

Intention Superiority as a Mechanism of the Mere Measurement Effect

Van Kerckhove, Anneleen, Maggie Geuens and Iris Vermeir

Anneleen Van Kerckhove (anneleen.vankerckhove@ugent.be) is a doctoral student in the Department of Marketing, Faculty of Economics and Business Administration, Ghent University (Tweeckerkenstraat 2, 9000 Gent, Belgium).

Maggie Geuens (Maggie.geuens@ugent.be) is Professor of Marketing at Ghent University and at Vlerick Leuven Gent Management School (Reep 1, 9000 Gent, Belgium).

Iris Vermeir (iris.vermeir@hogent.be) is Assistant Professor of Marketing at Ghent University and in the Department of Business Administration and Management, University College Ghent (Voskenslaan 270, 9000 Gent, Belgium).

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Summary

This paper investigates the mere measurement effect from an intention superiority perspective. Relying on the dynamic processes that characterize intention-related information in memory, the first study shows that a brand tied to an intention remains in a heightened state of activation until choice, after which it becomes inhibited. Competitive brands that are distracting from intention completion are inhibited prior to the completion of the intention. These changes in brand activation drive the mere measurement effect. Two additional studies show that intention superiority can explain findings that cannot be accounted for by traditional theoretical explanations, such as increased choice of the preferred brand after activation of a negatively evaluated brand and decreased choice of the preferred brand when consumers make two subsequent choices.

Keywords

Measuring intent, intention superiority, choice, mere measurement effect

What happens to consumers' purchase behavior when they already have indicated their intention? This question has prompted significant research (Dholakia 2010; Sprott et al. 2006), most of which indicates that responding to an intention item can increase product category purchases (Morwitz, Johnson, and Schmittlein 1993) and alter brand choices (Fitzsimons and Morwitz 1996). For example, consumers who completed an intentions survey about car purchases appeared subsequently more likely to purchase a car (Morwitz et al. 1993). Furthermore, respondents who did not own a car when answering the intention question became more likely to purchase a car from a large market share brand, whereas car owners became more likely to repurchase from the currently owned brand (Fitzsimons and Morwitz 1996). Answering intention questions thus appears to influence the likelihood of purchase behavior, as well as brand choice probabilities. This effect has been termed the mere measurement effect.

Of the several explanations (such as attitude accessibility, response fluency, etc.) advanced for the mere measurement effect, none of them starts with the specific characteristics of intentions. Moreover, none of them can account for the diverse research results that have been reported. This article advances mere measurement research by investigating exactly what intentions instigate on a cognitive level. The objective is to gain a deeper insight into the mere measurement effect by incorporating knowledge about the storage of intentions in memory. Research on the representation of intentions in memory shows that after an intention has been activated, information related to this intention remains in a relatively heightened state of activation (Goschke and Kuhl 1993), whereas information that distracts from this intention reflects a relatively decreased state of activation (Veling and Van Knippenberg 2008). After the intended action has been completed though, intention-related information becomes temporarily inhibited (Marsh, Hicks, and Bink 1998). Such changes in the activation of information in

memory, referred to as the intention superiority principle, may subsequently affect the likelihood of implementing an intention (Chapman 2001).

This article posits that answering an intention question about a product category (without reference to individual brands) alters the relative activation of the brands in that category. In line with the intention superiority principle, a brand that is the object of an intention provides intention-related information, such that it becomes increasingly activated in memory. Competing brands represent distracting information and therefore suffer from inhibition. These alterations in relative brand activation subsequently may result in altered purchase behavior. This study aims to demonstrate that altered brand accessibilities, as instigated by answering an intention question, account for the divergent findings about the mere measurement effect. A series of three empirical studies thus adopts the intention superiority perspective on the mere measurement effect and offers converging evidence regarding the specific pattern of the relative activation and inhibition of brands and their resulting altered choice likelihoods, as enacted by merely answering an intention question.

