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This research examines the dynamic process of inference updating. The authors present a framework that delineates two mechanisms that guide the updating of personality trait inferences about brands. The results of three experiments show that chronics (those for whom the trait is accessible) update their initial inferences on the basis of the trait implications of new information. Notably, nonchronics (those for whom the trait is not accessible) also update their initial inferences, but they do so on the basis of the evaluative implications of new information. The framework adds to the inference-making literature by uncovering two distinct paths of inference updating and by emphasizing the moderating role of trait accessibility. The findings have direct implications for marketers attempting to understand the construction of brand personality, and they emphasize the constantly evolving nature of brand perceptions and the notion that both the consumer and the marketer have important roles to play in this process.

Two Roads to Updating Brand Personality Impressions: Trait Versus Evaluative Inferencing

A big part of Harley-Davidson's appeal lies in the personality of the bike itself. It encapsulates masculinity, defiance, and rugged individualism (Fournier 2001). Much research has emphasized the importance of "brand personality" (defined as the personality traits associated with a brand; Sentis and Markus 1986), suggesting that it can provide a point of differentiation (Plummer 1985), create emotional benefits (Ogilvy 1983), and serve as a basis for relationship building (Fournier 1998). However, most research to date has focused on understanding the content of those personality associations by examining brand representations at a single point in time. Research has been sparse in determining (1) how such personality inferences change in response to incoming, possibly disconfirming brand information (e.g., from Web sites, marketing messages, word of mouth) and (2) why some trait inferences remain stable whereas others shift in response to incoming information.

In the case of Harley-Davidson, for example, how would a consumer who has made initial inferences about Harley-Davidson being a rugged brand respond to new information that suggests that it is becoming increasingly environmentally conscious? Under what conditions would inferences about Harley-Davidson be modified, and perhaps more interesting, why? To address these questions, this research provides an accessibility-based framework that sheds light on how incoming information is incorporated into initial brand impressions. We identify two distinct processes that illuminate how different people, depending on their personalities, might either change or maintain their initial brand personality inferences after exposure to later brand information. The findings from our studies help further the understanding of when brand personality inferences may change and add to the inference-making literature by examining the processes by which consumers update their initial inferences in the face of new information.

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CONCEPTUAL BACKGROUND

Although research in consumer psychology has been largely silent on the specific processes by which consumers generate brand personality inferences, the impression formation research in social cognition on related topics has flourished. Based on principles of accessibility, much of the research has shown that if a trait related to the information at hand is accessible, incoming ambiguous information is

likely to be interpreted in terms of that trait (Higgins 1996; Schwarz 1995; Wyer and Srull 1989). Thus, people for whom a personality trait is chronically accessible—that is, those who tend to activate and use specific personality traits to a high degree (hereinafter, “chronics”)—are more likely than people for whom that trait is not accessible (hereinafter, “nonchronics”) to use that trait in forming inferences about a target person (Higgins, King, and Mavin 1982). To illustrate, people with high chronicity scores on the “conceited” trait are more likely than people with low chronicity scores on that trait to infer that ambiguously described behaviors of a fictitious target person (e.g., a student claiming that her papers were always better than those of her classmates) reflect conceit (Higgins and Brendl 1995).

On the basis on the impression formation research on the effects of chronicity, we propose that chronics are more likely than nonchronics to make brand personality inferences from trait-relevant information. The implication of such a finding is central to marketers attempting to develop brand personality associations because it sheds light on when and to what degree such efforts will be effective. For example, when consumers are presented with a brand claim such as “X brand’s clothing designs are worn by top New York models,” those for whom the trait “sophistication” is chronically accessible are more likely to imbue the brand with the relevant personality trait (i.e., sophisticated) than are those for whom the trait is not chronically accessible.¹

Trait inferencing for nonchronics can occur when trait accessibility is heightened temporarily through situational methods such as priming or through the salience of the presented information itself (Higgins 1996). For example, Srull and Wyer (1980) increased the accessibility of the trait “hostility” by having participants complete a sentence construction task using hostile words (e.g., leg, break, arm, his) before they were exposed to behavioral information about a target person. Subsequently, primed participants rated the target as being more hostile than did those in the control condition. Similar effects have been obtained when temporary accessibility was induced by increasing trait salience through presentation of an increased number of target behaviors pertaining to the underlying trait (Srull and Wyer 1979).

In the brand personality inferencing domain, the use of priming or salience procedures should also temporarily increase trait accessibility for nonchronics, thus facilitating personality inferences based on trait-related information. Heightened situational accessibility is unlikely to facilitate trait inferencing further for chronics, for whom the trait is chronically accessible. Although chronics may engage in greater brand personality inferencing than nonchronics under control conditions, increasing temporary trait accessibility should eliminate group differences. In this research,

¹Note that such a claim is directly related to sophistication rather than being ambiguous. In this research, we focus on such types of information because most marketing claims are related to the personality associations that the brand wishes to convey and are unlikely to be ambiguous. The chronicity difference should prevail even for such relatively unambiguous brand information because brand personality inferencing is not as functional and frequent as person impression formation; thus, ambiguous information about a brand may lead to low levels of personality inferencing in general (compared with the case of person perception; for differences between social cognition and marketing stimuli, see Kardes 1986).

we create conditions of heightened situational accessibility to ensure equivalent initial inferencing by chronics and nonchronics, and then we examine differences in the way their initial inferences are updated in response to subsequent information.²

