

The Asymmetric Effects of Identity Salience on Judgement: The Role of Valence and Attribute Congruence

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Abstract

A salient identity influences individuals' judgment on products. The current research investigates why identity salience sometimes produces asymmetric effects on an individual's judgment such that a salient identity often influences judgment on identity-congruent products only or identity-incongruent products only. Across two experiments, this research proposes and shows that the valence of identity-incongruent and identity-congruent attributes determines the direction of the asymmetric identity salience effects. Specifically, when an attribute of an identity-incongruent product is positively- (negatively-) valenced, identity salience influences judgment through a decreased (increased) preference for the identity-incongruent (identity-congruent) product.

Keywords: Identity salience, Judgment, Motivated reasoning, Product attribute

1. Introduction

Identity drives many consumer decisions as consumers want to understand and reinforce their identity through consumption (Reed et al. 2012). Chances of observing identity-driven effects increase as identity salience increases (Puntoni, Sweldens, and Tavassoli 2011; Reed 2004). *Identity salience* refers to the probability that identity will be invoked across various situations (Stryker and Burke 2000). For instance, on Earth Day, an annual event on April 22 to raise global awareness of the need to protect the environment (<https://www.earthday.org>), one's green consumer identity can be salient. When a specific identity is salient, individuals are likely to form judgment using cues related to that identity (Forehand, Deshpandé, and Reed 2002; Oyserman 2009) as goal-driven reasoning processes are activated (Cohen 2003; Sherman and Cohen 2006). Thus, on Earth Day, individuals with a salient green consumer identity are likely to purchase the cosmetic product with recyclable packages instead of the cosmetic product with

plastic packages because recyclable packages are congruent with their salient identity, whereas plastic packages are incongruent with their salient identity. Researchers have investigated the effects of identity salience on the judgment in several consumer domains, including its roles in responses to marketing communications (Deshpandé and Stayman 1994; Forehand and Deshpandé 2001; Forehand, Deshpandé, and Reed 2002), product satiation (Chugani, Irwin, and Redden 2015), risk-taking behavior (Benjamin, Choi, and Strickland 2010), and product preference (Chattaraman, Rudd, and Lennon 2009; Kim et al. 2018; Reed 2004; White and Dahl 2007).

Previous literature has generally shown that identity salience generates more positive judgments toward identity-congruent stimuli and negative judgments toward identity-incongruent stimuli, suggesting identity salience effects occur such that a salient identity (vs. a non-salient identity) influences both individuals' evaluation of the identity-congruent stimuli and their evaluation of the identity-incongruent stimuli simultaneously (i.e., symmetric

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identity salience effects). Some studies, however, have found that identity salience influences judgment on identity-congruent stimuli only (e.g., more favorable attitude toward the identity-congruent product but no attitude change toward the identity-incongruent product when a particular identity is salient [vs. not salient]) or on identity-incongruent stimuli only (e.g., no attitude change toward the identity-congruent product but less favorable attitude toward the identity-incongruent product when a particular identity is salient [vs. not salient]), while the results of prior research do not converge (e.g., Benjamin, Choi, and Strickland 2010; Forehand, Deshpandé, and Reed 2002; Kim et al. 2018). For instance, on Earth Day, it is possible that when the green consumer identity is salient (vs. not salient), individuals' decision to purchase the cosmetic product with recyclable packages (i.e., the identity-congruent product) is driven either by more favorable attitude toward the identity-congruent product with no change in their evaluation of the identity-incongruent product (e.g., the cosmetic product with plastic packages) or by less favorable attitude toward the identity-incongruent product with no change in their evaluation of the identity-congruent product.

While a few researchers have acknowledged these *asymmetric identity salience effects* (e.g., Benjamin, Choi, and Strickland 2010; Forehand, Deshpandé, and Reed 2002; Kim et al. 2018), little research has explicitly proposed and empirically tested possible factors that drive these effects. Furthermore, an effort to explain these divergent findings has not been made. To fill this gap, building on the motivated reasoning literature (e.g., Hart and Nisbet 2012; Kunda 1990), the current research aims to identify one of the potential factors that drives the asymmetric effects of identity salience on product judgment and explain the divergent findings on these effects in existing research.

A common feature in prior studies that have shown these asymmetric effects is the use of nonsocial objects as stimuli, such as investment options, a marketing rewards program, and an advertisement, although they primed social identities, such as an Asian American identity (Benjamin, Choi, and Strickland 2010), political identity (Kim et al. 2018), or Asian or Caucasian identity (Forehand, Deshpandé, and Reed 2002). Forehand, Deshpandé, and Reed (2002) showed that identity salience has divergent effects when individuals form attitudes toward a social object versus a nonsocial object. Specifically, Asian (Caucasian) participants evaluated an Asian spokesperson featured in an advertisement (i.e., social object) more positively (negatively) when their ethnic identity was both primed and socially distinctive. However, participants with a particular salient identity did not

evaluate an advertisement (i.e., nonsocial object) with an identity-congruent spokesperson more positively than participants without the salient identity. In addition, participants with the salient identity evaluated an identity-incongruent advertisement more negatively than participants without the salient identity, showing the asymmetric identity salience effects. That is, identity salience had a symmetric influence on the judgment of the social object (i.e., spokesperson), but it had an asymmetric influence on the judgment of the nonsocial object (i.e., advertisement) as the social object, compared to the nonsocial object, is more relevant to social identities (e.g., an ethnic identity primed in Forehand, Deshpandé, and Reed 2002). Thus, the current research attempts to extend the findings of prior research by focusing on personal rather than social identities and examining the effects of identity salience on the judgment of nonsocial objects (e.g., products) in various consumer contexts.

To further advance our understanding of the factors that drive asymmetric identity salience effects, the current research identifies a novel factor that has not been examined before. In particular, we propose and demonstrate that identity salience will have divergent effects on product judgment depending on the valence of identity-incongruent and identity-congruent product attributes. By investigating what drives asymmetric identity salience effects and by articulating a theoretical framework to explain the divergent findings, the current research broadens our understanding of identity salience effects and reconciles the divergent findings in prior work.

2. Theoretical background

2.1. Why does identity salience affect judgment?

According to self-categorization theory, one's self-concept consists of multiple identities, which can be categorized into personal and social identities (Turner 1985; Turner and Oakes 1989). Personal identity reflects distinctive characteristics that make an individual different, whereas social identity reflects attributes of social groups that individuals belong to (Turner and Oakes 1989).

While having multiple identities, a specific identity can become salient when one categorizes oneself based on identity-oriented criteria (Forehand, Deshpandé, and Reed 2002). Identity-driven effects are amplified when a particular identity is salient as a salient identity evokes motivated reasoning (Kunda 1990). A basic premise of motivated reasoning is that "people are not merely motivated to form opinions that are accurate, but often also to a large degree strive

to defend and maintain their extant values, identities, and attitudes” (Slothuus and De Vreese 2010, p. 632). Thus, identity salience leads individuals to be motivated by directional goals (i.e., motivation to make the conclusions that support a particular goal, such as supporting the salient identity) rather than accuracy goals (i.e., motivation to reach the most accurate conclusions) in reasoning processes (Kunda 1990; Molden and Higgins 2012). For instance, when individuals are guided by directional goals, they will likely evaluate the identity-congruent product more positively or evaluate the identity-incongruent product more negatively to maintain and defend their salient identity even when the quality of those two products is equivalent.

