Exposure to Brands Makes Preferential Decisions Easier

RYAN RAHINEL
ASHLEY S. OTTO
DANIEL M. GROSSMAN
JOSHUA J. CLARKSON

The most consequential consideration of brands arises during preferential decision-making. This article proposes that as a consequence of the repeated pairing of brands and preferential decisions, exposure to brands initiates a cognitive state of readiness for preferential decisions (which we term decision readiness) that subsequently makes preferential decisions easier. Using both real and fictitious brands across a variety of choice contexts, seven experiments demonstrate that consumers find preferential decision-making easier when it occurs in the presence (vs. absence) of brands. Consistent with the details of our framework, this effect: (i) is explained by the activation of decision readiness, (ii) leads to outcomes such as increased outcome satisfaction and decreased decision delegation, and (iii) is attenuated when exposure is to only one brand. Collectively, these findings demonstrate the importance of exposure to brands for decision-making which, in turn, offers novel insight into existing literatures on brand exposure, decision difficulty, and brand roles.

Keywords: brand exposure, decision difficulty, decision readiness, preferential decisions, brand roles

Ryan Rahinel (ryan.rahinel@uc.edu) is an associate professor of marketing at the Carl H. Lindner College of Business, University of Cincinnati, 2906 Woodside Drive, Cincinnati, OH 45221, USA. Ashley S. Otto (ashley_otto@baylor.edu) is an assistant professor of marketing at the Hankamer School of Business, Baylor University, 1621 S 3rd St, Waco, TX 76706, USA. Daniel M. Grossman (dgtdc@umsl.edu) is an assistant professor of marketing at the College of Business Administration, University of Missouri-St. Louis, 202 Anheuser-Busch Hall, One University Blvd., St. Louis, MO 63121, USA. Joshua J. Clarkson (joshua.clarkson@uc.edu) is a professor of marketing at the Carl H. Lindner College of Business, University of Cincinnati, 2906 Woodside Drive, Cincinnati, OH 45221, USA. Please address correspondence to Ryan Rahinel. The first two authors contributed equally to this article. The authors thank seminar participants at the UC Consumer Behavior Research Camp, University of Kentucky, and the Association for Consumer Research conference, the editor, associate editor, and four reviewers for their helpful comments during the preparation of this manuscript. The authors would also like to thank the Barry Gross Research Endowment Fund at Baylor University for financially supporting this research. Supplementary materials are included in the web appendix accompanying the online version of this article.

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The proliferation of brands in public spaces is a reality of contemporary life. To illustrate, one only need to travel to Times Square in New York, Shibuya Crossing in Tokyo, or Piccadilly Circus in London to experience what Naomi Klein describes in her 1999 book *No Logo* as a brand takeover where modern consumers are visually bombarded by brands (Klein 1999). In response, social movements have emerged in cities worldwide to reclaim public spaces from brands (Corbley 2017; Mahdawi 2015). One notable example comes from São Paolo, Brazil, where legislators instituted a billboard ban in 2007 that effectively deleted many brand displays from public areas (Rohter 2006). Relatedly, organizations such as Scenic Landscape, Coalition to Ban Billboard Blight, and Public Ad Campaign have all questioned the social utility of brands in public spaces.

The purpose of the present research is to understand the consequences of consumers' exposure to brands. Specifically, we investigate how exposure to brands affects preferential decisions—that is, decisions based on preferences. Our findings demonstrate that exposure to brands

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prompts a cognitive readiness in consumers to make preferential decisions (which we term decision readiness), and such readiness eases preferential decision making.

These findings offer several key contributions to the literature. First, whereas past work has shown that exposure to a single brand can affect behavior (Brasel and Gips 2011; Chartrand et al. 2008; Fitzsimons, Chartrand, and Fitzsimons 2008), this research is the first to study the effects of exposure to multiple brands, which we show activates the superordinate concept of "brands," and changes the experience of decision making. Second, while past research has studied a variety of factors that impact decision difficulty (Iyengar and Lepper 2000; Luce 1998; Thompson, Hamilton, and Petrova 2009; Xu, Jiang, and Dhar 2013), this research is the first to our knowledge that studies an incidental environmental factor that may be used to augment other strategies. Finally, our work highlights the role of decision readiness in facilitating preferential decisions and thus reveals an important precognition mental state for consumers, firms, and policy makers to harness when seeking to reduce decision difficulty or achieve outcomes related to easier decisions.

CONCEPTUAL BACKGROUND

Brand Exposure and Cognitive Associations

Exposure to brands occurs often and at various levels of attention. While a conscious and attentive consideration of brands occurs most often during product choice (Jacoby, Speller, and Kohn 1974; Jacoby, Szybillo, Busato-Schach 1977; Mela, Gupta, and Lehmann 1997), brands also exist in the periphery during the consumption of branded products. For instance, consumers may see the brand of a beer while drinking it (Allison and Uhl 1964) or the brand of a pen while using it (Park and John 2010). An even more peripheral form of brand exposure occurs while consumers are engaged in activities such as social interaction (Ferraro, Bettman, and Chartrand 2009), nonconsumptive tasks (Fitzsimons et al. 2008), and consumption unrelated to the exposed brands (e.g., product placement; Brasel and Gips 2011). The ubiquity of brands makes exposure to them simply unavoidable.

The pervasive nature of brand exposure has led several researchers to study the downstream effects of exposure to a single, given brand. By leveraging the notion that brand associations are stored in an associative memory network subject to spreading activation (Collins and Loftus 1975; John et al. 2006), studies have shown that subliminal exposure to thrift brands such as Walmart encourages choices of thriftier options (Chartrand et al. 2008), exposure to the Apple (vs. IBM) brand logo leads consumers to generate more creative ideas (Fitzsimons et al. 2008), and video game players using a Red Bull car race more aggressively (Brasel and Gips 2011). The key enabler of such automatic processes is an established link between a brand (e.g., Apple) and a core concept (e.g., creativity) in one's associative network.

Here, we build on prior work on brand-specific associations by proposing the existence of a superordinate "brands" concept node that itself carries associations. As shown in figure 1, we posit that this node is linked not only to its lower-level brand instantiations but also concepts general to all brands at the superordinate category level. That is, while the "brands" concept node is associated with individual brands such as Nike and Apple (each of which carries their own brand-specific associations), the brands concept node itself carries associations that are general to all brands, potentially such as logos and advertising. Most critical to this research, however, is that we propose the brands concept node is associated with the concept of preferential decisions, which we discuss next.

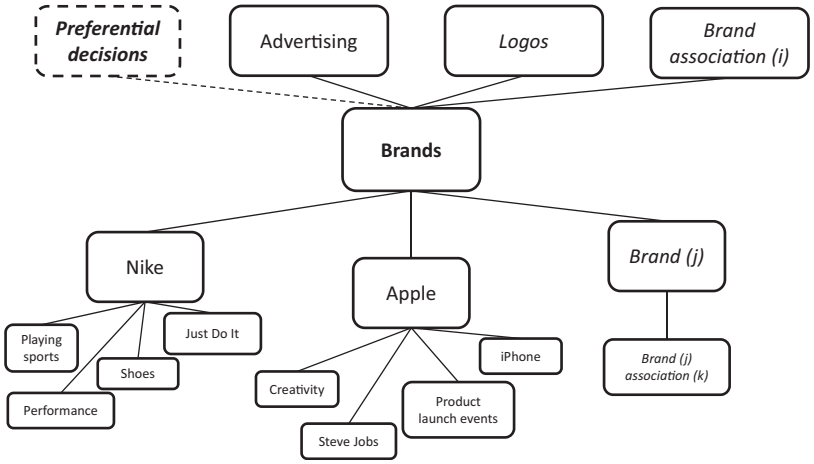
Preferential Decision Difficulty and Decision Readiness

Reducing Preferential Decision Difficulty. This research focuses on the context of preferential decisions, which we define as choice stemming from a greater liking of one option over other available options. Making preferential decisions can be difficult. For instance, in choosing which of several options one prefers, consumers are often faced with too many options (Chernev, Böckenholt, and Goodman 2015; Iyengar and Lepper 2000), options that are all unattractive (Chatterjee and Heath 1996; Zhang and Mittal 2005), options that carry uncertainty (Bettman, Johnson, and Payne 1991; Keller and Staelin 1987), or options that necessitate attribute tradeoffs that they do not want to make (Luce, Payne, and Bettman 1999). Indeed, these factors all point to ways in which an option set can make the process of making a preferential decision more difficult.

Accordingly, a prominent approach to reducing difficulty is to modify either the available options (Broniarczyk, Hoyer, and McAlister 1998; Levav et al. 2007) or the attributes such options carry (Greifeneder, Scheibehenne, Kleber 2010; Luce, 1998). Relatedly, researchers have demonstrated that preferential decision difficulty can be reduced by altering aspects of consumers' processing during the consideration of an option set through the adoption of a different attentional focus (Thompson et al. 2009) or mental representation of the options (Cho, Khan, and Dhar 2013; Huffman and Kahn 1998; Xu et al. 2013). Collectively, these streams of research approach the reduction of preferential decision difficulty by changing facets of the option consideration. In the current research, we take a different approach to reducing difficulty by activating a precognition mental state that we term decision readiness.

