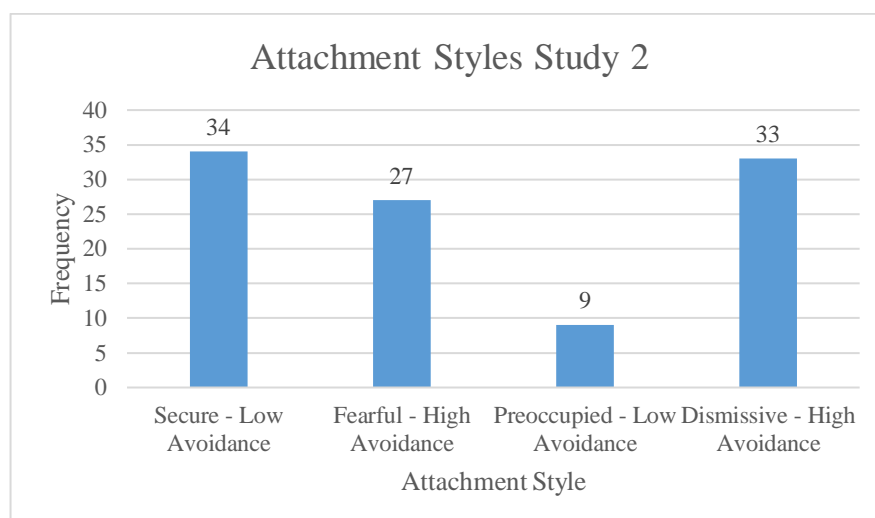


Figure 5: Frequency Distribution of Attachment Styles, Study 2.

Further, the 18 items measuring materialism were merged into one materialism factor (Cronbach's Alpha = .722) and the 3 items measuring attachment to the flat were merged into one object attachment factor (Cronbach's Alpha = .650) based on sufficient scale reliability. Table 10 below provides an overview of the descriptive statistics of the final variables of interest of study 2, involving mean, median, minimum, maximum, standard deviation and variance.

*Table 10: Descriptive Statistics Study 2.*

n=103	Mean	Median	Minimum	Maximum	Standard Deviation	Variance
<b>Attachment Avoidance</b>	1.5825	2.0000	1.0000	2.0000	0.4956	0.2456
<b>Sharing Intention</b>	4.4563	5.0000	1.0000	7.0000	1.6673	2.7800
<b>Materialism</b>	3.8091	3.8889	1.6667	5.5000	0.7340	0.5387
<b>Object Attachment</b>	5.0065	5.0000	1.6667	7.0000	1.0385	1.0784

## 6.4.2 Hypotheses Testing

### 6.4.2.1 Covariates

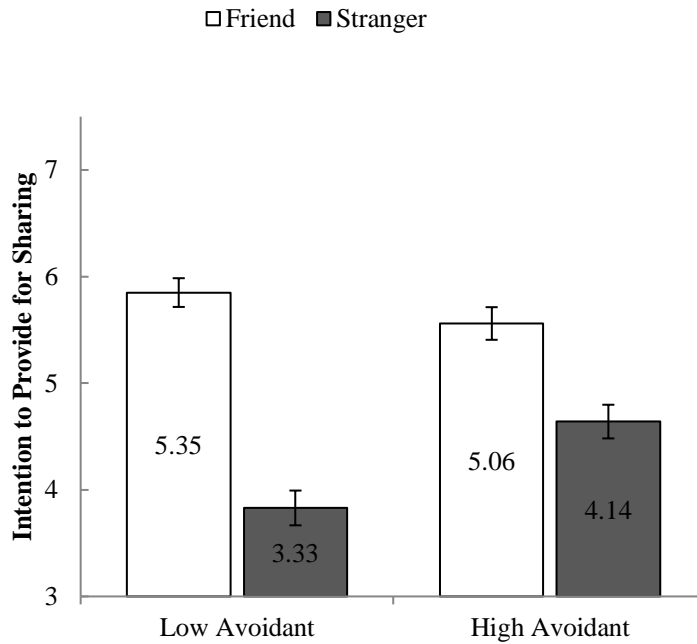
In study 2, three covariates were controlled for empirically, namely attachment anxiety, materialism and object attachment. Results of the correlation analysis reveal that the covariates object attachment and materialism are not correlated with the dependent or independent variable ( $p$ 's > 0.1), while attachment avoidance and attachment anxiety were significantly correlated ( $p = .000$ ). As a result, all covariates were included into the ANCOVA (analysis of covariance) in order to test the overall model as reported in the following.



#### 6.4.2.2 Hypothesis 3 Moderation Testing

The results of the ANCOVA suggest that the main effect of the predictor attachment avoidance on sharing intentions was not significant ( $M_{\text{low avoidant}} = 4.32$  vs.  $M_{\text{high avoidant}} = 4.60$ ;  $p = .432$ ), while the main effect of the independent variable interpersonal closeness significantly predicted sharing intentions ( $M_{\text{close}} = 5.21$  vs.  $M_{\text{distant}} = 3.74$ ;  $p = .000$ ).

To test the proposed interaction effect as suggested in hypotheses 3, a two-way ANCOVA of attachment avoidance (low vs. high) and interpersonally closeness (close (friend) vs. distant (stranger)) on intention to provide for sharing as dependent variable was conducted, including attachment anxiety, materialism and object attachment as covariates into the model. The author predicted that the influence of attachment avoidance on a users' intention to provide a possession for sharing would be a function of the level of interpersonal closeness to the sharing partner. Consistent with this prediction, a marginally significant interaction effect between attachment avoidance and interpersonal closeness on sharing intentions was found;  $F(1,101) = 3.220$ ;  $p = .076$ ;  $n_p^2 = .032$ . Post hoc test reveal that attachment avoidance had no significant effect on sharing intentions when the flat was shared with a friend ( $M_{\text{low avoidant}} = 5.35$  vs.  $M_{\text{high avoidant}} = 5.06$ ;  $F(1, 46) = .656$ ;  $p = .422$ ,  $n_p^2 = .014$ ), but a marginally positive effect when the possession was shared with a stranger ( $M_{\text{low avoidant}} = 3.33$  vs.  $M_{\text{high avoidant}} = 4.14$ ;  $F(1, 53) = 3.122$ ;  $p = .083$ ,  $n_p^2 = .056$ ). Since the expected effect of avoidance was proposed to depend on the level of interpersonal closeness (friend vs. stranger), it was little surprising that the overall main effect of attachment avoidance on sharing intentions was found to be insignificant. The resulting interaction is illustrated in figure 6 below.



*Figure 6.* Effect of interpersonal closeness (friend vs. stranger) on intention to provide as a function of attachment avoidance.

## 6.5 Chapter Summary

In the previous study, attachment theory was used to explore how an individual's level of attachment avoidance can explain individual differences in providing private possessions for sharing to others that are perceived as being interpersonally close. Indeed, the results of the second study confirm the theoretical underpinning of this research by incorporating a theory-driven boundary condition: the interpersonal closeness of the sharing partner. Involving a two by two factorial design, study two tests the respondents' sharing intentions with friends (interpersonally close) as opposed to strangers (interpersonally distant). The results of the data analysis of study 2 suggest that attachment avoidance has a marginally significant positive effect on the sharing with strangers. Respondents high in avoidance were more inclined to provide their flat for sharing to strangers. In line with prior propositions, the author suggests that this is

due to the fact that sharing with a stranger may not involve expectations of social reciprocity (Ostrom and Walker 2003) and therefore not trigger a perception of fear that sharing would lead to a strong form of commitment to another person. It can subsequently be argued that this could be the explanatory mechanism of why avoidant individuals are inclined to share their personal possessions with strangers that are interpersonally distant, while being reluctant to share with interpersonally close individuals.

However, in the specific scenario of study 2, the results surprisingly show that offering a flat to a friend that is interpersonally close was not affected by the consumers' level of attachment avoidance. The author suggests that this result was caused by the design of the presented study 2, in which respondents in the interpersonally close condition were asked to recall one of their friends (see appendix 4.2). As a result, respondents may have associated a person that is one of the few they established friendships with based on the exposure to the experimental stimuli employed, while generally avoiding closeness to most other individuals they feel psychologically close to. The author aims to address this issue by examining the role of interpersonal closeness in more depth in study 3.

Following the idea of interpersonal closeness, it has been demonstrated that a friend can be perceived as similar or dissimilar to oneself (Gino and Galensky 2012). Thus, this perception is expected to trigger the sharing provider's perception of interpersonal closeness to the individual more specifically. The subsequent study 3 was designed to more directly test whether it is the perceived interpersonal closeness to the individual that drives the effect. This is aimed to be demonstrated by involving a friend as a sharing partner that is either similar (interpersonally close) to the owner; or dissimilar to the owner (interpersonally distant) (Liviatan, Trope and Liberman 2008).

If the developed theorizing holds in the context of sharing, one would assume that the interpersonal closeness to a friend can be altered by focusing respondents on the specific level of similarity to the sharing partner (Liviatan, Trope and Liberman 2008).

## **7 - DATA ANALYSIS AND RESULTS STUDY 3: The Moderating Role of Interpersonal Closeness in Sharing: Similarity versus Dissimilarity**

### **7.1 Chapter Overview**

Building on the results of study 1 and 2, the present chapter illustrates data analysis and results of study 3, investigating the role of attachment avoidance and its interplay with interpersonal closeness in sharing. First, the aim of the third study will be presented. Second, a description of the experimental design and the stimuli development will be discussed. Then, a description of the measured variables and covariates within the questionnaire for the third study will follow. Next, the results of the data analysis will be reported and descriptive and inferential statistics will be presented investigating main and interaction effects. Finally, the chapter concludes with a discussion of the obtained results of the third study.

### **7.2 Aim of Study 3**

The aim of study 3 was to consolidate the effectiveness of the prior friend manipulation examined and discussed in study 2. Previous findings of study 2 suggested that the distinction between a sharing partner that is a friend or a stranger lead to an interaction effect with attachment avoidance on sharing intentions. However, the author suggests that interpersonal closeness to a friend can be more specifically manipulated from a psychological perspective. Thus, the results obtained in study 2 are now expanded upon by manipulating interpersonal closeness towards the sharing partner by involving a friend that is either similar (close) or dissimilar (distant). Further, study 3 aims to provide evidence for the robustness of the effect by involving a different sharing

scenario. Thus, drawing on another popular real-life example, a peer-to-peer car sharing scheme was selected for the third study. Based on prior theorizing and results, the author tests whether attachment avoidance has a positive effect on sharing intentions with a dissimilar friend, but a negative effect on sharing intentions with a similar friend within a car sharing scenario.

### **7.3 Design of Study 3**

#### **7.3.1 Design of the Experimental Stimuli Study 3**

The scenario employed in the third study aims to involve a car sharing scenario. Real-life examples that gain increasing popularity include Turo for North America, where consumers can “choose from thousands of unique cars for rent by local hosts” (Turo 2017) or Drivy for Europe, a platform that promotes the rental of cars next door which is “cheaper, closer and more convenient” (Drivy 2017). While those peer-to-peer transactions involve the sharing of cars via market-mediated online platforms, study 3 is different to the presented real-life scenarios in a way that the sharing scenario presented to respondents involves the provision of a car for sharing to a person they know.

First, in order to test the proposed predictions within a car sharing scenario from a provider perspective, respondents were shown a picture of a midsize car and told to imagine that they were the owner of the car for three years. This procedure aimed to assure that all participants refer to the same situation within the intended study, despite their personal circumstances regarding car ownership. Further, respondents learned that the car was their main car, but that there were some days where they would not drive it (see appendix 4.3).

Second, participants were asked to imagine that someone they know, e.g. a friend or family member, would ask them if they could use their car for a couple of hours when they would not need it.

Third, following the scenario description, half of the respondents were asked to imagine that the interested person was very similar to them and asked to take some time to think about all the ways the person would be similar to them; while the other half of the respondents were instructed to think about a dissimilar person (Liviatan, Trope and Liberman 2008). Thus, the level of interpersonal closeness of the sharing partner was intended to be varied as close (similar) versus distant (dissimilar).

### **7.3.2 Measured Variables and Questionnaire Design Study 3**

#### ***7.3.2.1 Dependent Variable***

After being randomly assigned to one of the experimental conditions, the respondents' intention to provide their car for sharing to the person presented was measured by asking "how likely would you be to provide your car for sharing?" on a 7-point Likert scale (1 = Not at all likely to 7 = Extremely likely).

#### ***7.3.2.2 Manipulation and Realism Checks***

Further, in order to assure that all respondents perceived the scenario of car ownership as realistic, a realism check of the car ownership manipulation was implemented. Respondents were asked "Based on the scenario described in the beginning, how much would you agree with the following statement? "It was easy for me to imagine myself owning such a car" and had to rate their agreement on a 7-point Likert scale (1 = Strongly disagree to 7 = Strongly agree).

### ***7.3.2.3 Independent Variable***

Measures of attachment avoidance were identical to the previous studies 1 und 2 and involved a choice for the respondent between the four attachment styles illustrated. Thus, following the data collection procedure, respondents could be coded into low (-1) and high (+1) avoidant based on their responses given.

Interpersonal closeness was manipulated by asking half of the respondents “Now imagine that this person described previously which is interested in renting your car is very different to you. Think about all the ways the person is different to you.”, while the other half was instructed to think “Now imagine that this person described previously which is interested in renting your car is very similar to you. Think about all the ways the person is similar to you”. Based on their experimental group, respondents were then dummy coded into close (-1) and distant (+1) interpersonal closeness.

### ***7.3.2.4 Covariates***

In order to rule out the alternative explanation that the degree of perceived psychological ownership over the car would predict consumers’ sharing intentions, psychological ownership was surveyed involving a three items measure derived from Shu and Peck (2011). Thus, respondents were asked “Thinking about renting out your car to this person, how much would you agree with the following statements?” and their level of agreement was measured on a 7-point Likert scale (1 = Strongly disagree to 7 = Strongly agree). The three items were “I would still feel a very high degree of personal ownership of the car”; “I would still feel like I own the car” and “I would not feel like this is my car anymore” (reverse coded). Similar to previous studies, the respondents were further allocated into low or high levels of attachment anxiety, while attachment anxiety was empirically employed as covariate.



Finally, the respondents' demographics such as gender (male / female) and age (at the respondents' last birthday) were surveyed. The detailed questionnaire can be found within the appendix (see appendix 4.3). The questionnaire was programmed in a digital version and distributed online with the help of the survey software Qualtrics.

## 7.4 Analysis and Results Study 3

### 7.4.1 Descriptive Statistics

Participants (n=160) included 56.9 % male respondents and 43.1 % female respondents. The average age of the surveyed age of the respondents at their last birthday was 37.01 years. The detailed respondents' profile is displayed in table 11 below.

*Table 11: Respondents Profile Study 3.*

Gender	Frequency	Percent	Valid Percent	Cumulative Percent
Male	91	56.9	56.9	56.9
Female	69	43.1	43.1	100
Total	160	100	100	

While respondents were randomly assigned to the similar, interpersonally close (n=83) and the dissimilar, interpersonally distant condition (n=77); they were further classified into high (n= 97) and low (n=63) avoidant based on their responses to the four-category attachment descriptions similar to the previous coding procedure applied.

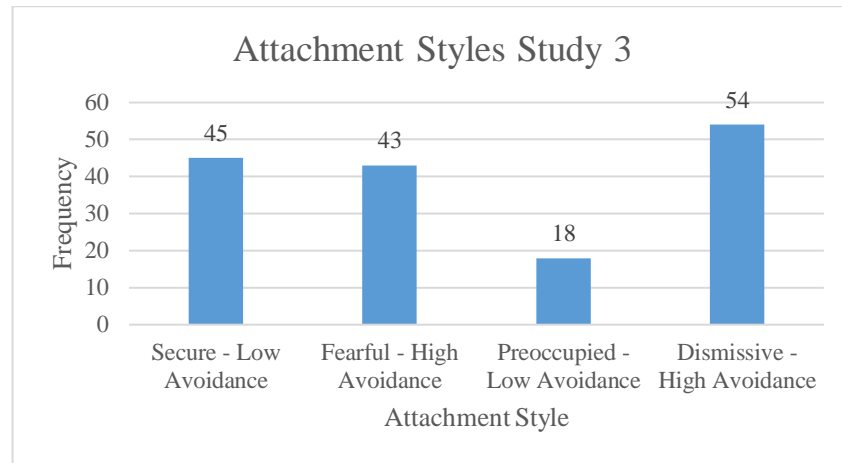


Figure 7: Frequency Distribution of Attachment Styles, Study 3.

Scale reliability analyses of the three items measuring participants' psychological ownership over the car suggested that all three items (third item reverse coded) could be merged into one psychological ownership factor (Cronbach's Alpha = .823).

Further, results of the data analysis indicated that the car ownership manipulation involved was successful: a plethora of the respondents confirmed that they had no problem envisioning the ownership of the car presented in the experimental stimuli ( $M = 5.81$ ). A detailed overview of the descriptive statistics of the final variables of interest of study 3, involving mean, median, minimum, maximum, standard deviation and variance is displayed in table 12 below.

Table 12: Descriptive Statistics Study 3

n=160	Mean	Median	Minimum	Maximum	Standard Deviation	Variance
<b>Attachment Avoidance</b>	0.2125	1.0000	-1.0000	1.0000	0.9802	0.9610
<b>Sharing Intention</b>	4.3300	5.0000	1.0000	7.0000	1.8380	3.3780
<b>Ownership Check</b>	5.8063	6.0000	1.0000	7.0000	1.1682	1.3650
<b>Psychological Ownership</b>	6.0896	6.0000	1.0000	7.0000	0.9725	0.9460
<b>Gender</b>	1.4300	1.0000	1.0000	2.0000	0.4970	0.2470
<b>Age</b>	37.0100	34.0000	19.0000	74.0000	11.6790	136.3900

## 7.4.2 Hypotheses Testing

### 7.4.2.1 Covariates

In study 3, it was empirically controlled for the respondents' psychological ownership, level of attachment anxiety, gender and age. These four covariates were next correlated on the suggested dependent and independent variables. Results of the correlation analysis reveal that the covariates are not correlated with the dependent or independent variable ( $p$ 's  $> 0.1$ ), with the exception being attachment anxiety which was significantly correlated with attachment avoidance ( $p = .001$ ) and marginally significantly correlated with sharing intentions ( $p = .052$ ). As a result, all covariates were included into the ANCOVA (analysis of covariance) in order to test the overall model as reported in the following.

### 7.4.2.2 Hypothesis 3 Moderation Testing

The results of the ANCOVA suggest that the main effect of the predictor attachment avoidance on sharing intentions was not significant ( $M_{\text{low avoidant}} = 4.36$  vs.  $M_{\text{high avoidant}} = 4.28$ ;  $p = .795$ ), while the main effect of the independent variable interpersonal closeness significantly predicted sharing intentions ( $M_{\text{close}} = 5.00$  vs.  $M_{\text{distant}} = 3.64$ ;  $p = .000$ ).

To validate the third hypothesis presented in a car sharing scenario, the author conducted a two-way ANCOVA of attachment avoidance (low vs. high) and interpersonal closeness (similar vs. dissimilar) on intention to provide for sharing as dependent variable. It was predicted that the influence of attachment avoidance on a users' intention to provide a possession for sharing would be a function of the perceived interpersonal closeness to the sharing partner.

Explicitly, interpersonal closeness was manipulated by altering the sharing partners' perceived level of similarity to the owner. Consistent with this prediction, the researcher found an interaction effect between attachment avoidance and interpersonal closeness on sharing intentions;  $F(1,156) = 15.730$ ;  $p < .000$ ;  $n_p^2 = .093$ . Post hoc tests revealed that attachment avoidance had a negative effect on sharing intentions when the car was offered to a similar friend ( $M_{\text{low avoidant}} = 5.58$  vs.  $M_{\text{high avoidant}} = 4.42$ ;  $F(1, 81) = 14.102$ ;  $p < .000$ ,  $n_p^2 = .148$ ), but a marginally positive effect when the car was provided for sharing to a dissimilar friend ( $M_{\text{low avoidant}} = 3.14$  vs.  $M_{\text{high avoidant}} = 4.15$ ;  $F(1, 75) = 3.318$ ;  $p = .073$ ,  $n_p^2 = .042$ ), as illustrated in figure 8.