Updating Impressions

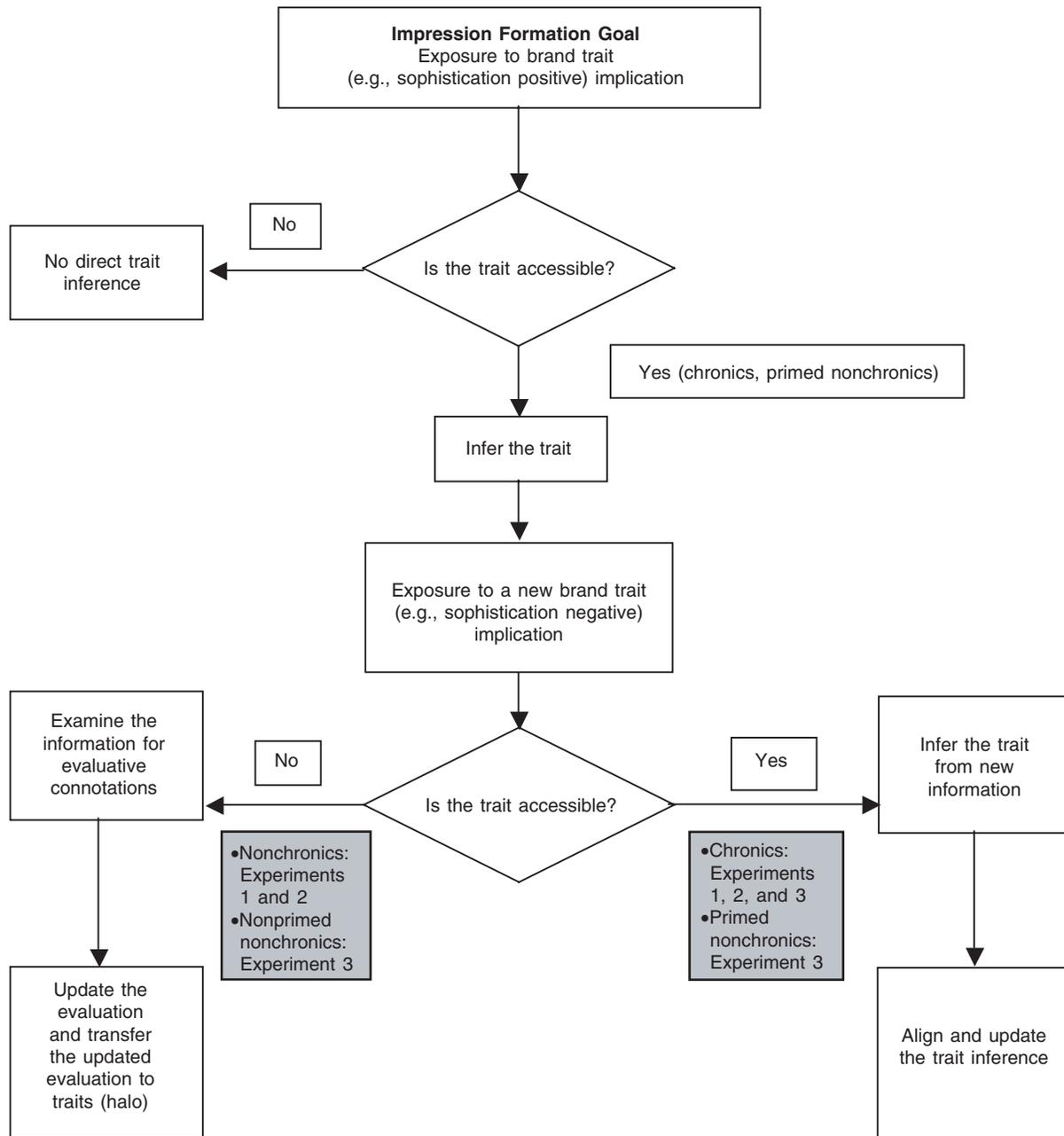
Of primary importance to this research are the following questions: After consumers form brand personality inferences, how do they react to new trait-relevant information? Will consumers update initial brand personality inferences to reflect new information? Does the manner in which the consumer formed his or her initial inference (chronic trait accessibility versus situational priming) matter? Although the literature on belief updating suggests that beliefs are often resistant to change (Lord, Ross, and Lepper 1979), this finding applies to situations in which strong initial impressions have already formed (Higgins and Bargh 1987). In other cases, updating is observed. The key question is when and how updating occurs.

Recent research on judgment revision (Fabrigar and Petty 1999; Lord and Lepper 1999) suggests that people are likely to reconsider their initial judgments in light of new (possibly disconfirming) information if certain conditions are met. Building on this research, Pham and Muthukrishnan (2002) lay out three conditions: First, the target of the new information should be accessible in memory. Second, the new information should be compatible or alignable with information retrieved from memory (i.e., the new information should share a common dimension with prior evidence; Muthukrishnan, Pham, and Mungale 1999). Third, the new information should be diagnostic. For example, Pham and Muthukrishnan (2002) use the positioning of a brand (e.g., abstract versus attribute specific) to create conditions of compatibility versus incompatibility between initial information and new information (e.g., both the initial information and the new information were abstract rather than one being abstract and the other being attribute specific). Their results demonstrate that the new information is more likely to have an influence on judgments when it is compatible with the initial information. Building on this work, we focus on (1) situations in which consumers have formed initial brand personality inferences and then receive additional diagnostic information about the brand and (2) the processes by which consumers update their inferences.

Our conceptual framework (see Figure 1) bridges the work on inference making in consumer behavior and accessibility-based research in psychology, and it posits two routes by which people update their initial inferences in response to new trait-relevant brand information. We build our framework on the premise that consumers who have the relevant personality trait accessible at the point of exposure to the new information (e.g., chronics or even nonchronics for whom the trait is made temporarily accessible before receiving the new information) are likely to make a brand

²An initial study, which we do not report here because of space limitations, supported the premise that chronics (versus nonchronics) engage in greater initial brand personality inferencing when provided with brand information related to that trait. However, this difference disappears under conditions of heightened situational trait accessibility induced by priming; in this case, nonchronics engage in a similarly high level of initial inferencing as chronics.

Figure 1
TRAIT UPDATING PROCESS DURING IMPRESSION FORMATION



trait inference based on this additional information. In the contexts we study here, in which a trait inference has already been made after exposure to initial information and is accessible, the drawing of inferences (related to the same trait) after exposure to the new information results in a high degree of compatibility between new and old information. Thus, brand personality updating is likely to occur. Whether the updating leads to a change in the initial trait rating depends on whether the trait connotation of the new information differs from that of the initial inference. Specifically, if the new information is consistent with the previously made trait inference (e.g., an initial inference that a particular clothing brand is “sophisticated” and new brand

information suggesting that it is expensive), the trait rating is unlikely to change. However, if the new information disconfirms the previous trait inference (e.g., the new information suggests that the brand is relatively cheap), trait ratings should be updated to reflect this new information. We refer to this as the trait inference updating mechanism.

What if consumers who made an initial brand personality inference do not have the relevant trait accessible at the time of exposure to new information (i.e., nonchronics who benefited from heightened situational accessibility during initial inferencing)? Exposure to subsequent information relevant to the trait should not result in trait inferencing for such consumers. In this case, consumers are unlikely to

make trait inferences, and they are unlikely to update their initial trait inference directly, because the new information, as it is presented (i.e., such that it only indirectly implies the trait rather than directly explicates it), is not compatible with any trait inference retrievable from memory. Thus, according to the judgment revision model we previously presented (Pham and Muthukrishnan 2002), nonchronics' brand personality inferences should not be updated on the basis of the trait implications of new information.

We extend previous models of judgment updating and propose that noncompatibility between new information and information retrieved from memory need not always result in the status quo (i.e., no updating); other updating processes may prevail. Specifically, nonchronics may not update initial inferences on the basis of new trait inferences but may update initial inferences through a different mechanism. Research on social inferences has shown that overall evaluative implications of new information often guide people's inferences and judgments (Carlston 1980; Kardes 1986), especially when other inference-related cues are not available (Lingle and Ostrom 1979) and information processing is undertaken with an impression formation goal. This is the situation for nonchronics when they are exposed to new information; the relevant trait is no longer accessible, and accordingly, cues for trait-based inferences are unavailable. Therefore, it is the trait-irrelevant evaluative implications of the new information that should become salient. These overall evaluative implications should then guide inferences along a variety of traits (not just the trait for which initial inferences were drawn). In terms of our previous example, even when temporary situational accessibility leads nonchronics to form initial inferences about a brand's sophistication, subsequent information about how expensive versus cheap the brand is should affect their trait ratings because of its evaluative implications, regardless of its connotations for the sophistication trait. Thus, paradoxically, the positive evaluative implication of a low price may result in a positive updating of the brand's rating on sophistication and on various other traits.