THEORETICAL BACKGROUND

The Mere Measurement Effect

The mere measurement effect refers to the influence of questioning on consumers' subsequent purchase behavior (Dholakia 2010; Sprott et al. 2006). As demonstrated in both field and laboratory settings (Fitzsimons and Morwitz 1996; Morwitz and Fitzsimons 2004; Morwitz et al. 1993; Williams, Fitzsimons, and Block 2004), this effect applies to various product categories, both durable and nondurable (Chandon, Morwitz, and Reinartz 2004; Morwitz et al. 1993). Also the scope and persistence of mere measurement effects have been studied (Dholakia and Morwitz 2002; Chandon et al. 2004). For example, Chandon and colleagues (2004) find that

measuring purchase intentions significantly increases the percentage of consumers who make at least one repeat purchase. This increase rapidly decays over time though. Other studies examine the effect in response to different types of questions. Levav and Fitzsimons's (2006), for example, demonstrate that when the question wording of the question helps respondents to easily imagine the behavior, substantially larger behavioral effects emerge. The effect even emerges after people respond to hypothetical questions (Fitzsimons and Shiv 2001). Furthermore, both brand-level (e.g., Do you intend to buy brand A?) and category-level (e.g., Do you intend to buy product category A?) intention questions appear to have effects on subsequent purchase decisions (Janiszewski and Chandon 2007; Morwitz and Fitzsimons 2004).

Concerning the underlying mechanism, the two most popular processes that have been shown to contribute to the occurrence of the mere measurement effect are (1) response fluency and (2) attitude accessibility. With respect to the former, Janiszewski and Chandon (2007) show that the cognitive processes that generate a response to an intention question may overlap with the processes associated with deciding whether to engage in a behavior. This overlap in cognitive processes may create a fluency experience that supports the behavioral tendency, such that the intended behavior becomes more likely to be enacted.

According to the attitude accessibility account, the mere measurement effect is most likely driven by the activation of preexisting brand attitudes (Fitzsimons and Morwitz 1996; Fitzsimons and Williams 2000). Morwitz and Fitzsimons (2004) show that answering a category-level intention question increases accessibility of attitudes toward specific options in the choice set. The resultant activation of that category in memory spreads to brands in that category, as a proportion of the prior accessibility of attitudes towards those brands. This increased attitude accessibility then results in behavior that aligns with the most accessible attitude. If a consumer's attitude toward brand A is the most accessible attitude at the moment of answering an intention

question, and this attitude is positive, the consumer is more likely to select brand A. However, if this accessible attitude toward brand A is negative, answering an intention question should decrease choices for brand A.

Both transfer-appropriate response fluency and attitude accessibility thus help explain the mere measurement effect, yet they generally ignore unique properties of intentions. This study posits that the operation of the mere measurement effect might reflect the specific cognitive features of intentions. For example, measuring purchase intentions leads to an incremental effect, beyond that induced by the measurement of product attitudes (Chapman 2001). This suggests the importance of investigating the influence of intention-related information after an intention is activated. Relying on the intention superiority framework, this paper elaborates on the specific characteristics of intentions and demonstrates their importance in the context of the mere measurement effect.

Intention Superiority

Intentions to perform an activity exhibit a heightened state of activation relative to other, equally well-learned contents. Information related to an intention can be more rapidly retrieved from memory than information without any associated intentionality. In four experiments, Goschke and Kuhl (1993) demonstrate that the stored representation of an intention has a privileged status in memory. Participants learned pairs of small, scripted actions, such as setting the dinner table (“Spread the tablecloth. Distribute the cutlery.”) and clearing a messy desk (“Open the folder. Put in the files.”), one of which they would have to perform. This instruction turned one script into a prospective, to-be-performed act and the other into a neutral script, with no associated intention to perform. In a subsequent test, the participants’ recognition was faster

and more accurate for items from the to be performed script than items from the neutral script. Thus, the intention superiority effect provides greater accessibility for intention-related material.