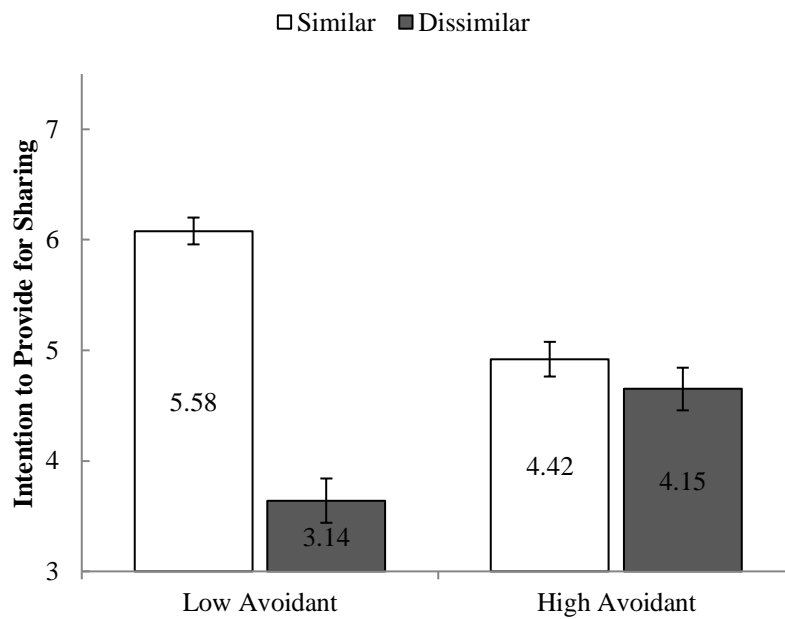


Figure 8. Effect of sharing partner (similar vs. dissimilar) on intention to provide as a function of attachment avoidance.

## 7.5 Chapter Summary

The results of the data analysis of study 3 show that respondents' intention to provide their car for sharing was indeed a function of the interplay of attachment avoidance and the level of interpersonal closeness perceived towards the sharing partner. When investigating the sharing transaction with a sharing partner of the circle of friends more closely, it was demonstrated that respondents' intention to share was driven by the sharing partners' perceived similarity. The results of the present study provide evidence for the fact that the negative effect of attachment avoidance on sharing of possessions with a similar friend is marginally reversed if the sharing partner is perceived as a dissimilar friend.

Next, study 4 aims to extend prior findings of study 1, study 2 and study 3 in three important ways. First, instead of measuring respondents' level of attachment avoidance and classifying participants into low vs. high avoidant, study 4 involves an attachment avoidance prime within the experimental design in order to prime a distinct level of attachment avoidance. By doing so, the author aims to provide further insights into the validity and applicability of the theorized effect in line with attachment theory. Second, study 4 will test prior predictions within a scenario involving social media networks as a proxy of perceived interpersonal closeness to the sharing partner (Dubois, Bonezzi, and De Angelis 2016) in order to test the suggested effect within another real-life scenario that involves bike sharing. Third, the subsequent study aims to provide process evidence of the proposed effect by examining the respondents' perceived level of fear of commitment involved within the sharing transaction as a potential mediator of the effect of attachment avoidance on sharing intentions.

## **8 - DATA ANALYSIS AND RESULTS STUDY 4: Priming Attachment Avoidance and Investigating the Mediating Role of Fear**

### **8.1 Chapter Overview**

Following the results of the data analysis of study 1, 2 and 3, the present chapter aims to extend prior results by illustrating data analysis and results of study 4. Study 4 aims to investigate the role of attachment avoidance and its interplay with interpersonal closeness in sharing in a bike sharing context and to examine the mediating role of fear of commitment. First, the contribution of the fourth study will be presented. Second, a description of the experimental design and the stimuli development for the present study will be discussed. Then, a description of the measured variables and covariates within the questionnaire will follow. Finally, the results of the data analysis will be reported and descriptive and inferential statistics will be presented investigating main, interaction and mediating effects. The chapter concludes with a discussion of the obtained results in study four.

### **8.2 Aim of Study 4**

Study 4 was conceptualized in order to provide additional insights into three key areas: first to test whether a manipulation of attachment avoidance rather than a measurement would lead to the same results; second to suggest and test a third managerial relevant manipulation of perceived interpersonal closeness applying social media contacts (e.g. Facebook (close) vs. LinkedIn (distant)) within a different scenario involving the sharing of bikes, and third to investigate whether fear to commit to another individual functions as the explanatory mediating mechanism of the effect.

### **8.3 Design of Study 4**

Study 4 involves a 2 (attachment prime: avoidant vs. secure) by 2 (interpersonal distance: close vs. distant) experimental design in order to validate the proposed main and interaction effects of the previous studies. In the following, the development of the attachment prime and a respective writing task for respondents, the chosen context of a bike sharing scenario and the manipulation of interpersonal closeness involving social media sites will be discussed.

#### **8.3.1 Design of the Experimental Stimuli Study 4**

Prior literature suggests adults make specific experiences with situations that foster them to feel attachment avoidant, attachment anxious or secure during their entire lifetime. Those situations and their respective attachment styles can be recalled and activated by reminding individuals on these times (Gillath et al. 2006; Anderson and Baum 1994). In particular, causal predictions of attachment types are increasingly of interest to researchers and priming demonstrates an effective way to establish patterns of causality within an experimental design (Mikulincer et al. 2000; Bartz and Lydon 2004). In line with prior hypotheses development, study 4 implies an attachment avoidant prime and a respective writing task derived from the literature by exposing respondents to either an attachment avoidant prime (high attachment avoidance) or a secure prime (low attachment avoidance).

The author draws on relationship descriptions as association for respondents (see Bartz and Lydon 2004, 1394) in order to request respondents to think about this particular relationship. While respondents in the attachment avoidance condition were asked to think about a relationship in which they felt uncomfortable being too close to

the other person and experienced a difficulty to trust the other person completely; respondents in the secure condition were asked to recall a relationship in which they found it relatively easy to be close to the other person and in which they felt comfortable relying on each other. Half of the respondents read “Please think about a relationship you have had in which you have found that you were somewhat uncomfortable being too close to the other person. In this relationship you found it was difficult to trust the other person completely and it was difficult to allow yourself to depend on the other person.”; while the other half read “Please think about a relationship you have had in which you have found that it was relatively easy to get close to the other person and you felt comfortable depending on the other person. In this relationship you didn’t often worry about the other person getting too close to you.”

Respondents were next asked to write down 1-2 lines of thoughts about the relationship they envisioned. This writing task aimed to increase the strengths of the attachment avoidance prime and prompted the respondents to recall the specific situation and related feelings and thoughts more accurately.

Following the attachment prime and writing task, a bike sharing scenario was described next in which respondents were exposed to a picture of a road bike and asked to imagine that they would own a road bike similar to the one illustrated for three years. However, participants read that there were days where they would not ride the bike.

Next, participants learned that one of their social media connections would contact them and ask whether they could borrow the bike for a couple of hours. Specifically, the respondent’s level of interpersonal closeness to the sharing partner was altered by involving two different social media sources. Following prior literature (Dubois, Bonezzi and De Angelis 2016), one would predict that a request from a LinkedIn contact would be perceived as one from an interpersonally distant person, whereas a request from a Facebook contact would be perceived as one from a person



that is interpersonally close. Subsequently, half of the respondents read that they would be contacted by a LinkedIn connection, while the other half read that they would be contacted by a Facebook friend. The detailed experimental stimuli can be found in the appendix (see appendix 4.4).

### **8.3.2 Measured Variables and Questionnaire Design Study 4**

#### ***8.3.2.1 Dependent Variable***

Next, the respondents' intention to provide their bike for sharing to the person presented was measured by asking "how likely would you be to provide your bike for sharing?" on a 7-point Likert scale (1 = Not at all likely to 7 = Extremely likely).

#### ***8.3.2.2 Manipulation and Realism Checks***

Further, in order to assure that all respondents perceived the scenario of bike ownership as realistic, a realism check of the bike ownership manipulation was implemented similar to study 3. Respondents were asked "Based on the scenario described in the beginning, it was easy for me to imagine myself owning such a bike." And had to rate their agreement on a 7-point Likert scale (1 = Strongly disagree to 7 = Strongly agree).

#### ***8.3.2.3 Process Evidence***

In order to provide evidence for the fact that fear of commitment functions as process of the hypothesized effect of attachment avoidance and interpersonal closeness on intentions to provide for sharing, respondents were next asked how worried they were about sharing their bike with that person. The perceived level of fear was assessed by asking respondents "Sharing my bike with this person would make me feel scared" on a 7-point Likert scale (1 = Not at all 7 = Very much). If the presented theorizing is correct,

respondents in the attachment avoidant condition would be expected to be scared to share with someone that is interpersonally close.

#### ***8.3.2.4 Independent Variable***

Based on the experimental design involved, respondents' level of attachment avoidance was dummy coded based on the attachment prime and respective writing task they had completed. Thus, respondents were divided into secure (1) and attachment avoidant (2). This variable served as main independent variable. Interpersonal closeness was dummy coded in a similar manner involving close (1) and distant (2) social media contacts.

#### ***8.3.2.5 Covariates***

In order to rule out alternative explanations that may account for providing a bike to a connection on Facebook or LinkedIn, the respondents' level of perceived impression management was surveyed involving a 4-item battery adapted from Paulhus and Reid (1991). Sample items include "I care about how positively others view me" or "I want to make a positive impression on others". Respondents stated their agreement with the four items on a 7-point Likert scale (1 = Strongly disagree to 7 = Strongly agree). Further, the respondents' demographics were surveyed including gender (male/ female) and age (at the participants' last birthday). The detailed questionnaire can be found in the appendix (see appendix 4.4). Respondents were recruited with the help of the survey software Qualtrics.

## 8.4 Analysis and Results Study 4

### 8.4.1 Descriptive Statistics

Participants (n=142) included 46.8 % male and 53.2 % female respondents.

The participants' average age at their last birthday was 23.4 years. The detailed respondents' profile is displayed in table 13 below.

*Table 13: Respondents Profile Study 4.*

	Gender	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	66	46.5	46.8	46.8
	Female	75	52.8	53.2	100
	Total	141	99.3	100	
Missing	System	1	0.7		
Total		142	100		

Overall, the results of the data analysis showed that respondents found it very easy to imagine themselves owning the bike (M=5.67). Further, the four items surveying impression management were merged into one impression management factor due to sufficient scale reliability (Cronbach's Alpha = .926). A detailed overview of the descriptive statistics of the final variables of interest of study 4, involving mean, median, minimum, maximum, standard deviation and variance is displayed in table 14 below.

Table 14: Descriptive Statistics Study 4.

n=142	Mean	Median	Minimum	Maximum	Standard Deviation	Variance	Missing
Sharing Intention	3.9225	4.0000	1.0000	7.0000	1.9133	3.6606	
Ownership Check	5.6690	6.0000	2.0000	7.0000	1.1773	1.3860	
Impression Management	4.8908	5.0000	1.0000	7.0000	1.3996	1.9587	
Perceived Fear	3.5986	4.0000	1.0000	7.0000	1.6971	2.8803	
Origin	2.9028	3.0000	1.0000	5.0000	0.8584	0.7369	70.0000
Gender	1.5319	2.0000	1.0000	2.0000	0.5008	0.2508	1.0000
Age	23.4000	23.0000	18.0000	50.0000	3.4470	11.8820	2.0000

## 8.4.2 Hypotheses Testing

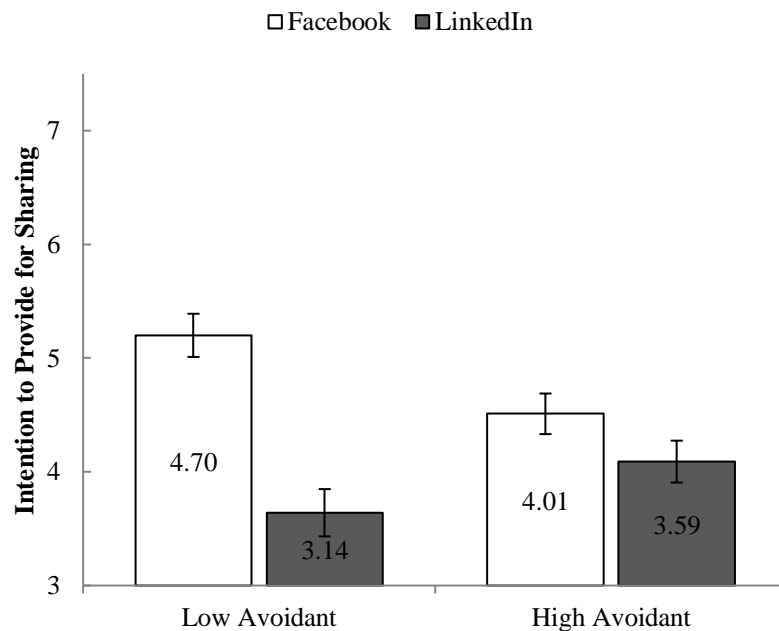
### 8.4.2.1 Covariates

In study 4, three covariates were controlled for empirically, namely impression management, attachment anxiety, gender and age. Results of the correlation analysis reveal that the covariates are not correlated with the dependent or independent variable ( $p$ 's  $> 0.1$ ), with the exception being the demographic variables gender and age which were significantly correlated with the attachment prime ( $p < .01$ ). As a result, all covariates were included into the ANCOVA (analysis of covariance) in order to test the overall model as reported in the following.

### 8.4.2.2 Hypothesis 3 Moderation Testing

The results of the ANCOVA suggest that the main effect of the predictor prime attachment avoidance on sharing intentions was not significant ( $M_{\text{low avoidant}} = 3.92$  vs.  $M_{\text{high avoidant}} = 3.80$ ;  $p = .742$ ), while the main effect of the independent variable interpersonal closeness significantly predicted sharing intentions ( $M_{\text{close}} = 4.36$  vs.  $M_{\text{distant}} = 3.37$ ;  $p = .003$ ).

To validate the suggested interaction effect of hypothesis 3 in a bike sharing scenario, a two-way ANCOVA of attachment avoidance (low vs. high) and interpersonal closeness (distant (Facebook) vs. close (LinkedIn)) was conducted on intention to provide for sharing as dependent variable. Consistent with the hypothesized assumptions, a marginally significant interaction effect of attachment avoidance and interpersonal closeness on sharing intentions was found;  $F(1,138) = 3.005$ ;  $p = .085$ ;  $n_p^2 = .022$ , in which attachment avoidance had a marginally significant negative effect on sharing intentions when the bike was offered to a Facebook friend ( $M_{\text{low avoidant}} = 4.70$  vs.  $M_{\text{high avoidant}} = 4.$ ;  $F(1, 78) = 3.315$ ;  $p = .072$ ,  $n_p^2 = .041$ ), but no effect when the possession was shared with a LinkedIn connection ( $M_{\text{low avoidant}} = 3.14$ ;  $SD = 1.95$  vs.  $M_{\text{high avoidant}} = 3.59$ ;  $F(1, 60) = .799$ ;  $p = .375$ ,  $n_p^2 = .013$ ), as illustrated in figure 9.



*Figure 9:* Effect of interpersonal closeness (Facebook vs. LinkedIn) on intention to provide as a function of attachment avoidance.

### ***8.4.2.3 Hypothesis 2 Mediation Testing***

To further validate the theoretical propositions of this stream of research and provide process evidence of the demonstrated effect of attachment avoidance on sharing intentions, the perceived level of fear of commitment was investigated as the explanatory mechanism of the effect. The SPSS macro provided by Hayes (2013) was applied in order to conduct a moderated mediation analysis (model 8) of the effect of attachment avoidance on sharing intentions with perceived fear to commit to another individual through sharing as mediator and interpersonal closeness to the sharing partner as moderator of the effect. Estimated bias-corrected 95% confidence intervals and 5000 bootstrap samples were applied following the suggested model.

When investigating the regression coefficients, the model reveals no significant direct effect of the attachment prime on sharing intentions ( $SE=.85$ ;  $t=-1.21$ ;  $p=.229$ ), but a marginally significant direct effect of interpersonal distance on sharing intentions ( $SE=.92$ ;  $t=-1.83$ ;  $p=.069$ ). The interaction effect between the attachment prime and interpersonal distance was not significant ( $SE=.55$ ;  $t=1.49$ ;  $p=.138$ ).

The results of the data analysis show no significant conditional direct effects of the independent on the dependent variable at the values of the moderators for sharing with a Facebook contact ( $SE=.39$ ;  $t=-.5424$ ;  $p=.589$ ) and for sharing with a LinkedIn contact ( $SE=.421$ ;  $t=1.439$ ;  $p=.152$ ). When testing for mediation, the model reveals that the providers' perception of fear of commitment mediates the effect of attachment avoidance on intentions to provide for sharing when the sharing partner is perceived as interpersonally close, thus based on the presented scenario when the sharing request has been received from a Facebook social media contact, [LLCI = -1.0890 ULCI = -.0054], but not if interpersonally distant with a sharing request received from a LinkedIn contact [LLCI = -.7690 ULCI = .3449].

## 8.5 Chapter Summary

The results of the fourth study replicate and validate findings of study 1, 2 and 3 with regard to the interaction effect of attachment avoidance and interpersonal closeness on intentions to provide for sharing. Further, prior results are extended in three important ways. First, the results demonstrate the effectiveness of an attachment prime involving attachment avoidant versus secure stimuli that are able to influence consumers' intentions in a sharing scenario.

Second, study 4 provides evidence for the assumption that social media networks can indeed serve as a proxy of the perceived interpersonal closeness to the person involved (Dubois, Bonezzi and De Angelis 2016). While Facebook triggered a perception of interpersonal closeness to the connection, LinkedIn rather evoked a perception of interpersonal distance.

Third, the data analysis provides compelling evidence for a process explained by perceived fear to commit to another individual. The author finds a moderated mediation of the main effect that may explain the distinct intentions to provide possessions for sharing of avoidant versus secure primed respondents. Specifically, for respondents that were asked to share with a close sharing partner, fear was found to be a major influencer that explains why attachment avoidant individuals would be reluctant to engage in sharing with interpersonally close peers.

## 9 - DISCUSSION AND CONCLUSION

### 9.1 Chapter Overview

This chapter aims to discuss the results of the data analysis of the four experimental studies that have been conducted and presented within this work. First, a summary and discussion of the findings will be presented with regard to the specific examination of the proposed hypotheses 1, 2 and 3. Second, implications and contributions of this research will be drawn with particular regard to theory and practice, involving theoretical contributions and managerial implications. Finally, limitations of the presented work will be acknowledged and addressed, while this chapter terminates by suggesting avenues for future research.

### 9.2 Discussion of Hypotheses

The present research contributes to the current body of academic knowledge by providing the first evidence of the role of attachment-related avoidance in explaining consumer sharing behaviour. Specifically, the conducted studies are the first to the author's knowledge to show that sharing can be seen as a process of interpersonal interaction, wherefore attachment theory can be applied to the activity of sharing in order to understand consumers' sharing behaviour.

Thus, this study contributes over and above the existing literature on attachment styles and their effect on consumer behaviour by examining the distinct process of the sharing of personal possessions in interactions with others and how attachment styles on an individual level, with particular regard to the "*negative models of others*" (Bartz and Lydon 2004, 1390) as reflected in attachment avoidance, are able to predict consumers' sharing behaviour. As others have (Bartz and Lydon 2006; Beck et al. 2014; Murray,



Holmes and Collins 2006), this research confirms that avoidant individuals strive for the maintenance of interpersonal distance to other individuals in a sharing scenario.

