Special Section Article

AMERICAN MARKETING ASSOCIATION

Journal of Public Policy & Marketing
2018, Vol. 37(2) 291-305

DOI: 10.1177/0743915618811851
journals.sagepub.com/home/ppo

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The Intersection of Sustainable Consumption and Anticonsumption: Repurposing to Extend Product Life Spans

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Abstract

One of the primary causes of environmental problems is the overconsumption of natural resources, such as those invested in the production of consumer goods. To combat overconsumption, some researchers and policy makers have suggested that consumers should extend product life spans through sustainable and anticonsumption practices. In keeping with this proposition, the authors use the consumer context of repurposing to explore the extension of product life spans through processes of reusing and reclaiming. The results identify the antecedents, processes, and outcomes of repurposing. Antecedents of repurposing include social influences, repurposing motivations, and object agency. The process of repurposing takes three forms: aesthetic, functional, and amalgamative. Repurposing outcomes include value creation, behavioral and perception effects, and identity effects. Overall, the results offer marketers and policy makers insights into repurposing as an important avenue for lengthening product life spans and promoting sustainable consumption.

Keywords

anticonsumption, product life cycle, repurposing, sustainable consumption

One man's trash is another man's treasure.

—Proverb

Sustainable consumption has become an important societal issue as environmental problems, such as global warming, ozone depletion, and loss of species, become more prominent. Sustainable consumption "minimizes environmental effects, considers the needs of future generations, and is for the satisfaction of needs that produce a better quality of life" (Kilbourne, McDonagh, and Prothero 1997, p. 5). To increase sustainable consumption, some researchers and policy makers have suggested that people should extend product life cycles by engaging in "slow consumption," or slowing the rate at which goods are used up (Cooper 2005). Extending the life span of a product through slow consumption would lead to a reduction of the environmental impact of our consumption patterns (Van Nes and Cramer 2006) both by slowing resource consumption and by reducing the flow of products into the waste stream. This concept is especially relevant today, as product life cycles continue to shrink in product categories such as household equipment, cars, personal computers, and clothing (Kostecki 1998) and as consumer waste continues to increase worldwide (Lucas 2002). Extending product life spans while reducing consumer waste would contribute to a paradigm of sustainable consumption, in which present needs are met but not at the detriment of future generations (Kilbourne, McDonagh, and Prothero 1997). However, research on the usage and end stages of consumption is relatively scant, and public policy relating to resource reduction is typically focused on making manufacturing processes more environmentally friendly and resource efficient (Brosius, Fernandez, and Cherrier 2013). Thus, it is important for researchers and policy makers interested in promoting sustainable consumption to develop a better understanding of the factors that extend product life cycles, resulting in more sustainable levels of consumption.

Traditionally, sustainable consumption has been thought of in terms of the "three Rs": reduce, reuse, and recycle. Among these categories of sustainable behaviors, recycling has received the most attention, primarily because it seems to be the most convenient and most easily accommodated into

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consumer lifestyles (Barr, Gilg, and Ford 2001). However, recycling has been found to be a fundamentally different behavior than reducing or reusing because it involves breaking down and reconstituting the product, often using additional natural resources in the process (Barr, Gilg, and Ford 2001; Wang 2011). The reducing facet of sustainable consumption has been explored in consumer behavior contexts such as voluntary simplicity (e.g., Huneke 2005) and frugality (e.g., Lastovicka et al. 1999). The reuse category, however, has received less attention from researchers, with research investigating concepts such as use innovativeness (Ridgway and Price 1994) as consumers find new and different ways of using their possessions.

Research on sustainable consumption has demonstrated that consumers also practice various forms of anticonsumption, which itself can be thought of as "three Rs": reject, restrict, and reclaim (Lee et al. 2011). Rejecting means avoiding consumption altogether, while restricting means lowering or limiting consumption when rejecting might not be possible (Lee et al. 2011). Reclaiming involves restoring discarded items to use again, as can be observed when dumpster divers reclaim "trash" from the process of dispossession (Lee et al. 2011). In a way, these anticonsumption behaviors correlate to the reduce and reuse behaviors in the traditional conception of sustainable consumption: reducing can be achieved through rejecting and restricting while reuse can be achieved through reclaiming. For example, dumpster divers reclaim other's trash to reuse for their own (e.g., Brosius, Fernandez, and Cherrier 2013).

This intersection of reuse and reclaim exemplifies the concept of slow consumption (Cooper 2005). The current research examines this intersection of sustainable consumption and anticonsumption through a behavior that seems to straddle the boundary between reuse and reclaim: repurposing. In this research, we explore three research questions: (1) What are the antecedents of repurposing behavior?, (2) What types of processes does repurposing encompass?, and (3) What are the outcomes of repurposing? The goal of this research, then, is to explore the process of reclaiming and reusing a used object, thereby lengthening a product's life span. We explore this context to better understand how public policy makers can encourage this type of sustainable consumption to increase product life spans and decrease consumer waste. Overall, our results identify the antecedents, processes, and outcomes of repurposing that policy makers can use to increase sustainable consumption. These results demonstrate that to do so, repurposing should be framed as a fun, creative activity rather than a sacrifice to be made for the sake of the environment. Through the repurposing process, increased attachment to the product is possible, which also encourages slow consumption by increasing product life spans. Thus, whereas rejecting and restricting involve forms of self-denial, reclaiming and reuse can be thought of as a creative and productive activity, perhaps enhancing its appeal to consumers who are less dedicated to proenvironmental values.

Literature Review

Sustainable Consumption Behaviors

Reducing the amount of consumer waste produced is an important goal for policy makers as the amount of material waste increases. This issue may become even more urgent if the waste market changes and countries such as China are no longer willing to take the United States' consumer waste (Phillips 2017). One way to reduce material waste is through sustainable consumption and anticonsumption behaviors. Sustainable consumption is a "broad and contested concept that concerns the interaction of social and ecological issues such as environmental protection, human needs, quality of life, and intragenerational and intergenerational equity" (Pepper, Jackson, and Uzzell 2009, p. 126). Alternatively, anticonsumption has been described as "a resistance to, distaste of, or even resentment of consumption" (Zavestoski 2002, p. 121), and anticonsumption research "focuses on phenomena that are against the acquisition, use, and dispossession of certain goods" (Lee et al. 2011). The sustainable consumption and anticonsumption concepts overlap in the goal of keeping materials in circulation, expanding life spans, and decreasing waste, regardless of the motivation.

In the context of sustainable consumption, reducing can be accomplished through consumer behaviors such as rejecting and restricting. Through the process of rejecting, "individuals intentionally and meaningfully exclude particular goods from their consumption cycle," and the process of restricting "incorporates cutting, lowering and limiting consumption when complete anticonsumption is not possible" (Lee et al. 2011). Voluntary simplicity is one lifestyle concept in which rejecting and restricting are a primary consumption goal. Voluntary simplicity can be described as "choosing to limit material consumption in order to free one's resources, primarily money and time, to seek satisfaction through non-material aspects of life" (Huneke 2005, p. 528). Collaborative consumption and sharing are other areas in which rejecting and restricting is present. Sharing provides consumers a way to limit or restrict ownership by using what someone else already owns, such as through car-sharing organizations like Zipcar (Belk 2009). Likewise, collaborative consumption, which is defined as "coordinating the acquisition and distribution of a resource for a fee or other compensation" (Belk 2014, p. 1597), is part of sustainable consumption because it "contests individual consumption modes, overconsumption and seeks to tackle the more general issue of sustainable development" (Binninger, Ourahmoune, and Robert 2015, p. 972). Thus, by engaging in collaborative consumption and sharing behaviors, new products are rejected, and the consumer instead finds an alternative way to meet consumption-related goals. Custodian behavior represents an additional avenue for consumers to engage in anticonsumption through resisting the wastefulness of consumer culture (Cherrier 2010). This behavior is consciously performed "to rescue and safeguard material objects from being thrown away or wasted" (Cherrier 2010, p. 259).