Veling and Van Knippenberg (2008) provide further evidence that intentions have a special status in memory, such that any information that is distracting from these intentions gets inhibited. The degree to which the information is distracting determines the level of inhibition, relative to neutral information. For example, participants who intend to respond to certain exemplars of a category (e.g., fruits: peach, melon, and strawberry) inhibit other exemplars of that category (e.g., grape, plum, and orange) but not unrelated stimuli (e.g., animals: elephant, rabbit, and lion) (Veling and Van Knippenberg 2006). Marsh and colleagues (1998, 1999) investigate the dynamic properties of this intention superiority effect and find that activation changes according to the status of the intention (i.e., whether it has been put into action). Although response latencies for retrieving items associated with an uncompleted intention are significantly faster than those for items not associated with an intention, the reverse is true for items associated with completed intentions, such that there is a striking reversal in response times for items associated with an intention after the intention has been fulfilled (Marsh et al., 1998). Furthermore, with respect to the inhibition of previously distracting information, Veling and Van Knippenberg (2008) find it disappears after the intention is completed. That is, after intention completion, the special status of both intention-related and distracting information disappears.

RESEARCH OVERVIEW

Intention superiority thus entails three main principles: (1) Intention-related stimuli are relatively more accessible than neutral stimuli, but (2) distracting stimuli are relatively less accessible than neutral stimuli prior to intention completion (i.e., prior to posing the intended

behavior), whereas (3) after intention completion, intention-related stimuli become relatively less accessible than neutral stimuli and distracting stimuli no longer experience inhibition.

Study 1 aims to demonstrate empirically how these processes of activation and inhibition occur in a brand-choice context. Answering a category-level intention question causes the most preferred brand to be stored in memory as an intention-related stimulus. So, after respondents answer an intention question, the most preferred brand is likely to be activated, up until the moment a decision is made (principle 1). After a brand choice is made, this most preferred brand temporarily experiences inhibition (principle 3). Study 1 also shows that competing, distracting brands get inhibited in the time interval during which the respondents form an intention and make a decision (principle 2), but this inhibition disappears after the intention has been fulfilled. In summary, this first study shows that responding to an intention question alters brands' relative activation. Moreover, a mediation analysis indicates that these changes drive the mere measurement effect.

Studies 2 and 3 demonstrate the added value of assessing the mere measurement effect from an intention superiority point of view. Study 2 demonstrates that the intention superiority mechanism can account for an apparently anomalous finding regarding the mere measurement effect. That is, activating a negatively evaluated brand prior to asking an intention question results in an increased choice for the most preferred brand. In this situation, the attitude accessibility account (Morwitz and Fitzsimons 2004) would only predict a decreased choice for the most accessible, negatively valued brand, whereas transfer-appropriate response fluency can not account for the influence of the category-level intention question. Therefore, though the finding would seem anomalous according to existing views on the mere measurement effect, it is straightforward from an intention superiority perspective.

Finally, Study 3 further establishes the value of the intention superiority account by demonstrating a new manifestation of the mere measurement effect derived directly from the intention superiority framework. In an investigation of two subsequent decisions, following either an intention or an attitude question, participants choose the intention-related brand less frequently in the second choice situation. This result corresponds with the third principle of the intention superiority framework, namely, the intention-related brand experiences inhibition after the first choice. Attitude accessibility and response fluency would have predicted an equal or increased choice of the intention-related brand instead.

