Products As Self-Evaluation Standards

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We propose that people judge their traits relative to standards set by products, in assimilation or contrast to product traits, as determined by product ownership. For instance, subjects felt shorter when assigned to own short (versus tall) looking mug, but felt taller when assigned not to own the same mug.

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Antecedents and Consequences of Psychological Ownership

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Paper #1: From Tragedy to Benefit of the Commons: Increasing Shared Psychological Ownership
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Paper #2: Products as Self-Evaluation Standards
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Paper #4: Words Speak Louder: Conforming to Preferences More than Consumption
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SESSION OVERVIEW

“Ownership” is both a legal concept and a psychological state. Legally, ownership is recognized by society and thus protected by laws. Psychologically, ownership is a feeling that “a product is mine” (Peck and Shu 2009), even in the absence of legal ownership. When a consumer feels psychological ownership for a product, the product is often experienced as closely connected to the self (Turk et al. 2011) supported by activation in ventromedial pFC. Recent evidence suggests that similar self-memory advantages can be obtained under nonevaluative encoding conditions, such as when object ownership is used to evoke self-reference. Using fMRI, the current study explored the neural correlates of object ownership. During scanning, participants sorted everyday objects into self-owned or other-owned categories. Replicating previous research, a significant self-memory advantage for the objects was observed (i.e., self-owned > other-owned, or as part of the self (Weiss and Johar 2013). People experience mental synthesis between the psychologically owned object and the self because they feel that the product is part of the self (Weiss and Johar 2013).

This session aims to contribute to the growing body of research on psychological ownership by exploring antecedents and consequences of this construct. Four papers explore how feeling (vs. not feeling) psychological ownership for a product affects the way people (1) behave towards and form preference for the product as well as (2) evaluate themselves and behave in product-related and product-unrelated domains.

The first paper by Shu and Peck explores factors that facilitate psychological ownership over shared resources (e.g., rental cars, hotels). Two correlational studies and one field study demonstrate that increasing psychological ownership over a shared resource can increase preservation of shared resources, and reduce the “tragedy of the commons.” The second paper by Weiss and Johar focuses on consequences of feeling product ownership for self-judgment along product-trait dimensions, such as physical dimensions (e.g., height) or brand personalities (e.g., sincerity). Two experiments show that feeling ownership (lack of ownership) for a product leads people to judge their personal traits in assimilation (contrast) to respective product traits. The experiments demonstrate downstream implications for overall self-esteem and behavior. The third paper by Chung and Johar identifies consequences of feeling product ownership for behavior in product-unrelated domains. Many products (e.g., calculator) are relevant for some domains (e.g., algebra) but not for others.

Four studies show that feeling ownership over a product may impair people’s task performance when the task is portrayed as product-irrelevant compared to when it is portrayed as product-relevant. The fourth paper by Tu and Fishbach shows that people may experience feelings of ownership vicariously through others. Such implicit feelings of ownership for a product that others acquire was found to reduce an individual’s preference for that product, as if that individual already owned that product herself. This subsequently decreased their likelihood of choosing the same product.

These four papers raise several overarching research questions pertaining to the antecedents and consequences of psychological ownership. For instance, what is the interplay between shared feeling of ownership and personal feeling of ownership? What are the unique consequences and antecedents of each? Can the type of factors that induce such feelings affect the types of consequences that such feelings have for behavior? Comments and suggestions from the audience will be sought so as to enhance the session’s quality and interactivity.

From Tragedy to Benefit of the Commons: Increasing Shared Psychological Ownership

EXTENDED ABSTRACT

Whenever resources are shared among multiple individuals, there is a risk that individuals will put self-interest ahead of common interest and fail to preserve those resources, an issue known as the tragedy of the commons. Recent research on psychological ownership has shown that peoples’ perceptions of ownership can increase resource valuation, even for items not legally owned. Building upon this idea, we propose that increases in psychological ownership for shared and/or not legally owned resources can lead to behaviors that better care for such resources.