FIGURE 1

ASSOCIATIVE MEMORY NETWORK STRUCTURE OF BRANDS CONCEPT NODE, BRAND INSTANTIATION NODES, AND EXAMPLE ASSOCIATIONS



(THE DEPICTED ASSOCIATIONS OTHER THAN THAT BETWEEN THE "BRANDS" AND "PREFERENTIAL DECISIONS" NODES ARE DRAWN FROM ANECDOTAL KNOWLEDGE AND ARE PROVIDED FOR ILLUSTRATIVE PURPOSES ONLY). THE LINE "..." REPRESENTS THE ASSOCIATION THAT IS PROPOSED BY OUR THEORY AND IS NOT CURRENTLY ESTABLISHED

Decision Readiness and Its Relationship to Other Constructs. To introduce the concept of decision readiness, it is helpful to characterize preferential decision making as a task set (Monsell 1996). Here, the task set broadly entails processing the options, engaging in a decision strategy, and selecting an option (Bettman, Luce, and Payne 1998), with the potential for more granular subprocesses within each task that vary across both individuals and situations (Bettman et al. 1998; Mata, Schooler and Rieskamp 2007; Onken, Hastie, and Revelle 1985).

Of relevance to the present research are findings spanning a variety of disciplines showing that common tasks (including decision making) entail an initial mental setup that both precedes and prepares one for subsequent task engagement. This initial mental setup is perhaps best exemplified by the well-replicated findings concerning readiness potential in motor behavior. Readiness potential refers to a phenomenon whereby event-related potentials (i.e., cognitive activity) supporting a self-paced motor action occur several hundred milliseconds before even the intention to move is recognized (Haggard and Eimer 1999; Lau et al. 2004; Libet et al. 1983; Soon et al. 2008; for a review, see Monsell 2003). Consistent with these findings, we propose that prior to one engaging in their core task set for preferential decision making, one similarly initializes a precognition mental state, which we refer to as *decision readiness*.

Conceptualized as such, the state of decision readiness represents a type of mindset. While the nature of decision readiness does not qualify it as a behavioral mindset, which focuses on the spillover of a cognitive or motor procedure between different goal pursuits (Xu and Schwarz 2018), it does fit Rucker and Galinsky's (2016) broader definition of mindset as a psychological orientation that affects the selection, encoding, and retrieval of information (Rucker and Galinsky 2016). A large and diverse body of research has demonstrated that decision-making can be affected by mindsets (some of which also qualify as behavioral mindsets), such as the comparative mindset (Xu and Wyer 2008), the which-to-buy mindset (Xu and Wyer 2007), the power mindset (Galinsky, Gruenfeld, and Magee 2003; Rucker and Galinsky 2008), and regulatory focus mindsets (Higgins 1997; Wang and Lee 2006). Compared with other mindsets, however, decision readiness is rather unique in that it neither specifies a particular cognitive procedure (as do comparative and which-to-buy mindsets) nor is it a motivational orientation (as are power and regulatory focus mindsets). Rather, decision readiness is a precognition mental state that prepares one to more efficiently engage in the typical decision processes they use in preferential decisions, and such processes may vary across individuals. In this way, decision readiness is "tuned" to the particular decision subprocesses of each individual.

The Tuning of Decision Readiness. To explain this notion of processing variation and tuning more concretely, it is helpful to invoke the analogy between preferential decision making and playing a sport, such as basketball or football. Decision readiness makes preferential decision-making easier as would stretching before playing.

Individuals' playing styles (i.e., decision processes) vary so their stretches (i.e., decision readiness) vary accordingly. However, if one were to study the effect of stretching on ease of playing, it would be helpful to ensure that those who stretched (vs. those who did not) did not vary in their playing styles or how much they played at the group level. Likewise, across our studies, we aim to ensure that individuals do not systematically vary in their styles or amounts of processing across the exposure conditions, despite such processing being easier when decision readiness is initiated.

Having elucidated the constructs of preferential decision difficulty and decision readiness, we elaborate in the following section why decision readiness is (i) elicited in response to brand exposure and (ii) able to ease preferential decisions.

CONCEPTUAL FRAMEWORK

Exposure to Brands and Decision Readiness

The Brands Concept Node and Decision Readiness. The earliest model of associative learning—classical conditioning—demonstrates how repeated pairing of a stimulus with an event can lead individuals to physiologically prepare for that event upon subsequent exposure to only the stimulus (Pavlov 1902). Subsequent work has shown that such physiological preparation also extends to cognitive procedures. For instance, extant theory and research on color describes that one way in which color influences cognition is through the repeated pairing of specific colors with specific experiences over time (Elliot and Maier 2012). To illustrate, the color red is often associated with repeated experiences related to danger (e.g., stop signs), whereas the color blue is associated with repeated experiences related to tranquility (e.g., the sky) (Mehta and Zhu 2009). As such, exposure to the color red leads to avoidance-oriented processing, which can protect one from serious threat in dangerous environments, whereas exposure to the color blue leads to approach-oriented strategies, which can facilitate exploitation of opportunities in safe environments (Mehta and Zhu 2009).

We propose that a similar automatic process is at work in our framework. We begin with the notion that the brands concept node is linked to preferential decisions (as depicted in figure 1), as on aggregate, brands are most consequentially considered and attended to during preferential decision-making episodes (Jacoby et al. 1974, 1977; Mela et al. 1997). In fact, the use of brands during preferential decisions largely accounts for the importance of other discovered brand roles (Aaker and Keller 1990; Broniarczyk and Alba 1994; Erdem 1998; Rahinel and Redden 2013; Wernerfelt 1988). In sum, similar to the co-occurrence of colors and particular experiences (e.g., red and warning signs), brands and preferential decision experiences also frequently co-occur, which builds an associative memory linkage between the brands concept node and the preferential decisions node. Furthermore, and as also informed by the research on color, this existing association between brands and preferential decisions should lead brand exposure experiences that activate the brands concept node to initiate cognitive states that facilitate preferential decisions. We propose that one such state is decision readiness.

Activating the Brands Concept Node via Exposure to Brands. Given that the elicitation of the effect relies on activation of the brands concept node, it is important to delineate what kinds of brand exposure experiences are likely to activate this node. Foundational theory in associative networks and spreading activation suggests that the presence of multiple exemplars (vs. one exemplar) of a superordinate category is more (vs. less) effective in cognitively activating their superordinate category (Shiffrin and Raaijmakers 1992). For example, visual exposure to a t-shirt, pants, and sweater all together is likely to activate the concept of "clothing" relatively more than exposure to any of the items individually, even when controlling the number of exposures (i.e., three exposures to t-shirts vs. one exposure to each of a t-shirt, pants, and sweater). This therefore differs from prior work in category membership, wherein repeated joint exposure to a parent category and potential exemplar increases the perceived membership of the latter in the former (Klink and Smith 2001; Lane 2000). In short, the preceding discussion suggests that the brands concept node is best activated when individuals are exposed to multiple brands either simultaneously or in temporal proximity.

That the association exists at the superordinate level (i.e., the brands concept node) rather than at the level of any brand in particular (e.g., Apple) also provides guidance on the types of brands able to contribute to the effect. Specifically, the nature of the key association suggests that any visual stimulus perceived to be a brand should help give rise to the effect, regardless of its familiarity. Given these parameters, our experiments aim to demonstrate how brand exposure experiences involving multiple brands that may span the range of familiarity (including unknown brands) are able to activate the brands concept node and, thus, initialize decision readiness.

Decision Readiness and Preferential Decisions

Decision Readiness Reduces the Difficulty of Making Preferential Decisions. As presented in the conceptual background, the key outcome of activating decision readiness is that it facilitates preferential decision making. This prediction is supported by research in cognitive psychology that shows mental preparation for a given task reduces the difficulty of said task. For instance, several studies have found that foreknowledge of a task goal (which should

activate a state of readiness) can greatly facilitate execution of the related task, even when the stimuli to be processed have not been disclosed (Carlson and Lundy 1992; Sohn and Carlson 1998). Indeed, these results are robust to both repeated tasks and switched tasks (Sohn and Carlson 2000). Further evidence for the facilitation effect of preparation comes from similar studies using task-switching paradigms in which the amount of time between trials [i.e., the response-to-stimulus interval (RSI)] is manipulated, therefore giving participants relatively less or more time to prepare for an upcoming trial. In such experiments, the facilitation effect of foreknowledge tends to shrink as RSI is shortened, which suggests that having the ability to mentally prepare for a task aids in its performance (Sohn and Anderson 2001). Applying the logic implied by these findings to our context, we propose that decision readiness (cued by exposure to brands) facilitates the task of making preferential decisions and therefore reduces their difficulty.

OVERVIEW OF STUDIES

We tested our framework across seven experiments. The first three studies focus on establishing the core effect and decision readiness as the underlying process. Experiment 1 focuses on mediation in the context of natural exposure to brands and consequential choices. Experiment 2 focuses on moderating the effect by experimentally activating decision readiness in the context of a branded choice set. Experiment 3 uses mediation, this time in the context of exposure to unknown brands, and also demonstrates that decision readiness is tuned to preparing individuals for a variety of processes, not just evaluative processing. The following four studies then focus on matters of importance when applying the effect to the real world. Experiment 4 demonstrates a boundary condition, namely that the effect cannot be generated via exposure to only one brand. Experiment 5 demonstrates individuals' habituation to brand displays that are constants of their daily environment, and how the effect may be reignited in such situations by having individuals re-attend to brands. Finally, experiments 6A and 6B use a virtual depiction of the real world to demonstrate how the effect can influence whether consumers choose.