STUDY 1

The main objective of study 1 is to enhance our understanding of how intention superiority operates in a brand choice context by demonstrating changes in the relative brand activation that correspond with intention superiority predictions. In line with the first and third intention superiority principle, this study predicts increased activation of the most preferred brand prior to decision making but decreased activation after decision making when an intention question was previously answered. No such changes should occur after an attitude question. The investigation of how the second intention superiority principle (i.e., inhibition of distracting brands) unfolds in a brand choice setting first requires a definition of “distracting brand”. The intention superiority framework proposes that inhibition of certain brands, after responding to an intention question, depends on the degree to which the brand detracts attention from the intention-related brand. The level of distraction of a certain option is likely to depend on its position in the preference ranking. Especially the second most preferred brand is likely to be inhibited given that it has the highest likelihood of being distracting. Besides demonstrating that a unique pattern of brand accessibilities follows responses to an intention question, this first study

also shows that the changes in the accessibility of different brands in turn affect choices. By conducting a mediation analysis we show in a more direct manner that the changes in brand accessibilities, instigated by an intention measure, can explain for the occurrence of the mere measurement effect.

Participants and Design

In total, 179 students (70 men, 109 women), aged between 18 and 29 years ($M_{\text{Age}} = 22.41$, $SD = 3.39$), participated in a 2×2 between-subjects experiment. The first manipulation variable concerned the type of question respondents had to answer: a category-level intention question (“How likely or unlikely would you be to try one of the presented candy bars if they were available to you?”) or an attitude question (“How positive or negative are you about making the presented candy bars available to you?”). The conditions also varied in the measured dependent variables, such that half the participants first completed a response latency task and then made a choice decision, whereas the other half only made a choice decision. The data gathered from the first group of participants provide the input for the mediation analysis, whereas those from the second group provide verification of whether measuring brand latencies prior to the choice task affects that choice task.

Procedure

Participants first considered attribute information (on the attributes taste, grams of fat, calories and shelf life) about five unknown brands of candy bars. The participants were told that these candy bars were available in a neighboring country and that the manufacturer was thinking of introducing them in the domestic market. Next, participants reported their relative attitudes

toward the presented brands by rank ordering them from least to most preferred. Subsequently, half the participants answered an intention question, and the other half answered an attitude question. After they completed several filler questions, half the participants responded to a choice task that indicated the manufacturer intended to give away some boxes of candy bars, and to enter to win, respondents had to fill in the name of the brand they would prefer to receive. The other half completed a response latency task after the filler questions and before making a choice decision. This task served as a measure of the pre-choice brand accessibilities. To assess response latencies, the names of the five target brands, five existing candy bar brands and ten brands from other product categories appeared, one by one, on a computer monitor in random order. In this product category identification task, participants were instructed to press a button labeled “snack bar” for brands of snack bars or a button labeled “non-snack bar” for other products.

Results

The analysis of the choices made by participants who did not complete a response latency task indicates a mere measurement effect. Significantly more participants who answered an intention versus an attitude question chose their most preferred brand (76.4% vs. 56.8%, $\chi^2(92) = 3.94, p = .047$). A similar difference emerged in the choice share of the most preferred brand when participants completed a response latency task before making a choice (82.1% vs. 62.5%, $\chi^2(87) = 4.02, p = .045$). That is, a comparable number of participants opted for the most preferred brand after responding to an intention question, whether they completed a response latency task first or not (82.1% vs. 76.4%, $\chi^2(94) = .44, p = .507$), as Table 1 reveals.

Table 1: Overview of Brand Choices by Condition in Study 1

Type of question	Measured pre-choice accessibility?	N	Brand 1	Brand 2	Brand 3	Brand 4	Brand 5
Attitude	No	37	56.8%	21.6%	8.1%	8.1%	5.4%

Intention	No	55	76.4%	16.4%	3.6%	1.8%	1.8%
Attitude	Yes	48	62.5%	16.7%	6.3%	8.3%	6.3%
Intention	Yes	39	82.1%	5.1%	2.6%	2.6%	7.7%