We begin by examining three antecedents of psychological ownership; investing the self in the target, controlling the target, and coming to intimately know the target (Pierce, Kostova & Dirks 2001) and their relationship to psychological ownership. In the first two studies, we find that all three antecedents are correlated with psychological ownership. In our third study, we test how increases in psychological ownership affect behavior by conducting a field experiment with a hotel. We find evidence that when guests have more control (choosing their room), their feeling of ownership increases, as does their satisfaction with the hotel, their likelihood of returning, and whether they will tell others. We also find that people feeling more ownership take better care of the resource by leaving the room cleaner. Thus, efforts to increase psychological ownership do appear to increase care for non-owned resources.

Study 1: Investing the Self antecedent

Our initial two studies focus on antecedents to psychological ownership for shared resources in order to guide our creation of interventions for later studies of subsequent behavior. In Study 1, we asked 500 people to identify 3 shared objects or spaces (1,413 observations). For each item we asked: customization (investing the self), cleaning/maintenance (investing the self), number of people who shared the object/space, legal ownership, and psychological ownership. We found that, as expected, customization ($\beta = .13$, $p < .001$) and cleaning/maintenance ($\beta = .20$, $p < .001$), both requiring investing the self, were positively and significantly related to psychological ownership. Not surprisingly, legal ownership was also positively
related to psychological ownership ($\beta = .53, p < .001$). With psychological ownership as a dependent measure, all predicted antecedents were significant ($F(6, 2,455) = 321.60, \text{Adj R}^2 = .44$).

**Study 2: Controlling the Target and Intimately Knowing the target antecedent**

Our second exploratory study used natural variations in car rental procedures as a manipulation of psychological ownership. Some car rentals allow consumers to select their own car, while others assign a car. We expected that when a consumer can choose their own car, they would feel more psychological ownership compared to when the car is assigned, since the consumer has more control. We also hypothesized that if a person rents a car for a longer period of time, they will more intimately know the car and will feel more psychological ownership compared to a consumer who rents for a shorter time.

We administered a questionnaire ($n=566$) in the context of a car rental. We asked each respondent if they had rented a car recently, whether they were allowed to select the car (control) and the length of the rental (intimately knowing). As expected, both selection of the car ($r = .30$) and length of rental ($r = .16$) were positively correlated with psychological ownership. With psychological ownership as the dependent variable, selection of the car and length of rental predicted ownership $F(3, 499) = 22.08, \text{Adj R}^2 = .11$. Whether a consumer was able to select a car was positively related to their feeling of ownership ($\beta = 1.21, p < .001$), as was the length of time that they rented the car ($\beta = .018, p < .001$).

**Study 3: Hotel field study-Control antecedent**

While the first two studies lend support to the relationship between the antecedents of psychological ownership and the feeling of ownership, we wanted to conduct an experiment to determine causality by directly manipulating an antecedent of ownership. This study also allows us to measure subsequent behavior and care of the shared resource. The context for this study was a hotel in a university town.

This study had two conditions: guests were either assigned a room as usual ($n = 42$) or they had a choice between 2 different rooms ($n = 39$). A survey was left in the room for the guests to fill out and return. As expected, having a choice of room resulted in a greater feeling of psychological ownership compared to not choosing ($M_{\text{choice}} = 5.49, M_{\text{no-choice}} = 4.74, F(1, 79) = 7.52, p = .008$). Similarly, having a room choice resulted in significantly greater satisfaction with their hotel ($M_{\text{choice}} = 6.13, M_{\text{no-choice}} = 5.76, F(1, 79) = 3.83, p = .054$) and a greater likelihood of staying at the hotel in the future ($M_{\text{choice}} = 6.15, M_{\text{no-choice}} = 5.57, F(1, 79) = 5.68, p = .02$). Guests who could choose also indicated that they were more likely to tell others about the hotel in the future ($M_{\text{choice}} = 6.28, M_{\text{no-choice}} = 5.64, F(1, 79) = 10.61, p = .002$). Finally, and very importantly, the hotel cleaning staff noted how clean the room was when guests checked out. The scale was 1-5 with 1-very messy, 2-messy, 3-average, 4-clean, and 5-very clean. Guests who felt more ownership left the room cleaner ($M_{\text{choice}} = 4.00, M_{\text{no-choice}} = 3.57, F(1, 79) = 4.18, p = .04$).