EXPERIMENT 1

This experiment had three objectives. The first was to test the entirety of our proposed framework. Recall our proposition that exposure to brands leads to decision readiness, which makes preferential decisions easier. Accordingly, we had participants make a preferential decision in physical environments either devoid of or laden with brands, and then measured the ease of their decision as well as their decision readiness. Notably, although this cognitive chain of effects is automatic and below thresholds of awareness, prior work shows that individuals are able to report on the psychological states that are byproducts of such automatic processes (Cutright et al. 2014 for an example in the domain of brand exposure). As such, we predicted that the effect of brand exposure on decision ease would be mediated by decision readiness.

The second objective was to test a downstream consequence of our effect, namely post-experience satisfaction. Indeed, prior literature indicates that individuals use decision ease as a cue for satisfaction with their chosen option (Iyengar and Lepper 2000; Scheibehenne, Greifeneder, and Todd 2010). Thus, we predicted that the greater decision ease generated from brand exposure (via decision readiness) would lead to greater satisfaction with one's chosen option, even after consuming it.

The third objective was to rule out two salient alternative explanations. For example, one might suggest that brands reduce elaboration due to brands' association with inferential processing, and individuals use low elaboration as a cue of decision ease. As another example, one might suggest that exposure to different brands enacts a contrast effect against the option set that makes the options seem more similar which, in turn, makes the decision easier (Xu et al. 2013). Accordingly, we measure both decision elaboration and perceptions of similarity among the options and test for their ability to explain the effect through mediation.

Method

Participants, Design, and Procedure. Two hundred and twenty-five undergraduate students (52% male; M_{age} = 20.27) completed a study in exchange for course credit. Participants were randomly assigned to one of three exposure conditions: brands, shapes, or baseline (i.e., no additional stimuli), which was manipulated by varying the visual stimuli in participants' cubicles. After being seated at the cubicle, participants were shown four different (nonbranded) pens and asked to select which pen they would like to have (see web appendix A for choice stimuli). Participants were told that they would be given the pen that they had chosen shortly. Following this, participants responded to both our dependent measure (i.e., decision ease) and proposed mediator (i.e., decision readiness) in a counterbalanced order. Participants were then given one unit of the pen of their choosing and asked to take a few moments and try out their pen on a blank piece of paper that was given to them. Following this task, participants responded to post-experience measures (i.e., satisfaction), post-choice measures, and demographic items. Participants were debriefed and thanked for their time.

Exposure Manipulation. To manipulate exposure, participants sat at one of three types of cubicles. Those in the

brands condition sat in a cubicle with 14 brand logos placed on the walls behind and adjacent to the computer monitor (see appendix A for list of brand logos used; no brands were pen-related). Those in the shapes condition sat in a cubicle with 14 shapes placed in the same places as were the brands in the brands condition. Finally, we included a baseline condition in which nothing additional was tacked to the cubicle space (for visual example of cubicle setup, see appendix B). Participants were not asked to observe, interact, or engage with their surroundings in any way. Conditions were blocked by session to ensure that participants were not exposed to the other conditions as they entered the laboratory.

Decision Ease. Participants rated how easy the decision was to make on the following items: How easy was the choice to make? How difficult was the choice to make? (Reverse-scored). Responses were provided on scales anchored at 1—*Not at all* to 7—*Very* and averaged ($\alpha = .89$), such that higher values indicated greater decision ease.

Decision Readiness. Participants rated their decision readiness on three items: I felt prepared to make a choice, I felt like I was in the mode to make a decision, and the thought of making a decision felt right to me (1—*Strongly disagree* to 7—*Strongly agree*; $\alpha = .84$).

Post-Experience Satisfaction. Participants indicated their satisfaction with their decision on two items: How satisfied are you with your choice? and How pleased are you with your choice? (1—*Not at all* to 7—*Very*; $\alpha = .96$; adapted from Mogilner, Rudnick, and Iyengar 2008).

Post-Choice Measures. Participants responded to a variety of measures on a series of scales anchored at 1—*Not at all* to 7—*Very*. Specifically, participants responded to two items measuring option similarity (How similar were the options to each other? How substitutable were the options for each other? $\alpha = .72$) and three items measuring decision elaboration (How thorough were you in processing the options? How carefully did you process the information about the options? How much attention did you pay to the features of the options when making your choice? $\alpha = .86$).

Confound Check. To ensure that there were not differences in attention paid to stimuli across exposure conditions, participants seated in a cubicle with stimuli (brands or shapes) were further asked: To what extent did you pay attention to the stimuli posted in your cubicle? (1—*None at all* to 7—*A great deal*).

Results

Preliminary Analyses. To ensure that decision readiness and decision ease were separable constructs, we ran an exploratory factor analysis on the items for both constructs using principal components analysis to extract factors with an eigenvalue over 1, and a varimax rotation to uncover the item loadings. The analysis extracted two factors (variance explained by two factor solution: 82.18%) with the two decision ease items loading onto one factor (all loadings >.93) and the three decision readiness items loading onto the second factor (all loadings >.82). Post-choice measures of alternative explanations were submitted to a one-way MANOVA with exposure as the independent variable. The analysis revealed no effect of exposure condition on option similarity ($p > .08$) or decision elaboration ($p > .73$). In addition, there was no difference in attention paid to stimuli for those exposed to brands or shapes ($p > .12$). Furthermore, a multinomial logit regression found no effect of the exposure manipulation on the particular option chosen ($p > .26$).

Decision Ease. A one-way ANOVA revealed an overall significant effect of exposure (0 = control, 1 = shapes, 2 = brands) on ease ($F(2, 222) = 5.97$, $p = .003$, $\eta^2 = .051$). Contrasts revealed that those in the brands condition found the decision to be significantly easier ($M = 6.43$, SD = .82) than those in either the shapes ($M = 5.97$, SD = 1.15) ($t(222) = -2.45$; $p = .015$, $d = .46$) or control ($M = 5.80$, SD = 1.40) ($t(222) = -3.34$; $p < .001$, $d = .55$) conditions, which did not differ from each other ($p > .38$).

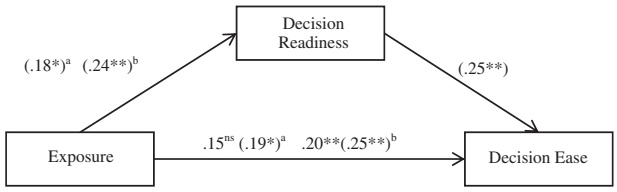
Decision Readiness. A one-way ANOVA revealed an effect of exposure on decision readiness ($F(2, 222) = 5.51$, $p = .005$, $\eta^2 = .047$). Specifically, participants in the brands condition reported being more ready to make a decision ($M = 5.95$, SD = .98) than those in the shapes ($M = 5.47$, SD = 1.35) ($t(222) = -2.41$; $p = .017$, $d = .41$) and control ($M = 5.32$, SD = 1.27) ($t(222) = -3.18$; $p = .002$, $d = .56$) conditions, which did not differ from each other ($p > .45$).

Mediation Analyses. We used the bootstrapping procedures of Hayes (2017) to conduct mediation analyses, whereby we computed a 95% CI around the effect of exposure on ease through decision readiness. Given that exposure is a three-level independent variable, we used indicator coding to create a series of dummy variables (Hayes and Preacher 2014). For instance, to compare the brands and shapes exposure conditions, we ran a mediation analysis which included the brands contrast dummy variable (coded: brands = 1, shapes = 0, control = 0) as the independent variable and the shapes contrast dummy variable (coded: brands = 0, shapes = 0, control = 1) as a covariate in the model.

Consistent with expectations, the results of the mediation analyses showed that decision readiness mediated the increase in decision ease by the brands contrast as compared with both the shapes contrast (indirect effect: .10; 95% CI: .01, .23; see figure 2 for full path analysis) and the control contrast (indirect effect: .13; 95% CI: .03, .29;

FIGURE 2

PATH ANALYSIS IN EXPERIMENT 1



Note: values in parentheses indicate standardized beta coefficients before controlling for other variables in the model. *$P \leq .05$, **$P \leq .01$. [a]values for mediation analysis comparing the brands contrast to the shapes contrast. [b]values for mediation analysis comparing the brands contrast to the control contrast.

see figure 2 for full path analysis); however, there was no such mediating pathway in the comparison between the shapes contrast and control contrast (indirect effect: .03; 95% CI: -.06, .15). None of the measures of alternative mechanisms revealed a significant mediating pathway, and inserting the order of presentation as a factor and the confound check as a covariate did not qualitatively change the results.

Post-Experience Satisfaction. A one-way ANOVA revealed a significant effect of exposure on post-experience satisfaction ($F(2, 222) = 8.42$, $p < .001$, $\eta^2 = .071$). Follow up analyses revealed that those in the brand exposure condition reported being more satisfied with their decision ($M = 6.27$, SD = .79) than those in the shapes ($M = 5.90$, SD = 1.04) ($t(222) = -2.16$; $p = .032$, $d = .40$) and control ($M = 5.57$, SD = 1.28) ($t(222) = -4.10$; $p < .001$, $d = .66$) conditions, which were not significantly different from each other ($t(222) = -1.92$; $p = .056$).