Reuse can be accomplished through activities such as reclaiming such as when people collect inorganic waste (Brosius, Fernandez, and Cherrier 2013; Pentina and Amos 2011). The concept of reuse in sustainable consumption is also apparent in contexts such as use innovativeness (Ridgway and Price 1994), reclaiming (Brosius, Fernandez, and Cherrier 2013), and repair (Scott and Weaver 2014). Use innovativeness is defined as a consumer's receptivity/attraction to and creativity with using products in new ways (Ridgway and Price 1994). Use-innovative behaviors include the "invention of a new use for a currently owned product or the adaption or reuse of a product to suit a new purpose" (Ridgway and Price 1994, p. 70). Examples include using a plastic egg carton as a painting palette or using wine bottles in high boots to preserve the boots' structure. Another form of reuse can be accomplished through acquiring other people's trash, which creates a cyclical consumption cycle instead of a linear one (Brosius, Fernandez, and Cherrier 2013). Research in this area has found that although collecting inorganic waste is a sustainable consumption practice, people who engage in the behavior do not have sustainable motivations (Brosius, Fernandez, and Cherrier 2013). However, once collectors have engaged in the behavior, this in turn motivates them to consume more sustainably in other areas. In addition, we see how the practices of reusing and reducing can influence one another, in that reclaiming waste could also lead to the rejection of a new purchase. Repair behavior also includes another avenue for reuse, in that repairing a broken product extends the object's life span and keeps it in use rather than discarding it. Research into repair suggests that repair propensity is influenced by the inconvenience of repair, stewardship, and innovativeness, with stewardship and innovativeness being the strongest predictors (Scott and Weaver 2014).

Repurposing

We define repurposing as an application of an object to a purpose other than that for which it was originally intended, the alteration of an object to enhance its aesthetics, or a combination of these to increase the value of a valueless or degraded object. Repurposing fits into the reuse category of sustainable consumption, but it is more complex and requires more creativity compared with straight reuse. For example, saving Ziploc bags to use them again is reuse but not repurposing. Thus, all repurposing is reuse but not all reuse is repurposing. Repurposing is also different than rehabilitation (rehab) or refurbishing, which attempts to return the object to its former condition and purpose. Repurposing, in comparison, changes the function or aesthetics to make a new and better object. Both methods attempt to restore value to the original object to be used again, but they use different methods.

As a general concept, repurposing makes use of a product that currently has no value because of its condition, obsolescence, or completion of its original purpose. When a product no longer has value in its current condition or for its original purpose, a decision must be made regarding whether to throw it away, donate it, recycle it (if possible), store it, or reuse it for a different purpose. When a consumer chooses to replace a product, it is typically the result of an evaluation that finds the product obsolete in some way. The product may be obsolete in an absolute (or technical) sense if it no longer performs the function(s) for which it was acquired (Granberg 1997). However, it may also be obsolete in a relative sense—that is, it is found wanting compared with a potential replacement. Relative obsolescence can be conceptualized as having three types: psychological (the product is no longer satisfactory symbolically or aesthetically), technological (the product is no longer satisfactory in terms of technological function), or economic (the product no longer offers sufficient value relative to cost of ownership) (Cooper 2004). "Voluntary" product replacements motivated by relative obsolescence are of primary concern from a sustainability perspective because they represent situations in which new products are demanded even though the products they replace have not reached the end of their useful life (Cooper 2004). It is especially in the cases of voluntary product replacements that repurposing can make a difference by creating new value in the old product. Repurposing a product keeps it out of the landfill and extends its life cycle and the resources it contains.

Repurposing, then, can be specifically tied in to sustainable consumption and anticonsumption, as Figure 1 shows. Sustainable consumption attempts to reduce the environmental effects of utility-maximizing consumption, whereas anticonsumption is against the process of consumption. Although the motivation of the two concepts are different, the outcome in the acquisition, consumption, and disposition stages of consumption are the same: both reduce virgin resources needed for consumption and the amount of waste that ends up in the landfill. Repurposing fits into these concepts during the usage stage of consumption. Repurposing can be considered a form of reuse, one of the traditional "three Rs" of sustainable consumption, and it is also a form of reclaiming, one of the "three Rs" of anticonsumption. As a result, repurposing straddles the intersection of sustainable consumption and anticonsumption during the usage stage and may also influence the acquisition stage as people reduce and reject new acquisition because of the ability to reclaim and reuse what has already been produced.

Evidence suggests that interest in the repurposing movement is increasing. According to Google Trends (Google 2018), there were over 60,000 global Google searches for "upcycling" and "repurposing" together in March of 2018, an increase of 1,200% over the search volume for those same terms in March of 2008. The number of products tagged on Etsy with the word "upcycled" increased from about 7,900 in January 2010 to nearly 30,000 a year later, a 275% increase (Wang 2011). The largest company in this industry, TerraCycle, is already valued at $12.5 million (Wang 2011). *Flea Market Flip* is one of HGTV's most popular shows (Gibbons 2015), and in the 2014 Martha Stewart's American Made Awards, more than 26 business nominees repurposed products in some way—from bicycles made from reclaimed wood to candle holders made from discarded glassware. Another example is provided by the "IKEA Hackers" consumption

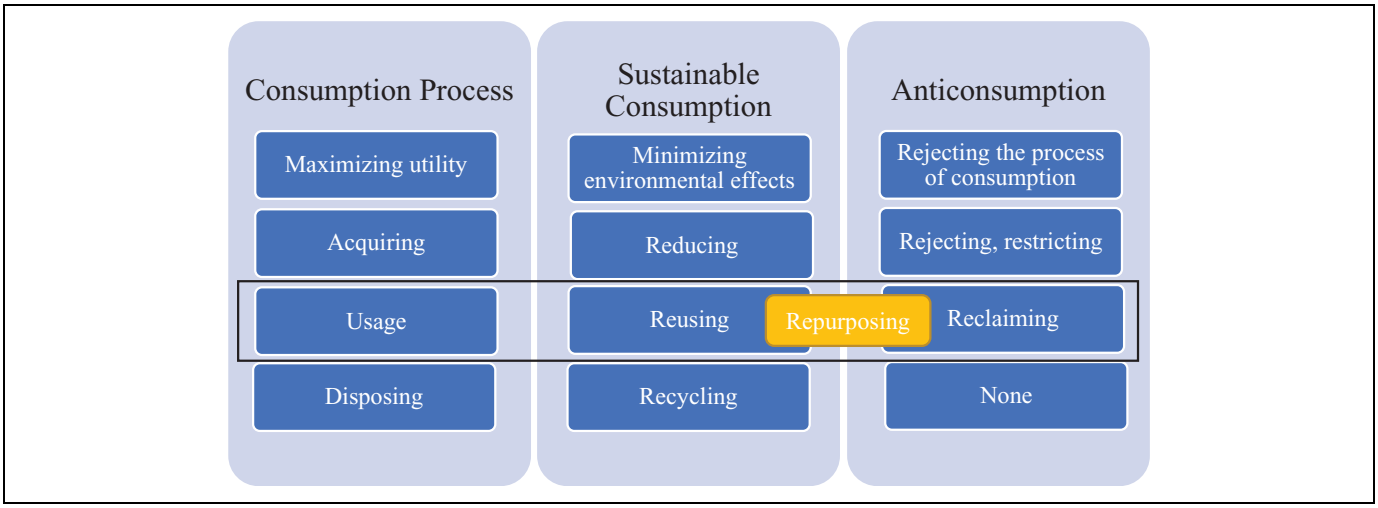

Figure 1. The Intersection of Sustainable Consumption, Anticonsumption, and Repurposing.

community, which repurposes or embellishes IKEA products, such as repurposing countertops to make guitars (Green 2007). This organic increase in popularity provides a unique opportunity for policy makers to encourage more sustainable behaviors through repurposing, especially because this behavior has the potential to appeal to a broader audience than just those with proenvironmental attitudes.