2.2. What factors explain the asymmetric effects of identity salience on judgment?

If identity salience effects are robust, individuals with a salient (vs. non-salient) identity will more positively evaluate an object with an identity-congruent attribute (i.e., identity-congruent object) and more negatively evaluate an object with an identity-incongruent attribute (i.e., identity-incongruent object). However, extant work, as discussed above, has shown that the effects of identity salience on the judgment of identity-congruent versus identity-incongruent objects are asymmetric, and results do not converge.

Some researchers have found that identity salience affects judgment by increasing aversion to an identity-incongruent object but have not found it affects the response to an identity-congruent object (Benjamin, Choi, and Strickland 2010; Forehand, Deshpandé, and Reed 2002; Kim et al. 2018). For example, a prominent feature of Asian identity is patience. A salient Asian identity made Asian Americans exhibit a greater aversion to risky options such as investing in the stock market, but it did not make them display more preference for safe options requiring patience, such as participating in tax-deferred savings accounts (Benjamin, Choi, and Strickland 2010). Likewise, both Asian identity salience and Caucasian identity salience (vs. non-salience) did not improve individuals’ evaluations of identity-congruent advertisements (e.g., when spokespeople had the same ethnic identity as the consumer), although their evaluation of identity-incongruent advertisements (e.g., when spokespeople had a different ethnic identity) was adversely affected (Forehand, Deshpandé, and Reed 2002).

Meanwhile, some researchers have found that identity salience affects judgment through increasing

preference for identity-congruent objects while not influencing the response to identity-incongruent objects (e.g., Kelly 1989; Morton, Postmes, and Jetten 2007). For example, Morton, Postmes, and Jetten (2007) showed that individuals preferred value-consistent options when political identity was made salient. However, political identity salience did not influence individuals’ preference for value-inconsistent options.

Despite these asymmetric effects and divergent findings, scant research has examined possible common factors that shape them. While a few researchers have acknowledged these *asymmetric identity salience effects* (e.g., Benjamin, Choi, and Strickland 2010; Forehand, Deshpandé, and Reed 2002; Kim et al. 2018), little attention has been paid to explain why such effects can be observed with a notable exception for Forehand, Deshpandé, and Reed (2002). They found that Caucasian participants responded less positively to the Asian targeted advertisement (i.e., an object with an identity-incongruent attribute) when their Caucasian identity was primed and socially distinctive. However, they did not evaluate the Caucasian-targeted advertisement (i.e., an object with an identity-congruent attribute) more positively. This asymmetric effect is explained by the rates of occurrence of Caucasian-oriented ads in the general advertising context. As Caucasian-oriented ads comprise most advertising in the marketplace, Asian-oriented ads stand out. Thus, identity-based processing is activated when exposed to the Asian-targeted ad, whereas exposure to the Caucasian-targeted ad is unlikely to activate identity-based processing. Although Forehand, Deshpandé, and Reed (2002) enhanced our understanding of why the asymmetric identity salience effects often occur, scant research has identified other factors that may drive the asymmetric identity salience effects. To fill this gap, the current research identifies one potential common factor that explains the asymmetric results. Furthermore, this research articulates a theoretical framework explaining why and under what conditions identity salience effects are driven by increased preference for an identity-congruent object or decreased preference for an identity-incongruent object.

Specifically, we propose that the valence of an attribute—how positively or negatively individuals evaluate an identity-incongruent attribute and identity-congruent attribute—determines the direction of identity salience effects (see Table 1 for a summary of the proposed asymmetric identity salience effects). While motivated reasoning often leads to negative evaluations of product attributes that do not align with a prominent identity, there are situations where such incongruent attributes can actually

Table 1. Hypotheses and predictions.

	Experiment 1	Experiment 2
Valence of identity-incongruent (and identity-congruent) attributes	An identity-incongruent attribute is more positive than an identity-congruent attribute	An identity-incongruent attribute is more negative than an identity-congruent attribute
Product judgment for an identity-congruent product	No difference in product judgment between salient identity and neutral identity conditions	More favorable product judgement in a salient identity condition than a neutral identity condition
Product judgment for an identity-incongruent product	Less favorable product judgment in a salient identity condition than in a neutral identity condition	No difference in product judgment between salient identity and neutral identity conditions

be perceived positively (Oyserman 2009). Thus, the current research aims to investigate how identity salience influences product judgment when identity-incongruent attributes are positively valenced or negatively valenced compared to identity-congruent attributes.

First, an attribute that goes against one's identity (i.e., an identity-incongruent attribute) may be perceived more positively than an attribute that aligns with that identity (i.e., an identity-congruent attribute). For example, consumers with an independent self-construal identity would perceive a product requiring recycling as an identity-incongruent option as the negative association between independent self-construal and recycling behavior has been proposed (e.g., White, Habib, and Hardisty 2019) and demonstrated (e.g., Park, Levine, and Sharkey 1998) in the previous research. White, Habib, and Hardisty (2019) posited that one barrier to sustainable consumer behavior is a trade-off between the self (e.g., increased effort or increased cost to the self; Luchs and Kumar 2017) and other (e.g., positive environmental impacts external to the self; Campbell and Winterich 2018). They also stated one way to overcome the self-other trade-off is to have individuals have a more interdependent view of the self, not an independent view of the self, as individuals with an interdependent self-construal identity view the self as connected with others. Although not tested directly, White, Habib, and Hardisty (2019) proposed the possibility that the independents might be less inclined to engage in sustainable behavior because Arnocky, Stroink, and DeCicco (2007) demonstrated that independent self-construal leads to stronger egoistic environmental concerns, that is, "concern for the self in relation to the environment" (Arnocky, Stroink, and DeCicco 2007, p. 257). Independent self-construal is also negatively associated with the motivation to comply with others' recycling requests (Park, Levine, and Sharkey 1998). However, even though such consumers may view recycling behavior as an identity-incongruent option, individuals in general view recycling behavior positively (Derksen and Gartrell 1993). In fact, nine out of

ten Americans believe recycling is important and has a positive impact on the environment (Business Wire 2016). Thus, in this case, the valence of an identity-incongruent attribute may be more positive than that of an identity-congruent attribute.