We next turned to serial mediation analyses to further test the downstream consequence of exposure to brands on decision satisfaction. Again, using indicator coding, we analyzed the pathway from exposure to decision satisfaction through decision readiness and then decision ease. The analyses revealed a significant serial mediation pathway through decision readiness and decision ease on decision satisfaction for the brands contrast relative to the shapes contrast (indirect effect: .025; 95% CI: .002, .07) and the control contrast (indirect effect: .033; 95% CI: .005, .09) but not for the shapes contrast relative to the control contrast (indirect effect: .008; 95% CI: −.02, .04). Finally, the serial mediation effect remained significant when including the confound check in the model.

Discussion

This study tested the entirety of our framework in a simultaneous exposure context. We found that individuals who were exposed to brands (vs. matched shapes or no additional stimuli at all) in the environment found it easier to decide which pen they wanted, because they were more prepared to make a preferential decision. These results support the proposed chain of events in our proposed framework.

The setup of this study clarifies several aspects of our framework. First, the findings rule out explanations related to differential elaboration and perceptions of option similarity, as these constructs were directly measured and shown to provide no explanatory power. Second, our study setup demonstrates that the results were not merely an artifact of the experimental design. For example, we used two separate control conditions to help establish that the effect is truly driven by brand exposure, and that decision ease was not merely lowered by exposure to the visual properties of the stimuli or stimuli exposure at all. As another example, we also counterbalanced the decision readiness and decision ease measures to demonstrate that the mediation results were not merely a carryover effect.

Furthermore, we extended the implications of our framework to a consumption relevant outcome—post-experience satisfaction. We found that the increased ease of deciding presumably served as a cue for the perceived utility of the pen, which heightened individuals' satisfaction with the pen after trying it. To the extent that outcome satisfaction is related to the likelihood of product returns and warranty claims, these results are informative to store policies for marketers who find their stores located either in the presence or absence of brand displays. In the following study, we provide another test of our proposed process by manipulating decision readiness and also deepen our insight into the nature of its operation.

EXPERIMENT 2

This study had two objectives. The first objective was to provide further evidence for our process explanation that consumers exposed to brands experience greater preferential decision ease due to heightened decision readiness. In the current experiment, we seek to augment the mediation results from experiment 1 by directly manipulating decision readiness and testing whether it moderates the effect. Specifically, our framework predicts that experimentally activating decision readiness should heighten preferential decision ease for those not exposed to brands, whereas preferential decision ease should be high regardless of decision readiness activation for those exposed to brands as exposure to brands activates decision readiness anyway. The second objective was to test this moderation hypothesis within a choice paradigm where the options are branded. Exposure to branded options is unlikely to cancel out the differential effect of brand exposure prior to the decision, as the latter relies on cognitive preparation for the decision and exposure to branded options occurs after the

focal decision-making process has already started. As such, we expect the effect to replicate for such option sets.

Method

Participants, Design, and Procedure. Two hundred individuals (52% female; $M_{age} = 35.35$) on prolific completed the study. Participants were randomly assigned to conditions in a 2 (exposure: brands vs. shapes) × 2 (readiness: control vs. readiness activated) between-subjects design. Participants first completed a drag-and-drop task and then completed the preferential choice task. Participants then completed the dependent measures and confound checks and provided demographic information.

Exposure Manipulation. At the beginning of the task, participants were presented with a set of instructions stating that they would be engaged in a motor task involving dragging and dropping images into 1 of 6 boxes for 15 trials (see web appendix B for task example). In the brands condition, the images were brand logos (see appendix A for list of brand logos used). In the shapes condition, the images were shapes that were created to mirror the brand logos in both shape and color. This form of manipulation thus extends the effect from experiment 1, as exposure to brands here involved sequential (vs. simultaneous) presentation of brands.

Decision Readiness Manipulation. The decision readiness manipulation tests the moderating role of decision readiness and focuses on what preceded the preferential decision. In the control condition, participants first read an introduction page stating that in exchange for completing studies, participants are sometimes given small gifts instead of course credit, and that the next survey would be to determine what kinds of things people like. Notably, there was no mention of an upcoming preferential decision. In the readiness activated condition, we modified the control condition by adding a prompt at the end of the instructions page: "Important: When you are ready to start making a decision, please press the next button." While subtle, this instruction was carefully designed to increase decision readiness in three ways: (i) by providing foreknowledge of an imminent preferential decision (Carlson and Lundy 1992; Sohn and Carlson 1998), (ii) by directly instructing people to get ready for the decision, and (iii) by allowing individuals to self-pace the time available to ready themselves before encountering the decision, as the literature shows that the effect of foreknowledge is strongest when individuals have enough time to prepare (Sohn and Anderson 2001).

All participants next saw the choice page wherein they encountered six small gifts, and were asked to imagine that they were given the choice to have one of the options for free, and indicate their choice. All six items were branded (e.g., Sony LED keychain with voice recorder, Columbia LED multi-tool kit, etc.), and adapted from prior literature (Lee, Amir, and Ariely 2009; see web appendix C for choice stimuli).

Decision Ease. Participants rated how easy the decision was to make on the same scale used in the previous experiment ($\alpha = .88$).

Confound Checks. To rule out the possibility that the drag-and-drop task differed in difficulty as a consequence of exposure to brands or shapes, participants were asked to rate the subjective difficulty of the task on the following item: How difficult was it to drag-and-drop the [brand logos or shapes] at the beginning of the survey? (1—*Not at all* to 7—*Very*). Furthermore, to ensure the results were not driven by greater attention paid to the brand exposure manipulation, we recorded two measures of attention: one objective and one subjective. As the objective measure, we recorded the time spent completing the drag-and-drop task. As the subjective measure, participants indicated the attention paid to the stimuli on a single item: How much did you pay attention to the [shapes or brands] during the drag-and-drop task?

Results

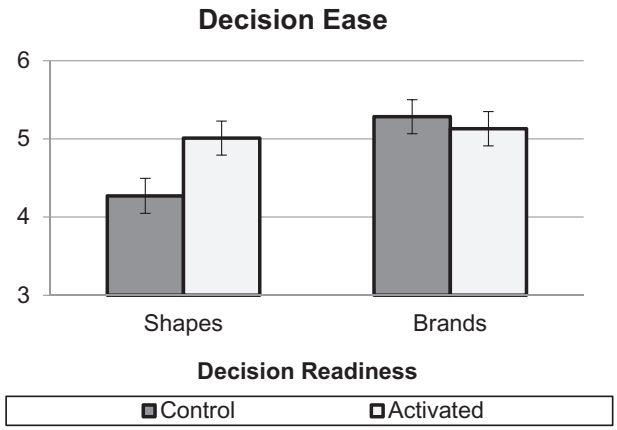
Preliminary Analyses. The confound checks were submitted to a one-way MANOVA with exposure as the independent variable. The analysis did not reveal an effect of exposure condition on the difficulty of the task ($p > .73$), time spent on the task ($p > .52$), or the attention paid to the stimuli ($p > .79$). Furthermore, we ran a preliminary multinomial logit regression with both factors (exposure and decision readiness) and their interaction as predictors, and option chosen as the dependent measure. No significant main ($p > .22$) or interactive ($p > .26$) effects emerged.

Decision Ease. We ran a two-way ANOVA on the decision ease index with exposure (0 = shapes, 1 = brands) and decision readiness (0 = control, 1 = activated) as factors. There was a main effect of exposure ($F(1, 196) = 6.64$, $p = .011$, $\eta_p^2 = .033$) and not decision readiness ($F(1, 196) = 1.77$, $p = .19$). Importantly, there was a significant exposure × decision readiness interaction ($F(1, 196) = 4.12$, $p = .044$, $\eta_p^2 = .021$; see figure 3).

Planned comparisons revealed that we replicated our core effect in the control condition, such that individuals rated the decision as easier after exposure to brands ($M = 5.28$, SD = 1.44) versus shapes ($M = 4.27$, SD = 1.47) ($t(196) = 3.24$, $p < .001$, $d = .69$). In the readiness activated condition, there was no significant effect of exposure condition (brands: $M = 5.13$, SD = 1.72 vs. shapes: $M = 5.01$, SD = 1.57) ($p > .69$). Using the alternate decomposition, exposure to brands did not differentially alter decision ease when readiness was activated (relative to when it was not) ($p > .61$), whereas exposure to shapes increased decision ease when readiness was activated (vs.

FIGURE 3

DECISION EASE AS A FUNCTION OF EXPOSURE AND DECISION READINESS MANIPULATION IN EXPERIMENT 2



when it was not) ($t(196) = 2.36$, $p = .019$, $d = .49$). The results for both interaction contrasts remained significant after inserting the difficulty of, time spent on, and attention to the drag-and-drop task as covariates in the models.

Discussion

The results of this study provide more evidence in support of our proposed mechanism. Specifically, heightening decision readiness increased decision ease for those not exposed to brands, but had no effect for those exposed to brands, since such individuals had presumably already activated decision readiness as a result of prior brand exposure. The results also demonstrate that the effect extends to choice sets that are branded, as exposure to branded options occurs after the decision-making process begins and therefore too late to prepare one for the decision. In the following study, we further investigate the nature of decision readiness, as well as isolate the general nature of brand exposure.