The emergence of repurposing as a consumer practice could benefit the environment even more than other proenvironmental behaviors, such as recycling or purchasing new "green" products. When an item is recycled, it becomes something of lesser quality and consumes energy in the process (Wang 2011). In comparison, repurposing is a closed-loop system in which materials are continuously kept in the production-consumption cycle and maintain their status as resources instead of being downgraded through recycling. This model also mimics "the successful interdependence and regenerative productivity of natural systems" because in nature, all outputs from one process become inputs for another, and waste does not exist (Braungart, McDonough, and Bollinger 2007). Repurposing is also more sustainable than purchasing environmentally friendly new products because all new products, whether sustainably manufactured or not, require additional natural resources and energy production in the manufacturing process. For example, electric cars are thought to be very environmentally friendly, but the impacts associated with their production are significant, comprising almost half of the total cycle greenhouse gas emissions when driven with average European electricity (Hawkins et al. 2012). However, it is important to acknowledge that the relative environmental benefits of repurposing, recycling, and other ostensibly proenvironmental behaviors are contingent on many factors. For example, with repurposing, would it be more sustainable to paint a dresser with a toxic paint or to dispose of the dresser in a landfill? Thus, determining when certain behaviors are more sustainable than others should be further examined.

Methodology

To fully investigate repurposing, we conducted in-depth interviews with a variety of participants involved in the repurposing process, including individuals that repurpose items to sell to others, those who repurpose items for their own use, and those who purchase repurposed products from others. Having a diverse population of respondents provides multiple perspectives of the repurposing process, the motivations to engage in this process, and the value added through the process. A total of 17 interviews were completed (see Table 1). We interviewed business owners first because of the ease of identifying them and their understanding of the market and the repurposing process. We identified businesses that repurposed products through internet searches on "repurposed products" and through recommendations from the interviewees. Businesses were selected if they resold products that were originally sold for a different purpose or if they changed the purpose or product itself to make it different. Business owners lived in numerous states, including Colorado, Minnesota, Georgia, New York, and California, and sold a variety of products, including jewelry, art objects, industrial products, reclaimed lumber, and repurposed furniture. Many of the business owners themselves engaged in the repurposing process and were able to build a business around this skill. We conducted semistructured interviews that lasted between 30 minutes to an hour and took place in person, on Skype, or over the phone, depending on location and respondent preference. Questions were asked about four broad topics: the repurposing process (e.g., How do you decide which items to repurpose and sell?), general business (e.g., What are your goals for the business?), customer questions (e.g., Describe your "typical" customer), and industry questions (e.g., Can you describe the industry you are in?). These interviews were transcribed and pattern coded (Saldaña 2009) to identify themes. Initial themes provided insight into the repurposing process, the contention of different terminology (e.g., repurpose, upcycle), the motivations for the business

Table 1. Descriptive Table of Respondents.

Name	Category	Input	Output	Process Type	Motivation	Value
Brandy	Business owner, maker	Varies	Arts and crafts	Aesthetic, amalgamative	Commercial, influencing others	Hedonic, utilitarian
Connie	Business owner, maker	Old windows, clothes	Arts and crafts	Aesthetic, amalgamative	Commercial, self-expression	Hedonic
Cristina	Business owner, maker	Old furniture	Furniture	Aesthetic	Commercial, environmental	Hedonic, utilitarian
David	Business owner	Industrial materials	Industrial products	Functional	Commercial, environmental	Utilitarian
James	Business owner, maker	Old wood	Wood products	Amalgamative	Enjoyment	Hedonic, utilitarian
Lily	Business owner, maker	Scrap metal	Jewelry	Amalgamative	Enjoyment, self-expression	Hedonic
Shane	Business owner, maker	Wood pallets	Adirondack chairs	Functional	Commercial, environmental	Utilitarian, hedonic
Todd	Business owner, maker	Plastic bottles	Hydroponic planters	Functional	Commercial, environmental	Utilitarian
Emerald	Maker	Old furniture	Furniture	Functional, aesthetic, amalgamative	Stewardship, enjoyment	Hedonic, utilitarian
Chuck	Maker	Old cigar boxes	Cigar box guitars, decorative items	amalgamative	Stewardship, enjoyment	Utilitarian, hedonic
Barb	Maker	Old ashtrays	Pillows, planters	functional	Frugality, enjoyment	Utilitarian, hedonic
Karen	Consumer	Barn wood	Planters, shelves	Aesthetic, amalgamative	Self-expression	Utilitarian, hedonic
Margaret	Maker	Old furniture	Furniture, decorative items	Functional, aesthetic, amalgamative	Enjoyment	Utilitarian, hedonic
Sally	Maker	Containers	Containers, pet products	Functional	Frugality, self-expression	Utilitarian
Robert	Maker	Milk jugs	Toys, photo equipment	Functional	Stewardship, enjoyment	Utilitarian
Diane	Maker	Old piano	Furniture	Amalgamative	Enjoyment, self-expression	Utilitarian, hedonic
Betty	Consumer	Old door, shirts	Decorative items	Aesthetic, amalgamative	Stewardship, self-expression	Utilitarian, hedonic

owners and their customers, and the challenges and opportunities in the market.

Drawing on these initial themes, we then conducted maker and consumer interviews. Maker interviews were conducted to better understand the process of repurposing itself, and consumer interviews were conducted to understand the appeal and value of repurposed products. To find informants that repurpose products themselves or purchase repurposed products, we began by interviewing known acquaintances who engaged in the focal behavior. These initial participants then suggested additional informants. We conducted semistructured interviews that lasted between 30 minutes to an hour and took place either in person or over the phone, depending on location and respondent preference. We asked questions about four broad topics: the motivation for repurposing or buying repurposed items (e.g., Why did you select the item?), the process of repurposing (e.g., Do you share tips with friends?), the experience of repurposing (e.g., Describe the feeling you get when you successfully repurpose something), and external influences (e.g., Do you watch TV shows about repurposing?). As with the business owners, consumer interviews were transcribed and coded to identify themes within and across the informant accounts. Finally, we examined both sets of themes and subjected them to theoretical coding (Saldaña 2009) to come up with a framework for repurposing. We iteratively tested the emerging framework against the data and alternative explanations until we reached a consensus.

Results

Our results detail the repurposing concept in terms of antecedents, process, and outcomes. Our informants reveal that the antecedents of repurposing include social influences, product agency, and individual motivations. For the process of repurposing, we propose a new repurposing typology that depicts the different types of repurposing along two key dimensions. For outcomes, we demonstrate the added value of the repurposing process as well as the consumer identity and behavioral effects (see Figure 2). In the "Results" section, each of our respondents

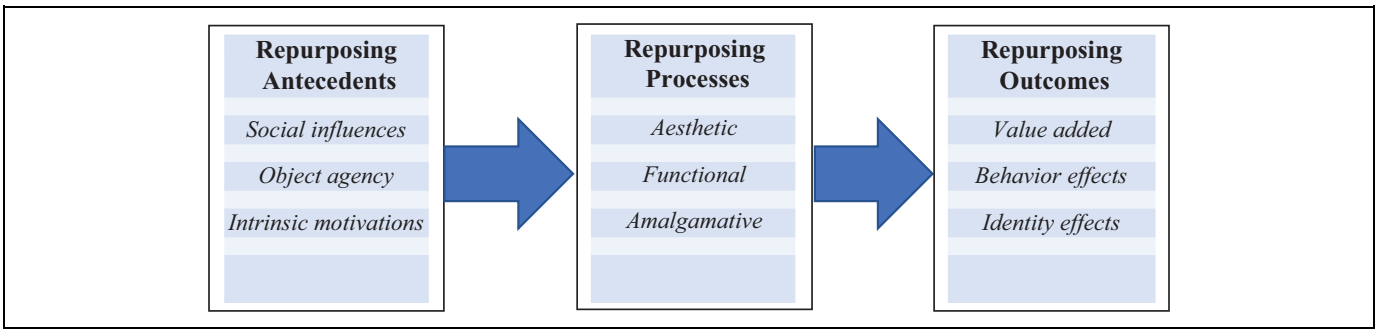

Figure 2. Repurposing Framework.

are identified by their role in the consumption process (maker, business owner, or consumer), as found in Figure 1.