We propose that when the valence of an identity-incongruent (vs. identity-congruent) attribute is more positive, identity salience effects will be driven by decreased preference for the identity-incongruent product, not by increased preference for the identity-congruent product. Specifically, when the valence of an incongruent attribute is positive, identity salience effects will not be observed when evaluating a congruent product such that there will be no difference in product preference when identity is salient versus not salient. We predict that individuals will not increase their preference for the identity-congruent product when their identity becomes salient compared to when the identity is not salient because individuals may not necessarily evaluate the congruent attribute negatively due to motivated reasoning via the activation of a specific identity (e.g., individuals may not perceive it as negative). For instance, two-thirds of Americans believe that the government should do more on climate (Tyson and Kennedy 2020). Most Americans opposed President Trump's decision to leave the Paris Agreement, with 59 percent opposing the move and 28 percent supporting it (Clement and Dennis 2017), implying that the Paris Agreement is viewed positively in general. Still, the Paris Agreement would be perceived as an identity-incongruent option for conservatives. Conservatives supported this decision (i.e., leaving the Paris Agreement, an identity-congruent option) due to motivated reasoning (Druckman and McGrath 2019), indicating they may have reduced their assessments of the positively-regarded, identity-conflicting target (i.e., the Paris Agreement). Furthermore, existing research has suggested that individuals are likely to like a brand, product (Malhotra 1988), or retail environment (Sirgy, Grewal, and Mangleburg 2000) to a degree to which "there is a cognitive match between positive value-expressive attributes and the consumer's

self-concept” (Reed 2004, p. 287). Therefore, we propose that individuals do not increase their preference for an identity-congruent product when their identity becomes salient, compared to when their identity is not salient if the congruent attribute (which is perceived more negatively than the incongruent attribute) does not help them positively express their identity.

Furthermore, when the valence of an identity-incongruent (vs. identity-congruent) attribute is more positive, individuals with a salient (vs. non-salient) identity will evaluate the incongruent product more negatively as they will likely engage in deep processing when encountering value-inconsistent information and discount the product information that is not consistent with their salient identity (Ditto et al. 1998; Jain and Maheswaran 2000). Specifically, we reason this asymmetry will occur because individuals engage in more effortful processing for preference-inconsistent (vs. consistent) information, such as an identity-incongruent product, displaying asymmetric sensitivity. Individuals are more sensitive to information when they judge information they do not want to believe than when they judge information they want to believe (Ditto et al. 1998). Jain and Maheswaran (2000) showed that individuals process product information that is not consistent with their prior preferences more systematically. They become defensive regarding the preferences they formed before exposure to the preference-inconsistent information and discount the preference-inconsistent information (vs. the preference-consistent information) to a greater extent by generating more counterarguments and fewer supporting arguments. Hence, we argue that when identity is salient (vs. not salient), exposure to an identity-incongruent product motivates individuals to process the incongruent attribute more thoroughly and discount it because the attribute itself is not consistent with their activated salient identity. Consequently, the identity-incongruent attribute may evoke individuals’ motivation to protect their personal identity (Sirgy, Grewal, and Mangleburg 2000). Thus, individuals will be motivated to engage in product judgment in a way consistent with their personal identity; they will process the incongruent information more thoroughly and discount the attribute itself, leading to a less favorable evaluation of the whole identity-incongruent product.

Consistent with this prediction, using a social identity (African American identity), Oyserman, Fryberg, and Yoder (2007) found that for consumers with a salient African American identity, an unhealthy (healthy) diet was an identity-congruent (-incongruent) option. Individuals without a salient African American identity, however, evaluated a

healthy (vs. unhealthy) diet more positively. The authors found that when evaluating healthy and unhealthy diets, participants showed no difference in preference for identity-congruent options when their identity was salient and not salient. Conversely, individuals’ preferences for identity-incongruent options decreased when their identity was salient compared to when it was not. Formally stated:

H1. *When the valence of an identity-incongruent attribute of a product is more positive than that of an identity-congruent attribute of a product, identity salience effects will be driven by decreased preference for identity-incongruent products, not by increased preference for identity-congruent products.*

Next, an identity-incongruent attribute can be perceived more negatively than an identity-congruent attribute. For instance, for individuals with a salient ethical consumer identity, a firm that has less (greater) corporate social responsibility (CSR) is identity-incongruent (-congruent; Marin, Ruiz, and Rubio 2009). Generally, individuals, even without a salient ethical consumer identity, may perceive firms with less (vs. greater) CSR more negatively. Thus, the valence of an identity-incongruent attribute may be more negative than that of an identity-congruent attribute.

We posit that when the valence of an identity-incongruent (vs. -congruent) attribute is more negative, the identity salience effects will be driven by increased preference for an identity-congruent product, not by decreased preference for the identity-incongruent product. In particular, when the valence of an identity-incongruent (vs. -congruent) attribute is more negative, identity salience effects will be evident when judging an identity-congruent product, leading to enhanced evaluation—individuals with a salient (vs. non-salient) identity will evaluate an identity-congruent product more favorably. Prior research suggests that individuals are motivated to evaluate a product more favorably when its attributes help them maintain self-consistency when their identity is salient (e.g., Reed 2004; Sirgy, Grewal, and Mangleburg 2000). For example, Sirgy, Grewal, and Mangleburg (2000) suggested that consumers are more likely to visit a retail store with attributes that match their personal identity (e.g., working-class consumers and discount stores). They feel uncomfortable visiting a retail store that does not contain attributes that match their salient personal identity. In contrast, when judging the identity-incongruent product, as the valence of an identity-incongruent attribute is negative, both individuals with the salient identity and those without the salient identity will evaluate

the incongruent product negatively. Since the valence of the incongruent attribute is negative, individuals with a salient identity will not need to think about a counterargument as it is already negative and consistent with their existing preferences. They are less likely to discount the incongruent product attribute information (Jain and Maheswaran 2000), further diminishing the difference in product evaluation when their identity is salient and when their identity is not salient. Thus, we do not predict that identity salience effects will be observed when individuals judge an identity-incongruent product. Formally stated:

H2. *When the valence of an identity-incongruent attribute of a product is more negative than that of an identity-congruent attribute of a product, identity salience effects will be driven by increased preference for identity-congruent products, not by decreased preference for identity-incongruent products.*

3. Experiment 1

The objective of Experiment 1 is to examine how salient identity influences product judgment when the valence of an identity-incongruent (vs. identity-congruent) attribute is more positive. We propose that when the valence of an identity-incongruent attribute is more positive, identity salience effects will be driven by decreased preference for the identity-incongruent product, not by increased preference for the identity-congruent product. Even when an identity-incongruent attribute is generally more positively perceived, individuals with a salient identity may not necessarily perceive the identity-congruent attribute negatively due to motivated reasoning (e.g., Oyserman, Fryberg, and Yoder 2007; Peterson and Iyengar 2021).

Experiment 1 employs an independent consumer identity and a product that could require recycling effort. We chose independent consumer identity and recycling as previous research has proposed and shown a negative association between independent self-construal and recycling behavior (e.g., Park, Levine, and Sharkey 1998; White, Habib, and Hardisty 2019), although in general individuals view recycling behavior positively (Derksen and Gartrell 1993). Individuals with salient independent self-construal would perceive a product that requires recycling behavior as identity-incongruent. We predict that there will be no difference in purchase intention of the identity-congruent product (i.e., coffee capsules that do not require consumers to engage in recycling behavior) when an independent self-construal identity is salient (vs. not salient). In contrast, individuals will evaluate the identity-incongruent product (i.e., coffee

capsules that require consumers to engage in recycling behavior) more negatively when the independent self-construal identity is salient (vs. not salient).