Thus, results indicate that a subtle manipulation such as having guests choose between two hotel rooms increases both ownership and consumer behavior that preserves the resource. We propose that this relationship between greater psychological ownership for a shared resource and increased effort to preserve the resource offers a solution to the tragedy of the commons. Our ongoing work continues to test manipulations that can increase ownership for shared resources and also considers the public policy implications of such efforts.

**Products as Self-Evaluation Standards**

**EXTENDED ABSTRACT**

The self is a malleable concept and consumers frequently re-evaluate the self on different aspects relative to standards set by other people. By affecting consumers’ self-evaluation, self-standards can shape consumer preferences (Aaker 1999) and thus understanding self-standards in consumption settings is a key interest for marketers.

Extending research on self-evaluation standards (Festinger 1954), the present research examines whether, when people evaluate aspects of themselves (e.g., how thin am I?), they use not only standards set by other people (e.g., how thin is this model?), but also standards set by products (e.g., how thin is this MacBook Air?). Although this idea is consistent with findings that people can use product traits as inputs for self-evaluation (Belk 1988; Park and John 2010), previous research do not suggest nor test our prediction that people may compare and contrast themselves to objects similarly to how individuals judge themselves vis-à-vis others.

It is hypothesized that products-as-standards affect consumers’ self-evaluation in a direction that is modulated by product ownership: a consumer is predicted to judge her own traits in assimilation with traits of products she owns, but in contrast with traits of products she interacted with but does not own. For example, seeing an ad for a MacBook Air may lead a consumer to compare her own thinness to the slim product she does not own, and thus feel fatter and unattractive (contrast). However, receiving the Mac as a gift may make that consumer feel unity with the thin product and thus feel thinner and attractive (assimilation).

Why should products as self-standards affect how people evaluate themselves and why should ownership modulate the direction of the effect? Research on Egocentric Categorization (EC, Weiss and Johar 2013) shows that consumers spontaneously classify owned (unowned) objects as “self” (“not-self”). Once classified in this way, consumers are likely to judge the category “self” in assimilation to items that the category includes but in contrast to items the category excludes (Bless and Schwarz 2010). Thus, consumers may judge themselves in assimilation to owned products, which they classify as “self”, but in contrast from unowned products, which they classify as “not-self.” Notably, categorization principles predict this pattern not only for self-selected items that gained meaning over time (Belk 1988), but also for recently and arbitrarily acquired items, where the decision whether or not to own was not made by the consumer (Terk et al. 2011).

Two experiments supported the prediction that owning a product leads people to judge themselves in assimilation to that product, but interacting with an unowned product leads people to judge themselves in contrast from that product, and began testing EC as process. In Experiment 1, as part of a marketing study, participants assessed a 16oz traveling mug that was either short or tall. Participants randomly assigned to the “owned” condition received the mug they assessed as gift. Participants randomly assigned to the “unowned” condition received a different mug as a gift, and so did not own the mug they assessed. To capture participants predisposition to classify owned objects as “self” and unowned objects as “not-self,” participants responded to a previously established “Mine-Me” sensitivity measure. Participants responded to a previously established “Mine-Me” sensitivity measure. (Weiss and Johar 2013). As a first DV, participants responded to the Twenty Statement Task, where participants complete 20 self-descriptive statements (“I am ____”). Next, participants reported how they feel about their physical height between “very short” and “very tall,” and subsequently completed the “Appearance” subscale of the State Self-Esteem Scale. Finally, participants coded each of their responses to the Twenty Statement Task (1) by whether they referred
to their physical appearance and (2) by whether they were relatively positive, neutral or negative.

An analysis controlling for gender and actual height in inch revealed that, consistent with our predictions, participants in the “owned” condition who assessed the short (vs. tall) mug felt shorter (assimilation). By contrast, participants in the “unowned” condition who assessed that same short mug felt taller (contrast). Further, consistent with EC as the underlying process, although the effect was significant on average, this pattern was driven by participants who are predisposed to classify owned products as “self” and unowned products as “not-self,” namely “Mine-Me” sensitive individuals. Finally, a bootstrap mediation analysis revealed that feeling taller (vs. shorter) increased, in-turn, overall physical self-esteem, as manifested in both the close-ended appearance self-esteem scale, and in a physical appearance index created from the responses to the open-ended “I am...” questions.