Further, this research combines attachment theory with perceived levels of interpersonal closeness to others in order to establish a theory driven boundary condition of the proposed effect by examining the perceived psychological proximity to the sharing partner. Finally, the study contributes to prior knowledge by providing process evidence for the proposed effect of attachment avoidance on sharing intentions and investigates the role of perceived fear of commitment as explanatory mechanism.

While literature began to investigate the phenomenon of sharing in light of the recent development of the sharing economy, much less attention has been paid to examining sharing on an individual level and investigating how individual differences may influence consumers' interpersonal sharing provision behaviour respectively. Thus, this stream of research provides the first documentation of the consequence of the effect of attachment-related avoidance on consumers' sharing behaviour and evidences that interpersonal sharing can be seen as a process of interpersonal interaction. In the following, the detailed results relevant to each of the three presented hypotheses will be discussed.

### **9.2.1 Discussion of Hypothesis 1: The Role of Attachment Avoidance in Sharing**

The present work rests on the assumption that interpersonal sharing behaviour can be seen as a process of interpersonal interaction; wherefore attachment theory which explains interpersonal behaviour in a plethora of interactions between individuals can be utilized in order to explain consumers' sharing behaviour. In line with this theorizing, the first hypothesis presented in this work assumes that attachment avoidance – the degree to which individuals avoid closeness and dependency on others – has a negative

effect on interpersonal sharing behaviour. This idea is in line with extant literature that suggests that avoidant individuals aim to maintain distance to other individuals and are reluctant to engage in interpersonal interaction (Bartz and Lydon 2006; Beck et al. 2014; Mikulincer and Shaver 2008; Murray, Holmes and Collins 2006). The proposed main effect was investigated involving four studies with different sharing scenarios, including the sharing of household items (study 1), accommodation (study 2), car (study 3) and bike sharing (study 4). Indeed, a plethora of commercial sharing schemes are limited to involving only one interpersonal transaction at a specific point in time (Bardhi and Eckhardt 2012), whereas other interpersonal sharing transactions with regard to social sharing may even hold the potential to foster bonding and community building through repetition and lead to a relational connection between the sharing user and the sharing provider (Belk 2010). The results of the present studies show that attachment avoidant individuals are reluctant to engage in interpersonal interactions such as sharing in both cases.

Further, while respondents' level of attachment avoidance was measured in the first three studies and respondents were classified into low versus high avoidant based on their indications on a self-reporting measure, study 4 involved an attachment avoidance prime within an experimental design in order to prime a distinct level of attachment avoidance versus secure attachment style. Thus, results of study 4 demonstrate the effectiveness of an attachment prime involving attachment avoidant versus secure stimuli that are able to influence consumers' intentions to provide in a sharing scenario. This is particularly important in light of previous contributions developing attachment primes and confirms that individuals can be reminded and recall particular episodes of their life in relation to attachment styles (Mikulincer et al. 2000; Bartz and Lydon 2004).

Consistent with the first hypothesis, the results of the presented studies provide evidence for the assumption that consumers' intention to provide their personal possessions for sharing can indeed be seen as a function of attachment-related avoidance. Subsequently, the higher the consumers' level of attachment avoidance, the lower was their intention to provide personal belongings for sharing to others. It has been demonstrated that this is true for sharing possessions within a neighbourhood sharing scheme, a flat sharing, car sharing and bike sharing scenario, in which attachment avoidant respondents, that by definition refrain from closeness and interpersonal interactions with others, were reluctant to engage in sharing of their personal possessions.

This finding confirms and extends prior literature on sharing that suggests that individuals that engage in social sharing may express a desire for connection to other humans and intend to create interpersonal synergies (Belk 2007; Durkheim 1964), as attachment avoidant consumers seem to seek the opposite result and aim to maintain distance to their peers demonstrated by the fact that they were reluctant to provide their personal possessions for sharing to interpersonally close others.

As a consequence, it is valid to propose that sharing possessions with others can be defined as a process of interpersonal interaction, wherefore attachment theory can be applied to a sharing transaction between individuals. These results add to the current literature on attachment styles (Hazan and Shaver 1987; Bartholomew and Horowitz 1991) by relating the constructs of attachment avoidance and sharing behaviour for the first time. Further, by demonstrating the effectiveness of an attachment avoidant versus secure attachment prime with regard to influencing consumers' intention in a sharing scenario as evidenced in study 4, the presented results evidence the assumption that attachment styles can be recalled and activated by reminding individuals on specific times in their life and experiences made in those times with regard to close relationships

(Gillath et al. 2006; Anderson and Baum 1994). Specifically, causal predictions of attachment types are of growing interest to scholars, wherefore results of study 4 propose an effective way of applying priming in order to establish patterns of causality within an experimental design (Bartz and Lydon 2004).

### **9.2.2 Discussion of Hypothesis 2: The Mediating Role of Fear in Sharing**

The second hypothesis aimed to investigate the role of perceived fear in order to provide process evidence for the effect of attachment avoidance and interpersonal closeness on consumers' sharing behaviour. The author suggests in hypothesis 2 that the providing consumers' perception of fear to commit to another individual through sharing is the mediating mechanism of the proposed main effect.

The data analysis of the fourth study provides compelling evidence for a process explained by perceived fear. In line with hypothesis 2, the author finds a moderated mediation of the effect of attachment avoidance on sharing that may explain the distinct intentions to provide possessions for sharing of avoidant versus secure primed respondents. Specifically, for respondents that were asked to share with a close sharing partner, fear to commit to another individual was found to be a major influencer that explains why attachment avoidant individuals would be reluctant to engage in sharing with interpersonally close peers. The results add to prior investigations into mediating mechanisms that can explain consumer behaviour triggered by the individuals' level of attachment-related avoidance. While effects of attachment avoidance have been evidenced in previous studies with regard to mood and tolerance (Mikulincer and Shaver 2001), the seeking of help (Larose, Bernier, Soucy, and Duchesne 1999), the development of compassionate feelings for others (Mikulincer, Shaver, Gillath, and Nitzber 2005) and perceived relationship quality (Birnbaum, Reis, Mikulincer, Gillath

and Orpaz 2006), the present work explains for the first time how attachment avoidance impacts consumers' sharing intentions.

This is in line with extant literature that suggests that avoidant individuals refrain from intimacy and interpersonal interactions (Bowlby 1979; Hazan and Shaver 1987; Murray, Holmes and Collins 2006) and do not aim to rely on others or have others rely on them (Abeyta et al. 2015; Collins and Feeney 2000). Specifically, prior literature suggests that avoidant individuals are expected to choose routes of defensive strategies (Abeyta et al. 2015) in order to maintain their self-reliance and avoid dependence on others (Mikulincer and Shaver 2003). This is evidenced in the present work which contributes over and above these findings by evidencing a process that is driven by perceptions of fear of commitment quantitatively. These compensatory strategies lead individuals high in attachment avoidance to execute "thoughts and behaviours that maintain a sense of self-reliance" and relational distance (Beck 2014, 165). Thus, this behaviour may explain why people high in attachment avoidance are reluctant to provide their personal possessions for sharing.

However, it needs to be addressed that when investigating the pattern of interactions more closely, the effect of the moderator on the dependent variable appears to be particularly strong for low avoidant individuals, suggesting that a mechanism in addition to fear of commitment may be identified in additional studies as addressed in the following limitations and future research sections.

### **9.2.3 Discussion of Hypothesis 3: The Moderating Role of Interpersonal Closeness in Sharing**

Next, hypothesis 3 suggests a theory-driven boundary condition of the effect by examining the role of interpersonal closeness in interpersonal sharing. It was suggested

that the effect of attachment avoidance on sharing intentions can be attributed to the perception of interpersonal closeness to the sharing partner. Thus, if the sharing partner is interpersonally close, a fear to commit to another individual may emerge leading to the urge to refrain from sharing as a process of interpersonal interaction. In line with the presented third hypothesis, one would therefore expect that the demonstrated negative effect of attachment avoidance on sharing will be attenuated when the sharing transaction involves a sharing partner that is perceived by the owner as being interpersonally distant rather than close, as close others may trigger avoidant individuals' need to maintain interpersonal distance more than distant others. Subsequently, the alteration of the perceived psychological proximity of the sharing partner was changed within studies two, three and four in order to investigate the role of interpersonal closeness in sharing from various perspectives.

The findings of the three presented studies indeed confirm the theoretical underpinning of this work and provide evidence for the fact that the perceived interpersonal closeness to the sharing partner functions as a moderator of the sharing transaction. An interaction effect between attachment avoidance (low vs. high) and interpersonal closeness to the sharing partner (close vs. distant) has been demonstrated in three different scenarios, involving flat sharing, car sharing and bike sharing. The interaction effect has been examined and validated by involving three distinct manipulations of interpersonal closeness derived from the literature (compare Liviatan, Trope and Libermann 2008; Dubois, Bonezzi and De Angelis 2016). Specifically, by altering the sharing partner as friend versus stranger (study 2), similar versus dissimilar other (study 3), and involving a Facebook as opposed to a LinkedIn contact (study 4), prior research that has employed first ways to manipulate interpersonal closeness perceptions was extended by showing the validity of the suggested manipulations in an

interpersonal sharing scenario (Dubois, Bonezzi and De Angelis 2016; Gino and Galinsky 2012; Liviatan, Trope and Libermann 2008).

Together, these results stimulate an interesting debate by showing that attachment avoidance can have a negative or positive effect on the provision of personal possessions for sharing depending on the perceived psychological proximity to the sharing partner. Thus, the three presented studies provide new evidence for the role of interpersonal interaction and relational distance in exchange (Albinsson and Perera 2012; Putnam 2000) by displaying the importance of the psychological perception the consumer holds of the sharing partner involved. Subsequently, these findings extend prior literature on social sharing and the sharing economy (Belk 2010; Hellwig et al. 2015) by elucidating for the first time the role that the interpersonal closeness to the sharing partner plays in the level of sharing intentions. Bowlby (1979) originally anticipated that avoidant people would be “terrified of allowing themselves to rely on anyone else” (138), which is mirrored in attachment avoidant consumers’ sharing behaviour triggered by their fear to commit to another individual. In line with this research, the author suggests that avoidant consumers are reluctant to share with close others due to the fact that sharing with a distant other may not jeopardize the maintenance of relational distance (Ostrom and Walker 2003) and therefore not trigger a perception of fear that sharing would lead to the commitment to another individual.

As noted above, the pattern of interactions between attachment avoidance and interpersonal closeness on sharing intentions however reveal that the effect of the moderator on the dependent variable appears to be particularly strong for low avoidant individuals. Thus, it may be valid to assume that an additional mechanism may be present within the model that explains the strong movement of intentions to share with interpersonally close versus distant others for consumers low in attachment avoidance.

### 9.3 Theoretical Contributions

This work contributes to previous research on attachment avoidance, interpersonal closeness and interpersonal sharing behaviour on an individual level in significant ways.

First, this research demonstrates the importance of adult attachment styles in the context of sharing as important consumer behaviour. This paper contributes over and above the existing literature on attachment styles (Hazan and Shaver 1987; Bartholomew and Horowitz 1991) and their effect on behavioural outcome variables (e.g. altruism, compassion, or the disclosure of information; compare Mikulincer et al. 2003; 2005) by examining the phenomenon of sharing as process of interpersonal interaction. Thus, for the first time, it was demonstrated that an individuals' level of attachment avoidance is able to predict interpersonal sharing behaviour by identifying a negative effect of attachment avoidance on sharing intentions: The more avoidant people are, the less are they inclined to provide their personal possessions for sharing. Thus, the present work suggests that when examining consumers' sharing behaviour on an individual level, it is important to consider individual difference variables with particular regard to the consumers' level of attachment avoidance. The robustness of this effect was demonstrated across studies 1 to 4 in four different sharing scenarios involving accommodation, flat, car and bike sharing.

Considering the resulting negative effect of attachment avoidance on sharing intentions as noted above, the present research expands our understanding of sharing as a social, interpersonal interaction. According to prior research, individuals that engage in social sharing may do so in order to express a desire for connection to other humans and intend to create interpersonal synergies with them (Belk 2007; Durkheim 1964). This research however identifies empirically that in both forms of sharing, commercial and social sharing, perceptions of interpersonal closeness to the sharing partner can vary



and heavily impact upon consumers' decisions to share. Particularly, attachment avoidant consumers who seek to avoid interactions with peers and to maintain relational distance have been found to be reluctant to share with interpersonally close others. This finding echoes arguments presented by others suggesting that avoidant individuals strive to maintain independence and distance (Mikulincer et al. 2003; 2005) which was successfully demonstrated by the fact that avoidant consumers were more reluctant to provide their personal possessions for sharing than their low-avoidant counterparts. Consequently, this suggests that attachment theory can be applied to sharing as mechanism that initiates interpersonal interaction and help understand consumers' intention to share; which provides novel insights into the concept of sharing from a consumer psychology perspective.

Second, as others have (Gillath et al. 2006; Anderson and Baum 1994), the author argues that consumers can be reminded on specific episodes in their life that are based on experiences in close relationships and related with particular attachment styles. Thus, this research proposes that priming attachment avoidance is an effective way to temporarily induce levels of attachment-related avoidance (low vs. high) for consumers. By demonstrating empirically that the negative effect of attachment-related avoidance on sharing intentions can be replicated when attachment avoidance is primed, the results of study 4 add to the current body of literature on attachment style priming and demonstrate a way to successfully induce attachment styles by reminding consumers on experiences corresponding to the working model in question. As shown in study 4, this can be achieved by combining a short description of the corresponding experience and a short writing task for respondents (see appendix 4.4).

Third, this research also documents why the effect of attachment avoidance on sharing intentions occurs. Following extant literature that theoretically assumes that coping strategies of attachment avoidant individuals stem from a fear of intimacy

(Bartholomew 1990), this research proves for the first time empirically that an individuals' perception of fear to commit to another individual is the mediating mechanism that explains differences in interpersonal sharing behaviour as a process of interpersonal interaction among individuals that hold altered levels of attachment avoidance (study 4). Thus, this research identifies the mechanism underlying previously explored behavioural changes and adds a substantial contribution to prior literature by confirming that "avoidance reflects a fear of personal intimacy" (Thomson, Whelan and Johnson 2012, 289) and showing that attachment avoidant individuals are "particularly troubled when they encounter external sources of stress" (Simpson and Rholes 2012, 289) that trigger their fear to commit to others.

Finally, this research proposes an interaction effect between attachment avoidance and interpersonal closeness on consumers' sharing intentions. While a vast body of research has focused on interpersonal closeness, this work adds to prior literature (Belk 2007; Durkheim 1964; Dubois, Bonezzi and De Angelis 2016; Gino and Galinsky 2012; Liviatan, Trope and Libermann 2008) by examining how *perceptions of others* influence consumers' sharing intentions. By investigating the perception of interpersonal closeness of the sharing partner as moderating effect, this research adds the novel contribution that the negative effect of attachment avoidance on sharing as explained by perceived fear to commit to another person is reversed if the sharing partner is perceived as interpersonally distant. Thus, avoidant consumers are reluctant to engage in sharing with people they perceive as interpersonally close; however, in contrast, avoidant consumers are inclined to provide their possessions for sharing to others that are perceived as interpersonally distant. Particularly, the results of study 2 to 4 confirm that the perceived interpersonal closeness to the sharing partner functions as a moderator of the effect of attachment avoidance on sharing intentions; involving three different manipulations that trigger differences in perceptions of interpersonal closeness.

This includes friend vs. stranger, similar vs. dissimilar sharing partner and a sharing partner from Facebook vs. LinkedIn. The interaction effect between attachment avoidance (low vs. high) and interpersonal closeness to the sharing partner (close vs. distant) has been validated in three different scenarios, involving flat sharing, car sharing and bike sharing.

The moderating effect uncovered in this work is of particular importance as it illustrates the distinct characteristics of the concept of interpersonal sharing as opposed to related consumer behaviour such as altruism and volunteering. While previous research on altruism suggests that priming attachment security may foster an individuals' general concern for humanity (Mikulincer et al. 2003, 837), and encourage caring for others including strangers (Mikulincer et al. 2003, 819), the opposite accounts for sharing based on the present research. In three studies, the author demonstrates that the direction of this effect for strangers (Mikulincer et al. 2003; Mikulincer et al. 2005) does not hold in the context of interpersonal sharing provision, where an actual personal possession is provided for sharing to another individual while the ownership remains with the provider. Rather, the present research reveals that consumers' intention to share with others can be altered depending on the individuals' attachment style in interaction with whether the sharing partner involved is perceived as interpersonally close or distant.

Together, the results of this work contribute to our understanding of how the interplay of attachment avoidance and interpersonal closeness impacts upon consumers' sharing behaviour and help shed light on prior work relating attachment-related avoidance to distinct consumer behaviour on an individual level (Birnbaum, Reis, Mikulincer, Gillath and Orpaz 2006; Larose, Bernier, Soucy, and Duchesne 1999; Mikulincer and Shaver 2001; Mikulincer, Shaver, Gillath, and Nitzber 2005).

#### **9.4 Managerial Implications**

The results of the demonstrated research offer important managerial implications with regard to the sharing economy and the marketing of peer-to-peer sharing schemes, in which transactions are enabled between psychologically distant individuals. Notably, while the bulk of past efforts investigating the sharing economy focused on factors that influence consumers' willingness to engage into sharing as a user, this research in contrast is one of the few that focuses on the provider perspective.

This has important implications for managers in charge of designing advertisement campaigns for their sharing schemes that could employ appeals and interventions in order to increase consumers' willingness to provide their personal possessions for sharing. Indeed, marketing communications from peer-to-peer sharing enablers such as Airbnb propose that it is pivotal to marketers to attract providing consumers. In fact, the accommodation rental platform Airbnb counts more than 200 million guest arrivals worldwide – however only embodies 4 million listings (Airbnb 2017). Thus, the company aimed to address this imbalance by introducing a specific referral credit after which consumers are rewarded nearly twice the amount for a friend referral of a person that hosts (EUR 58) rather than travels (EUR 31) (Airbnb 2017). To conclude, this research serves as an important mean to help managers understand what factors influence consumers to share their personal possessions with others in order to foster supply and demand in peer-to-peer sharing schemes. Particularly, special attention has been paid to fostering sharing provision to strangers and the results of four empirical studies were able to demonstrate that attachment avoidant individuals were more inclined to share with strangers than their low-avoidant counterparts.

For instance, building on results of study 4 that demonstrated occurrence of the effect when attachment avoidance is primed, it may be valid to assume that specific

marketing communication materials of peer-to-peer platforms shall not involve any attachment related material in order to increase the participation intention of consumers as sharing providers.

From a practitioner perspective, this research also has implications for the selection of the right marketing mix with regard to the utilization of online channels. Across three studies (study 2 to 4), the present research demonstrates that the perceived interpersonal closeness to the sharing partner interacts with the effect of attachment avoidance on intentions to provide for sharing. While different manipulations of interpersonal closeness (e.g. friend vs. strangers, similar vs. dissimilar and Facebook vs. LinkedIn contact) have been applied, particularly the manipulation via distinct social media networks may add values to current marketing activities of managers. Given that consumers tend to feel closer to a Facebook connection than to a LinkedIn contact (Dubois, Bonezzi and De Angelis 2016), this work's results argue for selected and targeted presentation of marketing messages and online information. Marketers could for example create different advertisement campaigns for such distinct social media networks in order to target consumers effectively. This also emphasizes the need for differences in web site design based on the specific consumer target segment. As a result, a pivotal implication for peer-to-peer sharing schemes lies in the integration of targeted social media networks as marketing channels and transaction facilitators.