Antecedents of Repurposing

Our informants indicated that social influences were an important antecedent to repurposing behavior. In addition, we found that objects themselves helped initiate the repurposing process. Finally, we found that there were a variety of internal motivations for repurposing.

Social influences. One important antecedent to repurposing behavior for our informants is social networks. These connections enable users to learn about the concept of repurposing, find inspiring ideas, and learn new techniques. Using channels such as social media, those who engage in repurposing, or "makers," can share images and descriptions of their repurposed products along with descriptions of steps in their creative processes (often with before/after pictures). Thus, these networks make it easier for aspiring repurposers to attempt and complete these projects. For example, Margaret (maker) used social media, the internet, and magazines to find ideas and research how to do certain projects. Pinterest, Facebook pages (e.g., Home Talk), websites (e.g., Houzz), and magazines (e.g., *Better Homes and Gardens*) were all outlets she used to inspire repurposing projects. Likewise, TV shows such as HGTV's *Flea Market Flip*, the magazine *Flea Market Style*, and the Facebook page Upcycle served as inspiration for Emerald (maker). Chuck provides another illustration:

> Well, when I started, it was just fascinating. And when I started reading it, the thing that just was amazing is that the people that were doing this, they just were sharing what they knew about it with everybody. And it is, "Come on in and try it." And so people were saying, "I did this," and you'd get 8, 9, 10, 11, 12 people, and it would be a physicist, it would be a rock musician, it would be a housewife, it would be, you know, and it's called handmade music. And it's—forget about factory this and factory that—and they'll just say go make one of these yourself and we probably won't hear from you because after that you'll be too addicted. And you do get excited once you start with this. (Chuck, maker)

Chuck visited websites to learn more about making guitars out of discarded cigar boxes, and he was drawn in by the creativity of the practice and the diversity of those who do it. He learned about the variety of cigar boxes and where to source them. He saw images of finished guitars and descriptions of how they were made. Thus, these social influences were imperative as Chuck began the repurposing process and guided him as he considered making his first cigar box guitar.

Object agency. Another antecedent to the repurposing process is the agency of the object itself. For some, finding an object spurred the desire to engage in the repurposing process; for others, it was an object that they currently owned that they did not want to dispose of. The objects that were not current possessions came from a variety of different places, such as antique stores, thrift stores, garage sales, Craigslist, and even dumpsters. Purchasing or salvaging objects from these locations instead of buying them new keeps the materials themselves in circulation rather than discarding them from use (cf. Brosius, Fernandez, and Cherrier 2013). Karen (consumer) stated that when purchasing repurposed products, "I like the fact that it has some history to it and it's not just going to be burned and go away. That it's being used for something else." While it might be junk to some people, the maker is able to see the value in the object even though others might not:

> So, I went to a junk store up in [town's name] and I found this probably 120-year-old piece of lacquer, and the bottom had busted off so they only wanted it for $10, and it got appraised for, like, $150. So, it was just like a perfect find. It was another sleeper. People didn't know what they had, they thought it was busted, and actually, you know, [it was] really good quality. (Emerald, maker)

The object itself has something of more value than a new product because of its "authenticity" or "integrity" according to Emerald, and when she looked for objects, she looked "for things that have some quality, and some good construction, and maybe have good bones." Emerald described the agency of the object as "energy" and noted that the object "speaks" to her, while Betty (consumer) described the "soul" of older objects. Similarly, Lily discussed the role of object agency in identifying items to repurpose into jewelry:

> **Interviewer:** So, when you're going through the dumpsters how do you decide that, "Hey, this piece will work?"

> **Lily:** Both my husband and I do this, and I would say it's literally a gut reaction. Functionally, we will look for pieces that have cold connection value, so we don't have to work with energy or anything to make them work because we want to make them purely just pliers related. We don't want to have to weld or anything like that. So, there is aesthetics that are involved that way so there actually has a way of being attached. Also, a lot of times, very large pieces we mainly toss out because they are too heavy or to unrealistic or too hard to carry around. So, it is primarily size and then just a gut instinct that, like, "I really like the rust pattern on this or the metal fabrication mark." It is very aesthetic; it's hard to explain. It's like, when I see it, I'm just like, "Oh, I love this." (Lily, business owner, maker)

Thus, the object itself can be an important starting point for the repurposing process, seeming to possess a certain quality that the maker is able to identify even though others might not be able to see the value.

Individual motivations. Despite the environmental benefits of repurposing, saving the planet was not the focus of our informants. Instead, they were generally motivated by expressive and recreational goals. Our informants who engaged in repurposing love the process itself and seeing the creative outcome. Therefore, makers see a potential for fun and enjoyment in the objects they repurpose, which are often perceived as worthless or broken by others. Margaret (maker) described how the whole process was a hobby and just fun to do. For her, it was a challenge to see if she could learn and execute a new technique. For example, she described one repurposing project that was underway: "I have to peel off all the veneer, and I've never done that before, so it'll be, you know, just a new project, a new challenge to see if I can do it." In addition, Margaret states, "There's this one now that I got for free, this dresser. And it's, it'll be fun just to kind of putz with it or whatever, but kind of a challenge to see if I can make it look good."

Likewise, even though James was a business owner, he too referenced personal enjoyment as a motivation to engage in the repurposing process:

> You were to ask somebody else, either one of the other partners or something, their goal would be very different. . . . "Pay the mortgage. Put food on the table. Have my kids go to college. Keep body and soul together, you know. Keep the truck running." For me, personally, the goals are different, are far different than that. For me, to keep myself grounded, to keep myself—it's not money for me at all, and it's never been money. It's a deep enjoyment of what I'm doing. (James, business owner, maker)

As James illustrates, our informants appeared to enjoy the creativity and innovativeness involved in repurposing goods and therefore viewed repurposing as fun. The appeal of repurposing seems universal, as mentioned by David, who talks about the connection his customers and others feel to the concept of repurposing:

> I'm surprised by the . . . near universal reception to what we're doing, and how it resonates. . . . They are just smitten by the concept, even if they don't buy from us. Because everybody as a kid took a Quaker oatmeal cylinder and, when it was done holding Quaker oats, made a drum out of it. That's repurposing. Everybody has repurposed a refrigerator box into a playhouse. So, people get it, and they love it. (David, business owner)

Thus, David believes that people have a natural understanding and enjoyment of repurposing that adds to its appeal. In general, the enjoyment of the creative aspect of repurposing was the primary reason our informants gave for investing their time, energy, and money in repurposing items.

In addition to enjoyment, stewardship and frugality were also cited as factors in the informant's decision to repurpose. Sally and other informants mentioned a desire to save money as a motivation for repurposing. For Sally, a nontraditional full-time student, repurposing helps her manage a very limited budget:

> I didn't have the money to buy the step. But now it's just like, men hunt animals and I hunt bargains. And it's a thrill for me also. It's a thrill to be able to say, "Hey, I saved money and look at this strange thing that I got, but it's serving a purpose." Because people do come in the house, and they're like, "Why do you have an upside-down cat container sitting by the recliner?" And I'm like, "Well when you see my cat, you'll find out." (Sally, maker)

Similarly, Diane mentioned that repairing her piano would cost thousands of dollars, and Emerald noted how repurposing items herself was much more economical than buying repurposed or restored items from the markets she frequented. When asked why she prefers repurposed items over new items, Margaret states,

> Probably because I can't afford what I really want. Like the Pottery Barn things, there's just no way. And then part of me just wouldn't ever pay full price, and then I like the satisfaction of having an idea, and then doing it for like super cheap, and then I just like doing it, I like the work of it, I like kind of creating it and then knowing that I could have bought that for $500 but I did it for $75. (Margaret, maker)

A related motivation our informants mentioned was the desire to "save" the object from being discarded, as in Emerald's statement:

> I was so excited to restore the piece, and to think, like, this was probably going to fall apart because it was cracking and it was bleached out and somebody probably would have just stripped it or painted it or, you know, I thought, "Wow, I'm saving it." (Emerald, maker).