The pattern of brand accessibilities prior to decision making resembles matches the expectations based on intention superiority. Contrast analyses indicate that the most preferred choice option is significantly more accessible than the second most preferred choice option in the intention question condition ($t(83) = 3.74, p < .001$) but not in the attitude question condition ($t(83) = 1.24, p = .219$). The most preferred choice option is significantly more accessible than the less preferred choice options after answering an intention question ($t(82) = 3.04, p = .003$), but this is not the case when participants answer an attitude question ($t(82) = 1.12, p = .267$). The second most preferred brand is inhibited compared with other less preferred brands in general when participants answered an intention question ($t(83) = 2.20, p = .030$), not when they answered an attitude question ($t(83) = .47, p = .641$). The brand accessibilities thus again illustrate increased activation and inhibition, in accordance with the intention superiority hypothesis.

Finally, if changes in brand accessibilities underly the mere measurement effect, then the activation of the most preferred brand, relative to the second most preferred brand, should mediate the effect of responding to an intention question on the choice of the most preferred brand. Following Baron and Kenny (1986), this study used a simultaneous logistic regression of brand choice on the type of question and the relative activation of the most preferred brand. The introduction of relative activation in the logistic regression analysis that predicts choice according to the type of question reduces the effect of the type of question from significant ($\beta = 1.01, t(85) = 1.96, p = .053$) to insignificant ($\beta = .52, t(85) = .94, p = .348$), and the relative activation of the most preferred brand becomes a significant predictor ($\beta = 1.57, t(85) = 2.50, p = .015$). The

overall significance of this indirect effect can be assessed with a bootstrapping mediation test (Preacher and Hayes 2004; Shrout and Bolger 2002). The bootstrap estimate of this indirect effect and the constructed 95% confidence interval (lower bound 95% CI = .174, upper bound 95% CI = 1.44) show that 0 is not in the 95% confidence interval, so the indirect effect is significant, in further support of successful mediation.

Discussion

The results of study 1 confirm the central proposition that an intention measure affects the accessibility of choice options, which influences choice. To further demonstrate the usefulness of the intention superiority account, the following studies identify two situations in which the intention superiority perspective provides added value, beyond more established theoretical accounts such as attitude accessibility and response fluency, for explaining the mere measurement effect.

STUDY 2

The second experiment attempts to demonstrate that intention superiority can account for a seemingly anomalous finding regarding the mere measurement effect in prior research. Morwitz and Fitzsimons (2004) found that making a negatively valued option more accessible prior to the intention question increases the choice of the most preferred brand, compared with a scenario with no intention question (73.7% vs. 40.6%). Morwitz and Fitzsimons focus on interpreting the drop in the choice share of the negatively valued, focal option, yet the increased choice of the most preferred brand is much larger and may be seen as an exhibition of the underlying mechanism. Therefore, this experiment replicates this finding and offers a broader interpretation of the results, based on the intention superiority perspective.

Study 2 manipulates the valence of the accessible option as either positively or negatively evaluated, prior to asking respondents a category-level intention or attitude question. If a positively evaluated option is most accessible, increased choice for this option should occur when an intention question, rather than an attitude question, follows. That is, by making a positively evaluated brand more accessible, the chance of tying this brand the intention increases. Therefore, answering an intention question should result in an increased choice for this most accessible brand.

When a negatively valued option is more accessible though, increased choice for the most preferred brand should occur when an intention question, versus an attitude question, is answered, because this brand, rather than the focal brand, is most likely to receive an intentional status. Whereas attitude accessibility would predict decreased choice for the focal brand, intention superiority anticipates increased choice for the most preferred brand after a response to a category-level intention question.

A pretest was carried out to check whether the valence and accessibility of attitudes could be successfully manipulated. For a choice set of six unknown brands, the valence of the evaluation was manipulated by assigning high or low scores to certain attributes. The second most and second least preferred brands served as the focal brands, because observing a rise or drop in the choice share of these focal brands is more likely than concomitant changes with the most and least preferred brand as focal brands. To make attitudes toward focal brands more accessible, participants had to describe in three to five sentences why their attitude toward the target brand was positive or negative. The results of the pretest confirm both the valence manipulation of the choice options and the adequacy of the attitude elaboration manipulation to increase the accessibility of the attitude toward the focal brand.