Finally, the results contribute to sustainability and public policy matters with regard to environmental challenges. The present research indicates that different consumer perceptions and individual difference variables lead to changes in consumers' likelihood to provide personal possessions for sharing. Notably, not only managers of peer-to-peer sharing schemes, but also public policy practitioners should be interested in ways to motivate consumers to share their possessions with others. This is due to the fact that sharing holds the potential to reduce novel purchases and increase the usage

maximization of particular products (e.g. cars, bikes or household items) in favour of the environment. Thus, the research presented may contribute to effective ways to convince citizens to engage in this novel, sustainable mode of consumption. This study offers a new perspective drawing from consumer personality trait literature in order to help public policy makers understand effective ways of sustainability communication and serve as crucial step towards fostering sustainability in society.

Further, while the present work has shown the presented effects for objects, this research may also have implications for the sharing of information or knowledge. Assuming that the principle of attachment avoidance, interpersonal closeness and sharing intentions could be applied to the sharing of intangible goods similarly, it may be an important communication tool for managers to remind their business partners of episodes in their life related to specific attachment styles in order to alter their intention to provide knowledge and/ or information to them. Though potentially interesting, this is beyond the scope of this work and must be addressed in future research as lined out in the following.

## **9.5 Limitations and Future Research**

The present research focuses on investigating the distinct effect of attachment avoidance and interpersonal closeness on sharing intentions from a consumer psychology perspective. While all four studies have been designed very carefully in order to establish assumptions of causality, the present research is not without limitations, which can however seed interesting future investigations.

First of all, with regard to the theoretical development, this research endeavour is based on the assumption that attachment theory is able to explain consumers' sharing behaviour. This was driven by the idea that interpersonal sharing can be seen as a

process of interpersonal interaction which shall be impacted by attachment avoidance due to the fact that avoidant individuals aim to keep interpersonal distance to others and refrain from initiating interpersonal interactions. Particularly, “the relationship between working models of attachment and social [...] adaption in adults” (Bartholomew and Horowitz 1991, 227) was suggested to offer an important theoretical angle for investigators of consumer behaviour. While the effectiveness of attachment avoidance in influencing consumers’ sharing behaviour has been demonstrated across four studies, other theoretical approaches could have been considered in order to explain individuals’ sharing behaviour. For instance, the context variable of locus of control could have been taken into consideration in order to determine the differential level of control sharing providers may perceive to have in sharing with interpersonally close versus distant others. Locus of control accounts as core self-evaluation trait which involves “bottom-line evaluations that individuals hold about themselves” (Judge and Bono 2001, 80; Judge, Locke and Durham 1997). However, it may lack the combination of evaluation of self and evaluation of others as combined in working models of attachment, wherefore such have been given preference (Bartholomew and Horowitz 1991).

Another theoretical underpinning could have stemmed from the literature on self-construal and the degree to which an individual sees himself independently or interdependently with regard to other individuals. Particularly, literature defined the relational-interdependent self-construal as “the tendency to think of oneself in terms of relationships with close others” (Cross, Bacon and Morris 2000, 791), which are subsequently important in forming commitment to others and influence various cognitive processes of individuals. This may be particular important for consumer behaviour such as sharing as the need to self-enhance may function as a crucial motivator for interpersonal sharing (Blaine and Crocker 1993) that has however been neglected in this research endeavour and may inspire future studies on consumer sharing.

Further, with regard to methodological issues, limitations of the present research include that all four studies rely upon the data collection tool Amazon Mechanical Turk due to restrictions and limitations in resources. The author is aware of advantages and disadvantages related to this method (Goodman, Cryder and Cheema 2006) and therefore acknowledges that future follow-up studies may include field or lab experiments in order to validate the proposed effects.

Involving a lab experiment, the validity of the demonstrated effect could be expanded by designing experiments in which participants are given real objects (such as a mug) and asked to provide such for sharing. The present preliminary experiments complement prior research by successfully demonstrating the effect of attachment avoidance on sharing intentions through online experiments in hypothetical sharing scenarios. This poses the question whether the effect would be replicated or potentially enhanced in a real sharing scenario. Thus, a lab experiment that involves a real object would demonstrate the effect in contexts closer to natural, real life scenarios. As it might be argued that the dependent variable applied in this study relies on intentional measures and therefore may be subject to an intention-behaviour-gap, the suggested lab experiment would also provide a more detailed assessment of consumers' sharing intentions by extending the previously measured intentions to share to a demonstration of actual consumer behaviour when sharing a real object such as a mug with their peers.

In addition to lab experiments, field experiments may provide another contribution to demonstrate external validity of the proposed effects. In particular, avenues for future research may include an extended investigation of attachment avoidant priming effects on consumers' intention to provide personal possessions for sharing. This could be achieved by partnering with sharing economy platforms and implementing specifically developed message appeals or commercial slogans into their social media marketing strategy. Thus, the proposed networks Facebook and LinkedIn



could be utilized in a targeted way in order to test the predicted effects in a natural scenario.

Another limitation may lie in the measures implemented in the present studies in order to assess the respondents' level of attachment avoidance and fear to commit. First of all, the presented studies 1-3 focus on dummy coding attachment avoidance into low and high avoidant consumers based on the 4-category attachment style model (Bartholomew and Horowitz 1991). While the selected categorical approach is not equivalent to a dimensional approach, future research could consider measuring the degree of respondents' level of attachment avoidance involving extensive interview techniques, which are however cost and time consuming (Feeney 2008). Further, despite the measure enables the researcher to empirically control for potential confounds stemming from the attachment anxiety dimension within the model, a dimensional approach could help to tease apart potential issues of interwoven dimensions more clearly.

Moreover, next studies could assess the extent to which fear to commit to another person mediates the proposed main effect more extensively. In the present study, fear was surveyed with a single item measure which was motivated by the idea to assess respondents' perceptions of fear to commit to another person through sharing. However, this may not have been entirely captured through the item applied (e.g. "Sharing my bike with this person would make me feel scared"). This limitation may be addressed in future research by applying a multi-item scale measure or a related dimensional interview approach with a strong focus on the fear to commit to another individual. A final methodological issue lies in the Cronbach's Alpha value of the three items measuring object attachment, which is slightly below .7 (C.A. = .65), however does not increase when items are deleted. A different measure could therefore be employed in future research.

With regard to the proposed interaction effect, indeed, it was evident from the results that the interaction effect of interpersonal closeness and attachment avoidance was driven by low avoidant people, who experience a great reluctance to share with interpersonally distant individuals as opposed to interpersonally close ones. This reluctance has been shown for strangers (vs. friends), dissimilar (vs. similar) others and LinkedIn (vs. Facebook) contacts. Future research may therefore be interested in investigating this effect and identifying alternative explanations for the reluctance of low avoidant people to share with distant others. One potential mediator which may be worth investigating in the future could be trust (Hellwig et al. 2015; Möhlmann 2015; Ostrom and Walker 2003).

Moreover, this stream of research is limited by the fact that covariates and controls change between studies, such as psychological ownership or object attachment, which are not measured consistently, and gender which has not been measured in study 2. Also, further controls could have been included over the course of the four studies, namely actual ownership of the object, its brand familiarity and perceptions. For instance, while study 3 displays to respondents a picture of a Toyota Camry (construction year 2013) in which the make is not visible, some consumers may recognize the car. Moreover, while the Toyota Camry was America's bestselling midsize car in 2013 (Cain 2013), respondents could differ in their perception of the car being midsize, compact or large.

Another important aspect that limits the present research is the question to what extent monetarization is involved in sharing and whether opposing motives such as altruism versus economic necessity have played a role. For example, in study 2, sharing providers could automatically assume that strangers would pay for staying at their flats, albeit free sharing systems such as couchsurfing subsist. While the potential confound of paying for sharing was aimed to be directly addressed and ruled out in study 1, this

issue could have been better controlled for by using control measures. In study 1, half of the respondents were exposed to a scenario where sharing involved a monetarization while the other half read it was free of charge, and no interaction effect with attachment avoidance occurred.

Also, the presented studies did not examine whether and how consumers may be willing to share particular product types or categories with interpersonally close as opposed to distant individuals. Particularly, hedonic as opposed to utilitarian products may be able to trigger a difference in the effect presented within this research. For instance, while consumers low in attachment avoidance may be more inclined to share hedonic products with others, high avoidant individuals may be reluctant to do so and may prefer sharing utilitarian products with their peers which opens up a fruitful area of further investigations.

Moreover, unexplored is the question of whether consumers perceive the provision of items for sharing to interpersonally close versus distant individuals different to the donation of items. While this work has focused on the sharing of personal possessions over a restricted period of time, it may be interesting to uncover whether this mechanism is applicable to the donation of items. When donating personal possessions, the cost of the provider seems to be higher as the possession will not be returned by the user. Hence, it may be valid to assume that the effect of attachment avoidance on donation behavior in interaction with interpersonal closeness may follow the pattern of results shown for altruism and helping others as opposed to sharing provision behavior. However, at the same time, this triggers the question whether the interpersonal process is terminated with the donation of the item, or if attachment avoidant consumers may fear that the beneficiary of the donation would expect forthcoming donations and interpersonal exchanges in the future. This may be addressed in future research.

Finally, one might wonder whether the demonstrated effect of attachment avoidance on sharing intentions with regard to objects can be replicated involving the sharing of intangible goods, such as knowledge or information, as touched upon in the previous section. This may be especially relevant to managers of digital file sharing or crowd sharing platforms in which peer-to-peer sharing of intangible goods is encouraged; as well as to managers in general that are interested in uncovering information or knowledge from their business partners or other practitioners.

Thus, another worthwhile avenue for further research with regard to information sharing may relate to the effect of business-to-business transactions. While the present research focused on investigating how attachment avoidance and perceptions of interpersonal closeness cause distinct valence in intentions to share with peers, in the real world, the decision of businesses on whether to share knowledge with others may account as a crucial predictor of future development and a competitive advantage. At present, it is unknown how applying the present work's framework to communication strategies might actually affect the willingness of corporations to collaborate and reveal particular information. Subsequently, the author encourages further investigations into that direction with regard to management studies and organizational behaviour.

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## APPENDICES

## 1. Tables

Table 1: Scheme Classification of the Sharing Economy.

		Transfer of Ownership			No Transfer of Ownership				
		C2C	C2B	B2B	B2C	C2C	C2B	B2B	B2C
Monetary Fee	Tangible (Product)	Craigslist, Gazelle, Ebay,	Us.Zilok	Give Printers/Cashops etc to other businesses	Ebay Shops	Spinlister, Relay Rides, Toy Libraries	Share my Storage	Enterprise Carshare, Floow2	Zip car, DriveNow, Car2Go
	Intangible (Service)	Zopa, Zaarly, Airtasker, Sidetour	Amazon Mechanical Turk, Sidetour, Airtasker	Green America Exchange	Crowdsourcing, Gigwalk	Task Rabbit, Airbnb	Crowdfunder, Skillsshare, BountyIt	Share your Office	Netflix
Other Compensation	Tangible (Product)	Yerdle, Ridejoy, Swapstyle, BookMooch, Seed Swap	Small Knot	U-Exchange, Barter Business Unlimited	Barter Quest, U-Exchange	Pumpi pump	swappin.com	data.gov, London Data Store	data.gov, London Data Store
	Intangible (Service)	Chegg, Sitting Around	Ushahidi	Start some Good, Barter Business Unlimited	Tradeaway	Wikipedia, Fon, 9Flats	swappin.com	Mesh companies	Edinburgh Garden Partners, MyCity Garden

Table 2: Antecedents and Outcomes of Sharing as User.

	Construct	Outcome	Reference
<b>Functionally motivated</b>	Utilitarian and functional benefits of the object, potential for substitutability		Gruen 2017; Hennig-Thurau, Henning and Sattler 2007; Lamberton and Rose 2012; Möhlmann 2015
	Convenience orientation, need for flexibility, detached lifestyle		Bardhi and Eckhardt 2012; Eckhardt and Bardhi 2017; Moeller and Wittkowski 2010
	Cost savings through sharing as opposed to traditional rental solutions or cost of owning		Möhlmann 2015; Ozanne and Ballantine 2010; Hennig-Thurau, Henning and Sattler 2007
<b>Socially motivated</b>	Desire for community	Consumers may be inclined and motivated to engage in diverse forms of sharing as user	Philip, Ozanne and Ballantine 2015; Albinsson and Perera 2012
	Social utility of sharing; formation and maintenance of relationships		Jenkins, Molesworth and Scullion 2014; Ozanne and Ballantine 2010
	Approval by reference groups		Lamberton and Rose 2012
	Trust		Decrop and Graul 2015; Möhlmann 2015
<b>Individual differences</b>	Scheme familiarity	Consumers may be reluctant to engage in diverse forms of sharing as user	Möhlmann 2015; Ozanne and Ballantine 2010
	Political consumerism		Philip, Ozanne and Ballantine 2015
	Anti-consumption / anti-industry		Ozanne and Ballantine 2010; Hennig-Thurau, Henning and Sattler 2007
	Idealism		Hellwig, Morhart, Girardin and Hauser 2015
	Sustainability		Sheth, Sethia and Srinivas 2010
	Possession importance / Possessiveness		Abkar, Mai and Hoffmann 2016; Moeller and Wittkowski 2010
	Materialism		Abkar, Mai and Hoffmann 2016; Graul 2016
	Fear of negative reciprocity		Philip, Ozanne and Ballantine 2015
Search cost of sharing	Ozanne and Ballantine 2010		
Risk of product scarcity	Lamberton and Rose 2012		

Table 3: Selected Literature on Sharing from a Consumer Perspective.

Year	Authors	Journal	Research Objective	Q	C	I	D	E	n	Domain	Theory	Contribution
2017	Eckhardt & Bardhi	JCR	Introduction of a new dimension of consumption as liquid or solid.		x				()	Various	Theory of Liquid Modernity	New trend to consumer mirrors consumption orientation around values of flexibility, adaptability, fluidity, lightness, detachment, and speed.
2016	Gruen	JMM	Exploration of design and creation of Meaningful Consumption Practices in Access based Consumption	x		x			13	Carsharing (Autolib)	Practice Theory	Access based consumption may threaten the relationship between consumers and objects (focus solely on utility of the object). Can design change the practices of access-based consumption?
2016	Schaefers, Lawson & Kukar-Kinney	ML	Investigation into the effect of ownership burdens such as risk perception (financial, performance, social) on ownership versus access-based services.				x		776	Carsharing	Risk Perception Theory	When consumers perceive ownership (risk, responsibilities) as high risk, this increases their usage of access-based services. Risk perception theory focuses on the subjectively perceived level of risk.
2016	Lawson, Gleim, Perren & Hwang	JBR	Exploration into the role of Freedom from Ownership with regard to Access-based Consumption	x			x		72, 220	()	Motivational Theory	Identification of four different motivation segments: four distinct groups of consumers with varying dispositions toward access based consumption: Fickle Floaters, Premium Keepers, Conscious Materialists and Change Seekers.
2015	Moehlmann	JCB	Development and empirical test of framework on the determinants of choosing a sharing option.				x		236, 187	Carsharing car2go, Airbnb		Utility, trust, cost savings, and familiarity identified as main drivers. No effect was found of the constructs environmental impact, internet capability, smartphone capability, and trend affinity.
2015	Philip, Ozanne & Ballantine	JMM	Examination of peer-to-peer rental schemes regarding temporary disposition and acquisition.	x		x			19	P2P Rental Websites	Six dimensions of access-based consumption (Bardhi and Eckhardt 2012)	P2P characterised as a self-service exchange with extensive co-creation and a balanced market-mediated exchange involving short-term intermittent transactions. Drivers: desire for community, political consumerism. Inhibitors: fear of negative reciprocity, the high involvement nature of the transaction, limited access to products and the inflexible nature.
2014	Jenkins, Molesworth & Scullion	JCB	Investigation into inter-personal borrowing and the ambiguity in borrowing	x		x			18,10	Student Sharing Behaviour	Actor Network Theory and Epistemology	Suggests that borrowing is significant in forming and maintaining relationships, study identifies unique characteristics of borrowing.
2012	Bardhi & Eckhardt	JCR	Access based consumption from a consumer perspective, 6 dimensions of access	x		x			52	Carsharing, Zipcar	Theory of Access	Access is investigated in contrast to ownership. Six dimensions are identified to distinguish among the range of access-based consumption: temporality, anonymity, market mediation, consumer involvement, the type of accessed object, and political consumerism.
2012	Lamberton & Rose	JM	3 studies on perceived risk of product scarcity, probability of engaging in sharing programs	x			x		369, 123, 105	Zipcar, AT&T, US Bike Sharing	Augmented Utility Model	Augmented Utility Model based on Hennig-Thurau et al. 2007; Typology of shared goods, Drivers: degree of substitutability, social utility of sharing, functional utility of sharing. Inhibitors: perceived product scarcity risk.
2012	Albinsson & Ferrara	JCB	Investigation into non-monetary-based private and public sharing events with regard to sustainability and overconsumption.	x		x			10, 36	Really Really Free Markets (RRFM)	Community Theory	Sharing of knowledge and possessions (peer-to-peer). Driver: sense of community. Novel sense of exchange and reciprocity.
2010	Ozanne & Ballantine	JCB	Exploration of sharing as for of anti-consumption drawing to the example of toy libraries				x		397	Toy Library Users		Investigate whether consumers that reduce consumption through choosing to share rather than own are motivated by anti-consumption reasons. The study reveals four groups – Socialites, Market Avoiders, Quiet Anti-Consumers and Passive Members. Drivers: price of ownership, frugality, anti-consumption, social utility of sharing, sharing knowledge. Inhibitors: materialism, search cost of sharing.

2010	Moeller & Wittkowski	MSQ	Examination into the reasons for preferring renting as opposed to ownership	x						461	Online Peer-to-Peer Sharing Networks	Property rights theory, services marketing theory	Suggest that demand for non-ownership services is negatively influenced by possession importance and positively influenced by trend orientation and convenience orientation, but not motivated by price consciousness or environmentalism.
2007	Hennig-Thurau, Henning, Sattler	JM	Investigate threat of consumer file sharing of motion pictures to DVD rental, purchase and theatre visits (annual revenue losses of \$300 million in Germany)	x		x		x		10.000 (Panel)	New Motion Pictures	Utility Theory (extend and refine utility theory approach)	Utility and costs of the original versus utility and costs of the illegal copy. build on Rochelandet and Le Guel's (2005) utility theory approach but substantially refine and extend this approach in several ways. Drivers: price of ownership, frugality, anti-industry, social utility of sharing. Inhibitors: search cost of sharing.
	Present Study		Examination of sharing as relationship-building process, interplay of attachment avoidance and interpersonal closeness.					x	x	128, 103, 160, 142	Household Items, Flatsharing, Carsharing, Bikesharing	Attachment Theory	Suggests that interpersonal sharing behaviour can be seen as a function of attachment-related avoidance. Establishment of theory driven boundary condition by examining psychological proximity to the sharing partner. Process evidence by perception of fear.

Notes Table 3: Selected Literature on Sharing from a Consumer Perspective

Q: Qualitative
C: Conceptual
I: Interviews
D: Empirical Data
E: Experiment
n: Number of observations

Table 4: Attachment Avoidance as Behavioural Predictor.