Part of Emerald's motivation appears to be one of taking care of and restoring an object that has potential, perhaps stemming from an anticonsumption, custodian mindset (Cherrier 2010). Barb (maker) also illustrates the custodian motivation. She did not want to get rid of something because she might be able to use it for something else in the future, especially when

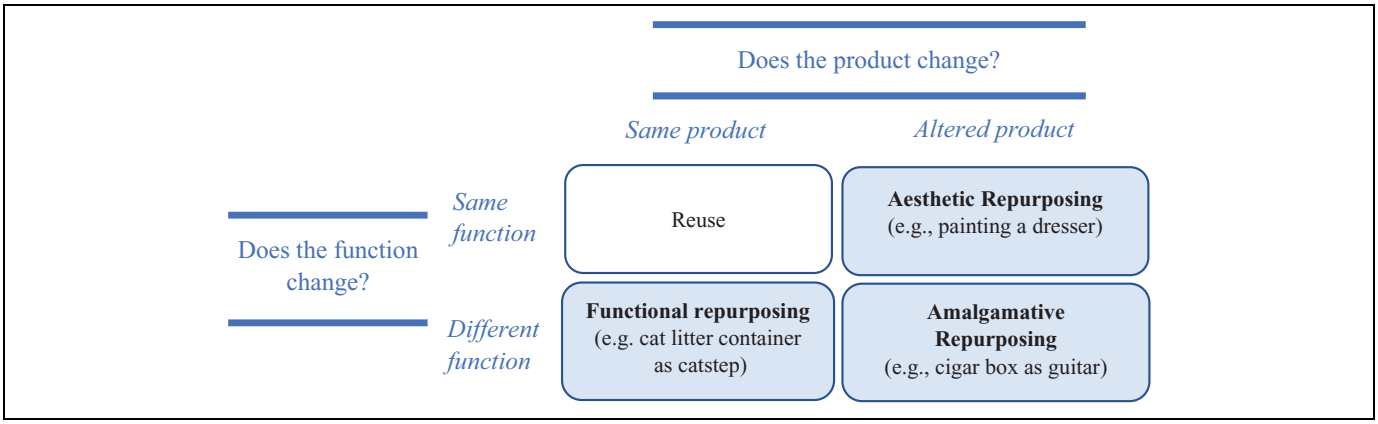

Figure 3. Repurposing Processes.

she thought it had use value or nice aesthetics. Barb described herself as a "steward" of the objects and talked about her responsibility to make sure they are used as much as possible. It is from this motivation that she repurposes the object to bring its value back. It is worth noting, then, that the primary motivations for repurposing we observed were self-interested in nature; informants were motivated to engage in repurposing because it benefited them in one or more ways.

In contrast, altruistic motivations were rarely mentioned. Although the objects do have agency, and in some sense the object itself motivates the repurposing project, it was surprising that the environmental aspects of repurposing were not particularly salient among our informants. When environmental goals were mentioned, they were of secondary importance. When asked whether saving things from the landfill was a motivation for repurposing milk jugs into light diffusers or old windows into props in his photography studio, Robert replied,

> It's a side benefit. . . . Litter and refuse is something we think about. We do recycle aluminum and plastic bottles and that kind of thing from our own home. So, you know, to see that one tiny little element, while it might not make a huge difference, yeah, there's a little bit of satisfaction in that I kept that from [the landfill]. (Robert, maker)

Here, Robert acknowledges the desirability of repurposing from an environmental sustainability perspective, and he engages in other sustainable behaviors, but that is not the primary reason he repurposes; instead, it is a "side benefit" of something he would do anyway. Other informants noted that the growing popularity of repurposing may be related to the green movement, but none of them reported that they were repurposing based on altruistic, environmental motives. Even for those that were only interested in purchasing repurposed products, environmental motives did not come into play. Karen (consumer) notes that it is "really the uniqueness of the item that makes me want to buy it. . . . The fact that it could be more environmentally friendly never really comes to mind."

The Process of Repurposing

The data for this study indicates that there are a variety of repurposing processes. Our results corroborate prior research on creativity that identify both aesthetic and functional dimensions of creativity (Burroughs, Moreau, and Mick 2008), and our analysis suggests that repurposing can be represented by examining whether the object itself changes, the function changes, or a combination of the two (see Figure 3). Broadly speaking, repurposing can take three forms: functional repurposing, in which the object is not altered but used for a different purpose; aesthetic repurposing, in which the object is altered but the purpose is the same; and amalgamative repurposing, in which the object undergoes some sort of transformation to serve a different purpose. These three different forms of repurposing differ in the amount of skill, effort, and involvement they require, with amalgamative repurposing requiring the highest amount of skill and involvement. Note that if neither the product nor the purpose is altered, this activity would be considered simply reuse, not repurposing.

In aesthetic repurposing, a product is improved in some way but still serves the same purpose, such as when Cristina or Brandy upgrades an old piece of furniture by repainting or otherwise enhancing it:

> I kept thinking, we have enough stuff! Right? We have enough things, and we've all gotten stuff from our grandmothers, hand-me-downs where you're like, "I don't really like the olive-green color," or "I don't really like the orange color; what can I do with it?" I've always been gifted with the lack of fear to be able to paint anything whatever color I've wanted, so . . . you can teach people how to be more creative with the things that they have instead of spending a lot of money on them. (Brandy, business owner, maker)

Functional repurposing would be represented by an unaltered product being used for a different purpose. For example, David manages a business that sells repurposed materials, primarily to other businesses. The materials themselves are not modified, but they are used for a completely different purpose.

As the business owner, he helps potential buyers identify the repurposing solution for their needs. He noted that "on average. we save customers 50%–75% over buying something new to solve the same problem." However, he also observed that the utilitarian value is an outcome of a creative process:

> **Interviewer:** How would you describe your typical customer?
>
> **David:** If I had to pick a single word, it would be "resourceful." And that resourcefulness can be frugality. Resourceful could almost also mean creativity, you know. "I don't have exactly what I need, but this is close. Now I gotta figure out how to solve my problem with something that is similar but different." (David, business owner)

Likewise, Sally's repurposing is often functional and pragmatic:

> With the cat litter [container], the cat would try to jump, and he would hurt himself because he was hanging—because he couldn't jump as far as he used to. And I decided, I needed something from the floor to the sofa, because I'm not gonna have him put down cause he's not in pain. And I was trying to find something that was sturdy enough, to where when he jumped it wouldn't collapse on him. And I needed something that was tall, and it seemed to be the right height. And I've just always been able to look at stuff and think of another way to use it. (Sally, maker)

However, in addition to purely aesthetic or functional repurposing, we observed a range of repurposing processes that blend both functional and aesthetic qualities, and we describe this combination as amalgamative repurposing. In amalgamative repurposing, both the form and function of the original product changes, as when Chuck (maker) creates a decorative "barn angel" out of reclaimed wood; Chuck changes both the form and function of the wood in creating these products. Likewise, Lily exhibited amalgamative repurposing when she incorporated found and salvaged objects into artwork and jewelry:

> Well, we work with a lot of the heavier metal pieces and that primarily ends up being an artistic piece that people put in their home. So, they are taller, stationary, much heavier—so, taller. Once piece I know went out into someone's garden had several different railroad ties in combination and was probably about two feet tall, very, very heavy—ridiculously heavy, very rusty but just aesthetically essentially had points pointing out in all directions. It had a lot of . . . it was kind of gothic in a sense, it was kind of like Mad Max, like a bunch of rusted metal all thrown together. It wasn't a figure or anything, it was all abstract. (Lily, business owner, maker)

As these examples show, amalgamative repurposing appears to represent a greater involvement and skill for the maker because the product is modified to serve a different functional purpose and, as a result, creates both hedonic and utilitarian value that was not necessarily inherent in the original object. We discuss this next.