Experiment 2 tested (1) the prediction that the pattern observed in Experiment 1 is mediated by the extent people classified owned products as “self” and (2) the generalizability of the results beyond physical traits to brand personality characteristics. As part of a marketing study, participants assessed headphones that were positioned as either sincere—authentically reproducing sound—or insincere—artificially improving sound. Participants were assigned either to own or not to own the headphones similarly to Experiment 1. As a DV, participants responded to the Social Desirability scale, which allows people to respond either honestly or in a socially desirable manner. To test whether innocuous expected effects on whether people respond in a socially desirable manner can manifest in a consequential behavior, subjects participated in a trivia contest with incentive and opportunity to artificially inflate their performance. Then, to test EC as process, participants reported the extent they classify the headphones they evaluated as “self.”

A bootstrap mediation analysis revealed that, consistent with our predictions, participants assessing the insincere (vs. sincere) headphones in the “owned” condition classified these headphones as “self,” and, in-turn, demonstrated greater social-desirability (assimilation). By contrast, participants assessing the same insincere headphones in the “unowned” condition classified these headphones as “not-self,” and, in-turn, exhibited lower social-desirability (contrast). A second bootstrap mediation analysis with two mediators operating in serial revealed that greater social-desirability predicted, in-turn, insincerity in the trivia contest.

We discuss (1) consequences for bridging literatures on self-judgment and product-judgment and (2) implications for the modern consumer, who often acquires objects without intention to do so (e.g., inheritances, gifts) and is frequently exposed to unowned products through ads.

### The Consequences of Product Ownership: Performance Handicap in Product-unrelated Tasks

**EXTENDED ABSTRACT**

From gifts that we receive and items that we purchase from stores, we often feel that products that we own define who we are. In fact, consumers perceive themselves to share common characteristics with their products (McCracken 1986; Solomon 1983). These consumers tend to exhibit product-consistent behaviors (Belk 1988; Wheeler et al. 2007). If the feelings of psychological ownership lead these consumers to identify themselves with characteristics of the products, how would these feelings of psychological ownership affect consumers’ behaviors in product-unrelated tasks?

The present work investigates potential downstream effects of psychological ownership. Specifically, we propose that the ownership increases the feeling that the product trait is an important part of the self, subsequently activating product-consistent aspects of the self (Wheeler et al. 2007). Consequently, we argue that this improves consumers’ ability to perform well in product-unrelated tasks. Past research shows that different situations and contexts can activate a certain self-concept while deactivating other aspects of the self (Hugenberg and Bodenhausen 2004). Because consumers activate the self by assimilating with the product traits, we predict that this may deactivate product-inconsistent traits of the self. We, therefore, expect that consumers who feel psychological ownership to a product may perform worse in product-unrelated tasks.

In Experiment 1, eighty students were randomly assigned to one of the four conditions: (psychological ownership: ownership/baseline × quiz: relevant/irrelevant). Half of the participants in the ownership condition saw a Google Maps app logo and described how the icon looks like to someone who has never seen it (a pretest revealed that this increases the feelings of psychological ownership). Participants in the baseline condition summarized a short article. Next, all participants solved a quiz set (e.g., figuring out a color pattern of a 3-D cube and fitting a block into the cube) that was either framed as measuring people’s navigation skills (relevant) or visual art skills (irrelevant). The results showed that within the ownership condition, participants who solved the visual art quiz performed worse than those who solved the navigation quiz (Mnavigation = 3.72, Mpattern-recognition = 5.56; p = .002). Meanwhile, there was no difference between the navigation and visual art quiz scores within the baseline condition (Mnavigation = 4.41, Mpattern-recognition = 4.86; p = n.s.).