Note that this mechanism is consistent with the halo effect, which refers to a process by which overall evaluative implications affect ratings across a variety of specific attributes (Asch 1946; Thorndike 1920). Halo effects are more likely when attributes are ambiguous (Holbrook 1983). Similarly, new trait-relevant information is likely to be ambiguous in terms of its trait implications for nonchronics when the trait is no longer accessible. In this case, nonchronics are likely to make brand personality judgments based on the evaluative implications (rather than the trait implications) of the new information. In other words, we expect that nonchronics use an evaluative consistency rule to draw brand personality inferences in the face of new information. Next, we report three experiments, each of which tests the framework and emphasizes both the trait inference and the evaluative inference updating mechanisms we propose (see Figure 1).

EXPERIMENT 1

Overview and Design

We conducted Experiment 1 to determine whether the updating mechanism differs for chronics and nonchronics,

even when first impressions are equivalent. We used a 2 (chronic trait accessibility: high versus low) \times 2 (time of measurement: before versus after additional information) mixed design, in which time of measurement was the within-subjects variable. The personality trait we chose was "sophistication" because it is related to both brands (Aaker 1997) and people (Batra and Homer 2004). To induce similar sophistication inferences for both chronics and nonchronics, we presented initial brand information in the context of heightened situational trait accessibility across conditions. For ecological validity, we induced high situational accessibility by presenting a large number of sophistication-related claims in the initial brand information (as is often done in advertising). Pretesting showed that including such a large number of trait-relevant claims is successful in inducing high situational accessibility of the trait.

We measured initial brand sophistication ratings on five-point scales, followed by exposure to additional information and a second set of personality ratings. To test the proposed inference updating mechanisms, we used additional information that consisted of claims that carried (1) positive sophistication connotations and (2) negative evaluative implications (when viewed from a nonsophistication perspective, such as "high price" and "limited availability"). If our model is correct, chronics and nonchronics should react differently to such information, even though both groups should have formed similarly positive and sophisticated initial brand personality impressions. Specifically, the additional information should not cause a decline in sophistication ratings for chronics, because they should focus on its trait connotations, which are positive and therefore consistent with the initial personality inference. Thus, sophistication ratings should remain high for this group. In contrast, nonchronics should not draw positive trait inferences from the additional information, because the trait is inaccessible to them at the point of receiving this information. Instead, they should follow an evaluative inference mechanism, whereby they update their initial personality ratings in a direction consistent with the (negative) evaluative implications of the new information. Thus, nonchronics' brand personality ratings should drop after exposure to the additional information.

Procedure

We paid 40 participants \$12 each to take part in a new product study to determine their opinions about a fictitious brand, Bondi clothing. To ensure that even nonchronics made sophistication inferences, participants read seven brand claims about Bondi, six of which we pretested to ensure that they were related to sophistication (e.g., "This brand of clothing is always shown at the fashion shows in Milan and Paris." "Even among designer labels, Bondi design is considered to be in a class of its own." "These clothes are noted for their subtle use of color." All means [Ms] > 2.65 on the -4 to +4 sophistication scale).³ We

³We used a large number of unambiguous trait-related claims rather than ambiguous claims for two reasons. First, it was necessary to increase the accessibility of the trait for nonchronics so that both nonchronics and chronics generate initial trait inferences to an equal extent. Second, high levels of trait inference, as revealed in the initial trait ratings, were necessary to document a fall in ratings in the face of inconsistent trait-relevant

pretested the filler claim to ensure that it was unrelated to sophistication. Participants rated Bondi clothing on seven-point sophistication-related scales that we adopted from the work of Aaker (1997; e.g., glamorous, fashionable) and then rated their involvement on a seven-point scale ("How carefully did you read the information?").

At this point, participants believed that this study was completed, and they began a set of unrelated questionnaires. After 15 minutes, participants received additional information on Bondi clothing. This information contained the negative evaluation and positive sophistication claims and two neutral filler claims: "Bondi clothing is relatively expensive compared to other designer labels," and "Bondi clothing is only available in a limited number of stores, making it difficult to shop for." We selected these claims on the basis of the results of two pretests ($n = 19$, $n = 29$) that showed that the claims (1) had positive implications for sophistication (average $M = 2.22$ on a -4 to $+4$ sophistication index; $t_{\text{diff from } 0} = 7.14$, $p < .05$) and (2) were relatively negative from an overall evaluative perspective (average $M = 3.40$, where $1 = \text{"negative implication"}$ and $7 = \text{"positive implication"}$; $t_{\text{diff from } 4} = 2.52$, $p < .05$).⁴

Next, participants rated the brand again on the same personality scales and completed the sophistication self-chronicity measures for which they rated a set of personality traits in terms of actual self-description ($1 = \text{"not at all descriptive of me,"}$ $5 = \text{"extremely descriptive of me"}$) and importance ($1 = \text{"not at all important to me,"}$ $5 = \text{"extremely important to me"}$). We computed a sophistication chronicity measure for each participant by multiplying the self-description score with the importance rating for each of six traits belonging to the sophistication dimension (e.g., glamorous, fashionable; Aaker 1997).⁵ Finally, we administered a demand probe; participants revealed no insight into the hypotheses.

Results and Discussion

Regression analyses using the continuous chronicity score as the independent variable with initial versus final brand excitement ratings as repeated measures revealed a predicted two-way interaction ($F(1, 38) = 4.65$, $p < .05$). To follow up on this effect, we grouped participants on the basis of the median chronicity score of 55. Nonchronics and chronics did not differ on initial five-point brand personality

ratings ($M_{\text{nonchronic}} = 4.42$, $M_{\text{chronic}} = 4.56$; $F(1, 38) = 1.03$, $p > .30$). The 2 (chronic trait accessibility) \times 2 (time of measurement) mixed analysis of variance (ANOVA) yielded a main effect of chronic accessibility ($F(1, 38) = 4.56$, $p < .05$). Of more importance, this effect was qualified by an interaction between chronicity and time ($F(1, 38) = 4.47$, $p < .05$). As the trait inference mechanism predicted, chronics' sophistication ratings were not affected by the new information ($M = 4.56$ versus 4.62 ; $F < 1$). Nonchronics reduced their sophistication ratings after exposure to the new information ($M = 4.42$ versus 4.19 ; $F(1, 38) = 6.00$, $p < .05$), consistent with an evaluative inference updating process. Table 1 presents the means. Mean involvement did not differ across chronicity conditions ($M_{\text{nonchronic}} = 5.43$, $M_{\text{chronic}} = 5.68$; $F < 1$).

