

# **Sustainability of the Sharing Economy in Question: When Second-Hand Peer-to-Peer Platforms Stimulate Indulgent Consumption**

Béatrice Parguel<sup>a</sup>

Renaud Lunardo<sup>b</sup>

Florence Benoit-Moreau<sup>c</sup>

This work was supported by grant *MOVIDA – PICO* awarded by the French *Ministry of Ecology, Sustainable Development and Energy*.

<sup>a</sup> CNRS Researcher, DRM, UMR CNRS 7088, Paris-Dauphine University, Place du Maréchal de Lattre de Tassigny, 75016 Paris, France, +33 144 054 454, [beatrice.parguel@gmail.com](mailto:beatrice.parguel@gmail.com)

<sup>b</sup> Associate Professor, Kedge Business School, 680 cours de la Libération, 33405 Talence, France, +33 556 845 519, [renaud.lunardo@kedgebs.com](mailto:renaud.lunardo@kedgebs.com)

<sup>c</sup> Associate Professor, DRM, UMR CNRS 7088, Paris-Dauphine University, Place du Maréchal de Lattre de Tassigny, 75016 Paris, France, +33 144 054 454, [florence.benoit-moreau@dauphine.fr](mailto:florence.benoit-moreau@dauphine.fr)

## **Sustainability of the Sharing Economy in Question: When Second-hand Peer-to-Peer Platforms Stimulate Indulgent Consumption**

**Abstract.** The sharing economy has recently gained momentum among managers, public policy makers and academics as a great opportunity to boost sustainable consumption through sharing or selling durables or semi-durables. The present paper contributes to this debate by investigating the propensity of consumers to give in to temptation on second-hand peer-to-peer (P2P) platforms, which provide a favorable context for self-licensing behaviors. A survey was conducted in 2015 amongst 541 active buyers on the French P2P platform leboncoin (equivalent of US craigslist) addressing questions relative to their buying activities in the previous year. The results show that materialistic and environmentally conscious consumers are more likely (than consumers who are not materialistic and environmentally conscious) to be tempted in the context of second-hand P2P platforms as these offer justifications that help reduce consumption-related cognitive dissonance. This finding corroborates the counterproductive role of collaborative consumption for sustainability in certain conditions. Theoretically, the research contributes to further developing the emerging self-licensing theory in the context of second-hand P2P platforms and understanding impulse buying on this new web interface.

**Keywords:** P2P Platforms, Second-hand Shopping, Self-Licensing, Cognitive Dissonance, Indulgent Consumption.

# Sustainability of the Sharing Economy in Question: When Second-hand Peer-to-Peer Platforms Stimulate Indulgent Consumption

## 1. Introduction

The sharing or collaborative economy encompasses “*systems of organized sharing, bartering, lending, trading, renting, gifting, and swapping across communities of peers*” (Botsman and Rogers, 2010, p. xv). Many academics and managers (e.g., Bauwens et al., 2012; Botsman and Rogers, 2010; Schor, 2014) see this as a third industrial revolution as the sharing economy induces a new paradigm in terms of production and consumption, engendering technological as well as sociological changes. Amongst collaborative consumption practices, peer-to-peer (P2P) exchanges have recently gained momentum through second-hand P2P platforms (e.g., eBay worldwide, craigslist in the US, leboncoin in France) and become the most widespread collaborative consumption practice.

In 2014, three quarters of the French population bought at least one item on second-hand P2P platforms (Daudey and Hoibian, 2014), rendering these platforms of utmost strategic importance in terms of economic impact and sustainability issues. However, there is a lack of empirical research addressing current understanding of user behavior on second-hand P2P platforms generally. In terms of sustainability, collaborative consumption is at times presented as a utopia (Prothero et al., 2011; Schor, 2014) in that it creates social links, empowers ordinary people, provides deprived persons with access to markets and reduces the environmental footprint. At the same time, critics denounce it as exploitative and self-interested (Schor, 2014) as well as potentially influencing overconsumption (Denegri-Knott, 2011; Denegri-Knott and Molesworth, 2009; Robert et al., 2014).

In relation to this last complex question, very little is currently known. At first glance, compared to other households that buy new items, second-hand P2P platforms would seem to encourage sustainable consumption as they offer a kind of second life to objects, thereby avoiding their useless storage. As such, these platforms embody the best channel to apply the famous US EPA<sup>1</sup> injunction “Reduce, Reuse, Recycle”. In addition, environmental arguments are a key motivation for “offline” second-hand shopping (Guiot and Roux, 2010) and the first or second motive for 30% of consumers using these platforms, just after economic motives (i.e., saving or earning money) (Daudey and Hoibian, 2014). However, the positive environmental impact of second-hand P2P platforms remains to be verified. Several authors argue that the

---

<sup>1</sup> Environmental Protection Agency, US public agency in charge of environmental issues.

impact may be negative due to overconsumption through buying unnecessary items because of their low price or the capacity to resell them easily (e.g., Robert et al., 2014) and rebound effects through purchasing other things with the savings from second-hand buying (Peugeot et al., 2015; Thomas, 2003, 2011).

With these findings in mind, the present research contributes to the debate by investigating two aspects of the question: do second-hand P2P platforms actually stimulate indulgent consumption? If so, who are the specific consumers that may be more likely to indulge when using second-hand P2P platforms? Hence, this research also addresses the question of who would be likely to give way to temptation in the context of second-hand P2P platforms. Common sense would generally dictate that materialistic consumers are more likely to give way to temptation while environmentally conscious consumers are less likely to do so. However, we postulate that due to the liberating context of second-hand P2P platforms, both materialistic and environmentally conscious consumers could be more subject to temptation than others. To defend this assumption, we draw on the emerging self-licensing theory (De Witt Huberts et al., 2012; Khan and Dhar, 2006; Merritt et al., 2010; Miller and Effron, 2010; Mukhopadhyay and Johar, 2009) stating that certain decision contexts lead to indulgent decisions as they offer a justification to give in to temptation, especially when conflicting goals are at stake. Drawing on this theory, we develop a conceptual framework postulating that consumer materialism and environmental consciousness will enhance indulgent consumption on second-hand P2P platforms (i.e., buying impulsively or buying more items), since these platforms offer justifications that allow reducing consumption-related cognitive dissonance. Based on a survey conducted in 2015 amongst 541 active buyers on the French leading second-hand P2P platform leboncoin, we show that both consumer materialism and their environmental consciousness enhance indulgent consumption through the mediation of cognitive dissonance reduction. We finally discuss our findings and derive interesting marketing implications for public policy makers.

## **2. Collaborative consumption**

### *2.1. Definition and practices*

Collaborative consumption effectively emerged as a global concept in 2010 with Botsman and Rogers (2010), even if the first leading collaborative platforms were launched earlier (e.g., eBay and craigslist in 1995, leboncoin in 2006, Airbnb in 2008). While collaborative consumption was first defined by Botsman and Rogers (2010) through a list of activities that

emphasized the P2P dimension as the main aspect of its underlying revolution, Belk (2014) then proposed a more conceptual definition stating, “*collaborative consumption is people coordinating the acquisition and distribution of a resource for a fee or other compensation*” (p. 1597), and making it a central question for marketing and consumption. While such definitions do not advance collaborative practices conducted through web-based platforms as a necessary condition, many authors consider that Web 2.0 technologies underlie the tremendous pace of the phenomenon’s worldwide development (Belk, 2014; Schor, 2014) and the culture that has developed around collaboration, openness, freeness and horizontality (Turner, 2012, cited by Peugeot et al., 2015, p. 21).