The Outcomes of Repurposing

Our results indicate that the outcomes of repurposing include value creation for the maker or customer, behavioral and perception effects, and identity effects. Two types of value are identified: utilitarian and hedonic. The process of repurposing influences consumers' perceptions and behavior through their communication about the repurposed piece while identity effects include how consumer's self-perception changes. We explore these outcomes further in the following subsections.

Value creation. One key outcome of the repurposing process was added value, which could be utilitarian and/or hedonic. The value created (utilitarian or hedonic) was most commonly associated with a particular type of repurposing (functional, aesthetic, or amalgamative), and for some projects, both types of value were created. Utilitarian value was most commonly found in functional repurposing. For example, for Robert, the outcome of his functional repurposing efforts was utilitarian value. One of his repurposing projects involved making light diffusers for photography using flashlights and plastic milk containers:

> **Interviewer:** So, in the case of the light diffusers, you needed something and you thought, "What can I use to do this?"
>
> **Robert:** That, and there's an inherent risk of damage to equipment when there are small children, sports—that kind of thing, so if someone stepped on, ran over, or crushed my milk jug diffuser, I wouldn't be heartbroken. Easy enough to replace. That, and it's just that we love to show the manufacturers that we can make something that works on a shoestring, because most people that are starting out with photography—they don't have a big budget." (Robert, maker)

Here, Robert had a need for his photography business, one that could be satisfied by buying a purpose-built flash diffuser from the store. Instead, he chose to come up with a creative solution by repurposing a flashlight and milk jug, and he describes the very practical advantages of doing so: it costs less to obtain and to replace. Utilitarian value can also be found in the cat step Sally created by overturning a plastic container so her cat could jump up on the couch, and in the pillow Barb made by using shoulder pads cut out of old jackets as stuffing. Here, the end goal is to create a practical use for something a person might already have and wants to repurpose.

Some of our informants also created hedonic value through the repurposing process. This type of value creation was mostly found in aesthetic and amalgamative repurposing. Connie creates hedonic value as she reverse-paints on old windows she gets cheaply from various places (e.g., salvage stores, the side of the road). Doing a reverse-paint "looks a lot better because you have that shiny surface, and then you have the depth of the translucency of the paint" (Connie, business owner, maker). Even broken windows can provide hedonic value as she creates new value from a seemingly worthless object by adding her artistic skill and cleverness:

> I got a window and I broke one of the panes. And so it was leaning against my fence. So, I'm walking around in the yard and I'm like, well what should I paint on that window? 'Cause I was like, I don't wanna throw it away. Maybe I can do something with it. So, all of a sudden when I asked myself that, the song came in my head—what is that song. . . . "I can see clearly now, the rain is gone." . . . So, what I did was I painted brown on all the panes that were there. And then I painted a face with little fingers, on a board or whatever, and stuck it in the broken thing and I wrote "I can see clearly now, the pane is gone." (Connie, maker, business owner)

In another example, James discussed how, when he helps his customers incorporate reclaimed wood into their homes, they are primarily seeking hedonic value:

> [The customer would say,] "I want a connection to the past. I like the look, the feel, the age, the richness, the solid, you know, strong kind of, kind of look." And I remember when I was a kid, and the world was a better place. It was simpler. It was friendlier. It was it was Mom with lemonade and Grandpa working hard and it was it wasn't all computers and screens and it was a better time. There's a big part of that in the market, too. (James, maker, business owner)

Likewise, Brandy saw a consumer shift toward items that have a different aesthetic quality, even if degraded by prior use:

> As technology advances and we get so used to perfection in the Apple world, that people crave imperfection. . . . And I see that to be the case with my store. I think that people like that things are a little beat up. I think people like that it is secondhand, that it came from something else. It makes them feel good because we are in such a clean aesthetic in our everyday life, you know? (Brandy, maker, business owner)

Just as James believed that some of his customers desire wood that has a history and a connection to the past, Brandy saw her customers as craving items that are not mass produced to exacting specifications, like the latest gadget from Apple.

In some cases, both utilitarian and hedonic value were added during the repurposing process, most often found through amalgamative repurposing. This process both met our informants' functional needs and was aesthetically pleasing, increasing the value created and, thus, the perceived value in the eyes of the maker and consumer. Diane created both utilitarian and hedonic value by repurposing a nonworking piano as a buffet. The new buffet will now have shelves to hold objects such as wine glasses and is also aesthetically pleasing, as she is decorating the piece with piano keys:

> I'd seen other things, like armoires and dressers that had been turned into bars and tables and even planters, and so I think that just kind of made me think about it. And just the shape of it, it kind of looks like a buffet or bar, or even a china cabinet, if you put shelves in it. But, uh, I think, maybe, I had seen piano keys, just random piano keys, in a basket somewhere at a store, and I thought, "Oh, those are piano keys." And it was decorative, and I thought that was really cool, and then I thought, "Well, I could do that with my piano." (Diane, maker)

James described these layers of hedonic and utilitarian value for those who repurpose wood:

> This man and wife up in [town's name] had had two walnut trees that died. These walnut trees were planted by their Grandpa. . . . We can cut up Grandpa's tree and turn it into firewood or pay somebody to go and chip it and bring it to the landfill. But wouldn't it be much cooler if we had a table out of Grandpa's tree or a floor out of Grandpa's tree? And just—exactly the smile that you [the interviewer] just did? I see that same smile in people's face all the time. (James, maker, business owner)

The wood from a dead tree can clearly have utilitarian value as a table or flooring, but what James described also seems to incorporate hedonic value from sentimental connection or a sense of nostalgia.

Behavioral and perception effects. As described in the previous section, one outcome of the creative act of repurposing is the new value that the maker receives from the repurposed product. In addition, our study indicates that the process of repurposing influences the perceptions and behavior of our informants through their communication about the history and story behind the piece. Importantly, this observation held true not only for makers but also for consumers of objects repurposed by others. For example, when guests asked Karen (consumer) about her repurposed product, she enjoyed telling them where she bought it and that it was made from local reclaimed wood; she felt that these biographic details made the objects more valuable than newly manufactured products. Likewise, Betty stated,

> I'll pay for things, too, when I know . . . the story of the person that's behind it, and you kind of want to support the person as much as the business. . . . I think there is that desire by some to have that connection with the person behind who makes the food and makes their clothes and their furniture. (Betty, consumer)

For this reason, Betty believed that the local store that sells repurposed items should make more of a point to tell that story for each product:

> It'd be nice sometimes if, maybe when they sold the pieces, if they would put a few more of those stories with the pieces, where that came from and how it was created and how it was selected, because I think then their customers would . . . I think that story would resonate with them, and I think some of them would tell that story. (Betty, consumer)

By communicating the story behind each piece, the maker is able to make the objects "speak" by placing them in a network of provenance, including the people, places, and materials involved in their creation. This story then influences the perception and

behavior of the owner of this repurposed product to connect to and continue to communicate the history of the piece.

This influence on behavior also occurs for makers because of the effort invested and resulting pride from repurposing the product (cf. Norton, Mochon, and Ariely 2012). Very little research has investigated how creatively interacting with products enhances the subsequent consumption experience (Burroughs, Moreau, and Mick 2008), but we observe greater attachment to and enjoyment of the repurposed objects. If this attachment results in people being more likely to keep these products rather than replace them with new products, it would further extend the product life cycle of the original materials and reinforce the anticonsumption aspect of repurposing. This also creates a situation where life spans can be increased through keeping the original product but updating it for continual use. Karen feels this way about keeping her old furniture but having it painted so she can continue to enjoy it. "Some of the things I've seen, the painted things make me stop and think about how things can be reused." She would rather keep what she has than buy something new because it is hers:

> Again, there's that feeling that you kept something that you had and made it work instead of just throwing out something because it didn't work for you anymore. Even though a lot of that can go somewhere and be used, I'm the one using it. (Karen, consumer).