<b>Attachment Avoidance in Consumer Behaviour</b>		
<b>Positively related to:</b>	<b>Construct</b>	<b>Reference</b>
	Self-reliance and Self-preservation	Bartholomew and Horowitz 1991; Beck, Pietromonaco, DeVito, Powers and Boyle 2014; Mikulincer and Shaver 2003; Rholes et al. 1999; Rom and Mikulincer 2003; Shaver and Mikulincer 2003; Van Lange, Otten, De Bruin and Joireman 1997
	Maintenance of relational distance to other individuals	Bartz and Lydon 2006; Beck, Pietromonaco, DeVito, Powers and Boyle 2014; Murray, Holmes and Collins 2006; Simpson, Rholes and Nelligan 1992
	Suppression of attachment-related needs and restricted emotionality	Abeyta, Routledge, Roylance, Wildschut and Sedikides 2015; Bartholomew and Horowitz 1991; Beck, Pietromonaco, DeVito, Powers and Boyle 2014; Mikulincer and Shaver 2007
	Reluctance to engage in interpersonal interactions	Bartz and Lydon 2004; Beck et al. 2014; Mikulincer and Shaver 2008
	Avoidance of Intimacy and restricted Emotionality	Bartholomew and Horowitz 1991; Bowlby 1979; Hazan and Shaver 1987; Simpson and Rholes 2012
	Distrust of others	Bartholomew and Horowitz 1991
	Excessive Coldness	Bartholomew and Horowitz 1991
<b>Negatively related to:</b>	<b>Construct</b>	<b>Reference</b>
	Provision of support and solicitation	Mikulincer et al. 2005; Wilson, Simpson, and Rholes 2000; Simpson, Rholes and Nelligan 1992
	Expressiveness	Bartholomew and Horowitz 1991
	Capacity to rely on others	Bartholomew and Horowitz 1991
	Expression of need or support signalling emotions	Bartholomew and Horowitz 1991; Feeney 1995; Larose, Bernier, Soucy, and Duchesne 1999; Simpson, Collins, Tran and Haydon 2007; Simpson, Rholes and Phillips 1996
	Exposure to others' appreciation for them	Beck and Clark 2009
	Relational interpretation of partners' responsive behaviours	Bartz and Lydon 2006; Beck and Clark 2010
	Self-disclosure	Bartholomew and Horowitz 1991; Beck, Pietromonaco, DeVito, Powers and Boyle 2014
	Comfort with closeness and dependence on others	Abeyta et al. 2015; Beck, Pietromonaco, DeVito, Powers and Boyle 2014; Collins and Feeney 2000; Rholes, Simpson, Campbell and Grich 2001
	Voluntarism	Mikulincer et al. 2003
	Development of compassionate feelings for others	Mikulincer, Shaver, Gillath, and Nitzber 2005; Mikulincer et al. 2003; Westmaas and Silver 2001
	Altruism and Empathy	Mikulincer, Shaver, Gillath, and Nitzberg 2005
	Mood	Mikulincer and Shaver 2001
	Perceived relationship quality	Birnbaum, Reis, Mikulincer, Gillath and Orpaz 2006
	Tolerance	Mikulincer and Shaver 2001
	Level of romantic involvement	Bartholomew and Horowitz 1991
	Exploitability	Bartholomew and Horowitz 1991
	Nurturing	Bartholomew and Horowitz 1991

*Table 5: Selected Manipulations used to capture Interpersonal Closeness.*

<b>Manipulation</b>	<b>Task</b>	<b>Author (Year)</b>
Similarity vs. Dissimilarity	Statement prior to Experiment; Description	Gino and Galinsky E3 (2012); Liviatan, Trope and Libermann E1, E3, E4 (2008)
Close Friends vs. Acquaintances	Description	Dubois, Bonezzi and De Angelis E1, E4 (2016)
Strangers vs. Friends	Description	Bar-Anan, Liberman and Trope 3B (2006)
Social Meida Platform Facebook vs. LinkedIn	Description	Dubois, Bonezzi and De Angelis E3 (2016)
Perspective Taking	Writing Task	Gino and Galinsky E1, E4 (2012); Gunia et al. (2009), Williams, Stein and Galguera (2014)
Interdependent Mindset	Priming ,Writing Task	Gino and Galinsky E2 (2012), Gunia et al. E4 (2009)
Relationship Closeness	Induction Task	Dubois, Bonezzi and De Angelis E2 (2016); Vohs, Baumeister and Ciarocco (2005); Sedikides et al. (1999)
Feelings of Closeness vs. Distance	Description	Dubois, Bonezzi and De Angelis E1 (2016)

*Table 6: Factorial Design. Factors of Attachment Avoidance and Interpersonal Closeness.*

		<b>Factor 1: Attachment Avoidance</b>	
		<b>Low</b>	<b>High</b>
<b>Factor 2: Interpersonal Closeness</b>	<b>Close</b>	Group A	Group B
	<b>Distant</b>	Group C	Group D

Table 7: Overview of Studies 1-4.

	<b>Variable</b>	<b>Study 1</b>	<b>Study 2</b>	<b>Study 3</b>	<b>Study 4</b>
<b>Participants (n)</b>		<b>128</b>	<b>103</b>	<b>160</b>	<b>142</b>
<b>Hypotheses tested</b>		H 1	H1 & H3	H1 & H3	H1, H2 & H3
<b>Context</b>	<b>Sharing Scheme</b>	Household Items	Flat sharing	Car sharing	Bike sharing
<b>Independent Variable</b>	<b>Attachment Avoidance</b>	Measured	Measured	Measured	Primed
<b>Moderator</b>	<b>Interpersonal Closeness</b>	Close	Close vs. Distant	Close vs. Distant	Close vs. Distant
	<b>Closeness Manipulation</b>	Neighbour	Friend vs. Stranger	Similar vs. Dissimilar	Facebook vs. LinkedIn
<b>Dependent Variable</b>	<b>Sharing Intentions</b>	Measured	Measured	Measured	Measured
<b>Mediator</b>	<b>Fear</b>				Measured
<b>Covariates</b>	<b>Materialism</b>	Measured (6 Items)	Measured (18 Items)		
	<b>Monetary Fee</b>	Manipulated			
	<b>Object Attachment</b>		Measured (3 Items)		
	<b>Psychological Ownership</b>			Measured (3 Items)	
	<b>Impression Management</b>				Measured (4 Items)



Table 8: Respondents Profile Study 1.

Gender		Origin				Total	
		Asia	North America	South America	Europe		
<b>Male</b>	<b>Age</b>	18 to 24	13	0	1	7	21
		25 to 34	24	2	0	9	35
		35 to 44	8	4	0	8	20
		45 to 54	3	1	0	6	10
		55 to 64	0	0	0	3	3
		<b>Total</b>	<b>48</b>	<b>7</b>	<b>1</b>	<b>33</b>	<b>89</b>
<b>Female</b>	<b>Age</b>	18 to 24	2	1	1	2	6
		25 to 34	3	5	0	6	14
		35 to 44	4	4	0	5	13
		45 to 54	0	2	0	1	3
		55 to 64	0	0	0	3	3
		<b>Total</b>	<b>9</b>	<b>12</b>	<b>1</b>	<b>17</b>	<b>39</b>
<b>Total</b>	<b>Age</b>	18 to 24	15	1	2	9	27
		25 to 34	27	7	0	15	49
		35 to 44	12	8	0	13	33
		45 to 54	3	3	0	7	13
		55 to 64	0	0	0	6	6
		<b>Total</b>	<b>57</b>	<b>19</b>	<b>2</b>	<b>50</b>	<b>128</b>

*Table 9: Descriptive Statistics Study 1.*

<b>n=128</b>	<b>Mean</b>	<b>Median</b>	<b>Minimum</b>	<b>Maximum</b>	<b>Std. Deviation</b>	<b>Variance</b>
<b>Attachment Avoidance</b>	0.4531	0.0000	0.00	1.00	0.4998	0.2498
<b>Sharing Intention</b>	5.3880	5.3333	2.00	7.00	1.1984	1.4362
<b>Realism Check</b>	5.0000	5.0000	1.00	7.00	1.3162	1.7323
<b>Materialism</b>	4.3073	4.3333	1.00	7.00	1.1934	1.4241
<b>Gender</b>	1.3000	1.0000	1.00	2.00	0.4621	0.2135
<b>Age</b>	2.3906	2.0000	1.00	5.00	1.0739	1.1533
<b>Origin</b>	3.2969	3.0000	1.00	6.00	2.2947	5.2655

*Table 10: Descriptive Statistics Study 2.*

<b>n=103</b>	<b>Mean</b>	<b>Median</b>	<b>Minimum</b>	<b>Maximum</b>	<b>Standard Deviation</b>	<b>Variance</b>
<b>Attachment Avoidance</b>	1.5825	2.0000	1.0000	2.0000	0.4956	0.2456
<b>Sharing Intention</b>	4.4563	5.0000	1.0000	7.0000	1.6673	2.7800
<b>Materialism</b>	3.8091	3.8889	1.6667	5.5000	0.7340	0.5387
<b>Object Attachment</b>	5.0065	5.0000	1.6667	7.0000	1.0385	1.0784

*Table 11: Respondents Profile Study 3.*

<b>Gender</b>	<b>Frequency</b>	<b>Percent</b>	<b>Valid Percent</b>	<b>Cumulative Percent</b>
<b>Male</b>	<b>91</b>	<b>56.9</b>	<b>56.9</b>	<b>56.9</b>
<b>Female</b>	<b>69</b>	<b>43.1</b>	<b>43.1</b>	<b>100</b>
<b>Total</b>	<b>160</b>	<b>100</b>	<b>100</b>	

Table 12: Descriptive Statistics Study 3.

n=160	Mean	Median	Minimum	Maximum	Standard Deviation	Variance
<b>Attachment Avoidance</b>	0.2125	1.0000	-1.0000	1.0000	0.9802	0.9610
<b>Sharing Intention</b>	4.3300	5.0000	1.0000	7.0000	1.8380	3.3780
<b>Ownership Check</b>	5.8063	6.0000	1.0000	7.0000	1.1682	1.3650
<b>Psychological Ownership</b>	6.0896	6.0000	1.0000	7.0000	0.9725	0.9460
<b>Gender</b>	1.4300	1.0000	1.0000	2.0000	0.4970	0.2470
<b>Age</b>	37.0100	34.0000	19.0000	74.0000	11.6790	136.3900

Table 13: Respondents Profile Study 4.

	Gender	Frequency	Percent	Valid Percent	Cumulative Percent
<b>Valid</b>	<b>Male</b>	<b>66</b>	<b>46.5</b>	<b>46.8</b>	<b>46.8</b>
	<b>Female</b>	<b>75</b>	<b>52.8</b>	<b>53.2</b>	<b>100</b>
	<b>Total</b>	<b>141</b>	<b>99.3</b>	<b>100</b>	
<b>Missing</b>	<b>System</b>	<b>1</b>	<b>0.7</b>		
<b>Total</b>		<b>142</b>	<b>100</b>		

Table 14: Descriptive Statistics Study 4.

n=142	Mean	Median	Minimum	Maximum	Standard Deviation	Variance	Missing
<b>Sharing Intention</b>	3.9225	4.0000	1.0000	7.0000	1.9133	3.6606	
<b>Ownership Check</b>	5.6690	6.0000	2.0000	7.0000	1.1773	1.3860	
<b>Impression Management</b>	4.8908	5.0000	1.0000	7.0000	1.3996	1.9587	
<b>Perceived Fear</b>	3.5986	4.0000	1.0000	7.0000	1.6971	2.8803	
<b>Origin</b>	2.9028	3.0000	1.0000	5.0000	0.8584	0.7369	70.0000
<b>Gender</b>	1.5319	2.0000	1.0000	2.0000	0.5008	0.2508	1.0000
<b>Age</b>	23.4000	23.0000	18.0000	50.0000	3.4470	11.8820	2.0000

2. Figures

Figure 1: Facilitators of the Sharing Economy Growth (Own Illustration).

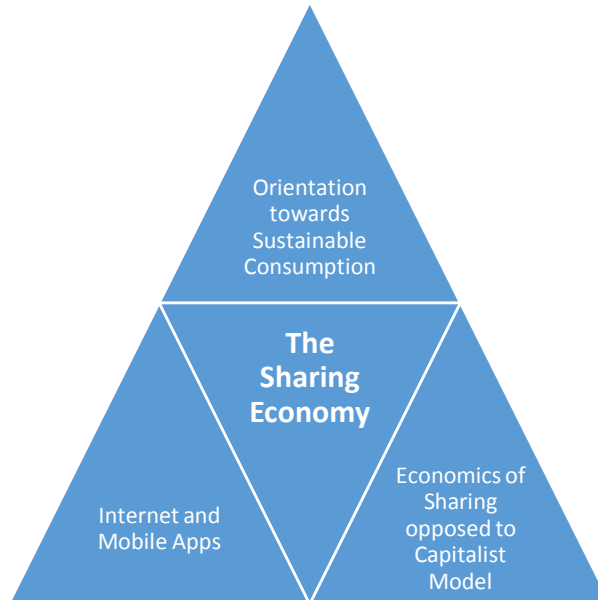
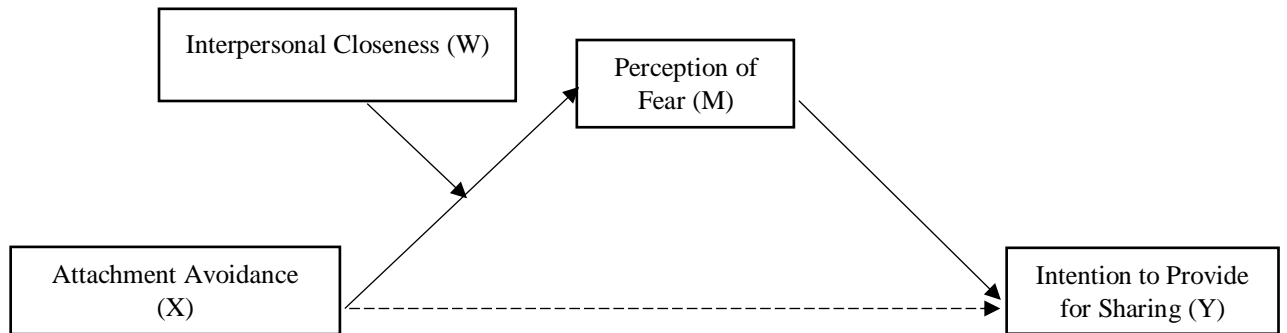


Figure 2: Four-Category Model for Attachment Styles in Adults. Adapted from Bartholomew and Horowitz 1991.

		<b>Model of Self</b>	
		<b>Positive</b>	<b>Negative</b>
		<b>Low Anxiety</b>	<b>High Anxiety</b>
<b>Model of Others</b>	<b>Positive</b>	<b>Low Avoidance</b>	<b>Secure</b> <b>Preoccupied</b>
	<b>Negative</b>	<b>High Avoidance</b>	<b>Dismissive</b> <b>Fearful</b>

*Figure 3: Conceptual Framework. Effect of interpersonal closeness on intention to provide as a function of attachment avoidance mediated by perception of fear.*



*Figure 4: Frequency Distribution of Attachment Styles, Study 1.*

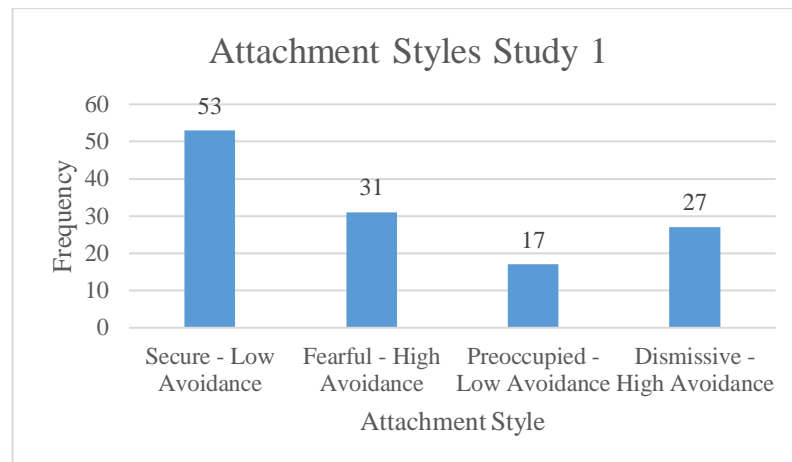


Figure 5: Frequency Distribution of Attachment Styles, Study 2.

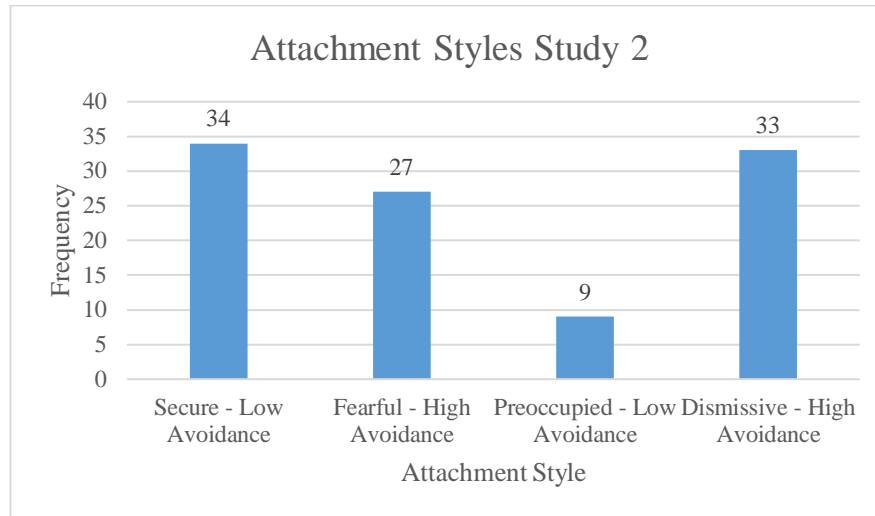


Figure 6. Effect of interpersonal closeness (friend vs. stranger) on intention to provide as a function of attachment avoidance.

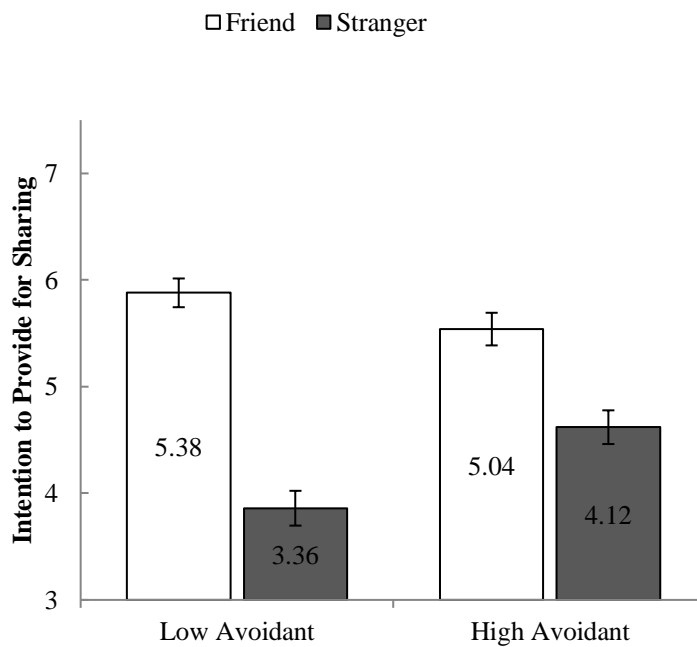


Figure 7: Frequency Distribution of Attachment Styles, Study 3.

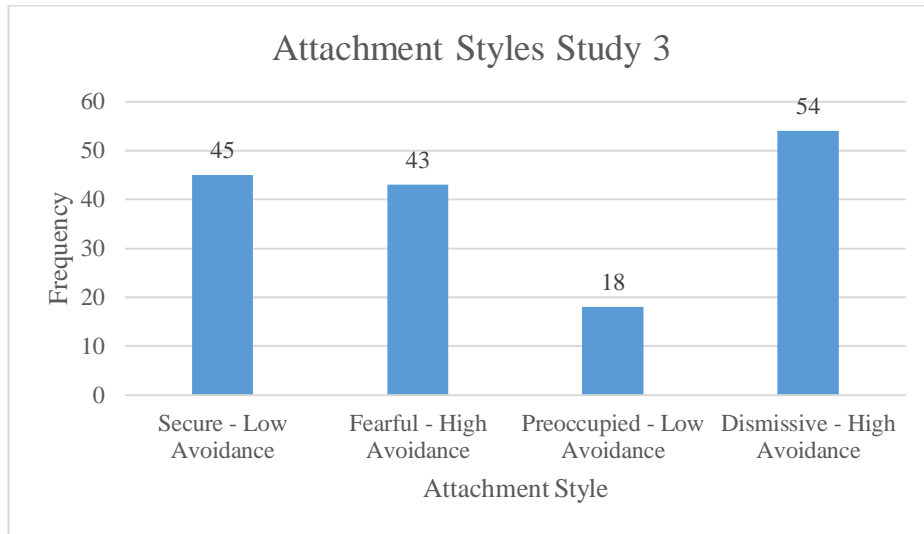


Figure 8. Effect of sharing partner (similar vs. dissimilar) on intention to provide as a function of attachment avoidance.

