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# Informational Cascades, Herding Bias, and Food Taste Evaluations

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Herding behavior is observed when consumers simply replicate the behavior of others instead of making their own elaborate decision. This study contains two experiments in which participants are asked to evaluate how good different food products taste under different conditions of induced herding situations. The results of the first experiment show that simply convincing consumers that a berd exists (i.e., informing them of the behavior of others) will influence their judgment of how good the food product in question tastes, and also their purchase intentions and belief in future product success. Whether they are informed about the existence of the herd before or after they taste the product also affects their evaluations. In the second experiment, the characteristics of the herd (who it consists of) are manipulated along with the country from where the food product originates. Here, the characteristics of the herd have significant effects on the evaluation of taste, purchase intentions, and expectations of future product success, whereas country-of-origin has no significant main effects. Theoretical and managerial implications are offered.

KEYWORDS herding bias, country-of-origin, taste judgments, consumer behavior

#### INTRODUCTION

When consumers judge products that are unfamiliar or new to them, the evaluation strategy employed will depend significantly on the characteristics of the product (Maute & Forrester Jr., 1991; Camgoz & Ertem, 2008). For example, for products possessing high levels of search quality or search

attributes, the product's intrinsic cues (e.g., weight, color, physical design) are important for the overall perception of the product (Hansen, Samuelsen, & Silseth, 2008). Conversely, when products are possessing high levels of experience or credence quality, the role of extrinsic cues (e.g., brand name, image, country of origin) are likely to be more dominant (Speed, 1998). As food products are typically categorized as experience or credence goods (Kotler & Keller, 2009), attributes of the intrinsic kind such as taste, smell, or texture are hard to evaluate before the food product is prepared and eaten. Hence, when evaluating food products they have no experience with—i.e., new products—consumers will, to a large extent, base their first assessment on extrinsic cues. Previous research on consumer evaluation of food products supports this assumed importance of extrinsic cues (e.g., Aqueveque, 2008). While there are a number of different extrinsic cues any given consumer can consider in relation to new products, previous research has found that consumers often make decisions based on informational cues derived from the decision context, often resulting in contextual biases (Dholakia, Basuroy, & Soltysinski, 2002). The herding bias or herding behavior exemplifies one such contextual bias, and it describes the tendency to simply replicate the behavior of others (Dholakia et al., 2002). This phenomenon often results in decisions different from the ones that would have been reached if the consumer information on product attributes alone (Bikhchandani, Hirshleifer, & Welch, 1992), and anecdotal evidence from business practice illustrate that marketing managers are well aware of this phenomenon. For example, whenever TV broadcasters announce and air advertisements for upcoming TV series, they usually employ slogans such as "The series that took country X with storm." The same kind of strategy is used by publishing houses. To increase the possibility of a novel being a bestseller, information on current total sales and how many languages the text has been translated to are usually placed on the book's cover. Moreover, books that are on national bestseller lists sell more, and restaurants with few available seats attract more customers than restaurants that are more or less empty (Bikhchandani, Hirshleifer, & Welch, 1998). Stated differently a product's popularity among other consumers are employed on a regular basis as an extrinsic product attribute with a decision impact so strong that other attributes are outweighed.

While the current theoretical knowledge on herding effects and informational cascades are extensive and far reaching, there are areas yet to be scrutinized in more detail. In this research, the ambition is to pursue a higher understanding of three questions related to herding bias or informational cascades and consumer evaluations of new food products: First, the aim is to experimentally test whether consumers actually "follow the herd" just because they are told that a herd exists. At the same time, we want to test whether the effect of this information depends on whether it is presented before or after a product trail. Second, the goal is to investigate the degree

to which the herding bias depends on characteristics of the herd itself. Or stated differently in more practical terms: Will consumers choose to watch the advertised TV series regardless of which country it actually took by storm? Finally, an important aspiration is to test the herding bias not in relation to product choice but related to inferences about the product's future success and, most importantly, perceptions of how the product tastes. To examine these issues, two studies were designed and implemented as described in the succeeding parts of this article.