Going further, these seminal works contribute to defining typologies of collaborative practices. Botsman and Rogers (2010) organize collaborative practices around three types of activities. The first, termed *product-service systems* (PSS), encapsulates activities relating to renting or sharing durables or semi-durables, where ownership of goods is not transferred. Famous examples of this category include zipcar, blablacar, neighborgoods in the US or sharevoisins in France. The second type, called *redistribution markets*, includes activities of gifting, bartering or selling preowned goods with an effective transfer of ownership where the exchange does not necessarily entail material or financial compensation. Constituting the oldest type of collaborative activities, as demonstrated by the early emergence of eBay and craigslist in 1995, these are the most widespread. Many new platforms of this type are emerging every day, such as thredup or threadflip for apparel and freecycle or yerdle for free exchange (Schor, 2014). The third type, termed *collaborative lifestyles*, includes sharing immaterial resources such as space (e.g., co-working, co-gardening and housing, such as CouchSurfing or Airbnb), money (e.g., crowdfunding) or services. Schor (2014) proposes a very similar typology depending on the practice objectives: increased utilization of durable assets or sharing productive assets (equivalent to PSS, except that Schor distinguishes between sharing assets for consumption and assets for new production, such as co-working or makerspace), the recirculation of goods (similar to redistribution markets) and the exchange of services.

## 2.2. Collaborative consumption and sustainability

Practically speaking, many collaborative platforms promote themselves as green or as a way of reducing own carbon footprint given that sharing is less resource intensive than the dominant ways of accessing goods and services (Schor, 2014). These thus respond to the increasing demands of consumers engaging in collaborative practices for ecological reasons, following closely behind economic reasons (Daudey and Hoibian, 2014; Robert et al., 2014).

Many researchers (e.g., Albinsson and Perera, 2012; Belk, 2010; Botsman and Rogers, 2010; Gansky, 2010; Prothero et al., 2011; Schor, 2014) share this general view that the collaborative economy is probably a major step towards more sustainable living at the environmental and social level. Belk (2010) considers sharing as an alternative form to traditional distribution channels that in an environmental perspective aims to preserve natural resources and in a social perspective foster a sense of community. Prothero et al. (2011) indicate that the collaborative economy reflects “*a global readiness to shift values away from excessive consumption to more frugal and thus more sustainable solutions to everyday problems*” (p. 36). Focusing on the ecological side, Botsman and Rogers (2010) also state that these collaborative systems offer environmental benefits by increasing the use of unproductive objects, reducing waste, encouraging the development of goods with longer lifespans or optimized lifecycles, and absorbing the surplus generated by overproduction and overconsumption. Several studies show that collaborative practices also tend to change the relation that consumers have with objects and material life (Robert et al., 2014). As collaborative consumption is associated with sharing instead of having, the superiority of access over ownership and the acceleration of the circulation of goods, it disrupts previous conceptualizations of objects, extending the concept of the self and creating attachment (Belk, 1988), enhancing social identity (Bourdieu, 1979) and encapsulating the memory of the past (Scholl, 2006). This has led to a paradigm shift towards more frugal ways of living and the progressive decay of materialism.

However, following the initial enthusiasm for a utopian view of collaborative consumption, several authors began to consider the environmental benefits as a more complex issue (Robert et al., 2014; Schor, 2014). Detachment from possessions and consumption is not as obvious, since renting or temporarily accessing goods provides an opportunity to enjoy new experiences, thereby increasing their hedonic and experiential value (Durgee and O’Connor, 1995). To illustrate, Peugeot et al. (2015) identify different trajectories of relationships with cars amongst users of the car-sharing platform Drivy: those who sell their cars because their needs are tenuous and they rely on public transport and rental cars, and those who want to keep their cars because they can offset costs by renting them out occasionally. Regarding this issue of the environmental impact of P2P platforms, Schor (2014, p. 6) states, “*despite the widespread belief that the sector helps to reduce carbon emissions, there are almost no comprehensive studies of its impact*” (with a few exceptions on car sharing as Schor (2014) cites). As these initiatives tend to demonstrate, the question of the ecological impact of collaborative consumption needs to be addressed at the level of a specific type of consumption and possibly even at the level of the platform itself, depending on the rules defined for P2P exchange. Accordingly, in the

present research, we focus on the most common practice (i.e., redistribution markets), according to its relevance in terms of transaction flows and therefore its capacity to transform consumer relations with objects and material life.

### **3. Consumers indulging on second-hand P2P platforms**

#### *3.1. Self-licensing theory*

Self-licensing theory aims to explain people's behavior by understanding how they feel psychologically licensed to act (Miller and Effron, 2010) and posits that such license can derive from the justification that people attribute to their behavior. The consequence is that individuals are more likely to behave in ways that can be easily justified (Shafir et al., 1993). Justification may be easy for the consumption of non-indulgent or virtuous products (Chernev and Gal, 2010), but may reveal more difficult when a choice generates some conflict, for instance when a choice is "hedonically complex" and involves indulgent consumption (Rook, 1987, p. 191). In this case, decision makers seek justifications to solve the conflict and justify their choices (De Witt Huberts et al., 2012). Among the potential justifications for a given behavior, the context of the decision or past behavior may be of interest (Miller and Effron, 2010). For instance, research on self-licensing in the context of moral behavior shows that individuals might use their past behavior (considered as "good" behavior) as a justification to subsequently behave badly within the same domain (De Witt Huberts et al., 2012; Merritt et al., 2010; Miller and Effron, 2010). Although this theory has more recently been applied to consumer behavior to explain hedonic choices or indulgent decisions by permitting oneself an otherwise discrediting pleasure (De Witt Huberts et al., 2012; Khan, 2011; Khan and Dhar, 2006; Mukhopadhyay and Johar, 2009), research on this issue is still scarce (De Witt Huberts et al., 2012).

What precedes indicates that licensing effects contribute to explaining how people give in to temptation, i.e., a "*momentary allurement that threatens a currently active goal*" (Mukhopadhyay and Johar, 2009, p. 334). As such, licensing effects are therefore closely linked to impulse buying, which occurs when temptation is high (Mukhopadhyay and Johar, 2009; Mukhopadhyay et al., 2008) and when goal-conflict is at stake, for example, being tempted to purchase an unplanned product or the typical case of indulging in chocolate cake when on a diet (Khan and Dhar, 2006; Mukhopadhyay and Johar, 2009). Prior research also agrees that the context providing justification for self-licensing serves to enhance consumer self-concept (feeling virtuous), thereby allowing transgression (Khan and Dhar, 2006). Thus far, recent

studies have only examined a few contexts to explain indulgent behaviors. These include initial shopping restraints (Louro et al., 2007; Mukhopadhyay and Johar, 2009), money won in a lottery (O'Curry and Strahilevitz, 2001), altruistic decisions made before consumption decisions (Khan and Dhar, 2006) and the amount of effort devoted to obtaining a reward in a loyalty program (Kivetz and Simonson, 2002). These contexts are good candidates to induce self-licensing as they provide a justification to make indulgent choices, be it an external (origin of the money spent in O'Curry and Strahilevitz, 2001) or internal justification (De Witt Huberts et al., 2012), like a "good" past behavior such as an effort made or altruistic engagement. Although these studies all mention the importance of justification, the justification process itself is less considered. As an exception, Mukhopadhyay and Johar (2009) integrate the justifiability of indulgent behavior as a moderator in their temptation-based licensing model, but do not explain the justification mechanism itself. In the present paper, we build on their reasoning and add an element of explanation: the reduction of cognitive dissonance enabled by second-hand P2P platforms.

### *3.2. Self-licensing effects on second-hand P2P platforms*

Second-hand P2P platforms may represent an appropriate context to enact licensing processes. This suggestion lies in two specificities of second-hand P2P platforms that 1/ offer second-hand items on-line and 2/ are assumed to be intrinsically virtuous as they encourage zero-waste and offer a second-life to objects.

First, websites are generally shown to stimulate affective reactions such as enjoyment, surprise and the feeling of bargain hunting (Bressolles et al., 2007; Parboteeah et al., 2009; Wolfenbarger and Gilly, 2003), leading to temptation (Mukhopadhyay and Johar, 2009) and impulse buying (Novak et al., 2003; Park et al., 2012). They thus are believed to trigger impulse buying defined as the "*sudden, often powerful and persistent urge to consume, often without much deliberation*" (Dholakia, 2000, p. 957). Then, second-hand shopping is also known to trigger impulse buying (Guiot and Roux, 2010; Stone et al., 1996) due to savings and discount opportunities as well as recreational motivations and the limited time of the sale (since the product is unique, it can be sold to someone else when taking time to make a decision). Denegri-Knott (2011) through a qualitative study showed that eBay accelerates consumer desire by invigorating the "cult for the new" and the always changing influx of goods, both due to its digital nature (accessible anytime, anywhere) and the permanent actualization of offers. Second-hand P2P platforms might lead to the same acceleration in consumer desire as their properties are similar to those of eBay: they are digital in nature and propose an influx of goods



that constantly changes, thus making the offer actualized and accessible at any time and any place. As such, second-hand P2P platforms appear as ideal places to engender these types of affective reactions.