3.1. Design and procedure

First, we ran a pretest to investigate how individuals perceive the valence of products with identity-incongruent and identity-congruent attributes. In our main experiments 1 and 2, independent and ethical consumers will be primed, respectively; thus, we select products and attributes related to each identity (see Appendix B for stimuli).

For the independent consumer identity, the stimuli were coffee capsules that varied in the disposal method. Individuals with a salient independent consumer identity would identify coffee capsules that do not require high effort to throw away (vs. capsules that require recycling) as congruent with their identity (Arnocky, Stroink, and DeCicco 2007; Park, Levine, and Sharkey 1998; White, Habib, and Hardisty 2019). However, we also predict that, in general, individuals will evaluate the incongruent attribute (i.e., requiring high effort to recycle used capsules) more positively than the congruent attribute (i.e., requiring low effort to throw away used capsules) as recycling behavior is socially desirable (Derksen and Gartrell 1993).

For the ethical consumer identity, the stimuli were shampoos that varied in their use of animal testing. Individuals with a salient ethical consumer identity would perceive shampoos that do not use animal testing (vs. use animal testing) to be congruent with their identity. We predict that, in general, individuals will evaluate the incongruent attribute (i.e., tested on animals) more negatively than the congruent attribute (i.e., not tested on animals) as there is a growing concern regarding animal testing in cosmetic products (Humane Society International 2022).

To test these predictions, we recruited ninety-eight participants (51.0% female, $M_{\text{age}} = 42.04$, residing in the United States) from Amazon MTurk to take part in this experiment for a small compensation. Each participant evaluated two products that had either an identity-congruent or identity-incongruent attribute. The order of products and the valence of the incongruent attributes were randomized. After viewing each product, participants were asked to indicate their attitude toward the product using three 7-point semantic scales (Ajzen and Fishbein 1980; see Appendix A for measures).

We ran paired-sample analyses on the participants' evaluation of each product. As predicted, the mean evaluation of coffee capsules requiring high effort to throw away (i.e., an identity-incongruent attribute for

individuals with an independent consumer identity; $M = 5.21$, $SD = 1.71$) was higher than that of coffee capsules requiring low effort to throw away (i.e., an identity-congruent attribute for individuals with an independent consumer identity; $M = 3.64$, $SD = 1.96$; $t = 4.93$, $p < .001$). The mean evaluation of the shampoo tested on animals (i.e., an identity-incongruent attribute for individuals with an ethical consumer identity; $M = 2.36$, $SD = 1.78$) was lower than that of the shampoo not tested on animals (i.e., an identity-congruent attribute for individuals with an ethical consumer identity; $M = 6.16$, $SD = 1.20$; $t = -14.26$, $p < .001$). As the valence of each of the two products was found to be consistent with our predictions, these products are used in the main experiments.

In our main experiment 1, we employed a 2 (identity salience: salient vs. neutral) \times 2 (attribute congruence: recycling vs. non-recycling) experimental design. Four hundred seventy-two participants (54.2% female, $M_{\text{age}} = 39.46$, residing in the United States) from Amazon MTurk participated in this experiment for a small compensation. This study was preregistered at AsPredicted (#93918). In line with our preregistration, ten participants were excluded from the dataset as they failed the attention check question. Furthermore, we removed five participants as they did not complete the survey. The study consisted of two ostensibly unrelated tasks: an independent consumer identity activation task and a product evaluation task.

First, we primed an independent consumer identity by following the procedure used in Trafimow, Triandis, and Goto (1991). In the salient condition, participants were told, "Below, please take a few minutes to describe differences between yourself and your family and friends." In the neutral condition (i.e., non-salient identity condition), participants were told, "Below, please take a few minutes to describe your normal day or daily routine." Participants were given 90 seconds to answer these questions before they were allowed to move on to the next page. In an ostensibly unrelated study, participants were told to evaluate a set of coffee capsules that would be launched soon. All participants were told, "Imagine that you wanted to purchase coffee capsules and found this product. Please review the product information below and answer the following questions." Two product attributes were the same across recycling and non-recycling conditions. The third attribute, however, was different in manipulating attribute congruence (see Appendix B for stimuli). Notably, in the non-recycling condition (i.e., the identity-congruent condition), participants read, "When you used them up, just throw them away!" In the recycling condition (i.e., the identity-incongruent condition), participants

read, "When you used them up, you need to put them in a recycling bag provided by us and put the bag in a recycling bin!"

After reviewing the coffee capsule information, participants indicated their purchase intention using three items on a 7-point semantic scale ($M = 4.00$, $SD = 1.94$, $\alpha = .97$; Pelozo, White, and Shang 2013; see Appendix A for measures). As Americans are more likely to have independent (vs. interdependent) self-construal (van Baaren et al. 2003), we measured participants' independent self-construal using eight items on a 7-point scale ($M = 4.76$, $SD = .87$, $\alpha = .75$; Singelis 1994; see Appendix A for measures), controlling for the effects. Subsequently, all participants engaged in manipulation check questions. To examine whether the attribute congruence manipulation was successful, participants were asked to indicate to what extent the used coffee capsules did not require extra effort to throw away on a 7-point scale (1 = strongly disagree, 7 = strongly agree; $M = 4.94$, $SD = 1.86$). To examine whether the identity salience manipulation was successful, participants were asked to indicate, at that particular moment, to what extent the manipulation task made them think about themselves as an independent self on a 7-point scale (1 = the writing task did not make me think about it, 7 = the writing task made me really think about it; $M = 5.11$, $SD = 1.66$; Reed 2004).

3.2. Results

3.2.1. Manipulation checks

First, we ran a two-way ANOVA on the attribute congruence manipulation check measure (i.e., perceived no extra effort in throwing away used coffee capsules). We found a significant main effect of attribute congruence ($F(1, 453) = 75.79$, $p < .001$, $\eta_p^2 = .14$) such that participants in the non-recycling (vs. recycling) condition perceived the product did not require extra disposal effort to a greater extent ($M_{\text{non-recycling}} = 5.62$, $SD = 1.49$ vs. $M_{\text{recycling}} = 4.21$, $SD = 1.95$). As predicted, the effect of identity salience ($F(1, 453) = .003$, $p = .958$, $\eta_p^2 < .001$) and the interaction between identity salience and attribute congruence ($F(1, 453) = .78$, $p = .375$, $\eta_p^2 = .002$) were insignificant. Next, a two-way ANOVA on the identity salience manipulation check measure found that the main effect of identity salience was significant ($F(1, 453) = 23.22$, $p < .001$, $\eta_p^2 = .049$). Specifically, participants in the salient (vs. neutral) condition reported that they believed the writing task had made them think about themselves as an independent self to a greater extent ($M_{\text{salient}} = 5.48$, $SD = 1.55$ vs. $M_{\text{neutral}} = 4.74$, $SD = 1.68$). As predicted, the effect of attribute congruence was insignificant ($F(1, 453) =$