#### STUDY 1

The first study was designed to test whether the mere existence of a herd would affect (1) a consumer's belief in future success for a newly introduced product, (2) the intention to purchase the product, (3) the consumer's judgment of how good the product tasted, and (4) whether these effects differed if the existence of the herd was revealed before or after product trial. While previous research extensively describes how the herding bias significantly influences consumers in sequential decision making (Banerjee, 1992), less is known about the effects of just being told that a herd exists. That is, actually watching others choosing A over B repeatedly before making the same choice oneself is different from being told that others chose A over B. Moreover, while such information might have an impact on what a consumer chooses, having an effect on the perceptions of taste are often believed to be a different ballgame as taste is a strong sensory stimulus that is assumed less susceptible to manipulation. However, previous research shows that taste evaluations often depend on contextual stimuli. For example, Coca-Cola tastes better when drinking from a cup with the Coke logo on it than from a similar but unmarked cup (McClure et al., 2004), and the preference for beer brands disappears if the labels enabling brand recognition is removed (Allison & Uhl, 1964). Hence, and important quest in the design of study 1 was to test the herding bias both in relation to cognitive outputs such as belief in future success, intentional issues such as purchase intentions, and sensory perceptions such as taste.

Next, previous research has found that in taste evaluations, attitudes that are formed prior to taste will outweigh the sensory inputs received in a subsequent trial. In an experiment on beer tasting, Lee, Frederick, and Ariely (2006) found that if subjects were told upfront that one of the two brands of beer they tasted contained balsamic vinegar, the preference for this beer was much lower than if the same information was revealed after trial. These findings suggest that attitudes and preferences influence taste evaluations if their activation precedes tasting. However, in their study Lee et al. (2006) manipulated the product itself, which implies that intrinsic cues of the product were altered. In this study, the aim is to check the effect

arising from the mere fact that others have embraced the product and made it a success, hence focusing on an extrinsic cue.

## Design and Procedure

An experiment with a  $2 \times 2$  between-subjects factorial design was employed, where the first experimental factor tested the effect of the herding bias. Here, half of the participating subjects were told that the product in question had recently been introduced in the domestic market, and that the company importing the product had high expectations of market performance due to the overwhelming reception consumers in the country of origin and three neighboring countries had given it. The other subjects were offered a cover story of similar length, but completely neutral and not containing any information on former success. The second experimental factor was set up to test the effect of presenting the product information before or after the subjects tasted the product. Half of the subjects were asked to first read the cover story and then taste the product, and the other half were asked to taste the product first and then read the story. After the taste/read vs. read/taste procedures, all subjects answered a short questionnaire containing items measuring the three dependent variables. Taste was measured with a 10-point single item anchored Does not taste good and Tastes very good. Perceived product popularity was measured with a 4-item scale adapted from Mishra, Umesh, and Stem (1993), while the three measures for purchasing intentions were reworded versions of the repurchase scale reported by Kumar, Hibbard, and Stern (1994) and Hansen, Sandvik, and Selnes (2003). Both the product popularity and purchase intention scales were 10-point Likert type scales anchored Totally disagree and Totally agree.

Face validity was pursued in a two-step pretest. First, a marketing professor assessed the measures and judged the extent to which the questions could be answered with reference to the experimental scenario story. Next, five randomly selected respondents were asked to answer the questions and comment on the complexity and the wording of the scales. No changes were made to the items after this procedure. All items are listed in the Appendix.

Ninety-one randomly selected university students were recruited to participate in the study. The product they were asked to taste was a ready-to-eat chocolate mousse, and the subjects were randomly allocated to the four experimental conditions.

## Data Analysis

The multi-item scales for the dependent variables were initially tested for convergent validity using a confirmatory factor analysis. Items receiving low factor scores or precluding a unidimensional factor structure would be

removed in this phase of the analysis, but all items obtained satisfactory scores. The factor loadings for the product popularity scale ranged from 0.605 to 0.891, while the purchase intention scale saw factor scores between 0.674 and 0.936. The reliability of the scales was assessed with Cronbach's alpha, and the two alpha values received were 0.796 for product popularity and 0.859 for purchase intentions. Factor scores and Cronbach's alpha values are reported in Table 1.