Participants and Design

The participants were 152 university students; 73 of them were men, and the mean age was 20.44 years ($SD = 1.82$). They were randomly assigned to one of four conditions. In the 2×2 between-subjects design, the valence of the focal option (positive vs. negative) and the type of question answered (attitude vs. intention) were manipulated.

Procedure

The beginning of the experiment was similar to Study 1, except that respondents considered information about six unknown brands instead of five. The participants rank ordered the brands according to their preferences, then elaborated on either their second least or second most preferred brand. Immediately after this manipulation, participants responded to either a category-level intention question or an attitude question, as in Study 1. Subsequent to a five-minute filler task, the participants indicated their brand choice. They were informed that the sponsors of the study were going to provide samples of the candy bars that the researchers could distribute among the participants. All six brands appeared on the screen, and participants clicked the brand name of their choice.

Results

On the basis of participants' brand choices (Table 2), two main conclusions are possible. First, when the accessibility of the attitude toward a generally positively evaluated brand increases prior to an intention question, choice of this brand is significantly higher than that related to an attitude question (62.2% vs. 36.1%, $\chi^2(81) = 5.455$, $p = .017$), as predicted. Second, when the attitude toward a negatively evaluated brand is made more accessible prior to an

intention question, a slight, though not significant, decrease occurs regarding the choice of the focal, negatively evaluated brand (5.4% vs. 0%, $\chi^2(71) = 1.891, p = .169$). This decrease of 5.4% indicates that attitude accessibility also may contribute to this effect. More striking though is significant increase in the choice of the most preferred brand (79.4% vs. 54.1%, $\chi^2(71) = 5.092, p = .022$). This difference of 25.3% in the choice of the most preferred brand provides considerable support for the validity of the intention superiority explanation for the mere measurement effect.

Table 2: Overview of Brand Choices by Condition in Study 2

Attitude valence	Type of question	N	Brand 1	Brand 2	Brand 3	Brand 4	Brand 5	Brand 6
Negative	Attitude	37	54.1%	27.0%	10.8%	2.7%	5.4%	0.0%
Negative	Intention	34	79.4%	11.8%	5.9%	0.0%	0.0%	2.9%
Positive	Attitude	36	50.0%	36.1%	5.6%	5.6%	0.0%	2.8%
Positive	Intention	45	24.4%	62.2%	6.7%	2.2%	4.4%	0.0%

Discussion

These findings match those published by Morwitz and Fitzsimons (2004, see their table 2). Although their data also suggest that focusing on a positively evaluated brand before answering an intention question increases the choice of this focal brand, whereas focusing on a negatively evaluated brand increases the choice of the most preferred brand, the main focus of their study was the decreased choice for the negatively evaluated target brand rather than the increased choice for the most preferred brand. The results in the present study display a similar small, though statistically not significant, decrease in the choice of the focal, negatively evaluated option. Finding this small decrease does not diminish the importance of the main finding, namely, that intention superiority enhances explanations of the mere measurement effect. The participants' brand choices are clearly in line with the predictions from an intention superiority perspective.

STUDY 3

The main aim of study 3 is to further demonstrate the value of the intention superiority perspective for studying the mere measurement effect. Intention superiority predicts a unique and interesting pattern of brand choices when participants are induced to make two subsequent choice decisions after answering either an intention question or an attitude question. In this situation, intention superiority predicts increased choice of the most preferred brand in the first choice instance, but decreased choice of this brand in the second choice instance, because of the post-choice inhibition of the intention-related concept. Response fluency and attitude accessibility would not predict increased variation in participants' choice decisions after responding to an intention question but instead suggest equal or higher level of choices for the initially chosen brand at the second choice instance.