Second, consumers hold the strong belief that buying second-hand goods – as opposed to new products and as can be done with P2P platforms – is environmentally virtuous as this fosters a “zero-waste” society (Peugeot et al., 2015). Such platforms are thus also assumed to be virtuous as they offer a second-life to objects. To this regard, Guiot and Roux (2010) identify the motivations behind second-hand buying in general and empirically measure the key motives, besides economic ones, including ethical and ecological concerns about recycling and combating waste. Other authors defend a more ambiguous perspective of consumer motivations for second-hand goods as opposed to new products. Peugeot et al. (2015) show that on second-hand P2P platforms, the real motivation of frugality cohabits with that of purchasing more items or more luxurious goods in the knowledge that these can be sold after a few uses (especially in fashion markets). Dehling (2014) observe the degree to which much second-hand buying can be associated with the accumulation of objects. Earlier, in the context of traditional offline second-hand buying, Bardhi and Arnould (2005) show that thrift and hedonic desire, albeit apparently contradictory, actually coexist during a buying occasion. Consumer discourses show that they use thrift as a way of justifying treats when engaging in contradictory practices, reporting, for example, *“having no regrets for buying stuff in thrift shops that they would never use or might not even like”* (p. 231). Following Belk et al. (2003), Bardhi and Arnould (2005) argue, *“consumers justify their desires through moral arguments and that every culture creates specific social contexts where indulgences of desires are approved”* (p. 231). Although the authors did not test the hypothesis further, self-licensing theory can support this interesting intuition to explain the ambivalence in consumer motivations at the individual level, notably in relationship with the cognitive dissonance theory that is presented below.

### *3.3. Cognitive dissonance reduction as an explanation for self-licensing on second-hand P2P platforms*

Generally speaking, consumers have the goal of not spending money unnecessarily (Hirschman, 1990; Mukhopadhyay and Johar, 2009). Impulsive purchases – those that are sudden and immediate, with no pre-shopping intentions either to buy the specific product category or to fulfill a specific buying task (Beatty and Ferrell, 1998) – go against this general goal. They lead to cognitive dissonance, the phenomenon that occurs when individuals try *“to establish internal harmony, consistency, or congruity among their opinions, attitudes,*

*knowledge and values*” (Festinger, 1957, p. 260) and strive for consistency within themselves between what they know or believe and what they do. In the presence of an inconsistency between these two goals, they experience psychological discomfort that “*gives rise to pressures to reduce that dissonance*” (p. 18). As impulse buying is a cognitive and volitional process, the conflict will have to be resolved through a cognitive evaluation mechanism to decide whether to resist or enact the purchase (Dholakia, 2000). When facing cognitive dissonance, consumers use different ways to cope with these cognitions and to reduce them (Gosling et al., 2006; Festinger, 1957; Simon et al., 1995). Among them, one refers to finding some consonant cognitions that reduce the overall level of inconsistency.

Building on self-licensing theory, what we argue is that the context of second-hand P2P platforms provides a good opportunity to justify giving in to temptation, and thus enact impulse buying. The rationale for this suggestion lies in that, as trading on second-hand P2P platforms is assumed to be virtuous in terms of savings (Daudey and Hoibian, 2014) and environmental benefits (Daudey and Hoibian, 2014; Guiot and Roux, 2010; Peugeot et al., 2015) as opposed to buying new products, P2P platforms offer numerous justifications to give in to temptation. These justifications bring consonant cognitions that contribute to the reduction of cognitive dissonance that derives from the inconsistency between consumer attitude (negatively considering impulse buying) and counter-attitudinal behavior (giving in to temptation). Second-hand P2P platforms thus represent good contexts for the justification of indulgent consumption. Therefore, we posit that consumers who experience a goal conflict on P2P platforms – notably due to their materialistic and environmental consciousness traits – will be more likely to engage in a dissonance reduction process, and as a result, become more subject to impulse buying. We develop this notion below.

#### *3.4. Materialism and environmental consciousness as drivers of the need for cognitive dissonance reduction*

Two consumer characteristics can induce significant consumption-related goal-conflicts and thus a need for cognitive dissonance reduction: consumers’ materialism and their environmental consciousness.

Materialistic consumers, or those that consider possessions as important (Belk, 1984) and as a means of gaining happiness and expressing their success (Richins and Dawson, 1992, p. 308), associate consumption with greater value than non-materialistic consumers. In the short term, they are therefore more likely than non-materialists to indulge themselves. As an illustration, they will more frequently give self-gifts (McKeage, 1992), display impulse buying

(Rose, 2007) and overconsume (Sirgy, 1998). However, in the long term, their persistent pursuit of possessions may result in lower satisfaction with what they own due to their symbolic rather than utilitarian function (Wang and Wallendorf, 2006). Collecting hosts of useless objects, materialist consumers spend a disproportionate amount of their resources on acquisitions (Goldsmith et al., 2011). This acquisition of large numbers of products may be stigmatized as inappropriate behavior (Veer and Shankar, 2011). Consequently, materialistic consumers are more likely to question the level of their own consumption and its utility, and feel guiltier than non-materialistic consumers (Fitzmaurice, 2008). Materialistic consumers may thus experience higher levels of consumption-related cognitive dissonance. Since P2P platforms are often seen as virtuous in terms of savings and environmental benefits, they can help reduce materialistic consumers' cognitive dissonance, leading to an increase in indulgent consumption, i.e. impulse buying and the number of items purchased, on second-hand P2P platforms. Hence:

*H1: In the context of second-hand P2P platforms, the more materialistic consumers are, the more they engage in indulgent consumption, this effect being mediated by cognitive dissonance reduction.*

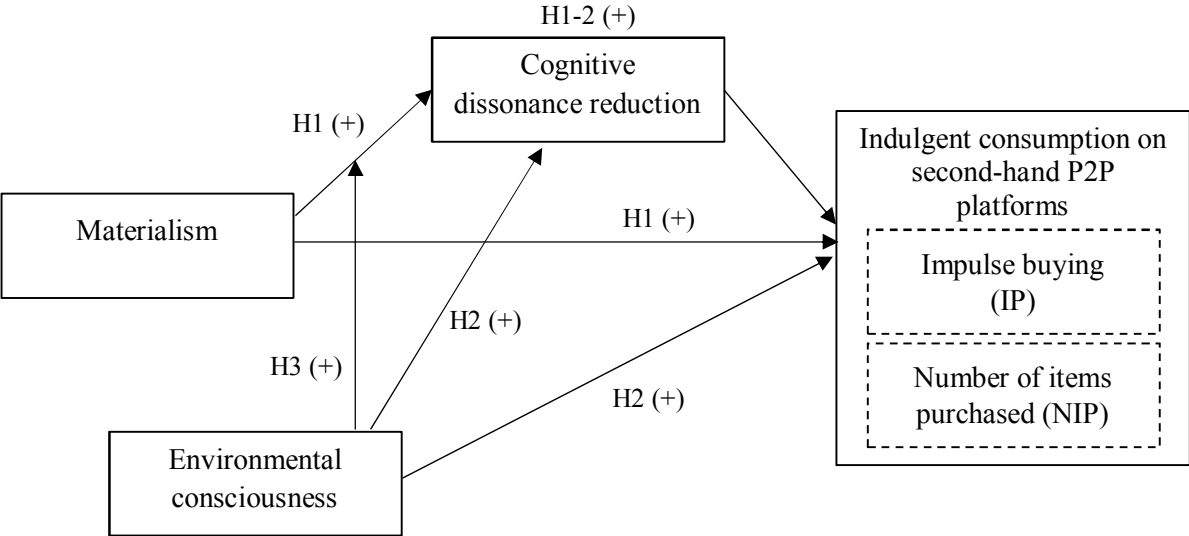
In the same way, environmentally conscious consumers, defined as oriented towards concern for the environment (Lin and Chang, 2012), are also more likely to question their consumption level and utility, and experience more consumption-related cognitive dissonance than non-environmentally conscious consumers. They know that consuming exploits natural resources and generates waste (Saunders and Munro, 2000) and are more likely to consider that they should change their consumption to protect the environment and avoid engaging in environmentally damaging consumptions (Segev et al., 2015). They are therefore also more likely to question whether they actually need the things they consume and experience higher levels of consumption-related cognitive dissonance. As previously, since P2P platforms are often seen as virtuous in terms of environmental benefits, they can help reduce environmentally conscious consumers' cognitive dissonance, leading to an increase in indulgent consumption, i.e. impulse buying and the number of items purchased, on second-hand P2P platforms. This suggests:

*H2: In the context of second-hand P2P platforms, the more environmentally-conscious consumers are, the more they engage in indulgent consumption, this effect being mediated by cognitive dissonance reduction.*

At the individual level, a growing body of evidence suggests that materialism may be negatively associated with pro-environmental attitudes and behaviors (Banerjee and McKeage, 1994; Saunders and Munro, 2000; Segev et al., 2015), such as power and achievement opposed to universalism at a cultural level (Schwartz, 1992). A recent meta-analysis evaluates the average correlation at  $-.28$  (Hurst et al., 2013), thus moderating the supposed negative correlation between materialism and environmental consciousness. Some consumers can actually be both materialistic and environmentally conscious. Facing such goal conflict between their materialistic orientations and the preservation of the environment, these consumers should experience a particularly high level of consumption-related cognitive dissonance (Burroughs and Rindfleisch, 2002; Dholakia, 2000). However, the ambivalence of second-hand P2P platforms, fueling both consumption desire and environmentally friendly purchases, make them perfect candidates for such a goal-conflict resolution. As a result of the specific context of second-hand P2P platforms, the influence of materialism on the ability to reduce consumption-related cognitive dissonance should be stronger among environmentally conscious consumers. This leads to the following hypothesis:

*H3: On second-hand P2P platforms, consumer environmental consciousness moderates the effect of consumer materialism on cognitive dissonance reduction, such that the consumer materialism effect on cognitive dissonance reduction is stronger among environmentally conscious consumers.*

These hypotheses lead to the following theoretical model (see Figure 1).



**Fig 1.** The conceptual model

## 4. Method

### 4.1. Survey procedure

To test our conceptual framework, a survey was administered in July 2015 to 541 French consumers recruited through a professional market research institute. This sample is representative of the French population in terms of age (mean age 40 years), gender (52% women), region and social class. All participants were active buyers on the P2P platform leboncoin, meaning that they had bought at least one item on leboncoin over the previous 12 months. Launched in 2006, leboncoin aims to connect buyers and sellers in France and is the French equivalent to subito in Italy, custojusto in Portugal, segundamano in Spain, avito in Morocco, tayara in Tunisia and mudah in Malaysia. In France, with around 25 million users and 28 million classified ads, leboncoin is the main P2P platform and also the fourth most visited website.

### 4.2. Measures: description and psychometric properties

In accordance with the conceptualization of impulse buying provided by Ramanathan and Menon (2006), indulgent consumption was operationalized through the two aspects of impulse buying and buying behavior. Specifically, the propensity to endeavor impulse buying on the platform was measured following Bressolles et al. (2007) and buying behavior through the number of items purchased over the last 12 months on leboncoin.

In extant literature on dissonance reduction, cognitive dissonance and its reduction are traditionally measured indirectly through discomfort felt, or more broadly, negative affective states such as uncomfortable, uneasy in making a decision or bothered (Elliot and Devine, 1994; Gosling et al., 2006; Simon et al., 1995). In the present case, the measure of cognitive dissonance reduction had to encompass the reduced discomfort felt when making purchasing decisions on second-hand P2P platforms. We developed five “ad hoc” items inspired by extant literature on second-hand shopping. The first three items are inspired by Bardhi and Arnould’s (2005) interviews: “*Since I bought on leboncoin, I wonder less if I really need to buy as much*” and “[...], *I wonder less often on the real utility of the product I buy.*” The next three items comprise the discomfort associated with potential regret that shoppers may experience when overconsuming, and derive from Chernev (2011) and Bardhi and Arnould (2005): “*Since I bought on leboncoin, I have less regret associated with the purchase of products that I do not actually need,*” “[...], *I feel less guilty buying many products*”, “[...], *I feel more comfortable with the idea of replacing products that are still in good condition*” (Table 1).

**Table 1.** Psychometric properties of the scales

	Factor loadings of the measures				
	Cognitive dissonance reduction	Impulse buying	Environmental consciousness	Materialism/Centrality dimension (rev. items)	Price sensitivity
Since I buy on leboncoin, I have less regret associated with the purchase of products that I do not actually need	.836				
.... , I feel less guilty buying many products	.830				
.... , I question the real utility of the products less often	.791				
.... , I question less often whether I really need to buy as much	.760				
.... , I feel more comfortable with replacing products that are still in good condition	.714				
On leboncoin, my purchases are spontaneous		.819			
.... , I often buy compulsively		.774			
.... , I do not think long before buying an object		.723			
.... , I often buy things on impulse		.695			
.... , my purchases are rarely planned in advance		.694			
When possible, I systematically choose the product that has the lowest impact on the environment			.928		
I try not to buy from companies that strongly pollute			.904		
When I have the choice between two equivalent products, I always question which one pollutes less before buying			.900		
I try to keep my life simple as far as possessions are concerned				.842	
I usually only buy the things I need				.830	
I do not like spending money on things that aren't practical				.822	
When it comes to choosing something, I rely heavily on price					.830
I usually buy the lowest priced products that will suit my needs					.808
I usually buy products on sale					.766
Reliability (Cronbach's $\alpha$ )	.883	.843	.922	.816	.731

In terms of individual variables, consumer materialism is measured using the three items developed by Richins (2004) to measure its centrality dimension (reverse items). Considering the centrality of possessions in consumers' lives as a global consequence of their importance in achieving happiness and signaling success, we preferred this global centrality dimension to the other dimensions of happiness and success identified by Richins and Dawson (1992). Environmental consciousness is measured using three items from Parguel et al. (2015) to ascertain how much consumers integrate ecological criteria when making purchasing decisions. Price sensitivity is a covariate measured using three items from Lichtenstein et al. (1988).

All the constructs were measured with seven-point Likert scales. In order to check for the unidimensionality and discriminant validity of these multi-item scales, a factorial analysis with a Varimax rotation was conducted. All scales were associated with an Eigenvalue higher than 1 and thus found to be unidimensional and distinct constructs (Hair et al., 2005), providing support to their discriminant validity. In order to provide further evidence for discriminant validity, a follow-up procedure was followed as recommended by Fornell and Larcker (1981). As shown in Table 2, the average variance extracted for each construct was higher than the squared correlation between this construct and any other construct, supporting the notion that the measures exhibited discriminant validity. Also, all scales exhibited factor loadings above .66, providing evidence for their convergent validity (Hair et al., 2005). Finally, as showed in Appendix 1, the scales were found to be reliable, with Cronbach's alphas ranging from .73 to .92. Of note, the correlation between consumer materialism and environmental consciousness is significant and moderately negative (i.e.,  $r = -.21$ ), which is in line with previous literature (Hurst et al., 2013).