Before testing the specific research questions, summarized index variables were constructed for all multi-item scales. The overall means for the dependent variables are reported in Table 2, whereas in Table 3 the means for taste, product popularity, and purchase intentions are reported across the experimental cells. A multivariate analysis of variance (MANOVA) was used to test the hypotheses, and the results are presented in Table 4.

The results show that being told that the product is a success in both its country of origin and other comparable countries positively influence the evaluation of the product's taste, the belief in it becoming a success in the domestic market, and the consumer's purchase intentions. Specifically, the main effect on taste was positive and significant (F-value = 42.199), and the effects on product popularity and purchase intentions were also positive, with F-values of 29.519 and 9.053, respectively.

Former research suggests that reading central information about the product before tasting it should result in judgments different from when trial precedes access to the information (Lee et al., 2006). Table 4 shows that both the evaluation of taste and future popularity was positively affected by reading about the product before tasting it (*F*-values 16.508 and 5.266). However, no significant effect of the timing of information was found on

**TABLE 1** Factor Structures and Reliability Measures

Item	Factor loading	Cronbach's alpha (variabl	
Product popularity 1	0.891	0.796	
Product popularity 2	0.681		
Product popularity 3	0.636		
Product popularity 4	0.605		
Purchase intention 1	0.860	0.859	
Purchase intention 2	0.936		
Purchase intention 3	0.674		

TABLE 2 Means for Dependent Variables, Total Sample

Variable	Mean	SD	$\overline{N}$	
Taste	6.74	2.05	91	
Product popularity Purchase intentions	7.01 6.11	1.85 2.12	91 91	

 TABLE 3 Means and Standard Deviations Across Experimental Conditions

Dep. variable	Herding	Mean (SD)	N
Taste	No	5.62 (1.89)	45
	Yes	7.84 (1.56)	46
Product popularity	No	6.08 (1.68)	45
	Yes	7.91 (1.54)	46
Purchase intentions	No	5.45 (2.17)	45
	Yes	6.75 (1.87)	46
Dep. variable	Info time	Mean (SD)	N
Taste	Before	7.45 (1.64)	45
	After	6.02 (2.20)	46
Product popularity	Before	7.41 (1.78)	45
	After	6.59 (1.85)	46
Purchase intentions	Before	6.47 (2.13)	45
	After	5.74 (2.07)	46

**TABLE 4** Hypotheses Test Results (Multivariate Analysis of Variance)

	Taste	Product popularity	Purchase intentions
Main effects			
Herding	$42.199^{a***}$	29.519***	9.053**
Info time	16.508***	5.266*	2.611 <sup>ns</sup>
Interaction effects			
Herding × Info time	1.090 <sup>ns</sup>	$0.002^{\rm ns}$	$0.310^{\rm ns}$

aF-value

Significance levels: \*0.05; \*\*0.005; \*\*\*0.001; ns not significant.

purchase intentions (F = 2.611). The two-way interaction between herding and information time had no significant effect on any of the dependent variables.

#### Discussion

The results of study 1 show that consumers tend to be influenced by the mere existence of a herd, in that being told that a newly introduced product has been widely accepted by other consumers affects evaluation of taste, expected product popularity, and purchase intentions. This implies that the current study contributes to the existing body of knowledge in at least two important areas. First, while previous research has established an understanding of how herding bias affects choice (e.g., Dholakia et al., 2002), this study extends this knowledge by showing an influence on perceptions of

sensory stimuli. According to Lee at al. (2006, p. 1054), the quality of an experience is based on both a bottom-up and a top-down process, where the former accounts for the stimuli received from the sensory receptors and the latter reflects beliefs, attitudes, and expectations. However, ours results indicate that the judgmental result of the bottom-up process is in fact influenced by the top-down process, thus suggesting that these two processes not only contribute to the final experience judgment, but that one actually influences the other.