When thinking about her repurposed furnishings as compared with her new furniture, Karen stated that she would rather keep her repurposed products:

> Maybe because of the uniqueness of them. If I would have to choose between those and something that I bought at a furniture store, I would probably save those because they are different than the new item. (Karen, consumer)

Similarly, Shane described how repurposed objects have a special value and meaning to those who created them:

> It has been extremely satisfying to me because people want to get their hands dirty, they want to be part of the process and end product, like when you go get a cup from IKEA, it's great and all, but if you break it you're like, "Ah, I'll just go get another one." But with the chairs and the things you get people involved in, if it breaks they're like, "Oh, God! I need to go get more screws and boards and like fix this because this is my baby." (Shane, business owner, maker)

Identity effects. In addition to the postcreation connection consumers feel to the objects, which influences the usage and evaluation of repurposed objects, we also see how repurposing changes consumers' self-perception. Because they have engaged in the repurposing process, they see themselves as more creative and resourceful.

> It's very unique. I don't know that I've ever seen anybody do that with a piano. I mean, I've seen different things with pianos, but I don't know that I've ever seen anything like that one. So, yeah. There's a sense of pride I guess, because, you know, I made it, kind of. Adapted it. (Diane, maker)

For Diane, seeing the repurposed object in her living room gives her a sense of pride in her skill in repurposing. Just as the object is one-of-a-kind, it imbues its maker with a similar aura of uniqueness. Sally talked about this point in her own account:

> I consider myself to be unique. And I like unique things. Because not everybody would think to turn the cat litter container over and use it for a cat step. So, I don't consider myself the smartest person or the prettiest person, but I can be unique in that aspect. To me, it helps me stand out, and I'm rather proud of that. (Sally, maker)

Thus, the owner of the repurposed object is associated with a network of repurposers, adding a facet to their identity. This outcome even appears to apply to consumers, such as Karen and Betty, who lay claim to a creative identity by virtue of their choice to buy repurposed goods.

Finally, in our informants' accounts we see how the creative process can become a virtuous circle; because the repurposing process creates value, and because the repurposed object influences consumers to see themselves as creators, they are seemingly more likely to engage in repurposing in the future. As Lily (business owner, maker) notes, "Once you start creating, it is easy to keep on creating." This brings us back to the antecedent effects described previously, and it completes the framework of repurposing we observed in our informants.

Discussion

Extending product life spans through reuse and slow consumption is a key component of sustainable consumption, and policy makers would benefit from identifying ways to increase reuse among consumers. The goal of this research was to examine a particular type of reuse, repurposing, to determine the antecedents, process, and outcomes of this behavior. This research is unique in that it is the first to examine the repurposing context specifically, define it, and investigate the process and outcomes. This research also adds to the relatively scant research on sustainable consumption in the usage and end stages of the consumption process. The results of this research provide insights that policy makers can use to increase sustainable consumption through reuse behavior.

Our results indicate that although repurposing is an avenue for sustainable consumption, it is not the main motivation to engage in the behavior. Instead, makers are interested in the activity primarily because it is a fun and creative process. For some, it also provides an opportunity to be a steward of objects (cf. Cherrier 2010) and to consume frugally. Social networks and object agency are also antecedents to repurposing. Social media, TV shows, and magazines all provide makers an opportunity to learn what is possible through repurposing and how to do different repurposing projects, driving the repurposing behavior. With object agency, the object itself can act as an

impetus for engaging in the behavior. This situation presents itself when the maker sees the value of an often-unwanted object even though a new function or an alteration to the object is needed. Thus, the challenge becomes how to keep the object's value in circulation, a challenge the maker can overcome using his or her repurposing ability.

Our research captures the different processes of repurposing and suggests that repurposing can be categorized by two dimensions: changes made to the object and/or to the purpose of the object. Three different repurposing categories result: functional, aesthetic, and amalgamative. Functional repurposing involves finding a different purpose for an unaltered object. This type of repurposing most closely aligns with the previously identified concept of use innovativeness (Ridgway and Price 1994). Aesthetic repurposing alters an object in some way but uses it for the same purpose, and amalgamative repurposing combines these two forms by altering the object as well as its purpose. Our categories of functional and aesthetic repurposing correspond to research on creativity, which has identified functional and aesthetic dimensions of creativity in addition to a novelty dimension (Burroughs, Moreau, and Mick 2008). Functionality indicates "the extent to which a consumption response effectively addresses the problem or improves on an existing solution" (Burroughs and Mick 2004, p. 403). For the aesthetic dimension, an outcome of creativity is that the repurposed object not only is novel but also has a certain beauty, elegance, or attractiveness (Burroughs, Moreau, and Mick 2008). Novelty is evident in the "application of a product to a purpose other than that for which is was originally intended, the alteration of a product to enhance its performance or appearance, or the combination of two or more products in a new way" (Burroughs, Moreau, and Mick 2008, p. 1015). The results of this study indicate that repurposing and creativity are related, conceptually and pragmatically, as we discuss subsequently in this section.

Through this repurposing process, different types of value are created, and the process also influences the behaviors, perception, and identity of the maker and consumer. Two types of value are created as outcomes of repurposing: utilitarian and hedonic. Utilitarian value is created most often as a result of functional repurposing, whereby the object is unaltered, but a new purpose is identified. Hedonic value is most often created through aesthetic repurposing, whereby the object is altered to make it desirable again, but the purpose is the same. In some cases, especially with amalgamative repurposing, both types of value are created, and more skill and involvement is required to change the object as well as the purpose. This newly created value influences the behavior and perception of the maker and consumer. We found that the owners of repurposed objects valued them more highly because of their history and provenance and enjoyed sharing the story behind the piece, creating higher levels of product attachment. Finally, the created object influences the owner's identity. The repurposed product creates a new network between the historical materials, the maker, and the consumer of the repurposed product. The story behind the materials and the process provides new identity to the maker, which can then be communicated to a new consumer. In addition, makers see themselves as more creative by engaging in the creativity process, and consumers see new potential for products they own to be repurposed. This identity and attachment creates a cyclical process in which engaging in or purchasing repurposed products creates the desire to engage in repurposing in the future, thereby reinforcing the rejecting and restricting facets of anticonsumption.

Our research suggests that one factor that might influence consumers to extend product life cycles is creativity. Creativity can be described as "productive thinking" that combines internal and sometimes external knowledge in novel ways to solve a problem (Hirschman 1983). Previous research has suggested that consumption practices can be creative if they involve the key components of novelty and functionality (Burroughs and Mick 2004). Through this lens, we can see how creativity might lead to anticonsumption via practices of rejecting and reclaiming. When a consumer has a need that is not currently met by one of their possessions, they will likely have access to marketing offers from one or more companies hoping to sell them a new product to meet that need. However, if a consumer is to find a solution to the need without purchasing a new product (i.e., rejecting), creativity is required to find a novel and functional means of satisfying the need. This creative process will often involve extending another product's life cycle through behaviors such as repair (e.g., Scott and Weaver 2014) or salvaging (i.e., reclaiming) (Brosius, Fernandez, and Cherrier 2013), and in some cases, the very desire to extend a product's useful life could pose a dilemma that requires a creative solution. Creativity is generally important in problem-solving situations (Burroughs and Mick 2004) and is heightened in situations of resource scarcity (Mehta and Zhu 2015), making it particularly relevant to the study of sustainable consumption. In addition, it is particularly important to policy, as policy makers can facilitate consumer creativity by influencing the availability of information and resources consumers need to develop creative solutions (Hirschman 1983). Future research could further explore this apparent relationship among creativity, repurposing, and sustainable consumption.

Beyond the creativity literature, this research also provides insight into the cocreation and value creation literature. In contrast to the original view of material objects as collections of passive operand resources, our research demonstrates how objects can have agency and can interact with human actors to cocreate value. This cocreation progresses through stages of acquisition, transformation, and disposition, and this process is fluid and contingent on the human and material agencies expressed at each stage. The value created may also be influenced by the cultural and social desirability of repurposing and repurposed items, demonstrating how social forces can affect value cocreation and how the value is perceived and defined (Edvardsson, Tronvoll, and Gruber 2011).