**Table 2.** Discriminant validity of the measures and correlation matrix

	1	2	3	4	5
1. Cognitive dissonance	.771	.471**	.201**	-.129**	.062
2. Impulse buying	.222	.623	.243**	-.202**	.006
3. Envir. consc.	.040	.059	.864	.213**	.091*
4. Materialism	.016	.041	.045	.733	.250**
5. Price sensitivity	.004	.000	.008	.062	.651

Notes: Diagonals represent average amounts of extracted variance for each construct.  
 Numbers that appear below the diagonal represent the shared variance between constructs (calculated as the squares of correlations between constructs).  
 Numbers that appear above the diagonal represent the correlation between constructs.  
 \*:  $p < .05$ ; \*\*:  $p < .01$

## 5. Results

In the model, H1 and H2 examine the notion that cognitive dissonance reduction mediates the influence of consumer materialism and environmental consciousness on impulse buying

and number of items purchased. Hence, a mediation analysis was conducted using the procedure recommended by Zhao et al. (2010). Preacher and Hayes' (2012) PROCESS macro and 1000 bootstrapped samples were used to determine whether the indirect effect was significant. This macro developed by Hayes (2012) was used here as it permits the test of models that include simultaneously both mediators and moderators, allowing here the tests of mediations, moderations and moderated-mediations that are posited in our model. Further, this macro enables the use of a bootstrapping procedure to counteract the assumption of normality of the sampling distribution of the indirect effect ( $a \times b$ ) which is required by the Sobel test (Hayes, 2009). Hence, and more specifically, the two individual variables were included one at a time as the independent variable, cognitive dissonance reduction was included as the mediator, and impulse buying and the number of items purchased over the last 12 months were included one at a time as the dependent variable. This results in four distinct linear analyses being conducted to test H1 and H2. These analyses controlled for consumer age, gender, experience on the P2P platform, price sensitivity and either consumer materialism or environmental consciousness. Overall, the results confirm the prediction concerning the mediating role of cognitive dissonance reduction. In other words, the significant indirect effect of consumer materialism and environmental consciousness on indulgent consumption on leboncoin through the reduction of cognitive dissonance.

In line with H1 and H2, consumer materialism and environmental consciousness have significant and positive effects on cognitive dissonance reduction ( $\beta = .29$  and  $\beta = .24$  respectively,  $p < .05$ ), which has significant and positive effects on impulse buying ( $\beta = .46$ ,  $p < .05$ ) and the number of items purchased ( $\beta = 1.96$ ,  $p < .05$ ). In addition, the confidence intervals of the indirect effects of consumer materialism and environmental consciousness concerning impulse buying and the number of items purchased on the second-hand P2P platform excluded 0, indicating that these indirect effects were significant and that cognitive dissonance reduction thus mediates the effects of consumer materialism and environmental consciousness on indulgent consumption (Zhao et al., 2010). Table 1 presents the results.

Turning now to testing the interaction effect of consumer materialism and environmental consciousness on cognitive dissonance reduction, a floodlight analysis (Process, Model 1, with 1000 bootstraps) shows that this interaction effect is significant ( $\beta = .09$ ,  $p < .05$ ). The Johnson-Neyman technique (Johnson and Neyman, 1936) allows identifying the region in terms of consumer environmental consciousness where consumer materialism decreases cognitive dissonance. Among more environmentally conscious consumers (environmental consciousness above 2.01,  $\beta_{JN} = .13$ ,  $t = 1.96$ ,  $p = 0.05$ ), materialism significantly decreases cognitive



dissonance ( $\beta = .32, p < .05$ ). Such effect does not appear among less environmentally conscious consumers, thus supporting H3.

Going further, ancillary analyses (Process, Model 7, with 1000 bootstraps) were conducted to test the notion that consumer environmental consciousness moderates the mediating effect of cognitive dissonance reduction on the influence between consumer materialism and indulgent consumption. In line with H3, the analyses for impulse buying and number of items purchased show the same significant interaction effect between consumer materialism and environmental consciousness on cognitive dissonance reduction ( $\beta = .09, p < .05$ ). They also show that cognitive dissonance reduction mediates the influence of consumer materialism on both impulse buying and the number of items purchased at every level of consumer environmental consciousness. These analyses finally corroborate the existence of a moderated mediation.

**Table 1.** Test of the mediating effect of cognitive dissonance reduction

<b>Mediating effect of cognitive dissonance reduction (CDR) on the influence between consumer materialism (M) and impulse buying (IB)</b>			<b>Mediating effect of cognitive dissonance reduction (CDR) on the influence between consumer environmental consciousness (EC) and impulse buying (IB)</b>		
<b>Direct model</b>	<b>Coeff.</b>	<b>t</b>	<b>Direct model</b>	<b>Coeff.</b>	<b>t</b>
M → CDR	.29	5.60***	EC → CDR	.24	6.14***
M → IB	.16	4.05***	EC → IB	.16	5.10***
CDR → IB	.46	14.16***	CDR → IB	.46	14.16***
<b>Indirect model</b>			<b>Indirect model</b>		
Coeff. of the mediation effect		.13	Coeff. of the mediation effect		.11
95% confidence interval		[.08, .20]	95% confidence interval		[.07, .16]
Mediation		<b>YES</b>	Mediation		<b>YES</b>
<b>Mediating effect of cognitive dissonance reduction (CDR) on the influence between consumer materialism (M) and the number of items purchased (NIP)</b>			<b>Mediating effect of cognitive dissonance reduction (CDR) on the influence between consumer environmental consciousness (EC) and the number of items purchased (NIP)</b>		
<b>Direct model</b>	<b>Coeff.</b>	<b>t</b>	<b>Direct model</b>	<b>Coeff.</b>	<b>t</b>
M → CDR	.29	5.60***	EC → CDR	.24	6.14***
M → NIP	1.55	2.05*	EC → NIP	.23	.39
CDR → NIP	1.96	3.17**	CDR → NIP	1.96	3.17**
<b>Indirect model</b>			<b>Indirect model</b>		
Coeff. of the mediation effect		.56	Coeff. of the mediation effect		.47
95% confidence interval		[.21, 1.13]	95% confidence interval		[.20, .95]
Mediation		<b>YES</b>	Mediation		<b>YES</b>

Notes: \*\*\* < .001, \*\* < .01, \* < .05; covariates: gender, age, price sensitivity and experience on the platform

## 6. Discussion

The present research corroborates the role of second-hand P2P platforms in providing justification to materialistic and environmentally conscious consumers to self-license and therefore give way to indulgent consumption by purchasing second-hand products. This research validates the notion that the licensing process occurs on these platforms as they reduce the cognitive dissonance induced by the opposition between consuming without restriction and controlling temptation. This mechanism concerns materialistic and environmentally conscious consumers specifically, since they are more subject to cognitive dissonance regarding their consumption behaviors. For those who are both materialistic and environmentally conscious, the interaction between materialism and environmental consciousness is significant, meaning that cognitive dissonance reduction in the context of these platforms is even stronger for these specific consumers.

### *6.1. Theoretical contributions and future research*

From a theoretical point of view, the present research adds to literature on the emerging self-licensing theory in the marketing domain. While this theory has a longer history in the psychology and moral spheres, research that builds on this theory to provide a deeper understanding of consumer behavior is still scarce (May and Irmak, 2014). Research that does rely on this theory to examine such behavior concentrates on a few contexts including loyalty programs (Kivetz and Simonson, 2002), interdependence between two buying decisions (Khan and Dhar, 2006; Mukhopadhyay and Johar, 2009) or buying behavior according to the origin of the money spent (May and Irmak, 2014; O'Curry and Strahilevitz, 2001). Surprisingly, to our knowledge, research has left unexamined how the shopping location itself could explain self-licensing, while such self-licensing is likely a powerful theory to explain the trade-off between distribution channels, especially on-line. Our research thus contributes to the field by identifying second-hand P2P platforms as a context for self-licensing. As far as we know, the present study is also the first to mobilize this theory to explain sustainable (or rather non-sustainable) consumption behaviors and offers fruitful avenues for future studies, since being green leads to goal-conflicts in many consumption situations. Such research could concentrate on self-licensing induced by the context and not only by good or bad past behaviors (Miller and Effron, 2010; Merritt et al., 2010).

Beyond self-licensing theory, this research also contributes by linking this theory to that of cognitive dissonance. Interestingly, these two theories have always been dealt with separately.