Second, another theoretical implication arising from the results of study1 is that herding behavior, or a bandwagon effect, is manifested simply by telling the subjects that a herd exits. Herding bias is usually studied within the context of sequential choice, where consumers watch the behaviors of others and choose to repeat this behavior (Bikhchandani et al., 1992). For marketing theory, the results of this study establish empirical support for communication strategies aimed at inducing herd behavior based on information rather than own experiences. This is important, as it suggests that herding behavior is more easily initiated and probably much more common among consumers than expected. This also opens new doors for marketers, enabling them to focus on herd-like information when promoting products with high levels of intrinsic attributes.

A second question addressed in study 1 refers to the timing of information. While not theoretically novel, our results replicate Lee et al.'s (2006) findings, and they give emphasis to the sequence in which consumers receive product related stimuli. Along with Lee et al.'s (2006) study, the results of experiment 1 support the idea that consumers should be exposed to positive cognitive stimuli before they receive sensory inputs such as taste. This implies that food marketers should strive to offer this kind of information, either on the package, in commercials, sales promotion, or other forms of communication.

One important question that naturally arises from the results of study 1 relates to the conceptual content of the herding bias or informational cascades. Although the concepts are usually used interchangeably in the literature (Çelen & Kariv, 2004), Smith and Sørensen (2000) argue that they are, in fact, conceptually different. According to the authors, informational cascades occur when individuals find it optimal to replicate the behavior of others without regard to private information. Herding, on the other hand, is characterized by individuals acting similar to others, but they may have acted otherwise had the impression of their private information been different. This distinction implies that an informational cascade entails a herd, but a herd does not have to result from an informational cascade (Çelen & Kariv, 2004). Related to the results of study 1, this leads to the question of whether the participants blindly acted in accordance with the success information given on the product, or whether they cognitively evaluated the characteristics of "the herd" itself based on some privately held perception and included

this in their judgment. If the former is the case, then the situation at hand entails characteristics most equal to Smith and Sørensen's (2000) description of an informational cascade, whereas the latter situation is more like herding behavior. Moreover, as informational cascades occur when consumers have no regard for private information, the fact that the herding manipulation actually influences taste (private information) could lead us to speculate whether an informational cascade or herding bias is the mechanism causing the effects in study 1. An interesting question that would shed some light on this is whether the herding effect in study 1 is replicated if the people making up the herd itself change.

In study 1, the herding manipulation contained information stating that the chocolate mousse had been a considerable success both in its country-of-origin (CoO) and other countries. In the presentation of this information, the name of the CoO was offered to the subjects. Results from previous research suggest that subjects may have been inspired by this information (e.g., Aqueveque, 2008; Verlegh & Steenkamp, 1999), implying that the origin of the product may have contributed to the effects found on the dependent variable. To single out any confounding effects caused by CoO, this variable was included as a factor in study 2. However, previous tests of CoO effects have received mixed empirical support, and CoO as a contextual driver of behavior is arguably thus not as dominant as the herding bias or informational cascade. Hence, while scrutinizing the CoO effect in detail, the leading hypothesis is that herding will outweigh CoO in affecting the dependent variables.

## STUDY 2

Study 2 was designed to test the hypotheses that (1) the herding effect occurring under these circumstances depends on who the herd consists of, and that (2) who the herd consists of is more important than where the product has been produced. Again, the procedure consisted of a cover story, followed by a tasting task and a questionnaire. Contrary to study 1, all subjects in study 2 first read the cover story and then tasted the product.

The experiment was a  $2 \times 2$  between-subjects factorial design, with the first experimental factor testing the effect of who the herd consisted of. Here, the cover story presented to the subjects told them that the product in question had been an overwhelming success in two countries with either a good or a bad reputation for food quality. In addition, both stories included one country with a more neutral image. In other words, the manipulation either told the subjects that the product was a success in two countries with a good reputation and one country with a neutral reputation for food quality, contrary to two countries with a less positive reputation and one neutral country on the same issue. The second experimental factor consisted of the CoO manipulation. Again, subjects were told that the product was

produced in a country with either a positive reputation or negative reputation for food quality. However, the countries chosen as CoO did not equal the countries included in the herding manipulation. Choosing which countries to include in the manipulation was based on an empirical pretest in which 40 respondents were asked to evaluate 20 European countries on a number of issues related to food quality. From this pretest, two of the five countries found most positive were chosen, along with two of the five countries with the most negative reputation. These were then accompanied by one country from the middle of the range, with a score indicating that it was considered neither positive nor negative. The CoO manipulation was also based on this pretest, and one country from the upper end was chosen along with one from the lower end of the range.