.011, $p = .917$, $\eta_p^2 < .001$). Unexpectedly, the interaction between identity salience and attribute congruence was significant ($F(1, 453) = 4.92$, $p = .027$, $\eta_p^2 = .011$). Within the non-recycling condition, participants in the salient (vs. neutral) condition reported that they believed the writing task had made them think about themselves as an independent self to a greater extent ($M_{\text{salient}} = 5.64$, $SD = 1.51$ vs. $M_{\text{neutral}} = 4.57$, $SD = 1.66$; $F(1, 453) = 25.61$, $p < .001$, $\eta_p^2 = .054$). Within the recycling condition, participants in the salient identity (vs. neutral) condition reported that they believed the writing task had made them think about themselves as an independent self to a greater extent, although the difference between the two conditions was marginally significant ($M_{\text{salient}} = 5.31$, $SD = 1.59$ vs. $M_{\text{neutral}} = 4.92$, $SD = 1.70$; $F(1, 453) = 3.27$, $p = .071$, $\eta_p^2 = .007$). From a different perspective, within the identity salience condition, there was no difference between the non-recycling and recycling conditions ($F(1, 453) = 2.20$, $p = .138$, $\eta_p^2 = .005$). Also, within the neutral condition, there was no difference between the non-recycling and recycling conditions ($F(1, 453) = 2.73$, $p = .10$, $\eta_p^2 = .006$). These findings do not undermine the effectiveness of the identity salience manipulation. Thus, the two-way ANOVA results indicate that our manipulations were successful.

3.2.2. Judgment

We performed a two-way ANCOVA with identity salience and attribute congruence as the independent variables, self-reported independent self as the covariate, and purchase intention for the coffee capsules as the dependent variable. We observed an insignificant effect of identity salience ($M_{\text{salient}} = 3.99$, $SD = 1.95$ vs. $M_{\text{neutral}} = 4.01$, $SD = 1.94$; $F(1, 452) = .03$, $p = .857$, $\eta_p^2 < .001$) and a significant main effect of at-

tribute congruence ($M_{\text{non-recycling}} = 3.62$, $SD = 1.92$ vs. $M_{\text{recycling}} = 4.41$, $SD = 1.89$; $F(1, 452) = 22.57$, $p < .001$, $\eta_p^2 = .048$). As predicted, we observed a significant interaction by attribute congruence by identity salience by attribute congruence interaction ($F(1, 452) = 6.01$, $p = .015$, $\eta_p^2 = .013$; see Fig. 1). As predicted, when presented with the coffee capsules that required low effort to throw away (i.e., the identity-congruent product), independent consumer identity salience did not influence purchase intention ($M_{\text{salient}} = 3.83$, $SD = 1.96$ vs. $M_{\text{neutral}} = 3.42$, $SD = 1.86$; $F(1, 452) = 2.67$, $p = .103$, $\eta_p^2 = .006$). When presented with the coffee capsules that required high disposal effort (i.e., the identity-incongruent product), participants indicated marginally lower purchase intention when the independent consumer identity was salient compared to when that identity was not salient ($M_{\text{salient}} = 4.17$, $SD = 1.94$ vs. $M_{\text{neutral}} = 4.64$, $SD = 1.82$; $F(1, 452) = 3.35$, $p = .068$, $\eta_p^2 = .007$). These findings support H1. From a different perspective, the simple effects reveal that when the independent consumer identity was salient, purchase intentions between the non-recycling and recycling conditions were not significantly different ($M_{\text{non-recycling}} = 3.83$, $SD = 1.96$ vs. $M_{\text{recycling}} = 4.17$, $SD = 1.94$; $F(1, 452) = 2.62$, $p = .106$, $\eta_p^2 = .006$). When the independent consumer identity was not salient, purchase intention was significantly higher for the coffee capsules that required high effort (vs. the capsules that required low effort to throw away; $M_{\text{non-recycling}} = 3.42$, $SD = 1.86$ vs. $M_{\text{recycling}} = 4.64$, $SD = 1.82$; $F(1, 452) = 26.29$, $p < .001$, $\eta_p^2 = .055$).

3.3. Discussion

In Experiment 1, we examined how identity salience influences product judgment when the

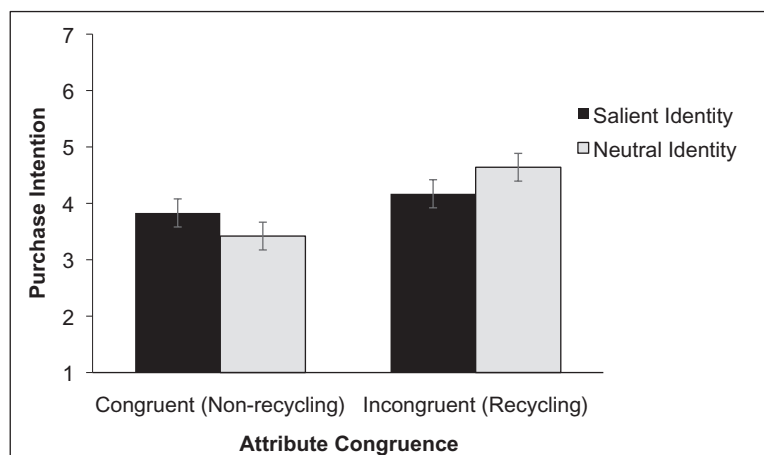


Fig. 1. Experiment 1: Interaction of identity salience and attribute congruence on purchase intention. Note: Error bars indicate standard errors.

valence of the identity-incongruent attribute (i.e., recycling) versus the identity-congruent attribute (i.e., non-recycling) is more positive. As predicted, the results show that individuals with a salient identity judged the identity-incongruent product more negatively, whereas identity salience did not affect judgment when evaluating the identity-congruent product. These findings provide evidence for the asymmetric effects of identity salience, such that the effects are influenced by decreased preference for the identity-incongruent product, not by increased preference for the identity-congruent product when the valence of the identity-incongruent attribute is positive.

Additionally, we found no difference in purchase intention between the non-recycling and recycling conditions when independent self-construal was salient. Individuals with a salient independent self-construal identity did not necessarily evaluate disposable coffee capsules (i.e., identity-congruent product) more negatively than coffee capsules requiring recycling behavior (i.e., identity-incongruent product). Even though individuals, in general, may perceive the incongruent product more positively, individuals with the salient independent self-construal identity did not evaluate the congruent attribute negatively due to motivated reasoning. In contrast, individuals evaluated the incongruent product that required recycling behavior more positively when the independent self-construal identity was not salient. We believe this is because the identity-incongruent attribute (i.e., requiring recycling behavior) is perceived as positive and socially desirable (Derksen and Gartrell 1993).