This lack of common investigation may be explained by their distinct explanations: the first states that people find justification for indulging, while the second posits that when people act in a way that is contradictory to their beliefs (Miller and Effron, 2010; De Witt Huberts et al., 2012), a psychologically uncomfortable state arises that motivates them to reduce that dissonance (Festinger, 1957). However, and as recognized by Blanken (2015, p. 223), “the fact that temptation-based licensing seems to have so much similarities with consistency theories, such as cognitive dissonance, is a good step towards more integrative framework of consistency and self-licensing”. In particular, self-licensing and cognitive dissonance theories have in common a focus on understanding how to resolve internal cognitive conflicts to re-establish consistency. In this context, this research is, to the best of our knowledge, the first to join these two theories in a singular research. More precisely, and in line with previous literature (e.g., Khan and Dhar, 2006; Miller and Effron, 2010), we consider that the context of the decision is as good a candidate as past behaviors to help individuals to find justifications, solve internal conflict and justify their current behaviors. In this perspective, this research considers a new justifying context – shopping on second-hand P2P platforms – and adds to the stream of works conducted on other justifying contexts (e.g., Louro et al., 2007; Mukhopadhyay and Johar, 2009; O’Curry and Strahilevitz, 2001). However, this research goes further by explaining the justification mechanism itself, namely the reduction of cognitive dissonance enabled by the justifying context. The demonstration is double. First, the results show the mediating role of cognitive dissonance reduction to explain indulgent consumption, offering a direct evidence of the mechanism. Second, they show that indulgent consumption is more important among those who experience more cognitive dissonance, namely materialistic and/or environmentally-conscious consumers, offering a second but indirect evidence of the mechanism. This makes self-licensing the output of cognitive dissonance reduction. And, in this perspective, the context of the decision allows to reduce the cognitive dissonance associated with the decision, especially among those for whom the decision has a high potential of generating cognitive dissonance.

The present research also provides an interesting theoretical contribution to the explanation of online impulse buying. Thus far, extant studies mainly consider classic professional online retailers, with optimized website environments (Demangeot and Broderick, 2010), claiming to improve decision-making quality (Punj, 2012), with the notable exception of eBay (Denegri-Knott, 2011). Beyond personal traits, such as impulsiveness, various aspects of website quality are assumed to explain impulse buying (Bressolles et al., 2007; Parboteeah et al., 2009). The present research shows that goal-conflicts between contradictory values can also explain

impulse buying through self-licensing behaviors. This also implies that non-optimized platforms in terms of design, product information and pictures, such as P2P platforms, can paradoxically induce impulse buying.

Finally, this research has two more minor theoretical contributions. First, it is one the few that exist on how consumers engage in the acquisition of second-hand products (Ferraro et al., 2016; Xu et al., 2014), it thus differs from mainstream marketing research on product acquisition that for the most part focuses on new products. Also, an important difference with existing research on product acquisition lies in that our research is to our knowledge the first to focus on the specific channel of P2P platforms, which is here showed as one that prompts second-hand product overconsumption. Second, this research shows a moderately negative correlation between consumers' materialism and environmental consciousness ( $r = -.21$ ), in line with Hurst and colleagues' (2013) recent meta-analysis. Clearly, these two values seem more and more disconnected, consumers being more often both materialistic and environmentally conscious. This clearly calls for further research, especially in the context of the new sharing economy.

## *6.2. Implications for managers and policy makers*

From a practical point of view, the present study provides the first empirical demonstration of the ambivalent effect of second-hand P2P platforms with regard to sustainable consumption behaviors. This encourages going beyond the "naïve" view of a virtuous consumption pattern through second-hand P2P shopping and goes against the general beliefs of ambassadors of collaborative consumption (e.g., Botsman and Rogers, 2010) followed by many public authorities. More precisely, second-hand P2P platforms are a place of "vice" where goal-conflicts are "resolved" and lead to more impulse buying behaviors and therefore increased indulgent consumption. The first implication of this result is that public policy makers, ecological associations and managers concerned with the sharing economy may need to moderate this belief and publicly defend a more nuanced approach to the phenomenon. They should undertake or encourage specific applied research to better understand the environmental externalities of each initiative and then share the results to provide their audiences with a more discerning view of the limits of sustainability. More precisely, public authorities willing to invest in the sharing economy should arbitrate in favor of other collaborative consumption initiatives such as P2P platforms that offer repairing, giving away or lending goods, since this

could circumvent the negative effects identified for second-hand P2P platforms in the present paper.

Since the results of the current research indicate that materialistic consumers and those that are environmentally-conscious engage in more indulgent behaviors due to the reduction in cognitive dissonance that occurs on second-hand P2P platforms, another recommendation for public policy makers lies in the need for labels and claims, as what can be observed in the food domain. Such labels would help make the negative effect of second-hand P2P platforms more salient. This would be useful as it would send the signal for materialistic and environmentally-conscious consumers that such platforms are not as virtuous as they are perceived. Making compulsory the salience of this unsustainable effect could be asked and implemented by regulators. Such a legal reform would ideally have a double advantage: (1) It would more accurately describe the actual effect of second-hand P2P platforms, and (2) it would deter people (at least those that are materialistic and environmentally-conscious) from indulging too much on these platforms. Finally, for consumers honestly motivated by environmentally friendly behaviors, being aware of the risk of overconsumption on second-hand P2P platforms is likely a first step. Developing nudges to help them voluntarily maintain control over their consumption behaviors could also be part of the solution.

### *6.3. Limitations and further research*

Given that this is the first study of its kind in the emerging field of collaborative consumption, it suffers from several limitations calling for more research to develop the present findings. First, the field study is limited to the case of leboncoin. Though operating under different names in several countries worldwide, this second-hand P2P platform has a unique design and image (very simple and traditional, where the company's role is discrete and the transactions are commissions-free) as a basic and small-scale marketplace that may trigger self-licensing behaviors. Furthermore, our study only considers France and it would be interesting to conduct a comparative study among leboncoin-related platforms to understand the influence of the platform design or consumer culture on self-licensing behaviors. Moreover, the present study considers all product categories and it could be interesting to consider the influence of product categories or at least dichotomize the effects according to a product's hedonic or utilitarian nature.

Also, a limitation of this study is the use of a self-report questionnaire as the relationships between variables measured using multi-item scales are frequently considered as being necessarily and routinely upwardly biased (Conway and Lance, 2010). Podsakoff et al. (2003)

proposed a number of procedural remedies for better control of common-method variance. Some of these remedies, such as obtaining measures for dependent and independent variables from different sources, were not a solution for this research that consider individual beliefs that only exist “in the eye of the beholder.” However, some procedural remedies proposed by Podsakoff et al. (2003) were actually used in this research, such as the use of separate scales to measure different groups of variables, the protection of anonymity of participants, and the reduction of evaluation apprehension by explaining that there were no right or wrong answers and that respondents should try to answer spontaneously and honestly to the questions. These remedies have surely helped to limit common-method bias.

Finally, as regards the general question of the environmental benefits of redistribution markets, the present paper only focuses on the potential role of second-hand P2P platforms to moderate consumption and encourage frugality. Our results shows that on the contrary, even environmentally conscious consumers are inclined to buy more or with less scrutiny, giving free rein to their materialism. However, this paper does not address another environmental impact of second-hand P2P platforms, namely, the modalities of the exchange of products between peers (e.g., means of transportation, distance covered as an extra trip or on the way to another place) and its incidence in terms of carbon emissions compared to traditional shopping where a new product would have been bought. Further studies should address this central question and more precisely compare the effects of P2 platforms to those of other distribution channels, like traditional stores, using an experimental design. Although our research contributes to the understanding of the effects of second-hand P2P platforms, it is pioneer and exploratory, and cannot conclude as to whether the effects of P2P platforms are globally more detrimental for the environment compared to other channels.

## **7. Conclusion**

The present paper contributes to the debate on the sustainability of the sharing economy with a closer look at second-hand P2P platforms. It appears that far from encouraging frugality, these are the ultimate places inducing indulgent consumption. The platforms themselves are probably not a vector of change unless the mentalities and aspirations change accordingly. The time has come for the utopian view of the sharing economy to enter a second phase of relative maturity.