Because responding to an intention question likely affects the choice share of the most preferred brand in the first choice instance, the choice share of the most preferred brand in the second choice instance must be assessed conditional on a choice for the brand in the first choice instance. Rather than studying choice outcomes aggregated across choice instances, this study therefore investigates the specific development of choice decisions across both choice moments and predicts significant differences in these two moments, depending on whether an intention question has been answered in advance.

Participants and Design

Eighty-three university students ($M_{\text{Age}} = 20.98$) participated in this study, randomly assigned to one of two conditions. To investigate whether the type of question affects the pattern of brand choices, the participants in the control condition responded to an attitude question, whereas participants in the experimental condition responded to an intention question. The

questions were the same as those in Study 1. The respondents' two subsequent brand choices for the unknown candy bar brands provide the dependent variables.

Procedure

In this experimental procedure, participants reviewed the ratings of five brands of unknown candy bars on four attributes (i.e., taste, grams of fat, calories and shelf life), as in study 1. Participants rank ordered the brands according to their preferences. Next, the participants were told that these candy bars were available in a neighboring country and that the manufacturer was thinking of introducing them on the domestic market. The experimental manipulation then ensured that participants responded to a category-level intention or attitude question. After the filler task, the participants made a choice decision by clicking the brand of their choice. Next, they then were told that the winners of a box of candy bars could receive two boxes. Therefore, on the next page, they clicked the brand of their choice for the second box of candy bars. The experiment explicitly stated that they were completely free to choose whatever brand they desired, including the previously chosen brand if they wished. Thus, all five brands were depicted as available choice options in this second choice instance.

Results and Discussion

The students who participated in this study made two separate choice decisions. A separate χ^2 analysis for the first choice decision indicates that participants who responded to an intention question are more likely to select their most preferred choice option than are participants in the control condition (80.5% vs. 54.8%, $\chi^2(83) = 6.256, p = .012$). This difference is in line with the predictions based on intention superiority. For the second choice decision, a reverse pattern emerges: Participants who responded to an intention question are now

significantly less likely to select the most preferred brand than participants in the control condition (14.6% vs. 33.3%, $\chi^2(83) = 3.966, p = .046$).

Yet this difference between conditions might not be caused by intention superiority but rather reflect a logical consequence of the differences between the conditions in the initial choice decision. To exclude this alternative explanation, a further investigation focused on the choice share of the most preferred brand in the second choice instance, conditional on the choice of this brand in the first choice instance. These analyses reveal a significant difference between the two conditions. Whereas 52.2% of the participants in the control condition who chose the most preferred brand in the first instance select this brand again in the second instance, only 18.2% do so in the experimental condition ($\chi^2(56) = 7.180, p = .007$). The results of study 4 thus confirm the overall propositions, in the sense that the brand choice pattern is in line with the intention superiority principle. Answering an intention question increases the choice for the most preferred, intention-related brand initially, but in second instance, decreases the choice for the most preferred brand.

GENERAL DISCUSSION

Summary of Findings

This article investigates why measuring intentions has such a profound influence on subsequent behavior. The results of three studies confirm that when a consumer responds to an intention question, cognitive processes initiate to ensure the intended action gets executed. Study 1 establishes that a brand related to a particular intention remains in a heightened state of activation until the choice is made. Afterwards, a reverse pattern emerges, and brands related to a completed intention experience inhibition. Furthermore, brands that are most distracting from the completion of an intention get inhibited until the intention completion takes place. The basic

findings of intention superiority thus appear to apply to the mere measurement effect. Study 1 also directly demonstrates that changes in brand activation drive the mere measurement effect. Consequently, this article provides converging evidence regarding intention superiority as a valuable explanation for the mere measurement effect. This explanation is based on the specific features of intentions, not attitudes, as proposed by Chapman (2001). Thus, the consequences of answering intention questions can be explained by cognitive processes that initiate once a consumer commits to an intended course of action.