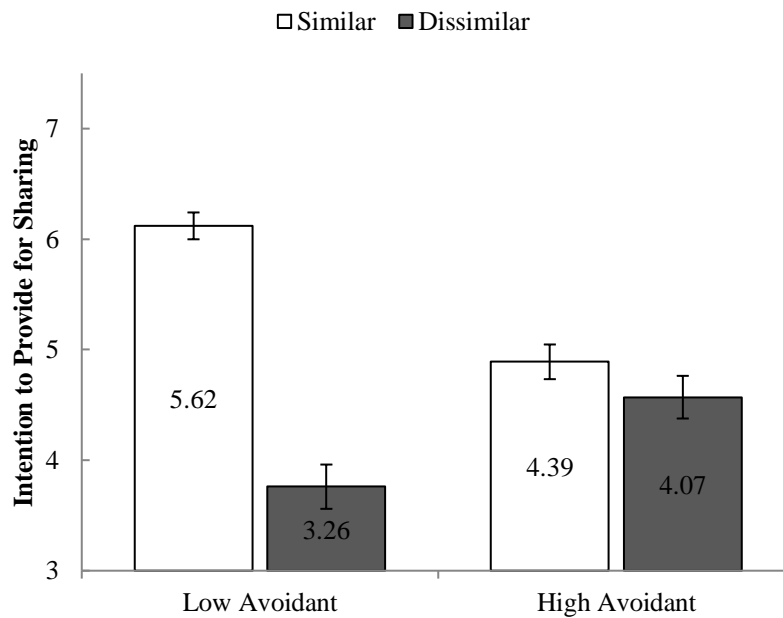
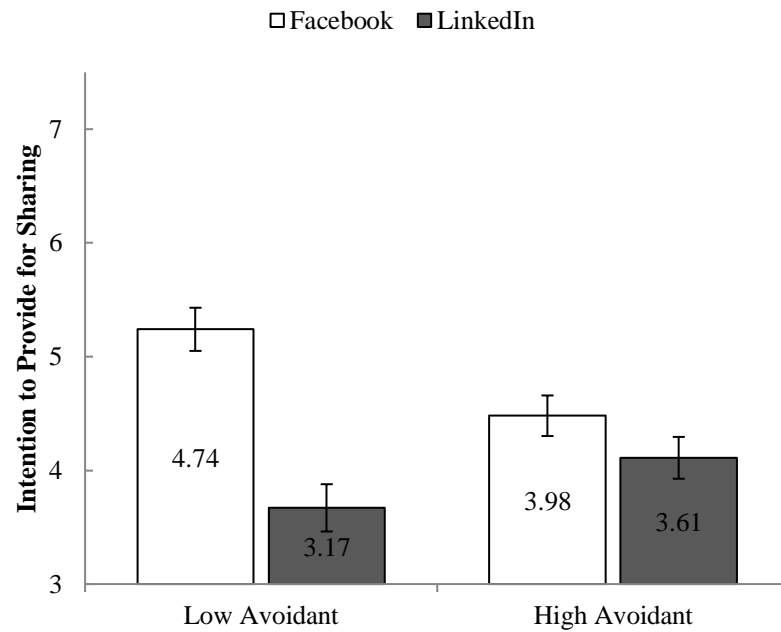


Figure 9: Effect of interpersonal closeness (Facebook vs. LinkedIn) on intention to provide as a function of attachment avoidance.



### 3. List of Abbreviations

List of Abbreviations	
ANOVA	Analysis of Variance
DV	Dependent Variable
IV	Independent Variable
LLCI	Lower Limit Confidence Interval
UPCI	Upper Limit Confidence Interval
M	Mean
n	Number
p	Probability
SD	Standard Deviation
SPSS	Statistical package for Social Sciences



## 4. Surveys

### 4.1 Survey Study 1



#### Scenario A

Imagine a sharing programme that is introduced in your area/neighbourhood and allows participants to share their household items with each other.

Participants will stick on their door/mailbox stickers of the specific items they own and want to share with their neighbour's - as illustrated in the images above. Thus, neighbours who participate in the sharing programme can easily see the objects that other neighbours have to offer and use them for short-term lending.

As participant, you can provide to your neighbours for short- term lending (e.g., 1 day) objects that you own, anytime they need them. Similarly, you can borrow the selected objects that your neighbours have available for short-term lending, anytime you need them.

## Scenario B

Imagine a sharing programme that is introduced in your area/neighbourhood and allows participants to share their household items with each other.

Participants will stick on their door/mailbox stickers of the specific items they own and want to share with their neighbour's - as illustrated in the images above. Thus, neighbours who participate in the sharing programme can easily see the objects that other neighbours have to offer and use them for short-term lending.

As participant, you can provide to your neighbours for short-term lending (e.g., 1 day) objects that you own against a pre-defined monetary fee, anytime they need them. Similarly, you can borrow the selected objects that your neighbours have available for short-term lending against a pre-defined monetary fee, anytime you need them.

---

Please choose the extent to which you personally agree with the following statements.

I am likely to participate in the above sharing scheme.

I am inclined to participate in the above sharing scheme.

I am willing to participate in the above sharing scheme.

(Each Item was rated on the following Likert Scale):

- Strongly disagree (1)
  - Disagree (2)
  - Somewhat disagree (3)
  - Neither agree nor disagree (4)
  - Somewhat agree (5)
  - Agree (6)
  - Strongly agree (7)
-

Following are four general relationship styles that people often report.

Place a checkmark next to the style that best describes you or is closest to the way you are.

- It is easy for me to become emotionally close to others. I am comfortable depending on them and having them depend on me. I don't worry about being alone or having others not accept me. (1)
- I am uncomfortable getting close to others. I want emotionally close relationships, but I find it difficult to trust others completely, or to depend on them. I worry that I will be hurt if I allow myself to become too close to others. (2)
- I want to be completely emotionally intimate with others, but I often find that others are reluctant to get as close as I would like. I am uncomfortable being without close relationships, but I sometimes worry that others don't value me as much as I value them. (3)
- I am comfortable without close emotional relationships. It is very important to me to feel independent and self-sufficient, and I prefer not to depend on others or have others depend on me. (4)
- 

Please choose the extent to which you personally agree with the following statements.

I admire people who own expensive homes, cars, and clothes.

The things I own say a lot about how well I'm doing in life.

Buying things gives me a lot of pleasure.

I like a lot of luxury in my life.

My life would be better if I owned certain things I don't have.

I'd be happier if I could afford to buy more things.

(Each Item was rated on the following Likert Scale):

- Strongly disagree (1)
  - Disagree (2)
  - Somewhat disagree (3)
  - Neither agree nor disagree (4)
  - Somewhat agree (5)
  - Agree (6)
  - Strongly agree (7)
- 

I consider the above sharing scheme as realistic.

- Strongly disagree (1)
  - Disagree (2)
  - Somewhat disagree (3)
  - Neither agree nor disagree (4)
  - Somewhat agree (5)
  - Agree (6)
  - Strongly agree (7)
- 

What gender are you?

- Male (1)
  - Female (2)
-

How old are you?

- 18 to 24 (1)
  - 25 to 34 (2)
  - 35 to 44 (3)
  - 45 to 54 (4)
  - 55 to 64 (5)
  - 65 or older (6)
- 

Where are you from?

- Asia (1)
  - Africa (2)
  - North America (3)
  - South America (4)
  - Antarctica (5)
  - Europe (6)
  - Australia (7)
-

## 4.2 Survey Study 2

---

Scenario A

Please imagine someone you know is planning to come to the town where you live while you are not around. He asks you if he could stay at your flat.

---

Scenario B

Please imagine there is a new online platform that allows you to offer people you don't know to stay at your flat while you are not around. Some of the people are especially interested in staying at a flat in the town where you live for a couple of days.

---

Based on the scenario described, how likely would you be to offer your flat?

- Very Unlikely (1)
  - Unlikely (2)
  - Somewhat Unlikely (3)
  - In Between (4)
  - Somewhat Likely (5)
  - Likely (6)
  - Very Likely (7)
-

Following are four general relationship styles that people often report.

Place a checkmark next to the style that best describes you or is closest to the way you are.

- It is easy for me to become emotionally close to others. I am comfortable depending on them and having them depend on me. I don't worry about being alone or having others not accept me. (1)
- I am uncomfortable getting close to others. I want emotionally close relationships, but I find it difficult to trust others completely, or to depend on them. I worry that I will be hurt if I allow myself to become too close to others. (2)
- I want to be completely emotionally intimate with others, but I often find that others are reluctant to get as close as I would like. I am uncomfortable being without close relationships, but I sometimes worry that others don't value me as much as I value them. (3)
- I am comfortable without close emotional relationships. It is very important to me to feel independent and self-sufficient, and I prefer not to depend on others or have others depend on me. (4)
- 

Please choose the extent to which you personally agree with the following statements.

I admire people who own expensive homes, cars and clothes

Some of the most important achievements in life include acquiring material possessions.

I don't place much emphasis on the amount of material objects people own as a sign of success.\*

The things I own say a lot about how well I'm doing in life.

I like to own things that impress people.

I don't pay much attention to the material objects other people own.\*

I usually buy only the things I need.\*

I try to keep my life simple, as far as possessions are concerned.\*

The things I own aren't all that important to me.\*

I enjoy spending money on things that aren't practical.

Buying things gives me a lot of pleasure.

I like a lot of luxury in my life.

I put less emphasis on material things than most people I know.\*

I have all the things I really need to enjoy life.\*

My life would be better if I owned certain things I don't have.

I wouldn't be any happier if I owned nicer things.\*

I'd be happier if I could afford to buy more things.

It sometimes bothers me quite a bit that I can't afford to buy all the things I'd like.

(\* = reverse coded. Each Item was rated on the following Likert Scale):

- Strongly disagree (1)
- Disagree (2)
- Somewhat disagree (3)
- Neither agree nor disagree (4)
- Somewhat agree (5)
- Agree (6)
- Strongly agree (7)

---

Please choose the extent to which you personally agree with the following statements.

My flat reminds me of who I am.

If someone destroyed my flat, I would feel a little bit personally attacked.

If I didn't have my flat, I would feel a bit less like myself.

(Each Item was rated on the following Likert Scale):

- Strongly disagree (1)
- Disagree (2)
- Somewhat disagree (3)
- Neither agree nor disagree (4)
- Somewhat agree (5)
- Agree (6)
- Strongly agree (7)



### 4.3 Survey Study 3

Imagine you own a car similar to the one illustrated here.

It is a midsize car and you are the owner of this car since three years.

The car is your main car, but there are some days when you don't drive it.

---



---

Please think of **someone you know** (e.g. a friend or family member) who would need your car. He asks you if he could rent out your car over a short period of time (e.g. for a couple of hours or for one day), when you don't need it.

---

#### Scenario A

Now imagine that this person described previously which is interested in renting your car is **very different to you**. Think about all the ways the person is different to you.

---

#### Scenario B

Now imagine that this person described previously which is interested in renting your car is **very similar to you**. Think about all the ways the person is similar to you.

How likely would you be to provide your car for sharing?

- Very Unlikely (1)
  - Unlikely (2)
  - Somewhat Unlikely (3)
  - In Between (4)
  - Somewhat Likely (5)
  - Likely (6)
  - Very Likely (7)
- 

Following are four general relationship styles that people often report.

Place a checkmark next to the style that best describes you or is closest to the way you are.

- It is easy for me to become emotionally close to others. I am comfortable depending on them and having them depend on me. I don't worry about being alone or having others not accept me. (1)
  - I am uncomfortable getting close to others. I want emotionally close relationships, but I find it difficult to trust others completely, or to depend on them. I worry that I will be hurt if I allow myself to become too close to others. (2)
  - I want to be completely emotionally intimate with others, but I often find that others are reluctant to get as close as I would like. I am uncomfortable being without close relationships, but I sometimes worry that others don't value me as much as I value them. (3)
  - I am comfortable without close emotional relationships. It is very important to me to feel independent and self-sufficient, and I prefer not to depend on others or have others depend on me. (4)
-

Based on the scenario described in the beginning, how much would you agree with the following statement?

It was easy for me to imagine myself owning such a car.

- Strongly disagree (1)
  - Disagree (2)
  - Somewhat disagree (3)
  - Neither agree nor disagree (4)
  - Somewhat agree (5)
  - Agree (6)
  - Strongly agree (7)
- 

Thinking about renting out your car to this person, how much would you agree with the following statements?

I would still feel a very high degree of personal ownership of the car.

I would still feel like I own the car.

I would not feel like this is my car anymore.

(Each Item was rated on the following Likert Scale):

- Strongly disagree (1)
- Disagree (2)
- Somewhat disagree (3)
- Neither agree nor disagree (4)
- Somewhat agree (5)
- Agree (6)
- Strongly agree (7)

---

Your age (at your last birthday):

---

---

Your gender:

Male (1)

Female (2)

#### 4.4 Survey Study 4

##### Scenario A

*Please think about a relationship you have had in which you have found that you were somewhat **uncomfortable being too close to the other person**. In this relationship you found it was **difficult to trust** the other person completely and it was difficult to allow yourself to depend on the other person.*

---

##### Scenario B

Please think about a relationship you have had in which you have found that it was relatively easy to get close to the other person and you felt comfortable depending on the other person. In this relationship you didn't often worry about the other person getting too close to you.

---

Please describe your thoughts regarding this relationship in 1-2 lines.

---

---

---

---

---

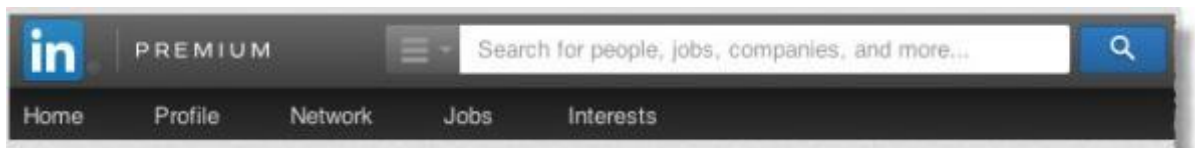
---

Now imagine that you have a road bike similar to the one illustrated below since three years, however there are some days where you don't drive it.



---

Scenario A



And imagine that **one of your LinkedIn connections contacts you and asks if he could borrow your bike** for a couple of hours.

---

Scenario B



And imagine that **one of your Facebook friends contacts you and asks if he could borrow your bike** for a couple of hours.

---

**How likely would you be to share your bike with this person?**

- Very unlikely (1)
  - . (2)
  - . (3)
  - . (4)
  - . (5)
  - . (6)
  - Very likely (7)
- 

**Sharing my bike would make me feel...**

- Not scared at all (1)
  - . (2)
  - . (3)
  - . (4)
  - . (5)
  - . (6)
  - Very scared (7)
-

Please choose the extent to which you personally agree with the following statements.

**I care about how positively others view me.**

**I want to present myself in a positive way.**

**I want to make a positive impression on others.**

**I want myself look good to others.**

(Each Item was rated on the following Likert Scale):

- Strongly disagree (1)
  - Disagree (2)
  - Somewhat disagree (3)
  - Neither agree nor disagree (4)
  - Somewhat agree (5)
  - Agree (6)
  - Strongly agree (7)
- 

**Based on the scenario described in the beginning, it was easy for me to imagine myself owning a bike.**

- Strongly disagree (1)
  - Disagree (2)
  - Somewhat disagree (3)
  - Neither agree nor disagree (4)
  - Somewhat agree (5)
  - Agree (6)
  - Strongly agree (7)
-



Age **Your age (at your last birthday):**

---

Gender **Your gender:**

Male (1)

Female (2)

---

## 5. SPSS Outputs

## 5.1 SPSS Output Study 1

Correlations									
		Monetary Fee	Intention to participate in Scheme	Materialism Full Scale	Avoidance Low High	What gender are you?	How old are you?	Where are you from?	Anxiety Low High
Monetary Fee	Pearson Correlation	1	0.170	0.061	-0.047	.196*	-0.062	-0.067	-0.148
	Sig. (2-tailed)		0.057	0.500	0.603	0.028	0.488	0.454	0.099
	N	126	126	126	126	126	126	126	126
Intention to participate in Scheme	Pearson Correlation	0.170	1	0.141	-.261**	0.057	-0.057	-.246**	0.031
	Sig. (2-tailed)	0.057		0.114	0.003	0.524	0.523	0.005	0.727
	N	126	126	126	126	126	126	126	126
Materialism Full Scale	Pearson Correlation	0.061	0.141	1	-.233**	-0.161	-.355**	-.250**	-0.032
	Sig. (2-tailed)	0.500	0.114		0.009	0.072	0.000	0.005	0.721
	N	126	126	126	126	126	126	126	126
Avoidance Low High	Pearson Correlation	-0.047	-.261**	-.233**	1	0.125	0.118	.214*	.215*
	Sig. (2-tailed)	0.603	0.003	0.009		0.164	0.186	0.016	0.016
	N	126	126	126	126	126	126	126	126
What gender are you?	Pearson Correlation	.196*	0.057	-0.161	0.125	1	0.143	.179*	0.099
	Sig. (2-tailed)	0.028	0.524	0.072	0.164		0.110	0.045	0.272
	N	126	126	126	126	126	126	126	126
How old are you?	Pearson Correlation	-0.062	-0.057	-.355**	0.118	0.143	1	.270**	-0.037
	Sig. (2-tailed)	0.488	0.523	0.000	0.186	0.110		0.002	0.681
	N	126	126	126	126	126	126	126	126
Where are you from?	Pearson Correlation	-0.067	-.246**	-.250**	.214*	.179*	.270**	1	0.117
	Sig. (2-tailed)	0.454	0.005	0.005	0.016	0.045	0.002		0.190
	N	126	126	126	126	126	126	126	126
Anxiety Low High	Pearson Correlation	-0.148	0.031	-0.032	.215*	0.099	-0.037	0.117	1
	Sig. (2-tailed)	0.099	0.727	0.721	0.016	0.272	0.681	0.190	
	N	126	126	126	126	126	126	126	126

\*. Correlation is significant at the 0.05 level (2-tailed).

\*\* Correlation is significant at the 0.01 level (2-tailed).

## ANCOVA

**Between-Subjects Factors**

		Value Label	N
Avoidance Low High	1.00	low	70
	2.00	high	56

**Tests of Between-Subjects Effects**

Dependent Variable:

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	27.594 <sup>a</sup>	7	3.942	3.066	0.005
Intercept	36.678	1	36.678	28.527	0.000
Money	3.456	1	3.456	2.688	0.104
Mat_F	0.517	1	0.517	0.402	0.527
Gender	1.202	1	1.202	0.935	0.336
Age	0.385	1	0.385	0.299	0.585
Origin	7.068	1	7.068	5.497	0.021
Anxiety	2.524	1	2.524	1.963	0.164
Avoid	8.940	1	8.940	6.954	0.009
Error	151.715	118	1.286		
Total	3863.556	126			
Corrected Total	179.309	125			

a. R Squared = .154 (Adjusted R Squared = .104)

## 5.2 SPSS Output Study 2

## Correlations

		Avoidance Low 1 High 2	ObjAttach	Full Scale	Anxiety Low 1 High 2
Avoidance Low 1 High 2	Pearson Correlation	1	-0.065	-0.025	.342**
	Sig. (2-tailed)		0.517	0.801	0.000
	N	103	103	103	103
ObjAttach	Pearson Correlation	-0.065	1	0.175	0.090
	Sig. (2-tailed)	0.517		0.077	0.364
	N	103	103	103	103
Full Scale	Pearson Correlation	-0.025	0.175	1	-0.069
	Sig. (2-tailed)	0.801	0.077		0.491
	N	103	103	103	103
Anxiety Low 1 High 2	Pearson Correlation	.342**	0.090	-0.069	1
	Sig. (2-tailed)	0.000	0.364	0.491	
	N	103	103	103	103

\*\* . Correlation is significant at the 0.01 level (2-tailed).