## References

- Albinsson, P., Perera, B., 2012. Alternative marketplaces in the 21st century: building community through sharing events. *Journal of Consumer Behaviour*, 11 (4), 303-315.
- Banerjee, B., McKeage, K., 1994. How green is my value: Exploring the relationship between environmentalism and materialism. *Advances in Consumer Research*, 21, eds. Chris T. Allen and Deborah Roedder John, Provo, UT: Association for Consumer Research, 147-152.
- Bardhi, F., Arnould, E., 2005. Thrift shopping: combining utilitarian thrift and hedonic treat benefits. *Journal of Consumer Behaviour*, 4 (4), 223-233.
- Bauwens, M., Mendoza, N., Iacomella, F., 2012. Synthetic overview of the collaborative economy, P2P foundation. Accessed January 2017, 12<sup>th</sup> at: [http://p2pfoundation.net/Synthetic\\_Overview\\_of\\_the\\_Collaborative\\_Economy](http://p2pfoundation.net/Synthetic_Overview_of_the_Collaborative_Economy)
- Beatty, S.E., Ferrell, E.M., 1998. Impulse buying: Modeling its precursors. *Journal of Retailing*, 74 (2), 169-191.
- Belk, R.W., 1984. Three scales to measure constructs related to materialism: Reliability, validity, and relationships to measures of happiness. *Advances in Consumer Research*, 11 (1), 291-297.
- Belk, R.W., 1988. Possessions and the extended self. *Journal of Consumer Research*, 30 (3), 326-351.
- Belk, R.W., 2010. Sharing. *Journal of Consumer Research*, 36 (5), 712-734.
- Belk, R.W., 2014. You are what you can access: sharing and collaborative consumption online. *Journal of Business Research*, 67 (8), 1595-1600.
- Belk, R., Ger, G., Askegaard, S., 2003. The fire of desire: A multisited inquiry into consumer passion. *Journal of Consumer Research*, 30 (3), 326-351.
- Blanken, I., 2015. Self-licensing: When and why people give in to temptation, Doctoral Dissertation, Accessed January 2017, 12<sup>th</sup> at: [https://pure.uvt.nl/portal/files/8914771/Blanken\\_Self\\_licensing\\_27\\_11\\_2015.pdf](https://pure.uvt.nl/portal/files/8914771/Blanken_Self_licensing_27_11_2015.pdf)
- Botsman, R., Rogers, R., 2010. *What's mine is yours. How collaborative consumption is changing the way we live*. London: Harper Collins Business.
- Bourdieu, P., 1979. *La distinction, critique sociale du jugement*. Paris: Les Editions de Minuit.
- Bressolles, G., Durrieu, F., Giraud M., 2007. The impact of electronic service quality dimensions on customer satisfaction and buying impulse. *Journal of Customer Behaviour*, 6 (1), 37-56.
- Burroughs, J.E., Rindfleisch, A., 2002. Materialism and well-being: A conflicting values perspective. *Journal of Consumer Research*, 29 (3), 348-370.
- Chernev, A., 2011. The dieter's paradox. *Journal of Consumer Psychology*, 21 (2), 178-183.
- Chernev, A., Gal, D., 2010. Categorization effects in value judgments: Averaging bias in evaluating combinations of vices and virtues. *Journal of Marketing Research*, 47 (4), 738-747.
- Conway, J.M., Lance, C.E., 2010. What reviewers should expect from authors regarding common method bias in organizational research. *Journal of Business and Psychology*, 25 (3), 325-334.

- Daudey, E., Hoïbian, S., 2014. La société collaborative - Mythe et Réalité. Cahier de recherche Credoc n° 313. Accessed January 2017, 12<sup>th</sup> at: <http://www.credoc.fr/pdf/Rech/C313.pdf>.
- Dehling, A., 2014. Au royaume des surconsommateurs-accumulateurs: ethnographie des acheteurs d'occasion en Belle Province. In V. Guillard (Ed), *Boulimie d'objet, l'être et l'avoir dans nos sociétés* 21-32. Louvain la Neuve: De Boeck.
- Demangeot, C., Broderick, A.J., 2010. Consumer perceptions of online shopping environments: A Gestalt approach. *Psychology & Marketing*, 27 (2), 117-140.
- Denegri-Knott, J., 2011. Have it now: Ebay and the acceleration of consumer desire. *European Advances in Consumer Research*, 9 (1), 373-379.
- Denegri-Knott, J., Molesworth, M., 2009. I'll sell this and I'll buy them that: Ebay and the management of possessions as stock. *Journal of Consumer Behaviour*, 8 (6), 305-315.
- De Witt Huberts, J.C., Evers, C., De Ridder, T.D., 2012. License to sin: Self-licensing as a mechanism underlying hedonic consumption. *European Journal of Social Psychology*, 42 (4), 490-496.
- Dholakia, U.M., 2000. Temptation and resistance: an integrated model of consumption impulse formation and enactment. *Psychology & Marketing*, 17 (11), 955-982.
- Durgee, J.F., O'Connor, G.C., 1995. An exploration into renting as consumption behaviour. *Psychology & Marketing*, 12 (2), 89-104.
- Elliot, A., Devine P., 1994. On the motivational nature of cognitive dissonance: dissonance as psychological discomfort. *Journal of Personality and Social Psychology*, 67 (3), 382-394.
- Ferraro, C., Sands, S., and Brace-Govan, J., 2016. The role of fashionability in second-hand shopping motivations. *Journal of Retailing and Consumer Services*, 32, 262-268.
- Festinger, L., 1957. *A theory of cognitive dissonance*. Evanston. Illinois: Row, Peterson.
- Fitzmaurice, J., 2008. Splurge purchases and materialism. *Journal of Consumer Marketing*, 25 (6), 332-338.
- Fornell, C., Larcker, D.F., 1981. Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, 18 (1), 39-50.
- Fox, A.H., 1957. A theory of second-hand markets. *Economica*, 24 (94), 99-115.
- Gansky, L., 2010. *The mesh. Why the future of business is sharing*. Portfolio/Penguin.
- Goldsmith, R., Flynn, L. Clark, R., 2011. Materialism and brand engagement as shopping motivations. *Journal of Retailing and Consumer Services*, 18 (4), 278-284.
- Gosling, P., Denizeau, M., Oberlé D., 2006. Denial of responsibility: A new mode of dissonance reduction. *Journal of Personality and Social Psychology*, 90 (5), 722-733.
- Guiot, D., Roux, D., 2010. A second-hand shoppers' motivation scale: antecedents, consequences, and implications for retailers. *Journal of Retailing*, 86 (4), 355-371.
- Hair, J.F., Black, W.C., Babin, B.J., Anderson, R.E., Tatham, R.L., 2005. *Multivariate data analysis*. Englewood Cliffs: Prentice-Hall.
- Hayes, A.F. 2009. Beyond Baron and Kenny: Statistical mediation analysis in the new millennium. *Communication Monographs*, 76, 408-420.