Because of the reuse of objects involved in repurposing, our results also contribute valuable insight into the sustainable consumption and anticonsumption literature streams. Specifically, our research provides insight into how consumers can reuse and

reclaim products during the usage and end stages of consumption, which is an underresearched area. Previous consumer research has predominately focused on new products as compared with used products (Brosius, Fernandez, and Cherrier 2013) and has neglected the full consumption cycle beyond initial choice (Prothero et al. 2011). Reusing and reclaiming products to repurpose them rather than disposing of them increases the life span of the objects and the materials therein. This cyclical view of consumption is similar to that proposed by Brosius, Fernandez, and Cherrier (2013), which suggests that after an object is disposed of, it can be reacquired rather than becoming waste. Reclaiming waste in this way is part of the anticonsumption mindset, which includes three different avenues: reject, restrict, and reclaim (Lee et al. 2011). Our research provides an additional venue in which the anticonsumption mindset is apparent through rejecting and reclaiming, and this article is the first to specifically investigate the consumer behavior context of repurposing. Reclaiming consumer waste may offer a beneficial pathway to a more sustainable consumer society (Brosius, Fernandez, and Cherrier 2013). The reclaim category represents an "ideological shift regarding the processes of acquisition, use, and dispossession" (Lee et al. 2011, p. 1681), and our respondents indicated a desire to keep materials in circulation (i.e., reclaim) by changing either the product or the purpose to add new value to the object. This mindset to reclaim and reuse requires creativity, unlike simply purchasing a new product to solve the problem.

For policy makers interested in increasing sustainable consumption through reuse, our research provides several implications. First, our research suggests that repurposing might have a broader appeal than reducing or recycling because it can be a fun and creative activity as opposed to a sacrifice in the name of environmental responsibility. Most of our respondents engaged in repurposing primarily for the enjoyment of the activity itself, rather than for environmental reasons. This finding is similar to previous research investigating the reacquisition of consumer waste (Brosius, Fernandez, and Cherrier 2013). For their respondents, environmental reasons were not the critical motivation for sustainable consumption. Instead, reacquisition was motivated by hedonic reasons: pleasure seeking that was based on the thrill of the hunt. However, policies aimed at increasing this behavior (repurposing or reacquisition of consumer waste) still encourage the end goal of sustainable consumption. Furthermore, even though sustainable consumption isn't the initial motivator, this behavior can encourage sustainable behavior in the future, as we observed in our results and the results of Brosius, Fernandez, and Cherrier (2013). Thus, it would be beneficial for policy makers to frame sustainable consumption in terms of hedonic pleasure (Brosius, Fernandez, and Cherrier 2013) or as a venue for creativity, as our results suggest. Policy makers could employ activities such as community-based social marketing (McKenzie-Mohr 2000) to promote repurposing in this way.

Second, our research suggests that encouraging a fun activity, such as repurposing, could increase sustainable behaviors without requiring new values around sustainability. This contrasts with previous research that found that identifying with nature and ecological selves drives sustainable consumption (Dobscha and Ozanne 2001). In addition, reconciling a person's anticonsumption beliefs and behaviors with the broader consumer culture can be difficult. For example, voluntary simplifiers must address their concerns about consumer culture and do so by balancing self-sufficiency, reduced consumption, and modified consumption (Shaw and Moraes 2009). Repurposing, however, provides a venue in which consumers can still engage in anticonsumption practices but remain in the overall consumer marketplace. Especially if markets are created for such practices, consumers would be able to engage in sustainable behaviors but not alienate themselves from the broader consumption sphere. This is consistent with purchasing secondhand items (Dobscha and Ozanne 2001), whereby consumption is not avoided, but consumers engage in a different type of consumption. Thus, policy makers could target social marketing efforts around repurposing to population segments that are not traditionally environmentally conscious or active. Further research could explore this possibility and define more specific target markets and strategies for repurposing.

Beyond creating new values, attempting to create an anticonsumption mindset might also not be feasible. Research has shown that when forced to engage in voluntary simplicity, consumption levels return to preparticipation levels after the intervention (McGouran and Prothero 2016). Thus, creating a sustained consumption reduction among consumers is a formidable task and must be guided by people's own values and beliefs (McGouran and Prothero 2016). Again, repurposing provides a venue in which values do not necessarily have to be changed. Rather than trying to get people to consume less (which might be difficult), policy makers can encourage people to consume differently through repurposing, which requires creativity and ingenuity. Thus, for policy makers, attempting to increase behaviors such as reclaiming and repurposing might be easier than attempting to change values and beliefs around environmental sustainability. Further research should test this proposition and identify the most appealing positioning for repurposing to be used in social marketing efforts.

Finally, our results also show how sustainable consumption can be communicated through social networks. Because repurposing is a unique practice that can be construed as fun and creative rather than a boring, forced act that must be completed (e.g., recycling), consumers will be more likely to want to share and communicate this information. Through social media and other networks, new ideas can be shared to encourage this behavior, which has beneficial environmental impacts without creating a perception of self-sacrifice. Repurposing also does not ask consumers to reduce their levels of consumption but, rather, to choose differently and to use items for longer. Increasing the reuse mentality could have a greater environmental impact than behaviors such as recycling because repurposing does not downgrade the materials. Thus, it would be important for policy makers to find ways to encourage this mentality and provide examples and options for people to think

more creatively about their material possessions. For example, policy makers could promote repurposing and reuse with primary and secondary school programs in which children can be encouraged to find creative ways to reuse products; in addition, policy makers could create or subsidize digital and in-person forums such as workshops to teach people how to functionally and/or aesthetically repurpose products.

In addition to efforts to promote repurposing through marketing efforts, policy makers could pursue regulatory approaches to promoting repurposing. As we have noted, the relative environmental impact of repurposing versus other practices is somewhat uncertain, so policy makers should develop metrics to determine when repurposing is more sustainable than alternative behaviors and make these metrics available on product labels and/or online. Labeling is also an area in which manufacturers could be encouraged or required to include repurposing ideas, similar to how some manufacturers currently include product use ideas on labels and packages. Finally, policy makers could enact laws and regulations that assign "cradle to cradle" responsibility to manufacturers, retailers, or consumers to discourage disposal and encourage repurposing, remanufacturing, repairing, and reusing, as has begun to occur in the electronics industry (Environmental Protection Agency 2018; Kumar and Putnam 2008).

Beyond implications for public policy, this research also provides insights for company policy recommendations. Because companies may want to avoid restrictive government environmental policies, they could to promote behaviors such as repurposing to increase their sustainability perception. Using our results, companies should reach out to consumers who are already repurposing their products, such as the IKEA Hackers, who embellish IKEA products, or the artist Blake McFarland, who creates statues out of used tires. Companies can include links to repurposing projects on their website or social media pages and hold consumer contests for creative repurposing ideas. By promoting this type of behavior rather than trying to prevent it, companies can encourage sustainable consumption in a fun, creative way. As consumers become more involved in the company through a fun experience, the perception of the company will also improve. This type of policy creates a "cradle to cradle" mentality rather than a "cradle to grave" mentality, and it facilitates greater involvement with the company's products. The company can then create social networks to educate and encourage this type of behavior among consumers. Thus, for the company, this creates an opportunity to reduce waste, protect the environment, and involve consumers with the company and each other in a fun, creative way.

In conclusion, our study makes an important first step in repurposing research, which represents an intersection of sustainable consumption and anticonsumption. The results of our study identify the antecedents, processes, and outcomes of repurposing, and they suggest that creativity and fun may be a key motivation for repurposing and perhaps other sustainable consumption behaviors. Our results suggest the potential for marketers and policy makers to highlight or accentuate the hedonic value of the repurposing process and its outcomes as a means of promoting sustainable consumption. We hope that future research will continue to explore these relationships and the promise they hold for consumers and society.

Declaration of Conflicting Interests

The authors declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding

The authors disclosed receipt of the following financial support for the research, authorship, and/or publication of this article: This research received funding support from the Association for Consumer Research and the Sheth Foundation through a Transformative Consumer Research Grant.

Associate Editor

Hélène Cherrier served as associate editor for this article.

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