While previous research has proposed a negative association between independent self-construal and recycling behavior (e.g., Arnocky, Stroink, and DeCicco 2007; Park, Levine, and Sharkey 1998; White, Habib, and Hardisty 2019), scant research has examined whether individuals with an independent self-construal identity would perceive a product requiring recycling as an identity-incongruent option. Thus, to provide further support for the proposed argument that individuals with an independent self-construal identity would perceive a product requiring recycling as an identity-incongruent option, we ran a post-test with 139 participants (48.2% female, $M_{\text{age}} = 39.73$, residing in the United States) from Amazon MTurk. First, we primed an independent consumer identity by following the procedure used in Experiment 1. They then engaged in a short filler task. Finally, they reported to what extent they care about recycling on a 7-point scale (1 = far too little, 7 = far too much; $M = 5.01$, $SD = 1.30$). We ran a one-way ANOVA and found a significant main effect of

identity salience ($F(1, 138) = 4.41$, $p = .038$, $\eta_p^2 = .031$), such that participants in the salient (vs. neutral) condition reported that they care less about recycling ($M_{\text{salient}} = 4.78$, $SD = 1.21$ vs. $M_{\text{neutral}} = 5.24$, $SD = 1.36$). This result provides support for the proposed reasoning.

4. Experiment 2

The objective of Experiment 2 is to assess how a salient identity influences product judgment when the valence of an identity-incongruent (vs. identity-congruent) attribute is more negative. We posit that when the valence of an identity-incongruent attribute is more negative, identity salience effects will be driven by increased preference for the identity-congruent product, not by decreased preference for the identity-incongruent product. We predict that individuals with a salient (vs. non-salient) identity will evaluate the product with the identity-congruent attribute more positively. However, identity salience effects will not be observed when individuals evaluate the product with an identity-incongruent attribute, as both individuals with and without a salient identity will evaluate the product equally negatively.

Experiment 2 utilizes an ethical consumer identity and a product with either an ethical or unethical feature (i.e., shampoo with or without animal testing). To enhance the robustness of our findings, we utilize a different measure, attitude, as a dependent variable in the product evaluation. We predict that individuals will evaluate the identity-congruent product (i.e., shampoo without animal testing) more favorably when an ethical consumer identity is salient (vs. not salient). In contrast, there will be no difference in attitude toward the identity-incongruent product (i.e., shampoo with animal testing) when an ethical consumer identity is salient (vs. not salient).

4.1. Design and procedure

We employed a 2 (identity salience: salient vs. neutral) \times 2 (attribute congruence: w/o animal testing vs. w/ animal testing) experimental design. Four hundred fifty-eight participants (60.9% female, $M_{\text{age}} = 42.51$, residing in the United States) from Amazon MTurk participated in this experiment for a small compensation. This study was preregistered at AsPredicted (#94059). In line with our preregistration, twenty-eight participants were excluded from the dataset as they failed the attention check question. The study consisted of two ostensibly unrelated tasks: an ethical consumer identity activation task and a product evaluation task.

First, we primed an ethical consumer identity by following the procedure used in Chugani, Irwin, and Redden (2015). In the salient condition, participants answered two prompts to activate an ethical consumer identity: "Is being an ethical consumer important to you?" (1 = not at all, 7 = very much so) and "Below, please take a few moments to describe why being an ethical consumer is important to you." In the neutral condition (i.e., non-salient identity condition), participants were told, "Below, please take a few minutes to describe your normal day or daily routine." Participants were given 90 seconds to answer these questions before they were allowed to move on to the next page. In an ostensibly unrelated study, participants were told to evaluate a new shampoo that would be launched soon. All participants were told, "Imagine that you are online to purchase a bottle of shampoo for you. Please review the product information below and answer the following questions." Two product attributes were the same across the w/o animal testing and w/ animal testing conditions. The third attribute, however, was different in manipulating the attribute congruence of the product (see Appendix B for stimuli). In particular, in the w/o animal testing condition (i.e., the identity-congruent condition), participants read, "This shampoo was NOT tested on animals." In the w/ animal testing condition (i.e., the identity-incongruent condition), participants read, "This shampoo was tested on animals."

After reviewing the product information, participants indicated their attitude toward the shampoo using three items on a 7-point semantic scale ($M = 3.92$, $SD = 2.00$, $\alpha = .99$; Ajzen and Fishbein 1980; see Appendix A for measures). Subsequently, all participants engaged in manipulation check questions. To examine whether the attribute congruence manipulation was successful, participants were asked to indicate to what extent the shampoo was an ethical product on a 7-point scale (1 = strongly disagree, 7 = strongly agree; $M = 3.96$, $SD = 2.09$). To test whether the identity salience manipulation was successful, participants were asked to indicate, at that particular moment, to what extent the manipulation task made them think about themselves as an ethical consumer on a 7-point scale (1 = the writing task did not make me think about it, 7 = the writing task made me really think about it; $M = 3.80$, $SD = 2.37$; Reed 2004).

4.2. Results

4.2.1. Manipulation checks

First, we ran a two-way ANOVA on the attribute congruence manipulation check measure (i.e., per-

ceived ethicality of the shampoo). We found a significant main effect of attribute congruence ($F(1, 426) = 709.29$, $p < .001$, $\eta_p^2 = .625$), such that participants in the w/o animal testing (vs. w/ animal testing) condition perceived the shampoo was an ethical product to a greater extent ($M_{w/o \text{ animal testing}} = 5.60$, $SD = 1.02$ vs. $M_{w/ \text{ animal testing}} = 2.29$, $SD = 1.50$). As predicted, the effect of identity salience ($F(1, 426) = .22$, $p = .637$, $\eta_p^2 = .001$) and the interaction between identity salience and attribute congruence ($F(1, 426) = 2.69$, $p = .101$, $\eta_p^2 = .006$) were insignificant. Next, a two-way ANOVA on the identity salience manipulation check measure found a significant main effect of identity salience ($F(1, 426) = 665.61$, $p < .001$, $\eta_p^2 = .610$). Specifically, participants in the salient (vs. neutral) condition reported that they believed the writing task had made them think about themselves as an ethical consumer to a greater extent ($M_{\text{salient}} = 5.75$, $SD = 1.45$ vs. $M_{\text{neutral}} = 2.05$, $SD = 1.52$). As predicted, the effect of attribute congruence ($F(1, 426) = 2.54$, $p = .112$, $\eta_p^2 = .006$) and the interaction between identity salience and attribute congruence ($F(1, 426) = .62$, $p = .431$, $\eta_p^2 = .001$) were insignificant. Thus, these results show that our manipulations were successful.