- Hayes, A.F. 2012. *PROCESS: A versatile computational tool for observed variable mediation, moderation, and conditional process modeling* [White paper]. Accessed January 2017, 12<sup>th</sup> at: <http://www.afhayes.com/public/process2012.pdf>.
- Hirschman, E., 1990. Secular immortality and the America ideology of affluence. *Journal of Consumer Research*, 17 (1), 31-42.
- Hurst, M., Dittmar, H., Bond, R., Kasser, T., 2013. The relationship between materialistic values and environmental attitudes and behaviors: a meta-analysis. *Journal of Environmental Psychology*, 36, 257-269.
- Johnson, P.O., Neyman J., 1936. Tests of certain linear hypotheses and their applications to some educational problems. *Statistical Research Memoirs*. 1936 (1), 57-93.
- Khan, U., 2011. When doing good makes it okay to be bad? New directions in licensing research. In Rohini Ahluwalia, Tanya L. Chartrand, and Rebecca K. Ratner, Duluth (Eds.) *Advances in Consumer Research*, 39 (1), 81-84. MN: Association for Consumer Research.
- Khan, U., Dhar, R., 2006. Licensing effect in consumer choice. *Journal of Marketing Research*, 43 (2), 259-266.
- Kivetz, R., Simonson, I., 2002. Earning the right to indulge: Effort as a determinant of customer preferences toward frequency program rewards. *Journal of Marketing Research*, 39 (2), 155-170.
- Lichtenstein, D.R., Bloch, P.H., Black, W.C., 1988. Correlates of price acceptability. *Journal of Consumer Research*, 15 (2), 243-52.
- Lin, Y.C., Chang, C.C., 2012. Double standard: The role of environmental consciousness in green product usage. *Journal of Marketing*, 76 (5), 125-134.
- Louro, M.J.S., Pieters, R., Zeelenberg, M., 2007. Dynamics of multiple goal pursuit. *Journal of Personality and Social Psychology*, 93 (2), 174-193.
- McKeage, Kim K.R., 1992. Materialism and Self-Indulgences: Themes of Materialism in Self-Gift Giving. In *SV - Meaning, Measure, and Morality of Materialism*, eds. Floyd W. Rudmin and Marsha Richins, Provo, UT: Association for Consumer Research, 140-146.
- May, F., Irmak, C., 2014. Licensing indulgence in the present by distorting memories of past behavior. *Journal of Consumer Research*, 41 (3), 624-641.
- Merritt, A.C., Effron, D.A., Monin, B., 2010. Moral self-licensing: when being good frees us to be bad. *Social and Personality Psychology Compass*, 4/5, 344-357.
- Miller, D.T., Effron, D.A., 2010. Psychological license: when it is needed and how it functions. *Advances in Experimental Social Psychology*, 43 (3), 117-157.
- Mukhopadhyay, A., Johar, G.V., 2009. Indulgence as self-reward for prior shopping restraint: a justification-based mechanism. *Journal of Consumer Psychology*, 19 (3), 334-345.
- Mukhopadhyay, A., Sengupta, J., Ramanathan, S., 2008. Recalling past temptations: An information-processing perspective on the dynamics of self-control. *Journal of Consumer Research*, 35 (4), 586-599.
- Novak, T.P., Hoffman, D.L., Duhachek, A., 2003. The nature of flow experiences on the web. *Journal of Consumer Psychology*, 13 (1/2), 3-16.
- O'Curry, S., Strahilevitz, M.A., 2001. Probability and mode of acquisition effects on choices between hedonic and utilitarian options. *Marketing Letters*, 12 (1), 37-49.

- Parboteeah, D.V., Valacich, J.S., Wells, J.D., 2009. The influence of Website characteristics on a consumer's urge to buy impulsively. *Information Systems Research*, 20 (1), 60-78.
- Parguel B., Benoit-Moreau F., Russell C.A., 2015. Can evoking nature in advertising mislead consumers? The power of 'executional greenwashing', *International Journal of Advertising*, 34 (1), 107-134.
- Park, E.J., Kin, E.Y., Funches, V.M., Foxx, W., 2012. Apparel product attributes, web browsing, and e-impulse buying on shopping websites. *Journal of Business Research*, 65 (11), 1583-1589.
- Peugeot, V., Beuscart, J.S., Pharabod, A.-S., Trespeuch, M., 2015. Partager pour mieux consommer? Enquête sur la consommation collaborative. *Esprit*, 416, 19-29.
- Podsakoff, P. M., Mackenzie, S. B., Jeong-Yeon, L., Podsakoff, N. P., 2003. Common method biases in behavioral research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology*, 88 (5), 879-904.
- Prothero, A., Dobscha, S., Freund, J., Kilbourne, W., Luchs, M.G., Ozanne L.K., Thøgersen, J., 2011. Sustainable consumption: opportunities for consumer research and public policy. *Journal of Public Policy & Marketing*, 30 (1), 31-38.
- Punj, G., 2012. Consumer decision making on the web: a theoretical analysis and research guidelines. *Psychology & Marketing*, 29 (10), 791-803.
- Ramanathan, S., Menon, G., 2006. Time-varying effects of chronic hedonic goals on impulsive behavior. *Journal of Marketing Research*, 43 (4), 628-641.
- Richins, M.L., 2004. The material values scale: Measurement properties and development of a short form. *Journal of Consumer Research*, 31 (1), 209-219.
- Richins, M.L., Dawson, S., 1992. A consumer values orientation for materialism and its measurement: Scale development and validation. *Journal of Consumer Research*, 19 (3), 303-316.
- Robert, I., Binninger, A.-S., Ourahmoune, N., 2014. La consommation collaborative, le versant encore équivoque de l'économie de la fonctionnalité. *Développement durable et territoires*, 5 (1). Accessed January 2017, 12<sup>th</sup> at: <https://developpementdurable.revues.org/pdf/10222>.
- Rook, D.W., 1987. The buying impulse. *Journal of Consumer Research*, 14 (2), 189-199.
- Rose, P., 2007. Mediators of the association between narcissism and compulsive buying: The roles of materialism and impulse control. *Psychology of Addictive Behaviors*, 2 (4), 576-581.
- Saunders, S., Munro, D., 2000. The construction and validation of a consumer orientation questionnaire (SCOI) designed to measure Fromm's (1955) 'marketing character' in Australia. *Social Behavior and Personality*, 28 (3), 219-240.
- Scholl, G., 2006. Product Service Systems: taking a functional and a symbolic perspective on usership. In: M.M. Andersen, Tukker A. (Eds.), *Perspectives on Radical Changes to Sustainable Consumption and Production (SCP)* (pp.25-44), Workshop of the Sustainable Consumption Research Exchange Network; Copenhagen, Denmark, April 20-21, 2006.
- Schor, J., 2014. *Debating the sharing economy*. Great transition initiative. Accessed January 2017, 12<sup>th</sup> at: <http://www.greattransition.org/publication/debating-the-sharing-economy>.

- Schwartz, S.H., 1992. Universals in the content and structure of values: Theory and empirical tests in 20 countries. In M. Zanna (Ed.), *Advances in Experimental Social Psychology*, 25 (1), 1-65. New York: Academic Press.
- Segev, S., Shoham, A., Gavish, Y., 2015. A closer look into the materialism construct: the antecedents and consequences of materialism and its three facets. *Journal of Consumer Marketing*, 32 (2), 85-98.
- Shafir, E., Simonson, I., Tversky, A., 1993. Reason-based choice. *Cognition*, 49 (1/2), 11-36.
- Simon, L., Greenberg J., Brehm J., 1995. Trivialization: the forgotten mode of dissonance reduction. *Journal of Personality and Social Psychology*, 68 (2), 247-260.
- Sirgy, J., 1998. Materialism and quality of life. *Social Indicators Research*, 43 (3), 227-260.
- Stone, J., Horne, S., Hibbert, S., 1996. Car boot sales: a study of shopping motives in an alternative retail format. *International Journal of Retail & Distribution Management*, 24 (11), 4-15.
- Thomas, V., 2003. Demand and dematerialization impacts of second-hand markets. *Journal of Industrial Ecology*, 7 (2) 65-78.
- Thomas, V., 2011. The environmental potential of reuse: an application to used books. *Integrated Research System for Sustainability Science*, 6 (1), 109-116.
- Turner, F., 2012. *Aux sources de l'utopie numérique. De la contre-culture à la cyber-culture, Stewart Brand, un homme d'influence*, Caen: C&F Editions.
- Veer, E., Shankar A., 2011. Forgive me, Father, for I did not give full justification for my sins: How religious consumers justify the acquisition of material wealth. *Journal of Marketing Management*, 27 (5-6), 547-560.
- Wang, J., Wallendorf M., 2006. Materialism, status signaling, and product satisfaction. *Journal of the Academy of Marketing Science*, 34 (4), 494-505.
- Wolfenbarger, M., Gilly, M.C., 2003. eTailQ: Dimensionalizing, measuring and predictingetail quality. *Journal of Retailing*, 79 (3), 183-198.
- Xu, Y., Chen, Y., Burman, R., Zhao, H., 2014. Second-hand clothing consumption: A cross-cultural comparison between American and Chinese young consumers. *International Journal of Consumer Studies*, 38 (6), 670-677.
- Zhao, X., Lynch Jr., J.G., Chen, Q., 2010. Reconsidering Baron and Kenny: myths and truths about mediation analysis. *Journal of Consumer Research*, 37 (2), 197-206.