EXPERIMENT 3

This experiment had three objectives. The first objective was to replicate the effect using a manipulation that holds the visual stimuli constant by having participants evaluate the same stimuli framed as either brands or abstract art designs. Given that our framework relies only on whether visual stimuli are *perceived* to be brands, our effect should persist with this manipulation. In this way, this study aims to solidify that it is indeed the brands concept node that is responsible for the effect rather than the particular mix of brands one is exposed to, or whether such brands carry any specific type of existing associations.

The second objective was to more firmly establish the content of the decision readiness construct. Recall our proposition that decision readiness may comprise readiness for a variety of processes involved in preferential decision making, and it is tuned to the processes most often used by the individual decision maker. An alternative explanation, however, is that brands are associated with *only* evaluative judgment and, given that evaluative judgment often comprises at least a part of all preferential decisions, it is a readiness for only evaluative judgment that produces our effect. A conservative test of our conceptualization of decision readiness, then, would be to experimentally control for one's readiness for evaluative judgment and observe our process despite such control. Here, we accomplish this by including an evaluative judgment task as part of the manipulation and again testing for the mediating role of decision readiness.

Building upon this, we aimed to further rule out differential use of decision-making strategies as alternative explanations to our effect, as one may suggest that such strategies are linked to brand exposure as a result of frequent use in consumer choice episodes, and in addition, that such strategies inherently ease preferential decision making. These strategies include comparative processing, limited attribute consideration, random choice, and satisficing, all of which we measure in this study. Furthermore, we again test for any differences in the amount of elaboration that participants engaged in during the decision (see also experiment 1).

Method

Participants, Design, and Procedure. One hundred and seventeen (56% female; $M_{age} = 19.58$) undergraduate students completed the study in exchange for course credit. Participants were randomly assigned to one of two exposure conditions: brands or art. Participants were first asked to evaluate 30 pieces of stimuli (1—*Terrible* to 7—*Excellent*), which contained our exposure manipulation. Next, participants completed the same choice task as in experiment 2 (see web appendix C) absent brands. Following their choice, participants responded to our dependent measure (i.e., decision ease) and a series of post measures. Participants then provided demographics, were debriefed, and thanked for their time.

Exposure Manipulation. To manipulate exposure, the stimuli evaluation task was for either brand logos or art pieces. In the brands condition, participants were told that a logo design company was trying to gauge consumers' reactions to new brand logos about to enter the market. They were further told that for confidentiality purposes, the names of the brands were excluded. In the art condition, participants were told that digital artists were trying to gauge consumers' reactions to their work—specifically,

small abstract art designs. They were further told that for confidentiality purposes, the artists' names were excluded. Importantly, the visual stimuli were held constant across the conditions (see web appendix D for a subset of the stimuli).

We conducted a post-test ($n = 100$) to confirm that this manipulation does not alter individuals' construal level. Participants completed the manipulation, followed by the Behavioral Identification Form (BIF; Vallacher and Wegner 1989; $\alpha = .92$), wherein we randomized the item measures. The BIF has been used in recent research to measure in-the-moment construal level (Salerno, Laran, and Janiszewski 2019; Van Kerckhove, Geuens, and Vermeir 2015). Indeed, there were no significant differences across conditions ($p > .92$). Given the lengthy nature of the full 25-item BIF, we also analyzed the effect of exposure on construal level for only the first five and first ten randomly assigned items, and did not find any effect for either (both $ps > .47$).

Decision Ease. Participants rated how easy the decision was to make on the same scale used in all prior experiments ($\alpha = .92$).

Decision Readiness. Participants rated their decision readiness on the same items used in experiment 1 ($\alpha = .82$).

Post-Choice Measures. On a variety of 7-point scales (first scale: 1—*Not at all* to 7—*Very much*; remaining scales: 1—*Not at all true* to 7—*Very true*), participants responded to items assessing: comparative processing (To what extent did you compare the gift options to each other?), limited attribute consideration (I made my decisions based on a small number of attributes.), random choice (I chose at random), satisficing (I chose the first option that looked decent, and did not bother to consider all of the options), and decision elaboration (same items as in experiment 1; $\alpha = .85$).

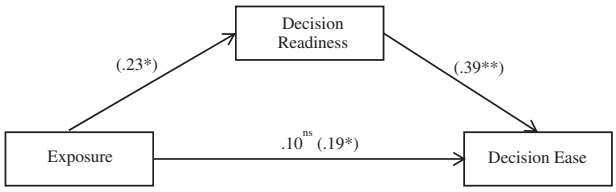
Confound Check. As in experiment 2, we assessed task difficulty to rule out the possibility that the evaluation task differed in difficulty as a function of exposure to brands or art.

Results

Preliminary Analyses. As in experiment 1, we ran an exploratory factor analysis on the decision ease and decision readiness items. Again, the analysis extracted two factors (variance explained by two factor solution: 81.59%) with the two ease items loading onto one factor (all loadings $> .94$) and the three readiness items loading onto the second factor (all loadings $> .78$). The measures of alternative explanations were submitted to a one-way MANOVA with exposure as the independent variable. The analysis revealed no effect of exposure on comparative processing ($p > .59$), limited attribute consideration ($p > .80$), random choice ($p > .22$), satisficing ($p > .17$), or elaboration ($p > .83$). Furthermore, there was no difference in the perceived difficulty of the task across conditions ($p > .22$). A multinomial logit regression found no effect of exposure condition on the particular option chosen ($p > .35$).

FIGURE 4

PATH ANALYSIS IN EXPERIMENT 3



Note—.Values in parentheses indicate standardized beta coefficients before controlling for other variables in the model. *$P < .05$, **$P < .01$

Decision Ease. As predicted, participants in the brand framing condition found the decision to be easier ($M = 4.64$, SD = 1.77) than those in the art framing condition ($M = 4.04$, SD = 1.35) ($t(115) = -2.03$, $p = .045$, $d = .38$).

Decision Readiness. Participants in the brand framing condition also reported greater decision readiness ($M = 5.54$, SD = .95) than those in the art framing condition ($M = 5.02$, SD = 1.21) ($t(115) = -2.59$, $p = .011$, $d = .48$).

Mediation Analyses. We again used the bootstrapping procedures of Hayes (2017) to conduct a mediation analysis. We computed a 95% CI around the effect of exposure on ease through decision readiness. Consistent with expectations, the analysis revealed a significant mediating pathway through the readiness index (indirect effect: .27; 95% CI: .06, .54; see figure 4 for full path analysis). None of the measures of alternative mechanisms revealed a significant mediating pathway. Furthermore, the effect of exposure on ease through decision readiness remained significant when including the confound check (i.e., subjective difficulty) as a covariate in the model.

Discussion

The results of this experiment further demonstrate the proposed process, and this time in a different context. Here, we replicate the process mediation from experiment 1, but do so by merely framing fixed visual stimuli as brands or abstract art designs and having participants evaluate them. Importantly, this manipulation task presumably activated, yet held constant, preparation for evaluative

judgment. Thus, we can conclude that readiness for evaluative judgment is not solely responsible for the effect of brand exposure on decision ease. Note that this does not preclude the likely fact that evaluative judgment is *one of* the processes that brand exposure prepares one for. Rather, the findings suggest that the variance in decision strategies that individuals typically use in preferential decisions (and thus decision readiness is tuned to) allows for our effect to be observed even when one of those processes (evaluative judgment) is parsed out of the effect.

The results of the study also rule out a variety of remaining alternative processes related to various processing and decision-making strategies that may be associated with both brand exposure and preferential decisions. Specifically, comparative processing, limited attribute consideration, random choice, satisficing, and decision elaboration were all ruled out as viable alternatives. Having demonstrated the effect and underlying process in the three studies thus far, the following studies turn to matters relevant to applying the effect to the real world.

EXPERIMENT 4

This study had two objectives. First, it tests whether the effect can be initiated using only a single brand. Recall that our framework relies on foundational theory in associative networks and spreading activation, which suggests that the presence of multiple exemplars (vs. one exemplar) of a superordinate category is more effective in cognitively activating the superordinate category (Shiffrin and Raaijmakers 1992). Given that the brands concept node is the superordinate category for all individual brands, our framework predicts that the effect should attenuate when individuals are exposed to only one brand for all trials. The second objective of this study is to test our effect with an objective and unobtrusive measure of decision ease. Here, we add decision time as a measure of ease, as easier decisions should presumably take less time to render (Sela and Berger 2012).

Method

Participants, Design, and Procedure. Three hundred and forty undergraduate students (68% male; M_{age} = 20.50) completed the study in exchange for course credit. Participants were randomly assigned to conditions in a 2 (exposure: brands vs. shapes) × 2 (variants: one vs. many) between-subjects design. Participants first completed a drag-and-drop task, which was adapted from experiment 2 (see web appendix B). After completing the task, participants completed the preferential choice task used in experiment 3, responded to the dependent measure, confound checks, and provided demographic information.