One hundred and five randomly selected subjects a greed to come to the lab and participate in the study and were randomly assigned to the four experimental conditions. What they were asked to taste was a ready-to-eat product consisting of canned tuna in satay sauce. Measuring the dependent variables followed the same procedures as in study 1; the measures were exactly the same but adapted to fit canned tuna instead of chocolate mousse.

## Data Analysis

The inspection of the multi-item scales followed the same procedure as in study 1, and the results of the confirmatory factor analysis and the reliability test are portrayed in Table 5. Product popularity received factor scores between 0.813 to 0.885, and the factor scores for the purchase intention variable ranged from 0.640 and 0.955. Both variables obtained satisfactory Cronbach's alpha coefficients, with values of 0.903 for product popularity and 0.864 for purchase intentions.

As in study 1, summarized index variables were constructed for all multiitem scales. The overall means for the dependent variables are reported in Table 6, whereas in Table 7 the means for taste, product popularity, and purchase intentions are reported across the experimental cells. A multivariate

<b>TABLE 5</b> Factor Structures and Reliability Measur	res	
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Item	Factor loading	Cronbach's alpha (variable)
Product popularity 1	0.821	0.903
Product popularity 2	0.813	
Product popularity 3	0.831	
Product popularity 4	0.885	
Purchase intention 1	0.898	0.864
Purchase intention 2	0.955	
Purchase intention 3	0.640	

TABLE 6 Means for Dependent Variables, Total Sample

Variable	Mean	SD	N	
Taste	7.31	2.22	105	
Product popularity	6.88	1.96	105	
Purchase intentions	6.96	2.58	105	

 TABLE 7 Means and Standard Deviations Across Experimental Conditions

Dep. variable	Herd content	Mean (SD)	N
Taste	Neg	6.52 (2.61)	51
	Pos	8.05 (1.44)	54
Product popularity	Neg	5.89 (2.14)	51
	Pos	7.81 (1.17)	54
Purchase intentions	Neg	6.23 (2.97)	51
	Pos	7.64 (1.96)	54
Dep. variable	CoO	Mean (SD)	N
Taste	Neg	7.29 (2.63)	51
	Pos	7.33 (1.78)	54
Product popularity	Neg	6.75 (2.10)	51
	Pos	7.01 (1.83)	54
Purchase Neg intentions Pos		6.68 (2.86) 7.22 (2.29)	51 54

**TABLE 8** Hypotheses Test Results (Multivariate Analysis of Variance)

	Taste	Product popularity	Purchase intentions
Main effects			
Herd content	15.349***	34.387***	8.657**
CoO	$0.088^{ns}$	$1.037^{ns}$	$1.444^{\mathrm{ns}}$
Interaction effects			
Herd content × CoO	7.859*	$3.134^{ns}$	0.451 <sup>ns</sup>

<sup>&</sup>lt;sup>a</sup>F-value

Significance levels: \*0.01; \*\*0.005; \*\*\*0.001;  $^{ns}$ not significant.

analysis of variance (MANOVA) was used to test the hypotheses, and the results are presented in Table 8.

The findings portrayed in Table 8 reveal that who the herd consists of has a strong and significant main effect on both the perceptions of taste (F=15.349), belief in future product popularity (F=34.387), and consumer purchase intentions (F=8.657). As for CoO, there are no significant main

effects on any of the dependent variables. However, the two-way interaction between herd content and CoO has a significant effect on taste (F = 7.859). The interaction has no significant effect on belief in future product popularity or purchase intentions.