These results support our hypothesis that even after making similar initial personality inferences, nonchronics and chronics follow different updating mechanisms after exposure to subsequent trait-relevant information. Chronics follow a trait inference mechanism, whereby they draw trait-related inferences from the additional information. Therefore, a straightforward adjustment of original trait ratings takes place such that chronics change their initial ratings only if trait implications of the additional information differ from the trait implications of the initial information. The additional information we used in the current study carried positive trait implications (as did the initial information); accordingly, we neither expected nor observed change in trait ratings. For nonchronics, however, the trait ceases to be accessible fairly quickly, even if the trait was situationally accessible at an initial point in time and allowed for initial inference making. Therefore, nonchronics do not draw trait inferences from the new trait-relevant information. Instead, updating takes place through an indirect mechanism such that nonchronics examine the new information for its evaluative implications and adjust their trait ratings in line with these implications. In the current study, the new information contained negative evaluative implications; thus, nonchronics displayed a drop in trait ratings, even though the trait implications of the additional information were positive.

However, there is an alternative explanation for the key finding that initial trait ratings fall for nonchronics but not for chronics. Chronics may simply hold their initial impressions more strongly than nonchronics and thus be resistant to new information. For example, it could be argued that chronics (compared with nonchronics) tend to elaborate

additional information; low initial ratings might have produced a floor effect, disguising a potential drop in ratings.

⁴We asked participants in this second pretest to rate a variety of claims as to whether each claim carried a negative or positive overall evaluative implication for a brand of clothing. To encourage independent ratings of the different claims, we informed participants that each claim referred to a different brand of clothing. Whereas the two additional information claims chosen for this study received scores below the midpoint on this evaluative implications scale, other claims, such as those we used to create initial positive sophistication ratings (e.g., "This clothing is worn by top New York models"), received an average rating of 5.66.

⁵In all experiments, we examined the convergent validity of our findings by using a distinct chronicity measure, in which we calculated chronicity by summing self-descriptiveness ratings (i.e., without weighting these ratings with the analogous importance ratings). In each experiment, the results remained unchanged. This replication using a distinct chronicity measure adds to our confidence in the results, which is particularly important in light of much discussion about the ideal way to operationalize and measure chronicity (Burke, Kraut, and Dworkin 1984).

Table 1
MEAN SOPHISTICATED RATINGS IN EXPERIMENT 1

	Nonchronics	Chronics
Time 1	4.42 ^a	4.56 ^a
Time 2	4.19 ^b	4.62 ^a
Difference	-.23 [*]	+0.06

* $p < .05$.

Notes: Additional information was positive trait/negative evaluation. $n =$ approximately 20 participants per cell; ratings are on five-point scales such that higher numbers represent higher levels of sophistication. Means with different superscripts in the same row and column are significantly different at $p < .05$.

more on trait-relevant initial information and thus form stronger attitudes that are more resistant to change (Petty, Haugtvedt, and Smith 1995; Sengupta, Goodstein, and Boninger 1997). More conclusive evidence for the conceptual model would be obtained if the results from Experiment 1 were empirically reversed such that chronics, but not nonchronics, display a drop in initial trait ratings in response to suitably chosen new information.

EXPERIMENT 2

Overview and Design

A main objective of Experiment 2 is to test the preceding alternative explanation by showing that chronics also update their initial trait impressions depending on the trait connotations of the additional information. Accordingly, in Experiment 2, we manipulated the nature of the additional information. Specifically, after participants formed positive initial trait impressions, we exposed them to information that carried either (1) negative evaluative implications and positive trait implications (as in Experiment 1) or (2) positive evaluative implications and negative trait implications. For the first type of information, we expected to replicate the findings in Experiment 1, that is, a drop in trait ratings for nonchronics but not for chronics. For the second type of information, however, the two underlying mechanisms dictate a reversal of results. The evaluative inference mechanism posits that nonchronics should not downgrade their positive initial trait rating, because they should focus on the (positive) evaluative implications of the additional information rather than its (negative) trait implications. Conversely, the trait inference mechanism suggests that chronics will focus on the negative trait-related implications of the additional information and thus decrease their positive initial trait ratings. Documenting a fall in ratings for chronics (but not for nonchronics) for the negative trait information would rebut the alternative explanation that chronics' judgments are simply more resistant than those of nonchronics.

In addition to ruling out this alternative explanation, Experiment 2 attempted to increase generalizability by focusing on a new personality trait (i.e., excitement; Aaker 1997) and category (a travel agency specializing in adventure travels). A final refinement was that in addition to studying changes in personality inferences on the relevant excitement trait, we examined the pattern of changes on a trait (i.e., sincerity; Aaker 1997) for which the claims were irrelevant. Doing so provides another check on the evaluative inference mechanism we propose for nonchronics. This mechanism holds that nonchronics simply adjust their personality inferences in a direction consistent with the evaluative implications of additional information (i.e., exhibit a halo effect) without any regard to its trait implications. If this is true, the same pattern of change for nonchronics should also occur for the irrelevant trait. For example, if the additional information contains negative evaluative implications (even if it carries positive excitement connotations), nonchronics should lower not only their excitement ratings but also their initial ratings on a different trait, such as sincerity. Such an effect should not be obtained for chronics. Thus, we used a 2 (chronic trait accessibility: high versus low) \times 2 (additional information type: negative evaluation/positive trait versus positive evaluation/negative trait) \times 2 (time of measurement: before versus after additional infor-

mation) mixed design, in which time of measurement was the within-subjects variable.

Procedure

We paid participants ($n = 78$) \$20 each and gave them a cover story that stated that the study was about consumers' perceptions of new brands advertised on the Web. We asked them to form impressions of an adventure travel company, named Best Adventure Tour Outfitters, based on a set of six claims that had purportedly been extracted at random from the company's Web site. We pretested each of the six claims (e.g., "Our destinations are one of a kind, not previously explored." "Unlike other so-called adventure trips, we do things the authentic way; this means sleeping under the stars in tents you pitch yourself.") and found relatively high excitement ratings (average $M = 2.37$, where $-5 =$ "very unexciting" and $5 =$ "very exciting"; $t(38)_{\text{diff from } 0} = 10.75$, $p < .01$). A final tagline read, "Best Adventure Tour Outfitters is a member of the Adventure Tour Operators Association." After reading through this initial brand information, participants assessed a set of questions and statements using five-point scales that measured the extent to which they agreed that the brand was described by four brand personality items (exciting, cool, unique, and up-to-date; brand excitement index $\alpha = .70$; Aaker 1997). To obtain an index of inferring along a claim-irrelevant trait (sincerity), participants also responded to three sincerity items (sincere, friendly, and genuine; brand sincerity index $\alpha = .67$; Aaker 1997). Participants also responded to the same involvement measure we used in Experiment 1.