Furthermore, studies 2 and 3 demonstrate that this intention superiority view can explain certain remarkable findings regarding the mere measurement effect. First, intention superiority can account for the increased choice share of the most preferred brand when consumers answer an intention question (vs. attitude question) after a negatively evaluated option has been made more accessible. This increased choice share co-occurs with a decreased choice share for the negatively evaluated focal brand (Morwitz and Fitzsimons 2004). Prior research only focused on this decrease and can not account for the increase. The second study replicates prior interesting findings and demonstrates that the results are straightforward predictions derived from the intention superiority perspective. This study thereby demonstrates the value of incorporating the intention superiority view into investigations of the mere measurement effect.

Finally, predictions derived from the intention superiority view extend beyond initial choices. Intention superiority entails a dynamic pattern of brand accessibilities regarding the most preferred brand and predicts a continuation of this dynamic pattern in consumers' choices. The results of Study 3 demonstrate that increased activation of intention-related brands prior to behavioral enactment and their inhibition after behavioral enactment translates into consumers' choice decisions.

Managerial and Theoretical Implications

The finding that distracting choice options are inhibited after responding to an intention question also may transfer to brand choices. That is, responding to an intention question inhibits well-preferred, distracting brands, so if a most preferred option is out-of-stock, consumers may choose a less preferred brand if they have previously answered an intention question, due to the inhibition of their well-preferred, distracting brands. Therefore, it may be important for manufacturers to ensure well-preferred brands appear on the retail floor to override this inhibition. Additional studies should investigate the consequences of intention superiority for consumers' purchase behavior.

Furthermore, an interesting property of the changes in the relative activation of concepts in memory is that the changes are likely to persist. In contrast with traditional accessibility theories, which argue that the accessibility of cognitions declines with the passage of time (Higgins 1996), the accessibility of intention-related concepts depends on their intentional status (uncompleted vs. completed), rather than the time elapsed. In contrast with information unrelated to an intention, intention-related information is likely to remain active up until the enactment of the intention. Increased accessibility thus persists as long as the intention is active (Förster, Liberman, and Higgins 2005). This prediction differs from the type of accessibility acquired through semantic priming, which produces decay over relatively short periods of time (Higgins, Bargh, and Lombardi 1985). Moreover, combining the current findings with semantic priming concepts creates some interesting research opportunities. When a primed concept becomes the object of an intention, behavioral consequences of priming may last longer. If a brand gets primed prior to responses to an intention question, and this brand successfully becomes the object of a purchase intention, it may lead to altered purchase behavior, even weeks after the priming.

Limitations and Directions for Further Research

Although this research sheds new light on the operation of the mere measurement effect, these results cannot account for behavioral changes induced by satisfaction measures.

Considerable research has been carried out to demonstrate the behavioral effects of satisfaction measures (Borle et al. 2007; Dholakia and Morwitz 2002). For example, Dholakia and Morwitz (2002) find that measuring satisfaction in a financial services setting influences not only single purchases but also customers' relational behaviors over an extended period of time. The intention superiority explanation relates specifically to the consequences of answering intention questions and thus cannot provide insight into these findings. However, perhaps satisfaction measures serve "as the basis for attitude formation, which then serves as the most salient basis for the development of an intention" (Feldman and Lynch 1988, 423). If responding to a satisfaction measure instigates spontaneous intention formation, intention superiority may play a role in the mere measurement effect caused by a satisfaction measure. Further research should investigate the mechanisms that drive the behavioral effects of reporting satisfaction.

Finally, intention superiority theory also requires the formation of an intention toward a specific target for the alteration of brand choices to occur. If consumers merely respond to a category-level intention without tying a specific brand to it, no intention superiority-driven changes in brand choices should emerge. Additional research should examine which factors determine the formation of a brand-level intention in response to a category-level intention question.

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