## Correlations

		ObjAttach	Full Scale	Anxiety Low 1 High 2	Intent1
ObjAttach	Pearson Correlation	1	0.175	0.090	0.057
	Sig. (2-tailed)		0.077	0.364	0.569
	N	103	103	103	103
Full Scale	Pearson Correlation	0.175	1	-0.069	0.033
	Sig. (2-tailed)	0.077		0.491	0.743
	N	103	103	103	103
Anxiety Low 1 High 2	Pearson Correlation	0.090	-0.069	1	0.010
	Sig. (2-tailed)	0.364	0.491		0.921
	N	103	103	103	103
Intent1	Pearson Correlation	0.057	0.033	0.010	1
	Sig. (2-tailed)	0.569	0.743	0.921	
	N	103	103	103	103

## ANCOVA

## Between-Subjects Factors

		Value Label	N
MarketMediated	1.00	No	48
	2.00	Yes	55
Avoidance Low 1 High 2	1.00		43
	2.00		60

**Tests of Between-Subjects Effects**

Dependent Variable:

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	58.288 <sup>a</sup>	6	9.715	4.140	0.001
Intercept	34.211	1	34.211	14.579	0.000
Mat_Full	0.035	1	0.035	0.015	0.903
ObjAttach	1.088	1	1.088	0.464	0.498
Anxiety	0.289	1	0.289	0.123	0.726
MktMed	53.350	1	53.350	22.736	0.000
Avoid	1.459	1	1.459	0.622	0.432
MktMed * Avoid	7.556	1	7.556	3.220	0.076
Error	225.265	96	2.347		
Total	2329.000	103			
Corrected Total	283.553	102			

a. R Squared = .206 (Adjusted R Squared = .156)

**Between-Subjects Factors**

	Value Label	N
MarketMediated	1.00 No	48
	2.00 Yes	55
Avoidance Low 1 High 2	1.00	43
	2.00	60

## Tests of Between-Subjects Effects

Dependent Variable:

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	58.288 <sup>a</sup>	6	9.715	4.140	0.001	0.206
Intercept	34.211	1	34.211	14.579	0.000	0.132
Mat_Full	0.035	1	0.035	0.015	0.903	0.000
ObjAttach	1.088	1	1.088	0.464	0.498	0.005
Anxiety	0.289	1	0.289	0.123	0.726	0.001
MktMed	53.350	1	53.350	22.736	0.000	0.191
Avoid	1.459	1	1.459	0.622	0.432	0.006
MktMed * Avoid	7.556	1	7.556	3.220	0.076	0.032
Error	225.265	96	2.347			
Total	2329.000	103				
Corrected Total	283.553	102				

a. R Squared = .206 (Adjusted R Squared = .156)

## 1. MarketMediated

Dependent Variable:

MarketMediated	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
No	5.207 <sup>a</sup>	0.223	4.764	5.650
Yes	3.736 <sup>a</sup>	0.212	3.315	4.156

a. Covariates appearing in the model are evaluated at the following values: Full Scale = 3.8091, ObjAttach = 5.0065, Anxiety Low 1 High 2 = 1.4078.

## 2. Avoidance Low 1 High 2

Dependent Variable:

Avoidance Low 1 High 2	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
1.00	4.342 <sup>a</sup>	0.243	3.858	4.825
2.00	4.601 <sup>a</sup>	0.205	4.194	5.008

a. Covariates appearing in the model are evaluated at the following values: Full Scale = 3.8091, ObjAttach = 5.0065, Anxiety Low 1 High 2 = 1.4078.

3. MarketMediated \* Avoidance Low 1 High 2

Dependent Variable:

MarketMediated		Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
No	1.00	5.354 <sup>a</sup>	0.342	4.675	6.034
	2.00	5.059 <sup>a</sup>	0.305	4.455	5.664
Yes	1.00	3.329 <sup>a</sup>	0.333	2.668	3.990
	2.00	4.143 <sup>a</sup>	0.269	3.608	4.678

a. Covariates appearing in the model are evaluated at the following values: Full Scale = 3.8091, ObjAttach = 5.0065, Anxiety Low 1 High 2 = 1.4078.



## 5.3 SPSS Output Study 3

Correlations							
		Sharing Partner: Different vs. Similar	Avoidance Low High	Anxiety Low High	Psychologic al Ownership All items	How likely would you be to rent out your car to this person for a couple of hours?	Your gender:
Sharing Partner: Different vs. Similar	Pearson Correlation	1	0.017	-0.009	-0.023	.307**	0.005
	Sig. (2-tailed)		0.827	0.912	0.775	0.000	0.948
	N	160	160	160	160	160	160
Avoidance Low High	Pearson Correlation	0.017	1	.266**	0.008	-0.060	0.004
	Sig. (2-tailed)	0.827		0.001	0.915	0.455	0.956
	N	160	160	160	160	160	160
Anxiety Low High	Pearson Correlation	-0.009	.266**	1	0.033	-0.154	-.179*
	Sig. (2-tailed)	0.912	0.001		0.678	0.052	0.024
	N	160	160	160	160	160	160
Psychologic al Ownership All items	Pearson Correlation	-0.023	0.008	0.033	1	0.118	0.089
	Sig. (2-tailed)	0.775	0.915	0.678		0.136	0.264
	N	160	160	160	160	160	160
How likely would you be to rent out your car to this	Pearson Correlation	.307**	-0.060	-0.154	0.118	1	0.100
	Sig. (2-tailed)	0.000	0.455	0.052	0.136		0.207
	N	160	160	160	160	160	160
Your gender:	Pearson Correlation	0.005	0.004	-.179*	0.089	0.100	1
	Sig. (2-tailed)	0.948	0.956	0.024	0.264	0.207	
	N	160	160	160	160	160	160

\*\* . Correlation is significant at the 0.01 level (2-tailed).

\* . Correlation is significant at the 0.05 level (2-tailed).

**Between-Subjects Factors**

		Value Label	N
Sharing Partner: Different vs. Similar	-	Different	77
	1.00	Similar	83
Avoidance Low High	-	Low	63
	1.00	High	97
	1.00		

**Tests of Between-Subjects Effects**

Dependent Variable:

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	117.689 <sup>a</sup>	6	19.615	7.155	0.000
Intercept	23.271	1	23.271	8.489	0.004
Anx	9.897	1	9.897	3.610	0.059
Psy_O	5.232	1	5.232	1.909	0.169
Gender	5.642	1	5.642	2.058	0.153
DifSim	70.378	1	70.378	25.674	0.000
Avoid	0.187	1	0.187	0.068	0.795
DifSim * Avoid	43.120	1	43.120	15.730	0.000
Error	419.411	153	2.741		
Total	3530.000	160			
Corrected Total	537.100	159			

a. R Squared = .219 (Adjusted R Squared = .188)

**Between-Subjects Factors**

		Value Label	N
Sharing Partner: Different vs. Similar	-	Different	77
	1.00	Similar	83
Avoidance Low High	-	Low	63
	1.00	High	97

**Tests of Between-Subjects Effects**

Dependent Variable:

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	117.689 <sup>a</sup>	6	19.615	7.155	0.000	0.219
Intercept	23.271	1	23.271	8.489	0.004	0.053
Anx	9.897	1	9.897	3.610	0.059	0.023
Psy_O	5.232	1	5.232	1.909	0.169	0.012
Gender	5.642	1	5.642	2.058	0.153	0.013
DifSim	70.378	1	70.378	25.674	0.000	0.144
Avoid	0.187	1	0.187	0.068	0.795	0.000
DifSim * Avoid	43.120	1	43.120	15.730	0.000	0.093
Error	419.411	153	2.741			
Total	3530.000	160				
Corrected Total	537.100	159				

a. R Squared = .219 (Adjusted R Squared = .188)

### 1. Sharing Partner: Different vs. Similar

Dependent Variable:

Sharing Partner: Different vs. Similar	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Different	3.641 <sup>a</sup>	0.193	3.261	4.022
Similar	5.000 <sup>a</sup>	0.187	4.631	5.369

a. Covariates appearing in the model are evaluated at the following values: Anxiety Low High = -.1000, Psychological Ownership All items = 6.0896, Your gender: = 1.43.

### 2. Avoidance Low High

Dependent Variable:

Avoidance Low High	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Low	4.357 <sup>a</sup>	0.214	3.935	4.779
High	4.284 <sup>a</sup>	0.171	3.947	4.622

a. Covariates appearing in the model are evaluated at the following values: Anxiety Low High = -.1000, Psychological Ownership All items = 6.0896, Your gender: = 1.43.

### 3. Sharing Partner: Different vs. Similar \* Avoidance Low High

Dependent Variable:

Sharing Partner: Different vs. Similar		Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
Different	Low	3.138 <sup>a</sup>	0.302	2.541	3.736
	High	4.145 <sup>a</sup>	0.247	3.656	4.633
Similar	Low	5.576 <sup>a</sup>	0.297	4.989	6.163
	High	4.424 <sup>a</sup>	0.234	3.962	4.887

a. Covariates appearing in the model are evaluated at the following values: Anxiety Low High = -.1000, Psychological Ownership All items = 6.0896, Your gender: = 1.43.

### Report

How likely would you be to rent out your car to this person for a couple of hours?

Avoidance Low High	Mean	N	Std. Deviation
Low	5.63	32	1.185
High	4.39	51	1.601
Total	4.87	83	1.568

### ANOVA Table

		Sum of Squares	df	Mean Square	F	Sig.
How likely would you be to rent out your car to this person for a couple of hours? * Avoidance Low High	Between Groups (Combined)	29.885	1	29.885	14.102	0.000
	Within Groups	171.657	81	2.119		
	Total	201.542	82			

## Measures of Association

	Eta	Eta Squared
How likely would you be to rent out your car to this person for a couple of hours? * Avoidance Low High	0.385	0.148

## Between-Subjects Factors

	Value Label	N
Sharing Partner: Different vs. Similar	1.00 Similar	83
Avoidance Low High	-	
	1.00 Low	32
	1.00 High	51

## Tests of Between-Subjects Effects

Dependent Variable:

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	43.897 <sup>a</sup>	4	10.974	5.430	0.001	0.218
Intercept	10.533	1	10.533	5.211	0.025	0.063
Anx	0.298	1	0.298	0.148	0.702	0.002
Psy_O	12.644	1	12.644	6.256	0.014	0.074
Gender	0.140	1	0.140	0.069	0.793	0.001
DifSim	0.000	0				0.000
Avoid	24.471	1	24.471	12.108	0.001	0.134
DifSim * Avoid	0.000	0				0.000
Error	157.645	78	2.021			
Total	2168.000	83				
Corrected Total	201.542	82				

a. R Squared = .218 (Adjusted R Squared = .178)

## 5.4 SPSS Output Study 4

Correlations								
		Prime	Social	Sharing Likelihood	Worried	IM	Gen	Age
Prime	Pearson Correlation	1	0.038	-0.071	0.106	0.053	-.222**	.396**
	Sig. (2- tailed)		0.651	0.399	0.208	0.530	0.008	0.000
	N	142	142	142	142	142	141	140
Social	Pearson Correlation	0.038	1	-.225**	.192*	0.054	0.029	-0.095
	Sig. (2- tailed)	0.651		0.007	0.022	0.526	0.731	0.262
	N	142	142	142	142	142	141	140
Sharing Likelihood	Pearson Correlation	-0.071	-.225**	1	-.649**	0.105	0.006	-0.039
	Sig. (2- tailed)	0.399	0.007		0.000	0.212	0.941	0.648
	N	142	142	142	142	142	141	140
Worried	Pearson Correlation	0.106	.192*	-.649**	1	0.030	0.063	-0.004
	Sig. (2- tailed)	0.208	0.022	0.000		0.720	0.458	0.960
	N	142	142	142	142	142	141	140
IM	Pearson Correlation	0.053	0.054	0.105	0.030	1	0.024	0.067
	Sig. (2- tailed)	0.530	0.526	0.212	0.720		0.782	0.434
	N	142	142	142	142	142	141	140
Gen	Pearson Correlation	-.222**	0.029	0.006	0.063	0.024	1	-.190*
	Sig. (2- tailed)	0.008	0.731	0.941	0.458	0.782		0.025
	N	141	141	141	141	141	141	140
Age	Pearson Correlation	.396**	-0.095	-0.039	-0.004	0.067	-.190*	1
	Sig. (2- tailed)	0.000	0.262	0.648	0.960	0.434	0.025	
	N	140	140	140	140	140	140	140

\*\* . Correlation is significant at the 0.01 level (2-tailed).

\* . Correlation is significant at the 0.05 level (2-tailed).

**Between-Subjects Factors**

		Value Label	N
Prime	1.00	Secure	56
	2.00	Avoidant	84
Social	1.00	Facebook Close	78
	2.00	LinkedIn Distant	62

**Tests of Between-Subjects Effects**

Dependent Variable:

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	194.455 <sup>a</sup>	7	27.779	11.555	0.000	0.380
Intercept	53.029	1	53.029	22.058	0.000	0.143
Age	0.142	1	0.142	0.059	0.809	0.000
Gen	0.242	1	0.242	0.101	0.752	0.001
IM	3.351	1	3.351	1.394	0.240	0.010
Fear2	149.306	1	149.306	62.105	0.000	0.320
Prime	1.044	1	1.044	0.434	0.511	0.003
Social	6.587	1	6.587	2.740	0.100	0.020
Prime * Social	5.367	1	5.367	2.233	0.138	0.017
Error	317.338	132	2.404			
Total	2649.000	140				
Corrected Total	511.793	139				

a. R Squared = .380 (Adjusted R Squared = .347)

**1. Grand Mean**

Dependent Variable:

Mean	Std. Error	95% Confidence Interval	
		Lower Bound	Upper Bound
3.861 <sup>a</sup>	0.136	3.593	4.129

a. Covariates appearing in the model are evaluated at the following values: Age = 23.4000, Gen = 1.5286, IM = 4.9000, Scared = 3.6143.

**Estimates**

Dependent Variable:

Prime	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Secure	3.762 <sup>a</sup>	0.224	3.320	4.205
Avoidant	3.960 <sup>a</sup>	0.178	3.608	4.311

a. Covariates appearing in the model are evaluated at the following values: Age = 23.4000, Gen = 1.5286, IM = 4.9000, Scared = 3.6143.

### Pairwise Comparisons

Dependent Variable:

(I) Prime		Mean Difference (I-J)	Std. Error	Sig. <sup>a</sup>	95% Confidence Interval for Difference <sup>a</sup>	
					Lower Bound	Upper Bound
Secure	Avoidant	-0.198	0.300	0.511	-0.790	0.395
Avoidant	Secure	0.198	0.300	0.511	-0.395	0.790

Based on estimated marginal means

a. Adjustment for multiple comparisons: Least Significant Difference (equivalent to no adjustments).

### Univariate Tests

Dependent Variable:

	Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Contrast	1.044	1	1.044	0.434	0.511	0.003
Error	317.338	132	2.404			

The F tests the effect of Prime. This test is based on the linearly independent pairwise comparisons among the estimated marginal means.

### Estimates

Dependent Variable:

Social	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Facebook Close	4.092 <sup>a</sup>	0.182	3.733	4.452
LinkedIn Distant	3.630 <sup>a</sup>	0.207	3.220	4.039

a. Covariates appearing in the model are evaluated at the following values: Age = 23.4000, Gen = 1.5286, IM = 4.9000, Scared = 3.6143.

### Pairwise Comparisons

Dependent Variable:

(I) Social		Mean Difference (I-J)	Std. Error	Sig. <sup>a</sup>	95% Confidence Interval for Difference <sup>a</sup>	
					Lower Bound	Upper Bound
Facebook Close	LinkedIn Distant	0.463	0.280	0.100	-0.090	1.016
LinkedIn Distant	Facebook Close	-0.463	0.280	0.100	-1.016	0.090

Based on estimated marginal means

a. Adjustment for multiple comparisons: Least Significant Difference (equivalent to no adjustments).



## Univariate Tests

Dependent Variable:

	Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Contrast	6.587	1	6.587	2.740	0.100	0.020
Error	317.338	132	2.404			

The F tests the effect of Social. This test is based on the linearly independent pairwise comparisons among the estimated marginal means.

Run MATRIX procedure:

\*\*\*\*\* PROCESS Procedure for SPSS Release 2.15  
\*\*\*\*\*

Written by Andrew F. Hayes, Ph.D. [www.afhayes.com](http://www.afhayes.com)  
Documentation available in Hayes (2013). [www.guilford.com/p/hayes3](http://www.guilford.com/p/hayes3)

\*\*\*\*\*  
\*\*\*\*

```
Model = 8
  Y = Int
  X = Prime
  M = Fear2
  W = Social
```

Statistical Controls:  
CONTROL= Gen Age IM

Sample size  
140

\*\*\*\*\*  
\*\*\*\*

Outcome: Fear2

Model Summary

	R	R-sq	MSE	F	df1	df2
p	.2951	.0871	2.7674	2.1140	6.0000	
133.0000		.0557				

Model

	coeff	se	t	p	LLCI
ULCI					
constant	.3093	1.7747	.1743	.8619	-3.2011
3.8197					
Prime	1.2614	.9073	1.3903	.1668	-.5331
3.0559					
Social	1.6001	.9781	1.6359	.1042	-.3346
3.5349					
int_1	-.5104	.5855	-.8716	.3850	-
1.6686	.6478				
Gen	.1282	.2925	.4382	.6620	-
.4504	.7067				
Age	.0143	.0456	.3133	.7546	-
.0759	.1044				
IM	-.0757	.1016	-.7453	.4574	-
.2766	.1252				

Product terms key:

```

int_1    Prime      X      Social
*****
****
Outcome: Int

Model Summary
          R          R-sq          MSE          F          df1          df2
P          .6164          .3799          2.4041          11.5551          7.0000
132.0000          .0000

Model
          coeff          se          t          p          LLCI
ULCI
constant    7.9613          1.6543          4.8124          .0000          4.6889
11.2337
Fear2       -.6369          .0808          -7.8807          .0000          -.7968    -
.4770
Prime       -1.0292          .8517          -1.2084          .2291          -
2.7140          .6556
Social      -1.6896          .9208          -1.8349          .0688          -
3.5110          .1318
int_2       .8178          .5473          1.4942          .1375          -.2648
1.9004
Gen         .0865          .2728          .3172          .7516          -
.4531          .6262
Age         -.0103          .0425          -.2427          .8086          -
.0944          .0738
IM          .1120          .0949          1.1807          .2398          -
.0756          .2996

```

Product terms key:

```

int_2    Prime      X      Social
***** DIRECT AND INDIRECT EFFECTS
*****
Conditional direct effect(s) of X on Y at values of the moderator(s):
          Social      Effect          SE          t          p          LLCI
ULCI
          1.0000      -.2114          .3898          -.5424          .5885          -
          .9824          .5596
          2.0000          .6064          .4213          1.4394          .1524          -.2269
1.4397

```

Conditional indirect effect(s) of X on Y at values of the moderator(s):

```

Mediator
          Social      Effect      Boot SE      BootLLCI      BootULCI
Fear2    1.0000      -.4783      .2710      -1.0890      -.0054
Fear2    2.0000      -.1532      .2816      -.7690      .3449

```

-----

Indirect effect of highest order product:

```

Mediator
          Effect      SE(Boot)      BootLLCI      BootULCI
Fear2    .3251          .3569          -.3436          1.0603

```

\*\*\*\*\* INDEX OF MODERATED MEDIATION  
\*\*\*\*\*

Mediator

	Index	SE (Boot)	BootLLCI	BootULCI
Fear2	.3251	.3569	-.3436	1.0603

When the moderator is dichotomous, this is a test of equality of the conditional indirect effects in the two groups.