As in the previous experiment, we exposed participants to the additional information after they completed a 15-minute filler task. Consistent with the cover story, this information (four claims) was also described as being taken from the company's Web site. In both additional information conditions, the claims focused on the same attributes (i.e., pace of the trip, spontaneity of the trip, and graduate perceptions). In one condition, we phrased claims to convey positive evaluative implications with negative excitement implications (e.g., "The pace of the trip is nice and easy, so you don't feel you need a vacation after a vacation."). In the other condition, claims conveyed negative evaluative implications and positive excitement implications (e.g., "The pace of the trips is fast. We'll travel along river beds, ancient mud roads, and mountain trails in a [sport-utility vehicle]"). We also included a filler item, which remained the same in the two conditions ("The trips vary in price"). Two sets of pretests ($n = 56$, $n = 39$) confirmed that each of the claims in the positive evaluation/negative trait condition had positive evaluative implications (average $M = 5.31$ on a seven-point scale; $t(55)_{\text{diff from } 4} = 9.5$, $p < .01$) and negative trait implications (average $M = -1.18$; $t(38)_{\text{diff from } 0} = -4.16$, $p < .01$). The reverse was true of the claims featured in the negative evaluation/positive trait condition (average M on evaluation = 3.36 on a seven-point scale; $t(55)_{\text{diff from } 4} = 3.63$, $p < .01$; average M on excitement = 2.32; $t(38)_{\text{diff from } 0} = 7.99$, $p < .01$).

Next, participants rated the brand again on the four personality items related to excitement and the three items related to sincerity. Then, they rated a set of six excitement-related items (e.g., cool, spirited, up-to-date) in terms of their levels of self-description and importance. We used

responses to these items to compute an excitement chronicity index in the same way we used the sophistication chronicity index in Experiment 1.

Results and Discussion

The trait inference mechanism suggests that for participants who are high in excitement chronicity, a drop in the brand's excitement ratings should occur when additional information is positive evaluation/negative excitement, but not when it is negative evaluation/positive excitement. The evaluative inference mechanism for those who are low in chronicity predicts the reverse pattern of results. Regression analyses using the continuous chronicity score and additional information type as independent variables with the Time 1 and Time 2 excitement ratings as repeated measures revealed the predicted three-way interaction ($F(1, 68) = 7.08, p < .01$).

To gain greater insight into this finding, we categorized participants on the basis of the median excitement chronicity score; we classified participants above and below the median (104.5) as excitement chronics and excitement nonchronics, respectively.⁶ As we predicted, there was an appreciable drop in excitement ratings for chronics confronted with the positive evaluation/negative excitement information ($M = 3.51$ versus $2.86; F(1, 74) = 15.12, p < .001$) but not for the negative evaluation/positive excitement information ($M = 3.43$ versus $3.47; F(1, 74) < 1$). In contrast, we observed a drop in excitement ratings for the nonchronics when they were confronted with the negative evaluation/positive excitement additional information ($M = 3.42$ versus $3.05; F(1, 74) = 6.08, p < .05$) but not for the positive evaluation/negative excitement information ($M = 3.31$ versus $3.20; F(1, 74) < 1$). Table 2 presents the means.

In examining the pattern of ratings on the brand sincerity index, we found convergent evidence for the evaluative inference mechanism proposed to underlie trait updating for nonchronics. Because our posited evaluative inference mechanism suggests that the overall evaluation affects impressions along all traits, we predict a fall in ratings by nonchronics when they are exposed to the negative evaluation information but not when they are exposed to the positive evaluation information. Again, the results support this

prediction. For nonchronics, the negative evaluation information led to a drop in sincerity ratings ($M = 2.98$ versus $2.60; F(1, 74) = 5.28, p < .05$). In contrast, the positive evaluation information did not produce such a drop ($M = 2.85$ versus $3.06; F(1, 74) = 1.56, p > .10$). Conversely, chronics did not update their sincerity ratings after either the negative evaluation information ($M = 2.83$ versus $2.67; F < 1$) or the positive evaluation information ($M = 2.96$ versus $2.91; F < 1$).

Thus, Experiment 2 builds on the results of Experiment 1 and provides further support for the conceptual model put forth in Figure 1, showing that the updating of initial brand personality inferences follows different mechanisms for chronics and nonchronics. In line with the trait inference mechanism, chronics lowered their initially positive personality ratings only when they were exposed to information containing negative trait associations. Experiment 2 results are particularly important because they show that chronics' initial ratings are indeed susceptible and cast doubt on the possibility that Experiment 1 findings can be explained by stronger (and, thus, more resistant) initial impressions for chronics.

Nonchronics followed a different process; they assessed additional information by examining it for overall evaluative implications rather than making trait-related inferences. They transferred these evaluative implications to trait ratings. Thus, nonchronics lowered their initial trait ratings when they were exposed to information containing negative evaluative implications, even though the excitement trait connotations were positive. A corollary of this postulate is that the additional information should exert a similar influence on both claim-relevant trait ratings (i.e., ratings on the trait that is relevant to the attribute information) and claim-irrelevant trait ratings. Consistent with this prediction, the negative evaluation/positive excitement information produced a drop in ratings for both the excitement trait and the sincerity trait for nonchronics.

Thus, in contexts in which two groups made equivalent initial brand inferences, findings from Experiments 1 and 2 support the two different updating mechanisms we outlined in the theoretical model for chronics versus nonchronics. However, in both experiments, accessibility of the relevant trait at the time of exposure to initial information was increased by salience; that is, we provided a large number of trait-related claims to all participants. Our contention is that this increased salience of the trait induced a high level of initial trait inferencing for nonchronics, rendering them equivalent to chronics in terms of initial inferences. How-

⁶A 2 (chronicity) \times 2 (type of additional information) ANOVA on initial excitement ratings did not reveal any significant effects; of importance, nonchronics and chronics did not differ on these initial ratings (for means, see Table 3; $M_{\text{nonchronic}} = 3.37, M_{\text{chronic}} = 3.47; F(1, 74) < 1$). The mean involvement also did not differ across chronicity conditions ($M_{\text{nonchronic}} = 5.49, M_{\text{chronic}} = 5.83; F(1, 74) = 5.45, p > .20$).

Table 2
MEAN EXCITEMENT RATINGS IN EXPERIMENT 2

Additional Information	Nonchronics		Chronics	
	Positive Evaluation/ Negative Excitement	Negative Evaluation/ Positive Excitement	Positive Evaluation/ Negative Excitement	Negative Evaluation/ Positive Excitement
Time 1	3.31 ^c	3.42 ^c	3.51 ^c	3.43 ^c
Time 2	3.20 ^c	3.05 ^d	2.86 ^d	3.47 ^c
Difference	-.11	-.37*	-.65*	+.04

* $p < .05$.