Exposure and Variant Manipulations. Exposure and variants were both manipulated via the drag-and-drop task. Exposure was manipulated by having participants complete the drag-and-drop task using either shapes or brands, as in previous studies. Variants was manipulated by having participants complete the task using exposure stimuli that were either all the same (in the one variant case case) or all different (in the many variants case case) while holding constant the number of trials. In the many variants condition, the task was identical to that used in experiment 2. In the one variant condition, each participant dragged and dropped either the same brand logo or the same shape (counterbalanced across all 15 logos and all 15 shapes, depending on exposure condition) for all 15 trials. To be clear, the manipulations varied whether the trials included 15 different brands, 15 different shapes, 1 brand for all 15 trials, or 1 shape for all 15 trials. We used a larger sample size per cell in this study to ensure that no individual shape or brand was driving any patterns in the one variant conditions.

Dependent Measures. Participants rated how easy the decision was to make on the same scale used in all previous experiments ($\alpha = .84$). We also recorded the time spent making the decision as a second, objective measure of decision ease (Sela and Berger 2012).

Confound Checks. As in experiment 2, we recorded the difficultly of the task, time spent on the task (i.e., objective measure of attention), and attention paid to the task (i.e., subjective measure of attention). These checks are of heightened importance in this experiment, as they allow us to ensure that the variants factor does not lead to differences in the experience of the manipulation task.

Results

Preliminary Analyses. We submitted the confound checks to ANOVAs with exposure and variant as factors. There were no main or interactive effects of the conditions on the perceived difficulty of the drag-and-drop task (all *p*s > .45). For the task completion time data (square root transformed), neither of the main effects (both *p*s > .17) nor the interaction ($p > .07$) were significant. The same two-way ANOVA on participants' reported attention to the task yielded a main effect of exposure ($F(1, 336) = 4.00$, $p = .046$), but there was not a main effect of variant ($p > .32$) nor a significant exposure × variant interaction ($p > .61$). Finally, we ran a multinomial logit regression on option chosen with both factors and their interaction as predictors. There was a main effect of variant (Wald's $\chi^2 = 11.73$, $p = .039$), but there was not a main effect of exposure ($p > .30$) nor a significant variant × exposure interaction ($p > .11$).

Decision Ease. A two-way ANOVA on decision ease with exposure (0 = shapes, 1 = brands) and variant (0 = one variant, 1 = many variants) revealed main effects of both exposure ($F(1, 336) = 9.11$, $p = .003$, $\eta_p^2 = .026$) and variant ($F(1, 336) = 5.72$, $p = .017$, $\eta_p^2 = .017$). Importantly, there was a significant exposure × variant interaction ($F(1, 336) = 4.22$, $p = .041$, $\eta_p^2 = .012$). Follow-up analyses revealed that in the many variants condition, we replicated our core effect such that individuals rated the decision as easier after exposure to brands ($M = 5.23$, SD = 1.27) versus shapes ($M = 4.49$, SD = 1.10) ($t(336) = -3.45$, $p = .001$, $d = .62$). Conversely, the effect attenuated in the one variant condition, as there was no difference in decision ease after exposure to brands ($M = 4.59$, SD = 1.51) versus shapes ($M = 4.44$, SD = 1.41) ($p > .47$). Viewed differently, exposure to many brands heightened the ease of a subsequent decision relative to exposure to one brand ($t(336) = -3.15$, $p = .002$, $d = .46$); however, exposure to many shapes had no such effect relative to exposure to one shape ($p > .81$).

Decision Time. As in the case of the task completion times, we used a square root transformation on the decision time data (Fazio 1990). A two-way ANOVA with exposure and variant as factors yielded nonsignificant effects of exposure ($p = .06$), and variant ($p > .16$). Importantly, the exposure × variant interaction was significant ($F(1, 336) = 5.86$, $p = .016$, $\eta_p^2 = .017$). Follow-up analyses showed that in the many variants condition, participants spent less time making the decision after exposure to brands ($M = 3.72$, SD = 1.26) versus shapes ($M = 4.28$, SD = 1.15) ($t(336) = 2.92$, $p = .004$, $d = .46$). In the one variant condition, there was no difference in decision time between those exposed to brands ($M = 4.21$, SD = 1.25) versus shapes ($M = 4.14$, SD = 1.15) ($p > .68$). Using the alternate decomposition, exposure to many brands led participants to spend less time on the decision than did exposure to one brand ($t(336) = 2.69$, $p = .008$, $d = .39$), but there was no such difference for those exposed to shapes ($p > .46$). Furthermore, the results for both dependent measures remained significant after inserting the difficulty of, time spent on, and attention to the drag-and-drop task as covariates in the models.

Discussion

The results replicate our core effect and demonstrate that exposure to one brand is insufficient to increase decision ease as does exposure to multiple brands, even when controlling for the amount of exposure (i.e., number of trials). Notably, the results are also not well explained by differential attention to the exposure stimuli that may have resulted from the different stimuli employed in the exposure task, as controlling for explicit attention ratings as well as task completion times did not reduce the effect. Rather, our results are consistent with theoretical foundations in associative network theory suggesting that exposure to multiple exemplars of a superordinate category may be necessary to activate the category in memory (Shiffrin and Raaijmakers 1992).

These results allow for greater precision in predicting when the effect is likely to be observed in the real world. Specifically, they suggest that while our effect may be leveraged to heighten decision ease (as well as its downstream outcomes) in settings such as malls, online retailers, or urban centers where brand exposure comes in the form of temporally contiguous exposure to a variety of brands, it is unlikely to work in situations in which exposure is limited to a single brand, such as when consumers shop on manufacturer websites or in brand-specific outlets.

EXPERIMENT 5

The objective of the current study was to understand how the effect operates for brand displays that are constants of people's daily environment. For example, people are constantly surrounded by brands at home. Does this mean that the effect is perpetually active when one is at home? Prior literature suggests not. People typically habituate (i.e., exhibit a diminished response) to stimuli as they become highly accustomed to them, usually as a result of sustained exposure time or repetition (Thompson and Spencer 1966). In this particular case, this process of habituation is likely explained by attention, as one's attention to stimuli decreases as it becomes less novel (Johnston et al. 1990; Strayer and Johnston 2000), and people tend to tune out stimuli that are not critical for primary activities (Adam and Vogel 2016; Gaspar et al. 2016).

To test this hypothesis, the current study uses online participants who typically complete studies at home while in the presence of belongings that display brand logos. We used three conditions: (i) a control condition with no intervention (control), (ii) a condition in which participants looked around and attended to brand logos around them (brands), and (iii) a second control condition in which participants looked around and attended to dark-colored objects around them (objects). If habituation does not exist, then we should observe no differences between any of the conditions, as random assignment should expose each group to a similar level of brand displays and thus result in similar levels of decision ease. Conversely, if habituation does exist and is driven by reduction of attention (as we suggest), then we should observe that the control condition is relatively depressed (despite being in the presence of brands) as compared with the brands condition, wherein directed attention to brands should reignite the effect. This account also predicts that the objects condition should not produce the effect since attention to brands is not relevant

to the goal of their environmental scanning, which would preclude attention to the brands around them.

Method

Participants, Design, and Procedure. One hundred and fifty individuals (52% male; M_{age} = 34.23) on prolific completed the study. Participants were randomly assigned to one of three conditions: brands, objects, or control (i.e., no intervention), which was manipulated in the first attention task. Next, participants completed the same choice task as in experiments 3 and 4 (see web appendix C). Following their choice, participants completed the dependent measure (i.e., decision ease), manipulation and confound checks, and provided demographic information.

Attention Manipulation. At the beginning of the task, participants were told that the study was about visual processing of environments. In the brands condition, participants were asked to look around and list four brand logos that were around them (e.g., Nike). In the objects condition, participants were asked to look around and list four dark-colored objects that were around them (e.g., black table). Those in the control condition were forwarded directly to the preferential decision.

Decision Ease. Participants rated how easy the decision was to make on the same scale used in all prior experiments ($\alpha = .93$).

Manipulation Check. To confirm the efficacy of the attention manipulation, participants in the brands and objects attention conditions responded to the following two items: To what extent did you notice brands in your environment while doing the task? and To what extent did you pay attention to brands in your environment while doing the task? (1—*Not at all* to 7—*A great deal*; $\alpha = .97$).

Confound Check. Similar to prior experiments, participants were asked to assess the perceived difficulty of the task on the following item: How difficult was the task that required you to list the [brands or objects] you observed in your environment? (1—*Not at all* to 7—*Very).*

Results

Preliminary Analyses. A t-test revealed greater attention to brands in the attention to brands (vs. objects) condition (brands: $M = 5.39$, SD = 1.54; objects: $M = 1.86$, SD = 1.46) ($t(97) = -11.70$, $p < .001$, $d = 2.35$). The difficulty of the manipulation task was rated to be significantly different between the brands and objects conditions (brands: $M = 2.31$, SD = 1.56; objects: $M = 1.64$, SD = 1.12) ($t(97) = -2.45$, $p = .016$, $d = .49$); however, it is worth noting that the perceived difficulty across both conditions is relatively low on the 7-point scale (means < 2.31). Finally, a multinomial logit regression on the option chosen did not reveal a significant effect ($p > .32$).