#### Discussion

Similar to the results of study 1, the herding manipulation of study 2 shows that being told that a herd exists influences subjects' taste perception, belief in future success, and intention to purchase the product. In addition, the results also suggest that the mechanism at hand is more in the line of herding behavior than informational cascades. The fact that the effects depend on who the herd consists of indicates that consumers combine the information on the herd's behavior with a privately held perception of the herd itself. Following from Smith and Sørensen (2000), informational cascades imply that such private information is not considered in situations of informational cascades. Here, the herd is not blindly followed, and if the mechanism causing the effect was an informational cascade, we should have found few, if any, differences between the two experimental conditions. Hence, on the question derived from study 1 as to the conceptual content of herding bias vs. informational cascades, study 2 seems to favor a herding bias explanation. This is important for marketing practitioners. While herding biases or herding behavior may seem equal to informational cascades if only observing the behavior undertaken by consumers (Celen & Kariv, 2004), the underlying mechanism is different. A natural result of the definitional differences between herding bias and informational cascades is that herding behavior is a much more unstable behavioral pattern than informational cascades. Celen and Kariv (2004, p. 485) suggest that in a herd the imitative behavior is "fragile in the sense that a strong signal may cause behavior to shift suddenly and dramatically," whereas in a cascade "no signal can cause a change in the pattern of behavior." The explanation underlying the latter phenomenon is that no social learning exists in informational cascades due to the purely imitative behavior, where all private signals are screened out. This implies that marketers of new products can benefit from herd-like behavior if only the correct information is presented to the target segments. By analyzing which information to promote and which stimuli to expose, marketers may increase the adoption rate of new products through what may be labeled "induced herd behaviors." Simultaneously, marketers have to bear in mind the fact just stated—herd behavior is vulnerable to external signals, and the imitative behavior may shift in the blink of an eve.

The nonsignificant effect of CoO on the dependent variables came somewhat as a surprise. However, the effects of CoO on the evaluation of food products have been both supported (e.g., Aqueveque, 2008) and not supported (e.g., Camgoz & Ertem, 2008), implying that there is mixed

support for the importance of CoO in situations such as this. While a significant effect would have been useful in terms of offering the marketing manager more "buttons to push" in the promotion of new food products, the most important aspect is that the design of study 2 differentiates the effects of herding and CoO. In this respect, Table 8 clearly portrays that the main driver of the differences in taste perceptions, belief in future success, and purchase intentions is a convincing herd and not the CoO.

The significant effect of the two-way interaction Herd content  $\times$  CoO on taste perceptions was not a part of the hypothesized relationships. As such, retrospective explanations may seem speculative. Nevertheless, an intuitive expectation would be that for subjects already swayed by the herding manipulation, the positive associations toward the CoO may boost the effect of the positive herd. However, the pattern of marginal means presented in Figure 1 does not support this explanation. If CoO boosts the effect of herd content, the highest value should be found for positive CoO and a herd with a positive association. However, Figure 1 shows that the highest mean score for taste is in the combination of positive herds and negative CoO. To further analyze this result, we isolated the participants exposed to the positive CoO, and then tested the difference in mean scores for taste across the positive and negative Herd content cells within this CoO condition. The results show that the two scores, 7.11 and 7.56, are not significantly different (t = -0.916). We then tested the same taste score difference for the Pos/Neg Herd content for the negative CoO experimental cells, and, as expected based on the inspection of Figure 1, the scores (8.56 and 5.87) are significantly different. Based on this, we may speculate that one reasonable explanation for the interaction is that the characteristics of the herd entail a different kind of diagnosticity in situations where the CoO is negative. Or stated differently herd content is most important when CoO is negative. However, this study does not offer a valid test of this explanation, and as such it is only a suggestion that calls for a closer inspection of the underlying mechanisms of the interaction. Hence, this is a natural suggestion for future research.