Experiment 2 conceptually replicated the findings from Experiment 1 using another product, Play-Doh. One hundred one students were randomly assigned to one of the four conditions: (psychological ownership: ownership/baseline × quiz: relevant/irrelevant). We used the same psychological ownership manipulation identical to Experiment 1, but used Play-Doh as the product stimuli. After the manipulation, all participants solved the same quiz that was either framed as measuring individuals’ hand-crafting skills (relevant) or navigation skills (irrelevant). As expected, participants who felt psychological ownership to Play-Doh performed worse in the navigation quiz than in the hand-crafting quiz (Mnavigation = 3.26, Mhand-crafting = 4.64, p = .006). Participants in the baseline condition did not differ in their scores across the two quiz types (Mnavigation = 4.21, Mhand-crafting = 4.12; p = n.s.).

However, one may argue that priming a product may automatically activate prime-related contents while inhibiting prime-irrelevant contents in one’s mind. The inhibited accessibility to prime-irrelevant content may have impeded participants’ performance in product-unrelated tasks. In order to rule out this alternative explanation, we added the usage-recall condition, one of the frequently used priming methods referenced in the priming literature (Gillund and Shiffrin 1984; Neath and Saint-Aubin 2011). In Experiment 3, 117 lab participants were randomly assigned to one of the six conditions (psychological ownership: ownership/baseline/usage-recall × quiz: relevant/irrelevant). After one of the three manipulation tasks, all participants solved either the navigation skills quiz (relevant) or the pattern-recognition quiz (irrelevant). Consistent with our hypothesis, participants in the ownership condition performed worse in the pattern-recognition quiz than in the navigation quiz (Mnavigation = 4.12, Mpattern-recognition = 5.14; p = .049). However, there was no difference in the performance within the baseline condition (Mnavigation = 5.63, Mpattern-recognition = 4.75; p = n.s.), nor in the usage condition (Mnavigation = 4.82, Mpattern-recognition = 5.50; p = n.s.). If the performance was im-
paired due to priming, people in the usage-recall condition should have performed well in the navigation quiz and worse in the pattern-recognition quiz. However, it was only the people in the ownership condition who showed such tendency. Therefore, this finding rules out the priming explanation, which argues that lower accessibility to the prime-irrelevant content leads to worse performance.

Experiment 4 uses a more direct way to manipulate the feelings of psychological ownership. Furthermore, we again rule out the priming explanation by exposing participants to the same product in all four conditions: (psychological ownership: ownership/no-ownership × quiz: relevant/irrelevant). First, all participants described how they would find a calculator software on the desktop of their personal computer (ownership) or a public library computer (no-ownership). Next, all participants solved a quiz set (e.g., see boxes filled with arithmetic signs (+, −, ×, ÷) and predict the composition of the signs in the next box), that was either framed as an algebraic quiz (relevant) or a visual sensitivity quiz (irrelevant). We also measured their involvement, effort and confidence in the quiz. The results showed that participants in the ownership condition performed worse in the visual sensitivity quiz than in the algebraic quiz (M_{algebraic} = 4.19, M_{visual-sensitivity} = 3.00; p = .015) but there was no difference within the no-ownership condition (M_{algebraic} = 3.13, M_{visual-sensitivity} = 4.00; p = n.s.). Moreover, we did not find any difference in their level of effort, involvement or confidence across the four conditions.

This research suggests that people who experience psychological ownership tend to have a biased active-self account, which may negatively affect their performance in product-irrelevant tasks. This project contributes to the current literature by introducing the downstream effect of psychological ownership and by highlighting the symbolic role of products.

**Words Speak Louder: Conforming to Words More Than Consumption and the Role of Mentally Shared Consumption**

**EXTENDED ABSTRACT**

Information on like-minded consumers’ choices is readily available and engenders conformity (e.g., people buy popular products). Others’ consumption choices convey two types of information: stated preference (others like it) and consumption/ownership (others already consumed/owned it). Which information engenders more conformity? Conventional wisdom suggests that actions (i.e., consumption) speak louder than words (i.e., stated preference); economic theory assumes that revealed preference (i.e., consumption) is closer to the “true preference” than stated preference. By contrast, we show lower conformity to others’ consumption than preference. This is because consumers are mentally connected to each other and share each other’s experiences (Ackerman et al. 2009; Wegner, Sparrow, and Winerman 2004). Whereas sharing others’ preference increases one’s own preference for the target item, thus increasing choice of it; sharing other’s consumption makes people feel that they partially consumed/owned the target product and they do not need to consume it “again”, thus decreasing choice of it. Six studies support our hypothesis.