Decision Ease. The decision ease index was submitted to a one-way ANOVA to analyze differences in ease as a function of attention condition (0 = control, 1 = low, 2 = high). As predicted, there was a significant overall effect of condition on ease ($F(2, 147) = 3.20$, $p = .044$, $\eta^2 = .042$). Contrasts revealed that participants in the brands condition found the decision to be easier ($M = 5.51$, SD = 1.17) than those in the objects ($M = 4.87$, SD = 1.49) ($t(147) = -2.32$, $p = .022$, $d = .48$) or control ($M = 4.95$; SD = 1.43) ($t(147) = -2.04$, $p = .043$, $d = .43$) conditions, which did not differ from each other ($p > .76$). In addition, including the task difficulty measure as a covariate did not change the significance level of the effect.

Discussion

This study supports the notion that individuals habituate to brand displays that are constants of their daily environment because they pay less attention to stimuli that they are accustomed to and are not part of their current activities. Consistent with this explanation, online participants exhibited greater preferential decision ease when reorienting their attention to brands in their idiosyncratic environment prior to the decision (vs. a baseline control). Furthermore, even a condition that substituted brands with dark-colored objects did not produce the effect since processing brands in the environment was not relevant to the task, which precluded attention to them for participants in this condition.

This finding suggests boundaries on when consumers are likely to experience the effect. For example, even if one is surrounded by brands in their home office, they are unlikely to experience heightened decision ease when shopping online unless their prior browsing activity includes exposure to brands. In a more commercial example, entering a store after walking by an array of other stores in the mall is likely to produce an easier preferential decision than entering after sitting on a bench outside the store for a long break.

EXPERIMENT 6

The studies to this point have shown that the effect of brand exposure on preferential decision ease happens regardless of the particular option chosen. But might exposure to brands also alter *whether* consumers choose? Prior work demonstrates that the easier a decision is, the less likely decision makers are to delegate that decision to someone else (Otto, Clarkson, and Kardes 2016; Steffel and Williams 2018). If true, then our framework predicts that individuals exposed (vs. not exposed) to brands should

be less likely to delegate their decision to a sales agent (e.g., waiter) since deciding for themselves is easier to do.

In the current study, we test this prediction using a virtual depiction of the real world.

Participants in this study went on a virtual walk using Google Maps street view in either a brand saturated or relatively nonbranded area of New York City, after which they imagined arriving at a food truck. We then gave them a chance to delegate their food choice to the waiter's recommendation (experiment 6A). Since testing for mediation via decision ease in this context is made impossible by the fact that choosing to delegate actually makes the decision easier, we conducted an exact replication (experiment 6B) but measured decision ease instead of delegation to demonstrate that the manipulation also leads to corresponding differences in decision ease.

Method

Participants, Design, and Procedure. Experiments 6A and 6B were completed by 100 and 103 individuals, respectively, on the prolific platform (6A: 59% female; M_{age} = 31.19; 6B: 61% female; M_{age} = 32.54). Participants were randomly assigned to a high- or low-brand exposure condition. In the first task, which was used to manipulate brand exposure, participants took a virtual walk in New York City using Google Maps street view. In the second task, participants were asked to imagine coming across a food truck and then engaged in a decision task, which varied across experiments 6A and 6B. All participants then responded to our manipulation and confound check measures and demographics and were debriefed.

Exposure Manipulation. Participants were told that they would be exploring Google Maps in street view. We embedded Google Maps in the survey platform to prevent unnecessary navigation from the survey. Participants were provided with a 30 second practice trial in which they all started in the same point of Central Park in New York City. Participants then proceeded to the main task wherein we manipulated their starting point in New York City to be either a high brand exposure location or a low brand exposure location. In the high brand exposure condition, participants started at 178W 46th Street, facing west in Times Square. In the low brand exposure condition, participants started 3 miles away at 543 East 86th Street, facing west in a highly residential area of the Yorkville neighborhood (see appendix C for images of start location). Each participant was given 120 seconds to take their virtual walk before the survey automatically progressed to the food truck scenario. They were also instructed to "take a few seconds and take in your surroundings with each click to a new sight on the map." Prior testing revealed that 120 seconds was not enough time to navigate away from high or low brand exposure environments in their respective conditions.

Dependent Measures. After the virtual walk task, participants were asked to imagine coming across a food truck named *Street Treat* (see web appendix E for menu) and engage in a decision task that varied across experiments 6A and 6B. In experiment 6A, participants were informed that while looking over the menu for the food truck, the waiter shared their recommendation with them, which was listed and randomized across participants. As our dependent measure, participants were then asked to make a choice between selecting something off the menu (i.e., own choice) or selecting the waiter's recommendation (i.e., delegate choice) (adapted from Otto et al. 2016). To maintain the cover story, those electing to make their own choice then indicated their choice. In experiment 6B, participants were simply asked to make a selection off the menu and indicate the ease of their decision on the same scale used in all prior experiments ($\alpha = .87$).

Manipulation Check. Participants were instructed to think back to the map task and answer the following two questions: To what extent did you notice brands in the map task? and To what extent did you pay attention to brands in the map task? (1—*Not at all* to 7—*A great deal*; 6A: α = .86, 6B: $\alpha = .87$).

Confound Checks. Similar to prior experiments, participants were asked to assess the perceived difficulty of navigating the map (1—*Not at all difficult* to 7—*Very difficult*) and how much attention they paid to the map while navigating it (1—*Didn't pay attention at all* to 7—*Paid a lot of attention*). Participants were also asked to indicate the extent of their enjoyment of the virtual walk task (1—*Not at all* to 9—*A great deal*). Finally, participants were asked to what extent they liked the menu (1—*Not at all* to 7—*A great deal*).

Results

Preliminary Analyses. Across both studies, participants indicated greater exposure to brands in the high (vs. low) brand exposure condition (6A: high: $M = 4.61$, SD = 1.43; low: $M = 2.88$, SD = 1.67; ($t(98) = -5.58$, $p < .001$, $d = 1.11$; 6B: high: $M = 4.70$, SD = 1.58; low: $M = 2.76$, SD = 1.42; ($t(101) = -6.56$, $p < .001$, $d = 1.29$). There were also no significant differences across conditions in either study for the perceived difficulty of the task (both ps > .25), attention paid to the task (both ps > .34), enjoyment of the task (both ps > .47), or liking of the menu (both ps > .35). Analysis of the randomized recommended option on choice delegation in 6A did not reveal a significant effect ($p > .19$). A multinomial logit regression of exposure condition on the option chosen in 6B did reveal an effect (Wald's $\chi^2 = 11.98$, $p = .035$); however, follow-up analyses revealed that the option chosen did not

significantly affect decision ease ($p > .12$), and including it as a covariate in the main analysis did not alter the significance of the effect.

Main Analyses. A chi-square analysis of the delegation data in 6A revealed that those in the low brand exposure condition were significantly more likely to delegate choice (48%) than were those in high brand exposure condition (28%) (χ^2 [1, $N = 100$] = 4.24, $p = .039$; $\Phi = .21$). The results of 6B were also as expected, as participants in the high brand exposure condition found the decision to be easier ($M = 5.29$; SD = 1.44) than those in the low brand exposure condition ($M = 4.58$, SD = 1.58) ($t(101) = -2.39$, $p = .019$, $d = .47$). For both studies, including the confound checks and the randomized recommended option in 6A as covariates in the models did not change the significance level of the effect.

Discussion

Experiment 6 demonstrates that exposure to brands can not only affect the ease of preferential decisions, but also whether people choose for themselves. Specifically, participants going for a virtual walk in a branded (vs. nonbranded) area found choosing off a menu to be less difficult (6B), and were therefore less likely to defer to the option recommended by the waiter (6A). These results are potentially useful to marketers who manage sales staff, as they suggest that all else equal, stores existing in areas of high brand display concentration should think carefully about the number of sales associates deployed and their rates of commission since customers of such stores are less likely to seek out or use recommendations from these staff.

GENERAL DISCUSSION

Depictions of brands occupy a sizeable amount of space in the world. While it is to be expected in marketplaces, reactions to their uses in areas intended for other purposes (e.g., public spaces) are more mixed. On one hand, the intention of brands is often to increase consumers' awareness, familiarity, and positivity with respect to their products (Aaker 1991; Hoeffler and Keller 2003). On the other hand, consumers' and policy makers' considerations are often focused on visual esthetics (Rohter 2006; Schmitt and Simonson 1997). Our findings here suggest that both perspectives are potentially incomplete, as brand exposure yields outcomes that are completely unintended by specific brands and unanticipated by consumers and policy makers.

Specifically, we find that brand exposure prompts a cognitive readiness for preferential decision making which, in turn, reduces the difficulty of making preferential decisions. Importantly, this finding generalized across a variety of brands, which included brands that were real and familiar (experiments 1, 2, and 4–6) as well as brands that were entirely unknown (experiment 3). The effect also emerged for both hypothetical choices (experiments 2–6) and consequential choices (experiment 1). In addition, the effect was robust to a variety of control conditions, including a no-stimuli baseline (experiments 1 and 4), images matched in shape and color (experiments 2 and 4), and even stimuli that were visually identical to those in the opposing brands condition but instead framed to be art designs (experiment 3). It was not explained by differences in the amounts of elaboration or other types of processing (experiments 1 and 3). Rather, tests of mediation (experiments 1 and 3) and moderation (experiment 2) supported our proposed mechanism that decision readiness made the processes underlying preferential decision making easier. Through the design of our manipulation in experiment 3, we were also able to rule out the notion that decision readiness prepares one for only evaluative processing, rather than a range of preferential decision-making processes, as we suggest. Finally, we demonstrated managerially relevant downstream outcomes of our effect: greater outcome satisfaction (experiment 1) and reduced rates of decision delegation (experiment 6A).