Notes: $n =$ approximately 20 participants per cell; ratings are on five-point scales such that higher numbers represent higher levels of excitement. Means with different superscripts in the same column are significantly different at $p < .05$.

ever, it could be argued that nonchronics did not engage in trait inferencing but rather used evaluative inferencing even at Time 1. In other words, even their initial inferences were formed on the basis of their detecting positive evaluative connotations in the initial set of information and transferring these connotations to the brand's personality. In such an event, our key findings on inference updating could be explained by a process-matching explanation: A trait inference mechanism underlies inference updating for chronics because they engaged in trait inferencing at Time 1, whereas an evaluative inference mechanism underlies inference updating for nonchronics because they engaged in evaluative inferencing at Time 1.

To explore this process-matching explanation, we ran an ancillary experiment that heightened temporary trait accessibility at Time 1 by a standard priming manipulation (rather than the salience method we used in our other studies). In this study, we primed 22 participants with the excitement trait at Time 1, using a word completion procedure disguised as a word perception study. Given five word completion problems that provided the root of a word (e.g., exc) and jumbled the word ending (e.g., ingit), we asked participants to write the correct, complete word (e.g., excitement) and then circle all words that were similar in meaning to "excitement" at the end of the task. Three of the five words were excitement related, and two were not. The priming task should induce a trait inference mechanism for both chronics and nonchronics (Higgins 1996). Next, participants moved on to an ostensibly unrelated study that asked for their opinions of Best Adventure Tour Outfitters. Here, participants were exposed to four negative evaluation/positive excitement claims. As evidence of initial trait-based inferencing, chronics and nonchronics should provide similar positive trait ratings at this point.

Following the same procedures we used in Experiment 2, we exposed participants to positive evaluation/negative excitement additional information (three claims). A process-matching explanation posits that both nonchronics and chronics should use trait-based inferencing at Time 2 and drop their brand excitement ratings. In contrast, our evaluation inference process predicts that nonchronics should not exhibit a decline in ratings after exposure to the additional information. The results show that initial excitement ratings did not differ significantly for chronics ($M = 3.60$) than for nonchronics ($M = 3.40$; $F(1, 20) = 1.14, p > .29$; median score for chronicity = 95). Chronics displayed a significant drop in brand excitement ratings after exposure to additional negative excitement information ($M = 3.60$ versus 3.07 ; $F(1, 20) = 6.13, p < .05$), whereas nonchronics' ratings did not change ($M = 3.4$ versus $3.4, F < 1$). Regression analysis provides the same results, showing a greater change in excitement ratings at higher levels of chronicity ($b = .014, t = 1.88, p < .05$, one-tailed). Thus, findings from this ancillary experiment help argue against the alternative-matching explanation for the updating pattern we obtained for nonchronics in Experiment 2.

Together, findings from the studies thus far attest to the robustness of our underlying theoretical model of inference updating, and they also provide evidence of generalizability by obtaining a similar pattern of results across product categories (clothing, travel agencies) and personality traits (sophistication, excitement). At the same time, two issues

remain unaddressed. First, although the data are consistent with the premise that the distinct updating mechanisms are driven by differences in trait accessibility, the results do not rule out another alternative explanation. Rather than being based on differences in trait accessibility, the results may have been driven by chronics finding the trait-relevant information to be more diagnostic than nonchronics. To provide more conclusive evidence for the accessibility-based mechanism, Experiment 3 manipulates trait accessibility at Time 2 (i.e., just before exposure to the additional brand information). Furthermore, to help rule out the alternative diagnosticity-based explanation, we pretested the claims used in the experiment to ensure that they were equally diagnostic for chronics and nonchronics.

Second, because we measured the key independent variable, chronicity, in the same experimental session as the major dependent variables in the studies thus far, the results may have been driven by a third underlying variable or potential carryover effects (from the personality ratings to the chronicity measures). To reduce the plausibility of these alternative explanations, we decoupled the chronicity measure from our final experiment.

EXPERIMENT 3

Overview, Design, and Procedure

We conducted Experiment 3 to address the preceding issues. In this experiment, we used a 2 (chronic trait accessibility: high versus low) \times 2 (time of measurement: before versus after additional brand information) \times 2 (prime at Time 2: present versus absent) mixed design. We used the positive evaluation/negative trait brand information from Experiment 2 as the additional information. Under no-prime conditions at Time 2, we expected to replicate Experiment 2 results, namely, a fall in excitement ratings for chronics but not for nonchronics. The key predictions are related to the prime conditions: If trait accessibility underlies our results, even nonchronics' brand excitement ratings should drop after exposure to additional information when they are primed with the relevant trait just before receiving this additional information.

We paid a total of 144 students \$20 each for their participation. We adopted the same procedures and questionnaires as those used in Experiment 2, but we made four changes. First, to provide support for the role of trait accessibility in inference updating, we primed half of the participants with the excitement trait just before exposure to the additional information. Second, to rule out the alternative diagnosticity explanation, we pretested and held constant the diagnosticity perceptions of the brand information for chronics and nonchronics. Third, to provide more conclusive evidence for the causal effect of trait chronicity and increase convergent validity of this key construct, we (1) measured chronicity two weeks before the main study (Johar, Moreau, and Schwarz 2003) and (2) added a different (open-ended) measure of chronicity. Fourth, we included thought protocols after exposure to the additional information as an additional measure to assess inference making.

We conducted the first phase of the experiment two weeks before the main study; it involved the collection of chronicity measures. Participants responded to open-ended chronicity measures that we adapted from prior research

(Higgins, King, and Mavin 1982), which required them to list ten traits for each of four categories (people you like, dislike, seek out, and avoid). Then, participants responded to the same self-descriptiveness and importance measures as those in the previous experiments. Participants returned to the lab two weeks later; the procedure we used in this session was similar to that of Experiment 2 with the exception of the prime manipulation. In the prime conditions (but not in the nonprime conditions), we primed participants with the exciting trait immediately before they received the Time 2 brand information. We primed excitement using a word-unscrambling task, which required participants to unscramble five words that were synonyms of the word "exciting." Half the participants ($n = 77$) also responded to an open-ended thought-listing measure that was taken immediately after presentation of Time 2 information, in which they listed all their thoughts and feelings about the company Best Adventure Tour Outfitters. Unfortunately, time constraints and participant availability prevented us from collecting thought listings from all participants; however, the pattern of results on all dependent variables from those who provided thought protocols mirrored the pattern from those who did not provide protocols. The other procedural details in this main experimental session followed Experiment 2 in all respects; in particular, participants provided brand excitement ratings after receiving both the initial brand information and the additional information. Our primary aim was to investigate the change in excitement ratings across the different experimental conditions.