Studies 1 and 2 demonstrated the basic effect. Study 1 recruited dyads and asked one person (1st mover) in each dyad to indicate his/her preferred chewing gum flavor (wintermint or sweetmint), and then fill out a survey on the preferred flavor without tasting it (preference condition) or after tasting it (consumption condition). The other person (2nd mover) then chose a flavor to taste. Results show that 2nd movers were less likely to choose the same flavor as 1st movers (i.e., confirm) in the consumption (24%) than in the preference (53%) condition, χ²(1) = 6.14, p = .013. We conceptually replicated this effect in study 2 in a different domain: household items (e.g., hangers, lamps).

We propose that mentally sharing others’ consumption/ownership underlies this effect and offer three types of evidence. First, mentally sharing other’s consumption means that people would recall greater past consumption of products consumed versus merely preferred by others. In study 3, we showed participants popular food items (e.g., Lay’s chips) and described them as either most-liked (preference condition) or most-consumed (consumption condition) by other consumers. We asked participants to report their purchase intention towards these products. They further rated how and how recently they consumed these products. We find lower purchase intention (i.e., lower conformity) (M = 3.03, SD = 1.17) but greater recalled past consumption (collapsed consumption frequency and recency; r = .82, p < .001) (M = 2.97, SD = .91) in the consumption condition than in the preference condition (M = 3.48, SD = 1.11, t(143) = 2.35, p = .02; M = 2.60, SD = .93, t(143) = 2.37, p = .019, respectively). Recalled past consumption further mediated the effect of information type on purchase intention.

Second, if mental sharing underlies the effect, we should expect it to be stronger for close others. Accordingly, study 4 employed a 2 (information type: preference vs. consumption) × 2 (degree of mental sharing: high-with a friend vs. low-with a random customer) design. We asked participants to imagine choosing between two mugs after learning that their friend versus a random customer in the store likes versus intends to buy one mug. An ANOVA on purchase intention yielded the predicted interaction, F(1, 122) = 5.25, p = .024. When learning about close other, participants conformed to that person’s preference (M = 3.59, SD = 2.17) more than consumption (M = 3.07, SD = 2.20), t(60) = 3.12, p = .003; whereas for distant others, there was no significant difference (M = 3.32, SD = 2.17; M = 3.31, SD = 2.18; respectively).

Third, mentally sharing others’ consumption/ownership suggests that people should choose something different only if the new item complements, rather than contradicts, with the others’ choice, because owning (in reality and mentally) two contradictory items is undesirable. Study 5 used a 2 (information type: preference vs. consumption) × 2 (product relation: complementary vs. contradictory) design. We showed dyads two luggage tags that were described as having complementary or contradictory colors. Participants then indicated “which luggage tag do you like better?” (preference condition) or “Which luggage tag do you want to get for yourself as a parting gift of this study?” (consumption condition). We regressed conformity (1 = 2nd mover chose the same as 1st mover; 0 = different) on information type, product relation, and their interaction, and found an interaction, b = 1.68, SE = .69, Wald(1) = 6.03, p = .014. In support of our hypothesis, in the complementary condition, participants conformed more to their partners’ preferences (74%) than consumption (39%), χ²(1) = 9.05, p = .003; whereas in the contradictory condition, there was no difference (41%; 46%, respectively).

Finally, in study 6, we explored choices in the online consumption domain (product choice on Amazon.com and video choice on YouTube) and found that when information on others’ preferences (“ratings” and “number of likes”) and consumption (“sales” and “number of views”) was simultaneously available, the former had a greater impact on one’s own choices than the latter.

Taken together, these results suggest that words speak louder than action—consumers conform more to other’s preferences than consumption, and mentally sharing other’s consumption underlies...
this effect. We discuss the implications of these findings on conformity research and marketing practices.

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