\*\*\*\*\* ANALYSIS NOTES AND WARNINGS  
\*\*\*\*\*

Number of bootstrap samples for bias corrected bootstrap confidence intervals:  
5000

Level of confidence for all confidence intervals in output:  
95.00

NOTE: Some cases were deleted due to missing data. The number of such cases was:  
2

----- END MATRIX -----

## 6. Manuscripts Relevant to Sharing

Year	Authors	Jour	Research Objective	Q	C	I	D	E	n	Domain	Theory	Contribution
1	Eckhardt & Bardhi	JCR	Introduction of a new dimension of consumption as liquid or solid.		x				0	Various	Theory of Liquid Modernity	New trend to consumer mirrors consumption orientation around values of flexibility, adaptability, fluidity, lightness, detachment, and speed.
2	Gruen	JMM	Exploration of design and creation of Meaningful Consumption Practices in Access-based Consumption	x		x			13	Carshaing (Autolib)	Practice Theory	Access based consumption may threaten the relationship between consumers and objects (focus solely on utility of the object). Can design change the practices of access-based consumption?
3	Lawson, Gleim, Perren & Hwang	JBR	Exploration into the role of Freedom from Ownership with regard to Access-based Consumption	x			x		72, 220	()	Motivational Theory	Identification of four different motivation segments: four distinct groups of consumers with varying dispositions toward accessbased consumption: Fickle Floaters, Premium Keepers, Conscious Materialists and Change Seekers.
4	Seegebarth, Peyer, Balderjahn & Wiedmann	JCA	Investigation into sustainability-rooted anticonsumption (SRAC)				x		224, 1833, 400	Anti-Consumption Practices	Theories of Psychological Well-Being	Evidence that collaborative consumption as anticonsumption type is embedded in the concept of sustainability.
5	Schaefers, Lawson & Kukkar-Kinney	ML	Investigation into the effect of ownership burdens such as risk perception (financial, performance, social) on ownership versus access-based services.				x		776	Carshaing	Risk Perception Theory	When consumers perceive ownership (resik, responsibilities) as high risk, this increases their usage of access-based services. Risk perception theory focuses on the subjectively perceived level of risk.
6	Eckhardt & Bardhi	JACR	Investigation into the Relationship between Access Practices and Economic Systems. Illustration of anthropological, altruistic sharing opposed to market-mediated access based consumption. Impact of cultural and societal context on sharing, trust, the self.		x				0	Various	Theory of Liquid Modernity/ The Self, Risk/Reward Relationship	Risk/Reward Relationship describes anthropological view of sharing.
7	Molesworth, Watkins & Denegri-Knott	JMM	The Relationship between Ownership and Possession: Observations from the Context of Digital Virtual Goods (DVG).		x					Digital Virtual Goods	Actor-Network Theory, Ownership Theory	Exploration into how prominent DVG ownership configurations may shape the way in which possession is assembled. Consumers' continued possession attempts may impinge upon the agency of ownership mechanisms within the market, potentially limiting the ability of ownership configurations to restrict behaviour as intended.
8	Abkar, Mai and Hoffmann	JBR	Investigation into materialism as consumer difference variable and the impact of materialistic consumers on their sharing behaviour.				x		117, 130, 251	Do-It-Yourself Products, Carshaing	Materialism Theory, Ownership Theory	Suggests that materialism's sub-dimension possessiveness is the dominant inhibitor of sharing.
9	Scaraboto	JCR	Interplay between market and non-market economies based on performativity theory. Hybrid economies emerge through originally competing performativities.	x		x				Geocoaching	Performativity Theory	PT has applied in examining how marketing practices and actors performing them shape markets. Here, performative character is extended to exchange to consider how the multiple transfers and exchanges consumers engage in over time shape and sustain the hybrid economy of a collaborative network.
10	Philip, Ozanne & Ballantine	JMM	Examination of peer-to-peer rental schemes regarding temporary disposition and acquisition.	x		x			19	P2P Rental Websites	Six dimensions of access-based consumption (Bardhi and Eckhardt 2012)	P2P characterised as a self-service exchange with extensive co-creation and a balanced market-mediated exchange involving short-term intermittent transactions. Drivers: desire for community, political consumerism. Inhibitors: fear of negative reciprocity, the high involvement nature of the transaction, limited access to products and the inflexible nature.

11	2015	Helwig, Morhart, Girardin & Hauser	P&M	(Qualitative and Survey research aim to identify variables that can group individuals into segments that differ with regard to their approach to sharing	x														Theory of the extended self, Self-Determination Theory, Sharing Theory	Cluster analysis suggests four potential clusters: sharing idealists, sharing opponents, sharing pragmatists, and sharing normative. Driver: Idealism.
12	2015	Schaefer, Witkowski, Benoit & Ferraro	JSR	Customers' misbehaviour in access-based services is affected by perceived social norms and the level of provider anonymity.	x														Broken windows theory (theory of customer misbehaviour)	The theory postulates that urban decay (vandalized environments) signals previous misconduct and spawns criminal activities, directly witnessing misbehaviour is not required. Theory has found wide application in sociology and social psychology. The theory argues that misbehaviour arises because of changes in perceived social norms. (strengths of the accessed product brand = "nicer neighbourhood")
13	2015	Baumeister, Scherer & Wangenheim	JAMS	Four studies investigate the influence of access scheme product brands offered by a company on the parent brand (ownership status, prestige object, price, convenience)	x														Information Integration Theory (to understand consumer judgements, applied to brand alliances)	Apply IIT to examine consumer evaluations of brand alliances and brand spillovers. The theory explains how different stimuli are valued, processed and integrated to form or modify a certain impression or belief.
14	2015	Moehmann	JOB	Development and empirical test of framework on the determinants of choosing a sharing option.	x															Utility, trust, cost savings, and familiarity identified as main drivers. No effect was found of the constructs environmental impact, internet capability, smartphone capability, and trend affinity.
15	2015	Eckhardt & Bardhi	HBR	Distinction between market and non-market mediated access. Argue for access economy rather than sharing economy.															(Business view)	
16	2014	Jenkins, Molesworth & Scullion	JOB	Investigation into inter-personal borrowing and the ambiguity in borrowing	X														Actor Network Theory and Epistemology	Suggests that borrowing is significant in forming and maintaining relationships, study identifies unique characteristics of borrowing.
17	2014	Utz, Muscanell, Goeritz	PID	Evaluation of interaction style (giver, matcher, taker) and self vs. other outcomes on sharing behaviour	x														Equity sensitivity theory	EST classifies individuals as benevolent, sensitive or entitled, depending on whether they prefer smaller, equal or larger output ratios than others. (Wikipedia: Equity theory is a theory that attempts to explain relational satisfaction in terms of perceptions of fair/unfair distributions of resources within interpersonal relationships.)
18	2014	Batsman	HBR	Description of Collaborative Economy, Development of Innovation Framework.															(Business view)	
19	2014	Belk	JBR	Sharing vs. Collaborative Consumption disambiguation (Online)															()	Established some of the theoretical premises of sharing and disambiguation from a conceptual perspective.
20	2014	Eckhardt, Belk & Wilson	JMM	Rise of inconspicuous consumption, sharing schemes makes brands accessible and lose their status symbol																Trickle-down theory (Simmel, 2011) . Still, with citizen fashion bloggers, Google searches, and Web 2.0 connectivity, Simmel's (1904/ 2011) trickle-down theory may still set off a cycle of aspirational inconspicuousness that will instigate yet further innovations in subtlety by the cognoscenti. (Simmel theorized that the lower classes emulate the clothing and symbology of the upper classes as they attempt to achieve upward socio-economic mobility.)

21	2013	Witkowski, Moeller, Wirtz	JSR	Investigation into factors that motivate companies to use non-ownership services. Affected by financial and non-financial factors, access to the latest	x				x								Property rights theory, resource-based view, and the Network Flow Theory	Transferring the theoretical construct of nonownership into a practical context: Previous research has suggested (e.g., Moeller and Witkowski)
22	2013	Shu, Chou, Liu, Teo & Wang	OR	Development of network flow model based on train rides in Singapore in order to estimate effectiveness of bicycle sharing system					x								Public Bicycle Sharing Systems	(Concept of the self (extended self) under digital implications), questions whether the self can be extended in the digital as compared to material consumption.
23	2013	JCR	JCR	Impact of digital consumption (Online Sharing) on self and possessions. Needed Extended Self Updates due to Sharing: 1. Self Revelation 2. Loss of Control 3. Shared Digital Possessions and Aggregate Self 4. Shared Sense of (Cyber)Space													Reference to postmodern theorists (contradicting them))	
24	2013	Sundararajan	HBR	Distinction between peer-to-peer marketplace (C2C) exchange and short time rental (B2C) Flexible renting as viable alternative to acquisition for mass market.													(Business view)	(Business view)
25	2013	Phipps et al.	JBR	Framework based on social cognitive theory, concept of reciprocal determinism, sharing as sustainable consumption (Environment, Behaviour, Personal factors)													Social Cognitive Theory	This article explores the potential of a theoretical framework, based on social cognitive theory (SCT), to inspire future research into sustainable consumption. The SCT framework provides a dynamic perspective on sustainable consumption through exploring the interactive nature of personal, environmental and behavioral factors of consumption. The SCT framework, which builds on prior theoretical models of sustainable consumption, incorporates the concept of reciprocal determinism, wherein personal, environmental and behavioral factors create a feedback loop to influence each other.
26	2013	Fournier, Eckhardt & Bardhi	HBR	Distinction between sharing and carsharing as short-time rental. Sharing as business model of the future based on case study.	x												(Business view)	(Business view)
27	2013	Chemyak & Kushnir	PS	3 Studies on children's sharing behaviour in costly, non costly and no choice situations													Self Perception Theory.	This explanation is consistent with traditional self-perception theories (Bem, 1967, 1972), which predict that people learn about their own preferences from observing their past actions. Our findings are consistent with self-perception theory (see Cialdini, Eisenberg, Shell, & McCreath, 1987; Grusec et al., 1978): In making costly prosocial choices, children construe their actions as a signal of their prosociality (e.g., "I shared, so I must like to share").
28	2012	Bardhi & Eckhardt	JCR	Access based consumption from a consumer perspective, 6 dimensions of access	x												Theory of Access	
29	2012	Bardhi, Eckhardt & Arould	JCR	Investigation of "liquid" relationships to possessions characterized by detachment and flexibility	x												Theoretical lens of liquidity, the theoretical lens of liquid modernity	In this article, we overlay theories of materiality and acculturation to explore possessions and consumer relationships to them in contemporary global nomadism. We adopt the theoretical lens of liquidity to study possessions in global nomadism.
30	2012	Albinsson & Perrara	JCB	Investigation into non-monetary-based private and public sharing events with regard to sustainability and overconsumption.	x												Community Theory	Sharing of knowledge and possessions (peer-to-peer). Driver: sense of community. Novel sense of exchange and reciprocity.
31	2012	Lamberton & Rose	JM	3 studies on perceived risk of product scarcity, probability of engaging in sharing programs	x												Augmented Utility Model	Augmented Utility Model based on Hennig-Thurau et al., Typology of shared goods, Drivers: Degree of substitutability, social utility of sharing, functional utility of sharing, Inhibitors: Perceived Product Scarcity Risk.

32	2012	Galbreth & Ghosh	MS	Modelling calculation of the effect of social sharing of information goods on firm pricing and profits under different network structures (decentralized, centralized, complete)	x				150	Information Goods	Graph Theory	We take a graph-theoretic approach to modeling social sharing group formation, using well-established social network structures to represent potential connections among consumers. Our base model assumes, following the graph-theoretic literature, that all possible connections between consumers are equiprobable and that sharing always occurs across realized links.
33	2010	Albinsson, Wolf & Kopf	JCB	Examination into consumers' resistance to hyperconsumption as a form of anti-consumption (East Germany)	x		x	12, 20			Critical Theory, Frugality Theory	Three emergent themes: 1) consumer resistance 2) frugality and 3) Western Brand Resistance.
34	2010	Moeller & Wittkowski	MSQ	Examination into the reasons for preferring renting as opposed to ownership	x		x	461		Online Peer-to-Peer Sharing Networks	Property rights theory, services marketing theory	Suggest that demand for non-ownership services is negatively influenced by possession importance and positively influenced by trend orientation and convenience orientation, but not motivated by price consciousness or environmentalism.
35	2010	Ozanne & Ballantine	JCB	Exploration of sharing as for of anti-consumption drawing to the example of toy libraries			x	397		Toy Library Users		Investigate whether consumers that reduce consumption through choosing to share rather than own are motivated by anti-consumption reasons. The study reveals four groups – Socialites, Market Avoiders, Quiet Anti-Consumers and Passive Members. Drivers: price of ownership, frugality, anti-consumption, social utility of sharing, sharing knowledge. Inhibitors: materialism, search cost of sharing.
36	2010	Beik	JCR	Distinction between sharing, gift giving, market place exchange. Sharing in/ sharing out and impact on materialism and possession attachment (extended self)	x			()			? Draws to theory of the gift, theory of exchange, contagion theory, economic theory and Hardin's tragedy of the commons	Theoretical Review, Implications for consumer theory and research are considered, presenting a prototype theory of sharing versus two other acquisition and distribution mechanisms.
37	2010	Botsman & Rogers	HBR	General Description of Sharing Economy. Distinction between product service systems, redistribution markets, collaborative lifestyles	x			()			(Business view)	(Business view)
38	2010	Sheeh, Sethia & Srinivas	JAMS	Product Sharing Systems as example of mindful consumption (sustainability perspective)	x			()		Catsharing, communal washing centres, tool sharing (Mont, 2004)	?	Mindful consumption construct The concept of MC we have introduced will benefit from theoretical refinements and further development as a construct.
39	2009	Ceshire, Walters & Rosenblatt	US	Demonstrate that homeownership is less attractive than renting due to maintenance, instable social relationships and an unstable labour market	x		x	459, 83		Master planned Estate	Reference to Bauman's concept of the flawed consumer on ethopolitics	Extending Bauman's concept of the flawed consumer using Rose's writings on ethopolitics, we show how renters are viewed as failing in three domains of social life
40	2009	Chen	JCR	Comparison of possession (collection) and access (exhibition) with regard to different impact on consumers' perception of value and desire. Investigation into consumer Desires and Value Perceptions Regarding Contemporary Art Collection and Exhibit Visits.	x		x	116		Contemporary Art Collection/ Exhibit Visits	Lacanian theories	Both theoretical and empirical comparisons between desire and other concepts permit the use of the term de sir or "desire" to describe this driving power. Lacanian theories (Florence 1978) propose that all identification is a narcissistic operation; it supports the "me" in its fundamental tendency to conserve

41	2007	Hennig-Thurau, Henning, Sattler	JM	Investigate threat of consumer file sharing of motion pictures to DVD rental, purchase and theatre visits (annual revenue losses of \$300 million in Germany)	x		x	x			10,000 (Panel)	New Motion Pictures	Utility Theory (extend and refine utility theory approach)	Utility and costs of the original versus utility and costs of the illegal copy, build on Rochelandet and Le Guel's (2005) utility theory approach but substantially refine and extend this approach in several ways. Drivers: price of ownership, frugality, anti-industry, social utility of sharing. Inhibitors: search cost of sharing.
42	2007	Dasgupta, Siddarth, Silva-Risso	JMR	Examination of consumers' non ownership decision making (leasing or financing) as opposed to buying in a automotive context. Consumer prefer contracts with lower payment streams, and are more likely to lease than to finance cars with higher maintenance costs.							Dataset	Entry-luxury segment U.S. automobile market	Economic Theory	Much of the previous research on leasing and financing is largely game theoretic in nature.
43	2006	Giesler	JCR	Investigation of digital C2C Music Sharing as form of Gift Giving. Key Characteristics: Social distinctions, reciprocity, rituals & symbolism.	x		x				20, 17	Napster	Dyadic consumer gift Theory	the key problematics of the dyadic consumer gift paradigm are summarized to provide the theoretical groundwork for the investigation. A gift system can be viewed as consisting of at least three theoretical key elements in terms of (1) its social distinctions, (2) its norm of reciprocity, and (3) its rituals and symbolisms.
44	2006	Ghose, Smith & Telang	ISR	Used books do not fully substitute new books purchase, however its marketplace increases by \$67.21 million annually.			x				()	New & Used Books (Amazon)	Classic economic theory	Classic economic theory shows that if the price of an existing good changes from $p_0$ to $p_1$ , the resulting change in welfare is given by how much the consumer would pay, or would need to be paid, to be just as well off after the price change as they were before the price change.
45	2005	Lastovicka & Fernandez	JCR	Investigation of consumer disposition of meaningful possessions to strangers. Shared sense of self allows possessions to migrate across seller-buyer boundaries.	x		x				11, 39	Garage Sales		Whereas Beik's (1988) extended self theory observed that the self is reflected in select material possessions, our research reinforced an important complementary perspective: the self is also reflected in the meaningful possessions that consumers intentionally dispose.
46	2005	Bock, Zmud, Kim & Lee	MIS	Extrinsic motivators, social-psychological forces and organizational climate can support or inhibit knowledge sharing (explicit vs. implicit)							154	Organizational Knowledge Sharing	Theory of reasoned action (TRA)	We employ as our theoretical framework the theory of reasoned action (TRA), and augment it with extrinsic motivators, social-psychological forces and organizational climate factors that are believed to influence individuals' knowledge sharing intentions. Here, an individual's decision to engage in a specified behavior is determined by their intention to perform the behavior, which in turn is determined jointly by their attitude toward (reflecting their salient behavioral beliefs) and the subjective norm regarding (reflecting their normative beliefs and motivation to comply with these beliefs) the behavior.
47	2004	Mont	EE	Analysis of sharing schemes from institutional and product-service system perspective	x		x				618	Carsharing, communal washing centres, tool sharing	Drawing to hierarchy/theory of needs, theory of envy, and institutional theory	The main premise of the theory of envy is to differentiate absolute needs, felt by a person independently from other people, from relative needs, which one feels in relation to other people. Institutional theory posits that individual behaviour shapes and is shaped by social institutions and investigates how certain practices become institutionalised.
48	2004	Lovelock & Gummesson	JSR	Demonstrates unsatisfying application of IHIP characteristics of service marketing to existing services. Need for novel paradigm of rental/access.				x				Various categories	Economic theory, Service marketing theory, grounded theory	suggests a new paradigm of rental/access: A paradigm shapes the formulation of theoretical generalizations



48	2004	Lovelock & Gummesson	JSR	Demonstrates unsatisfying application of IHIP characteristics of service marketing to existing services. Need for novel paradigm of rental/access.												Various categories	Economic theory, Service marketing theory, grounded theory	suggests a new paradigm of rental/access: A paradigm shapes the formulation of theoretical generalizations
49	1989	Prettenhaler & Steininger	EE	Analysis of user characteristics and net impact of carsharing organizations on mileage				x								Carsharing COS (Austria)	Consumer Theory	First approach to identify the impact of carsharing practices on the environment.
50	1997	Bernard	EJM	Investigation of postmodern consumption, role of linking value of products/services with regard to community				x								()	Theory of Postmodernity	When units of analysis other than the individual have been considered, dominant theories have cast group level phenomena as the product of modern selfinterest maximizing behaviour.
51	1995	Durgee & O'Connor	PM	Exploration of renting as consumption behaviour and implications regarding materialism.												Various rental items	(exploratory)	First investigation into renting as consumption behaviour and its implications and antecedents.
52	1988	Belk, Sherry & Wallendorf	JCR	Investigation of buyer and seller behaviour (social interaction) at swap meets					x							Swap meet / flea market	(reference to social sciences) Development of extended self theory	In addition, the research team was composed to represent varied backgrounds in social science theory (psychology, sociology, and anthropology) to ensure a wide range of concepts and theories from which to draw in interpretations.
53	1988	Belk	JCR	Possessions and the Extended Self												()	Possession Theory, Theory of the Self	Theoretical implications resulting from the meaning of possessions and their relationship to the self.