Stimuli and Measures

We pretested the brand information presented at Time 1 and Time 2 for diagnosticity. We presented pretest participants ($n = 39$) with a set of claims, each purportedly representing a different brand; then, we asked, "How relevant/informative is this claim to your judgment of the brand's level of excitement?" (1 = "not very relevant, informative," 7 = "very relevant, informative"). We found no significant differences between excitement chronics and nonchronics (median chronicity = 89) on any claim (the largest difference involved the claim "Unlike other so-called adventure trips, we do things in the authentic way; this means sleeping under the stars in tents you pitch yourselves": nonchronics = 5.57, chronics = 5.12; $F(1, 37) = 1.97, p > .16$; other items had F s < 1). The correlations using the continuous chronicity scales with ratings of diagnosticity on each item were also all not significant, suggesting that differences in diagnosticity are unlikely to underlie the results.

We computed the weighted self-descriptiveness excitement chronicity measure (the data for which we collected in the first phase, two weeks previous to the main session) as we did in the previous experiments (median = 85.5). We also computed a second chronicity measure using the open-ended data we also collected in the first phase. We assigned a score of 1 when participants listed a synonym of "exciting." We created an index for each participant by adding the total number of 1 scores across the four categories (i.e., people you like, dislike, seek out, and avoid). Finally, the key dependent variable was the brand excitement index we previously computed.

Results and Discussion

We predicted that in the nonprime (i.e., control) condition, Experiment 2 results would be replicated; that is, excitement ratings would drop for participants who were high on excitement chronicity but not for those who were low on excitement chronicity. Priming at Time 2 should eliminate this effect; ratings should drop in both chronicity conditions. Thus, a two-way interaction between chronicity and time of measurement should result for excitement ratings in the control conditions; only a main effect of measurement time should occur in the priming conditions. We tested these predictions with regression analyses using the continuous weighted self-descriptiveness chronicity measure. The overall three-way interaction was not significant ($F(1, 140) = 2.34, p > .1$); more important, however, separate regressions under prime and nonprime conditions provided support for our specific predictions (Winer 1971). Under nonprime conditions, a significant effect of measurement time on excitement ratings ($F(1, 140) = 4.00, p < .05$) was qualified by a two-way interaction with chronicity ($F(1, 140) = 5.70, p < .05$), suggesting that chronicity affected the change in excitement ratings under these conditions. Conversely, only the main effect of measurement time was significant under prime conditions ($F(1, 140) = 8.12, p < .01$); there was no interaction with chronicity ($F(1, 140) = 1.20, p > .25$), in support of the hypothesis that chronicity does not affect the fall in ratings when participants are primed with the excitement trait before they receive the second set of brand information.

We further explicated these findings using an ANOVA; we classified participants who scored above the weighted self-descriptiveness chronicity median (85.5) as chronics and the others as nonchronics. As with regression analysis, the results showed that excitement ratings fell marginally for chronics under nonprime conditions ($M = 3.62$ versus 3.38; $F(1, 140) = 3.82, p < .06$) but not for nonchronics ($M = 3.46$ versus 3.49; $F < 1$). Conversely, under prime conditions, excitement ratings fell for both chronics ($M = 3.55$ versus 3.30; $F(1, 140) = 3.50, p < .07$) and nonchronics ($M = 3.43$ versus 3.19; $F(1, 140) = 3.82, p < .06$), in support of our predictions (see Table 3). Reassuringly, classification of participants as chronics or nonchronics using the open-ended chronicity measure (median score = 6) provides similar results for initial versus final brand excitement ratings (nonchronics/nonprime = 3.47 versus 3.49; $F < 1$, not significant; chronics/nonprime = 3.68 versus 3.35; $F = 5.18, p < .05$; nonchronics/prime = 3.43 versus 3.20; $F = 3.74, p < .06$; chronics/prime = 3.58 versus 3.28; $F = 3.71, p < .06$).

The open-ended thoughts we collected after the additional information also provided support for the updating patterns reported previously. We coded thoughts as exciting if participants described the brand in terms of excitement or a synonym thereof (e.g., fun, outgoing, energetic; Aaker, Benet-Martínez, and Garolera 2001). Under nonprime conditions, we expected a lower number of such excitement-related descriptors from nonchronics versus chronics, a difference that should be attenuated under prime conditions. In general, participants provided a low number of excitement-related thoughts; however, the pattern of means was consistent with our expectations. We obtained a lower number of

Table 3
MEAN EXCITEMENT RATINGS IN EXPERIMENT 3

	Nonchronics		Chronics	
	No Prime	Prime	No Prime	Prime
Time 1	3.46 ^c	3.43 ^c	3.62 ^c	3.55 ^c
Time 2	3.49 ^c	3.19 ^d	3.38 ^d	3.30 ^c
Difference	-.03	.24*	.24*	.25*

* $p < .05$.

Notes: Additional information had negative trait/positive evaluation implications. n = approximately 35 participants per cell; ratings are on five-point scales such that higher numbers represent higher levels of excitement. Means with different superscripts in the same column are significantly different at $p < .05$.

excitement thoughts for nonchronics versus chronics under nonprime conditions ($M = .47$ versus 1.05 ; $F(1, 73) = 3.18$, $p < .07$). In contrast, there was no difference under prime conditions ($M = .73$ versus $.89$; $F < 1$). Finally, as in the previous experiments, there was no effect of chronicity on the involvement manipulation check, which measured the extent to which participants had carefully read both sets of brand information ($M_{\text{nonchronics}} = 6.57$ versus $M_{\text{chronics}} = 6.38$; $F < 1$).

We also ran an additional control condition along with Experiment 3 to examine whether trait impressions after new information reflect updating rather than responses only to new information. Although our theorizing states that people respond to additional information by updating their initial brand personality ratings, participants may have simply been responding to Time 2 information in their final personality ratings; in other words, Time 1 information did not have any effect. To address this issue, we provided a control group ($n = 39$) with only new (i.e., Time 2, negative trait) information and asked the group to provide brand personality ratings (compared with the experimental conditions in which participants received initial information, rated the brand's personality, received new information, and rated the brand's personality again). If updating is occurring in our experimental conditions, the final (Time 2) excitement personality ratings in this Time 2-only control condition should be lower than that in the equivalent experimental conditions, in which participants also received the Time 1 information containing positive brand excitement connotations. Thus, we compared the final brand excitement ratings in the control condition with the equivalent experimental conditions (i.e., no prime at Time 2). As we expected, there was a significant main effect of condition ($F(1, 113) = 4.20$, $p < .05$), indicating that Time 2 ratings were indeed lower in the control condition ($M = 3.08$), in which we provided no Time 1 information, than in the experimental conditions ($M = 3.44$).

Experiment 3 findings provide further support for one of our key theoretical premises, namely, that differences in trait accessibility play a crucial role in determining how chronics versus nonchronics process incoming information, not only in the context of inference formation but also during inference updating. Specifically, given additional information containing negative trait and positive evaluation implications, we replicated Experiment 2 results under nonprime conditions, documenting a drop in initial brand excitement ratings for trait chronics but not for nonchronics. However, when we made the excitement trait accessible

across conditions through a priming procedure just before exposure to the additional information, both nonchronics and chronics displayed a similar fall in brand excitement ratings. In other words, priming led both groups to engage in inference updating through the same trait inference mechanism, testifying to the crucial role of trait accessibility in inference updating.