On this latter note, we recognize that marketers are unlikely to want to display random arrays of brands in their stores simply to capitalize on the effects shown here. Nevertheless, we believe that the true managerial utility of our findings lies in understanding the existing environment of one's store, as well as where consumers are likely traveling to their store from. Is the store located in a mall (vs. standalone location)? Are most consumers coming into the store before or after they walk around and see the logo signage from other stores? Are consumers making preferential decisions at a location with other brands in full view (e.g., a food court)? The answers to such questions may allow managers to more strategically deploy resources. For example, given that individuals are more satisfied with the outcomes of choices made in the presence (vs. absence) of brands (experiment 1), marketers whose stores exist in areas more visually saturated by brands may wish to implement more favorable return and warranty terms that are attractive to consumers but also are less likely to be used. Consumers at such locations are also less likely to rely on the recommendations of sales staff (experiment 6A), which may affect the extent to which managers deploy sales staff, encourage them to recommend items, or compensate sales staff with commissions that may have lower marginal effects on revenue. The implications are even wider reaching when considering their potential impact on store location decisions. Specifically, that customer satisfaction is important for the bottom line (Fornell, Morgeson, and Hult 2016; Otto, Szymanski, and Varadarajan 2020; Sorescu and Sorescu 2016), and sales staff can present significant expenses suggests that storefronts surrounded by other brands should be given 'bonus' consideration. Of course, marketers' confidence in such implications should be tempered in cases where consumers are likely to be habituated

to the exposed brands (experiment 5), or are exposed to only a single brand (experiment 4).

As our work is the first to study the general effects of exposure to brands, it advances the literature in a variety of ways. Whereas previous work on brand exposure has focused on brand-specific associations (e.g., Apple and creativity; Fitzsimons et al. 2008), our work shows that simultaneous or sequential exposure to multiple brands activates the superordinate concept of brands, which carries associations that are responsible for eliciting responses upon brand exposure. Future work should look to identifying other associations with the brands concept node, as well as exploring the effects of potential interactions with specific brand concepts, other aspects of the environment, or the individual.

Our focus on general brand associations also adds to the extant literature on brand roles. Prior work has uncovered various societal roles played by brands, including serving as signals of quality (Aaker 1996; Erdem and Swait 1998; Wernerfelt 1988), indicators of specific attribute profiles (Broniarczyk and Alba 1994), targets of attachment (Fournier 1998), product coordinators (Rahinel and Redden 2013), and vehicles for group association (Belk 1988). However, unlike other roles, the role discovered here is invoked through mere exposure to brands. Future work should explore whether both new and previously discovered brand roles can elicit outcomes through such means.

Our findings also have implications for the area of decision difficulty. While prior literature suggests that decision difficulty can be affected by the option set (Chatterjee and Heath 1996; Iyengar and Lepper 2000; Luce 1998), cognitive operations (Cho, Khan, and Dhar 2013; Thompson et al. 2009; Xu et al. 2013), and situational contexts (Zhang and Mittal 2005), our work focuses on how an incidental factor—brand exposure—can also exert influence, notably without altering the options or the attributes they carry. Future work should examine the extent to which brand exposure can ease decisions beyond those that are preferential in nature. Our framework suggests that the degree to which this is true likely depends on the overlap between the recruited subprocesses of a given decision type with those recruited by preferential decisions.

Another area for further investigation involves charting the network of associations surrounding both the brands concept node as well as preferential decisions. In the current work, we focus on brand exposure given the preponderance of brands in nonmarketplace contexts. Nevertheless, our framework suggests that the activation of other marketplace constructs that co-occur and thus share cognitive associations with preferential decisions, as well as the preferential decision construct itself, should elicit similar effects on preferential decision ease. Furthermore, it also suggests that such activation need not occur through stimuli exposure and that activation through other means should behave likewise.

In fact, we conducted a preliminary test of this on 272 undergraduate student participants who were asked to define (and thus activate) the concept of either brands, products, shopping, consumption, preferential decisions, or cleaning (as a control condition), or as a second control condition, not complete the definition task at all. Afterward, we asked participants to complete the same choice task as in experiments 3–5 as well as the same decision ease measure used in all studies ($\alpha = .87$). We then ran a one-way ANOVA with LSD comparisons to compare the ease ratings across conditions. This analysis revealed significant differences between the conditions overall ($F(6, 265) = 4.92$, $p < .001$, $\eta^2 = .10$), as the preferential decision was rated as being easier after conceptually activating brands ($M = 4.99$, SD = 1.23), products ($M = 5.04$, SD = 1.35), shopping ($M = 4.96$, SD = 1.27), consumption ($M = 4.89$, SD = 1.42), and preferential decisions ($M = 5.13$, SD = 1.01), as opposed to either cleaning ($M = 4.35$, SD = 1.30; $p_{\text{consumption}} = .058$, all other ps $< .05$) or nothing at all ($M = 3.94$, SD = 1.15; all ps $< .01$). Thus, while the effect for brands holds primary importance due to the wide use of brands outside of pure shopping contexts (i.e., billboards, brand signage, advertising, etc.), the results show that the effect has broad applicability beyond brands as well. Future research should further investigate other conceptual activations and environments that lead to easier preferential decisions.

Brands are an important marketing tool that are used to differentiate products, and thus reduce the difficulty of choosing between them. Here, we show that this function of brands stretches far beyond the products to which they are attached, and that their mere presence can ease preferential decisions of all kinds. Future work should examine other ways in which generalized brand exposure affects outcomes, both those related and unrelated to consumers' actions in the traditional marketplace.

DATA COLLECTION INFORMATION

Experiment 1 was collected using participants at Baylor University by research assistants supervised by the second author and analyzed by the second author. Experiments 2, 5, and 6A/B were collected on Prolific and analyzed by the second author. Experiments 3 and 4 were collected using participants at the University of Cincinnati by research assistants supervised by the first three authors (experiment 3) or the first and third authors (experiment 4) and analyzed by the second author. The study referenced in the general discussion was collected using participants at the University of Cincinnati by research assistants supervised by the first and third authors and was analyzed by the first author. The post-test referenced in experiment 3 was

collected on Amazon Mechanical Turk and analyzed by the second author. Data for this manuscript were collected between the fall of 2014 and spring of 2021 as follows: experiment 1 (fall 2018), experiment 2 (spring 2021), experiment 3 (fall 2014), experiment 4 (fall 2018), experiment 5 (spring 2021), experiment 6A/B (spring 2021), general discussion study (fall 2018), and experiment 3 post-test (spring 2021). The data are currently archived in a project directory on the Open Science Framework.

APPENDIX A

LIST OF BRAND LOGOS SHOWN IN EXPERIMENTS 1, 2, AND 4

American Airlines
Kleenex
Gatorade
LEGO
NBC
Shell
Taco Bell
Aquafina
Ford
IKEA
MasterCard
Perrier
Ray-Ban
Tommy Hilfiger
Bic[a]

APPENDIX B

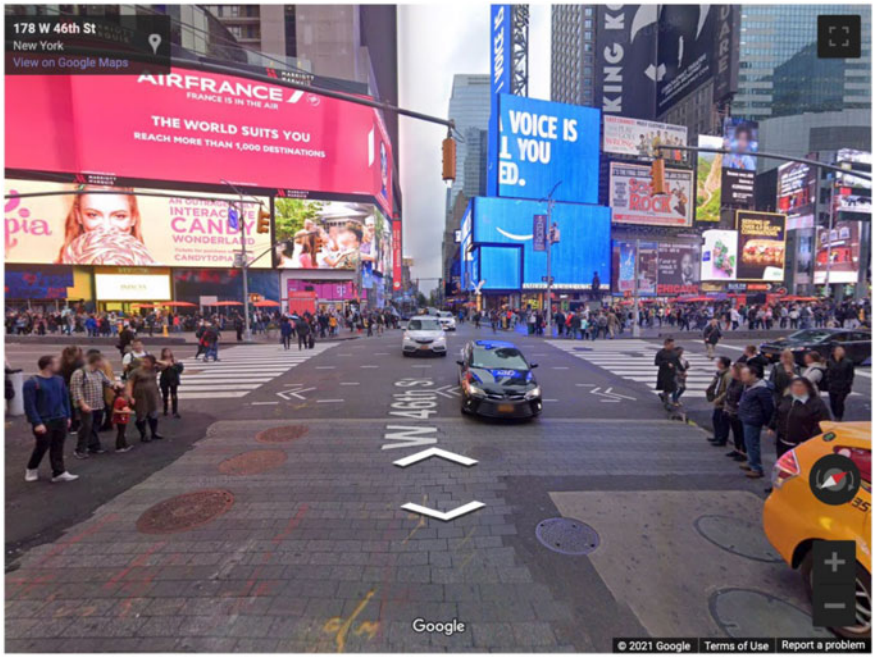
EXPOSURE MANIPULATION USED IN EXPERIMENT 1

Brands	Shapes	Baseline
		

APPENDIX C

EXPOSURE MANIPULATION USED IN EXPERIMENT 6

High brand exposure starting point



Low brand exposure starting point

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