4.2.2. Judgment

We performed a two-way ANOVA with identity salience and attribute congruence as the independent variables and attitude toward the shampoo as the dependent variable. We observed an insignificant effect of identity salience ($M_{\text{salient}} = 4.01$, $SD = 2.11$ vs. $M_{\text{neutral}} = 3.85$, $SD = 1.90$; $F(1, 426) = 1.38$, $p = .24$, $\eta_p^2 = .003$) and a significant main effect of attribute congruence ($M_{w/o \text{ animal testing}} = 5.17$, $SD = 1.38$ vs. $M_{w/ \text{ animal testing}} = 2.66$, $SD = 1.72$; $F(1, 426) = 284.38$, $p < .001$, $\eta_p^2 = .400$; see Fig. 2). As predicted, we observed a significant identity salience by attribute congruence interaction ($F(1, 426) = 5.97$, $p = .015$, $\eta_p^2 = .014$). As predicted, when presented with the shampoo without animal testing, participants in the salient (vs. neutral) condition showed a more favorable attitude ($M_{\text{salient}} = 5.46$, $SD = 1.30$ vs. $M_{\text{neutral}} = 4.92$, $SD = 1.40$; $F(1, 426) = 6.58$, $p = .011$, $\eta_p^2 = .015$). When presented with the shampoo with animal testing, attitudes toward the shampoo were not different between the salient and neutral conditions ($M_{\text{salient}} = 2.56$, $SD = 1.73$ vs. $M_{\text{neutral}} = 2.75$, $SD = 1.72$; $F(1, 426) = .80$, $p = .372$, $\eta_p^2 = .002$). These results support H2. From a different perspective, the simple effects revealed that when the ethical consumer identity was salient, participants expressed a more favorable attitude toward the shampoo without animal testing (vs. the shampoo with animal testing; $M_{w/o \text{ animal testing}} =$

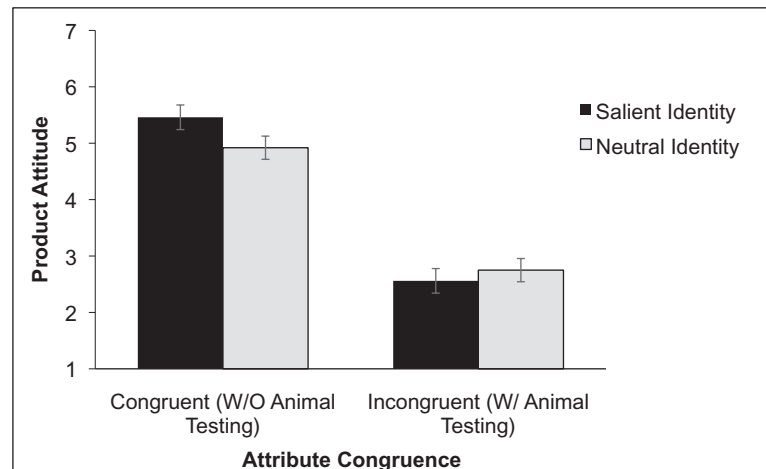


Fig. 2. Experiment 2: Interaction of identity salience and attribute congruence on attitude toward product. Note: Error bars indicate standard errors.

5.46, $SD = 1.30$ vs. $M_{w/o \text{ animal testing}} = 2.56$, $SD = 1.73$; $F(1, 426) = 176.55$, $p < .001$, $\eta_p^2 = .293$). Likewise, when the ethical consumer identity was not salient, participants expressed a more favorable attitude when the shampoo was not animal-tested (vs. animal-tested; $M_{w/o \text{ animal testing}} = 4.92$, $SD = 1.40$ vs. $M_{w/ \text{ animal testing}} = 2.75$, $SD = 1.72$; $F(1, 426) = 110.09$, $p < .001$, $\eta_p^2 = .205$).

4.3. Discussion

In this study, we examined how identity salience influences product judgment when an identity-incongruent attribute is more negatively perceived. The results show that individuals with a salient identity judged an identity-congruent product (i.e., shampoo without animal testing) more favorably, while the identity salience effects did not occur when individuals judged an identity-incongruent product (i.e., shampoo with animal testing). The findings provide evidence for the asymmetric identity salience effects, such that the effects are driven by increased preference for the identity-congruent product, not by decreased preference for the identity-incongruent product when the valence of the identity-incongruent attribute is more negative. Moreover, we demonstrated that individuals with a salient ethical consumer identity evaluated the shampoo without animal testing more positively since individuals with a specific salient identity would evaluate a congruent attribute more positively than an incongruent attribute. Individuals without the salient ethical consumer identity also evaluated the congruent product more favorably than the incongruent product because individuals generally perceive animal testing as

less desirable (Humane Society International 2022), as shown in the pretest.

5. General discussion

The present research investigates a determinant of the asymmetric identity salience effects observed in existing research (e.g., Benjamin, Choi, and Strickland 2010; Forehand, Deshpandé, and Reed 2002; Kim et al. 2018). Experiment 1 demonstrates that when the valence of an identity-incongruent attribute of a product is more positive than that of an identity-congruent attribute of a product, identity salience effects are driven by decreased preference for the identity-incongruent product, not by increased preference for the identity-congruent product. Experiment 2 shows that when the valence of an identity-incongruent attribute of a product is more negative than that of an identity-congruent attribute of a product, identity salience effects are driven by increased preference for identity-congruent products, not by decreased preference for identity-incongruent products.

5.1. Theoretical contributions

While extant research has studied the effect of identity salience on judgment, most of that research has examined when identity salience affects judgment (e.g., Forehand, Deshpandé, and Reed 2002; Reed 2004; White, Stackhouse, and Argo 2018), how different salient identities are associated with different choices (e.g., Benjamin, Choi, and Strickland 2010; Chattaraman, Rudd, and Lennon 2009; Morris, Carranza, and Fox 2008), and how identity

salience influences subsequent consumption through emotional responses (e.g., Chugani, Irwin, and Redden 2015; LeBoeuf, Shafir, and Bayuk 2010). Notably, some studies have shown that identity salience influences the judgment of identity-congruent versus identity-incongruent products unequally (e.g., Benjamin, Choi, and Strickland 2010; Forehand, Deshpandé, and Reed 2002; Kim et al. 2018; Morton, Postmes, and Jetten 2007) though the results do not converge. However, scant research has systematically explored possible factors that explain the asymmetric effects (see Forehand, Deshpandé, and Reed 2002 for an exception) and divergent findings in the extant literature.