The results clarify the accessibility-based mechanism that underlies trait-based inference updating and help rule out the alternative diagnosticity-based explanation for the differences between chronics and nonchronics that we found in the previous experiments. Experiment 3 also makes a stronger case for the effect of chronicity on inferring by introducing a time delay between the chronicity measures and the main study, reducing the chance that an underlying third variable caused both the chronicity differences and the brand inference differences. Finally, it was also reassuring that an independent and distinct measure of individual chronicity yielded the same pattern of trait inferences as those that our main chronicity measure produced.

GENERAL DISCUSSION

This research explored the updating of brand personality inferences, and to our knowledge, it represents the first documentation of the distinct processes that underlie trait inference updating by people who are chronic versus nonchronic on a trait. In three experiments, we examined the effects of trait accessibility that arise from both chronic and situational sources on inference updating in response to subsequent information after initial inferences have been formed. The results suggest important differences in the way new brand information is incorporated, even when similar initial personality impressions have been formed. In line with the trait inference mechanism, chronics lowered their initially positive personality ratings only when they were exposed to information containing negative trait associations. In contrast, nonchronics receiving incoming information updated their beliefs on the basis of an evaluative inference mechanism, whereby information is examined for overall evaluative implications rather than for trait-related inferences. This pattern of results was robust across decision contexts (e.g., clothing categories, adventure travel), personality domains (e.g., excitement, sophistication), and different measures of chronicity.

Our findings fit well with the social cognition literature on initial inference making, suggesting that responses to incoming information differ on the basis of whether a personality trait is accessible in the consumer's mind. How-

ever, of greater theoretical interest, the results illuminate the processes by which people update their inferences. In contrast to the basic premise that incoming brand information is objectively and uniformly assimilated into a person's impressions, our accessibility-based model suggests that the nature of the updating depends on (1) the type of incoming information (e.g., positive versus negative in valence and trait implications) and (2) the way the perceiver views himself or herself (e.g., which traits are chronically accessible). Specifically, brand personality updating for chronics reflects the trait implications of the new information independent of its evaluative implications, whereas updating for nonchronics reflects evaluative implications regardless of trait connotations. Collectively, these findings attest to the important role of trait accessibility in the inference-updating process, complementing the documented evidence about the role of accessibility in inference formation (Batra and Homer 2004; Higgins 1996). Furthermore, we add to the existing literature by documenting a process that may be used for inference updating when trait accessibility is low (i.e., updating by way of the evaluative implications of the new information).

We note that our conceptualization of updating processes, though it shares several points of overlap with Pham and Muthukrishnan's (2002) model of updating, also differs in certain important respects. The trait accessibility updating process we propose and document for chronics is consistent with their notion that increased compatibility between old and new information increases the likelihood of updating initial inferences. However, our model departs from that of Pham and Muthukrishnan—but is consistent with social inference models that scholars such as Carlston (1980) and Lingle and Ostrom (1979) propose, as well as with halo effect research (e.g., Asch 1946)—in suggesting that even those for whom information is not compatible at Times 1 and 2 (e.g., a trait inference was made at Time 1 but not at Time 2) will update initial inferences using the evaluation inference mechanism. In contrast, Pham and Muthukrishnan's model suggests that these people should not update their initial impressions. We show that nonchronics who have formed an initial brand personality inference (because of temporarily heightened trait accessibility at Time 1) update this impression on the basis of the evaluative implications of new information received at Time 2. These people do not have compatible information in terms of the trait, because they have not drawn a trait-based inference at Time 2. Instead, they consider the evaluative implications of the new information and then use these implications to color their brand personality impressions along a variety of traits.

The issues we address in this research also have practical implications because they help identify when (and how) brand personality associations may be updated for different people. Returning to our opening question—How would a consumer who has made initial inferences about Harley-Davidson being a rugged brand respond to new information that suggests that it is becoming increasingly environmentally conscious?—the answer depends on who that consumer is. Consumers who are chronic on the “rugged” trait may believe that this new information dilutes the brand's “macho ruggedness” image, and they may downgrade their

ruggedness ratings accordingly. However, those who are nonchronic on ruggedness are unlikely to change their initial ruggedness ratings of Harley-Davidson when they receive information about its environmental consciousness (an evaluatively positive claim), unless the situational context succeeds in priming the trait. Our findings also suggest that even in the face of information disconfirming specific personality impressions, marketers can maintain positive brand personality impressions among a segment of consumers (those who are nonchronic on that specific trait) by providing consumers with trait-irrelevant positive information about the brand.

More generally, although practitioners often argue that attitude objects such as brands can be imbued with personality traits (e.g., Ogilvy 1983), the current research suggests that creating a brand personality is a dynamic process that is not controlled solely by the marketer. The same objective stimulus (in this case, brand information) was processed differently by people in terms of personal, subjective meanings associated with how they view themselves and what traits are currently accessible in memory.

Although this article presents a set of findings that contribute to consumer psychology literature focused on inference making, context effects, and brand personality, it also has limitations that suggest areas for further research. Our research is limited to the impression formation context in which brand personality is not strongly held. Further research is necessary to test whether a different process holds when brand impressions are strongly held (e.g., by chronics who have been exposed to a lot of information on the brand–trait relationship over time). In such cases, it could be predicted that initial impressions may be more resistant to change, regardless of the nature of the new information (Higgins and Bargh 1987).

Additional research is also necessary to explore the impact of time duration between initial brand information and subsequent information. The results of the current studies are based on new information presented shortly after the initial brand information, at which time initial trait inferences were accessible across the board (even though the trait itself was not accessible for nonchronics). However, people may receive additional information days, weeks, or even years after first impressions are formed, and the initial trait inference may not be accessible. In this case, additional information containing different evaluative implications from initial information may not lead to updating but rather increased ambivalence about the brand's personality on the dimension in question (Sengupta and Johar 2002).

Finally, in this research, we manipulated brand personality indirectly through usage imagery (“Bondi clothing is always shown at the fashion shows in Milan and Paris”), user imagery (“Bondi clothing is worn by top New York models”), and brand attributes (“Our destinations are one of a kind, not previously explored”). However, brand personality is often manipulated with other variables (e.g., names, logos, advertisements; Batra, Lehmann, and Singh 1993). Do such antecedents of brand personality differ in the degree to which they generate brand inferences (Fournier 1998)? Relatedly, how does new brand information, which is often received through different modes (e.g., personal observation, word of mouth, *Consumer Reports*), interact

with the source of the information on which the personality inference is initially based? More broadly, there is a need for comprehensive and dynamic models that reflect the bidirectional relationship between current brand representations and incoming brand information; the current research provides an initial step in that direction.

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