This research complements existing studies by identifying one of the factors, the valence of identity-incongruent attributes, and demonstrating how the valence of identity-incongruent and identity-congruent attributes influences the direction of the asymmetric identity salience effects. For instance, our findings in Experiment 1 showing the asymmetric identity salience effects in the case of the positively-valenced identity-incongruent object could explain why Benjamin, Choi, and Strickland (2010) found priming a salient Asian identity did not increase preference for safe investment options that are in line with their ethnic identity (i.e., identity-congruent options) but decreased preference for risky investment options (i.e., identity-incongruent options). In general, compared to safe options such as cash investment, risky options such as stock investment are regarded more desirable among individuals (Bankrate 2018, 2022; Gallup 2023). As an identity-incongruent option (i.e., risky options) is more positively valenced than an identity-congruent option (i.e., safe options), their salient Asian identity effects occurred only on the identity-incongruent option (i.e., decreased preference for risky investment options), displaying the asymmetric identity salience effects. Also, our findings in Experiment 2 documenting the asymmetric identity salience effects in the case of the negatively-valenced identity-incongruent object could explain why Morton, Postmes, and Jetten (2007) found that when political identity was made salient, individuals preferred value-consistent options, whereas political identity salience did not influence individuals' preference for value-inconsistent options. Specifically, Morton, Postmes, and Jetten (2007) showed when individuals' political identity was salient (vs. non-salient), and public opinion was consistent with theirs, individuals displayed greater support for a candidate who was normative with the ingroup's traditional beliefs (i.e., the identity-congruent figure). However, no such difference was observed when

considering a candidate who expressed opinions that deviated from the ingroup's traditional beliefs (i.e., the identity-incongruent figure). As an identity-incongruent figure is perceived more negatively than an identity-congruent figure because previous research has shown that ingroup members tend to favor individuals who adhere to ingroup norms rather than those who deviate from them (e.g., Marques et al. 1998), these salient political identity effects occurred only on the identity-congruent object (i.e., increased preference for the candidate who is normative with the ingroup's traditional beliefs), demonstrating the asymmetric identity salience effects. In sum, the current research contributes to the existing literature by proposing one potential common factor that could reconcile the divergent findings on the asymmetric identity salience effects in prior work.

Moreover, these findings add to the identity salience literature by using personal identities such as independent and ethical consumer identities and replicating the findings in previous research that showed the asymmetric effects of social identity salience (e.g., Asian American identity, African American identity). Although personal identity and social identity belong to different self-categorizations (Tajfel and Turner 1979), our research indicates that the asymmetric identity salience effects exist at both personal and social identity levels.

5.2. Managerial implications

This research also provides insights to managers by demonstrating that the valence of identity-incongruent and identity-congruent attributes directs the influence of identity salience on product judgment. Unlike extant findings, identity salience does not lead to more favorable judgments toward the identity-congruent products under some circumstances, such as when the valence of an identity-incongruent attribute is more positive than that of an identity-congruent attribute. As many firms utilize identity marketing with the hope that target audiences will be attracted to their products based on identity-related cues (Champaniss, Wilson, and Macdonald 2015), it is important to understand that merely relying on identity-congruent attributes may not enhance sales. Our findings indicate that managers should identify the valences of incongruent or congruent attributes in considering how to achieve expected outcomes. For example, if consumers positively perceive or evaluate an identity-incongruent attribute, a firm should avoid employing the cues in the advertisement that may make a particular identity salient.

5.3. Directions for future study

Future research could broaden the present research in several ways. For example, in the current research, we identify the valence of identity-incongruent and identity-congruent attributes as one of the factors driving asymmetric identity salience effects. Future research on other factors would further enrich our understanding of these effects. Other research could also examine the impact of social identity. To control for the potential effects of ingroup/outgroup bias, this research only focuses on personal identity. It would be interesting to investigate whether changes to the category of identity lead to similar effects. Lastly, future research can fully test the proposed effects by adopting a 2 (identity salience: salient vs. non-salient) \times 2 (attribute congruence: congruent vs. incongruent) \times 2 (attribute valence: positive vs. negative) design. Finally, in Experiment 1, within the identity-incongruent condition (i.e., the recycling condition), the difference in purchase intention between the identity salient and neutral conditions was marginally significant. We call for future research examining another context in which individuals perceive an identity-incongruent product attribute as positive and documenting the effects observed in the current research.

Conflict of interest

There is no conflict of interest.

Appendix A. Measures

1. Pretest

Attitude (Ajzen and Fishbein 1980)

Overall, my attitude toward these coffee capsules/this shampoo is (1 = unfavorable, 7 = favorable; 1 = bad, 7 = good; 1 = negative, 7 = positive)

2. Experiment 1

Purchase intention (Peloza, White, and Shang 2013)

- 1) How likely would you be to purchase these coffee capsules? (1 = very unlikely, 7 = very likely)
- 2) How inclined would you be to purchase these coffee capsules? (1 = not inclined at all, 7 = very inclined)
- 3) How willing would you be to purchase these coffee capsules? (1 = very unwilling, 7 = very willing)

Attribute congruence manipulation check question

These coffee capsules do not require extra effort to throw the used coffee capsules away. (1 = strongly disagree, 7 = strongly agree)

Independent self-identity manipulation check question (Reed 2004)

Please recall a writing task that you completed earlier. To what extent did the writing task make you think about yourself as an independent self? (1 = the writing task did not make me think about it, 7 = the writing task made me really think about it)

Independent-self (Singelis 1994)

- 1) I'd rather depend on myself than others. (1 = strongly disagree, 7 = strongly agree)
- 2) I rely on myself most of the time; I rarely rely on others. (1 = strongly disagree, 7 = strongly agree)
- 3) I often do "my own thing." (1 = strongly disagree, 7 = strongly agree)
- 4) My personal identity, independent of others, is very important to me. (1 = strongly disagree, 7 = strongly agree)
- 5) It is important that I do my job better than others. (1 = strongly disagree, 7 = strongly agree)
- 6) Winning is everything. (1 = strongly disagree, 7 = strongly agree)
- 7) Competition is the law of nature. (1 = strongly disagree, 7 = strongly agree)
- 8) When another person does better than I do, I get tense and aroused. (1 = strongly disagree, 7 = strongly agree)

3. Experiment 2

Attitude toward the shampoo (Ajzen and Fishbein 1980)

Overall, my attitude toward this shampoo is (1 = unfavorable, 7 = favorable; 1 = bad, 7 = good; 1 = negative, 7 = positive)

Attribute congruence manipulation check question

This shampoo is an ethical product. (1 = strongly disagree, 7 = strongly agree)

Ethical consumer identity manipulation check question (Reed 2004)

Please recall a writing task that you completed earlier. To what extent did the writing task make you think about yourself as an ethical consumer? (1 = the writing task did not make me think about it, 7 = the writing task made me really think about it)

Appendix B. Stimuli

1. Images presented in the identity-congruent (left) and identity-incongruent (right) conditions (in Pretest and Experiment 1)



- High quality
- From rich & strong to smooth & balanced, Blends for every taste and palate
- When you used them up, just throw them away!



- High quality
- From rich & strong to smooth & balanced, Blends for every taste and palate
- When you used them up, you need to put them in a recycling bag provided by us and put the bag in a recycling bin!

2. Images presented in the identity-congruent (left) and identity-incongruent (right) conditions (in Pretest and Experiment 2)



It gently cleanses, promotes scalp health, and leaves hair looking healthier.

- Size: 30.4 FL
- Price: \$12
- This shampoo was NOT tested on animals



It gently cleanses, promotes scalp health, and leaves hair looking healthier.

- Size: 30.4 FL
- Price: \$12
- This shampoo was tested on animals

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