## CONCLUDING COMMENTS

The combined results of the two studies conducted and reported in this article hold some interesting implications for theory and practice. First, both studies accentuate herd-like behavior or herding bias, and while the product employed in the two experiments differed (chocolate mousse and canned tuna), the results are quite uniform in that they support the notion of herding behavior induced by means of information rather than experience. This is important, as it establishes an empirical base on which to suggest that consumers, in fact, can be "herded" simply by telling them that a herd exists. While previous research has normally focused on subjects watching the herd and reacting to what they see (e.g., Dholakia et al., 2002;





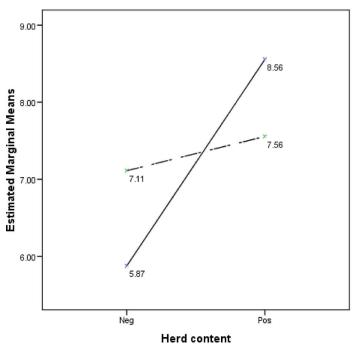


FIGURE 1

Bikhchandani et al., 1998), this study talks about herds and monitors the reactions to what subjects are told. This extends the existing knowledge on herding and offers a supplement to the marketer's box of persuasive tools. However, the indications of the behavior having more in common with the concept of herding bias than informational cascades (Smith & Sørensen, 2000) implies than a herding strategy based on information is susceptible to strong stimuli that can easily thrust consumers in other directions (Çelen & Kariv, 2004). Hence, while our results are empirically solid, the strategy of herding behavior based on information encompasses the same weakness as herding bias based on experience.

The results found for timing of information also holds practical implications for food marketers. When introducing new food products, a commonly applied promotion method is product trial, where firms set up posts in supermarkets and similar outlets and offer small product samples to consumers who would like to try the product. Our results indicate that to maximize the effect of such events and sway consumers into more positive taste evaluations, the marketer should emphasize activation of memory-based attitudes and preferences prior to the stimuli sent to the sensory receptors. Stated differently, consumers should receive product information that launches herd-like behaviors before they taste the product.

Marketers often seek to benefit from the positive associations consumers hold toward the country from where a product originates. These secondary brand or product associations are found to be important pieces of the puzzle that make up a consumer's overall evaluation of a product (Kotler & Keller, 2009). However, our results indicate that in practical terms, where a new product has been successful is more important than where it was produced. This result enables marketers to choose another focus than CoO in the quest for positive secondary associations, and thus offer yet another aspect on which to build brand identity. In total, the results of the two studies suggest than inducing herding bias when introducing new food products can have very positive effects on the adoption and diffusion of the product. Hence, marketers with success stories to tell should emphasize these as one extrinsic cue offered to prospective customers.

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#### REFERENCES

- Allison, R. I., & Uhl, K. P. (1964). Influence of beer brand identification on taste perception. *Journal of Marketing Research*, 1, 36–39.
- Aqueveque, C. (2008). The effect of extrinsic cues on imported wine evaluations: An experimental approach. *Journal of Food Products Marketing*, *14*(3), 33–47.
- Banerjee, A. V. (1992). A simple model of herd behavior. *The Quarterly Journal of Economics*, 107(3), 797–817.
- Bikhchandani, S., Hirshleifer, D., & Welch, I. (1992). A theory of fads, fashion, custom and cultural change as informational cascades. *Journal of Political Economy*, 100(5), 992–1026.
- Bikhchandani, S., Hirshleifer, D., & Welch, I. (1998). Learning from the behavior of others: Conformity, fads and informational cascaded. *Journal of Economic Perspectives*, *12*(3), 151–170.
- Camgoz, S. M., & Ertem, P. S. (2008). Should food manufacturers care about country-of-origin effect? An experimental study based on chocolate tasting. *Journal of Food Products Marketing*, *14*(1), 87–105.
- Çelen, B., & Kariv, S. (2004). Distinguishing informational cascades from herd behavior in the laboratory. *The American Economic Review*, *94*(3), 484–498.
- Dholakia, U. M., Basuroy, S., & Soltysinski, K. (2002). Action or agent (or both)? A study of moderators of the herding bias in digital auctions. *International Journal of Research in Marketing*, 19(2), 115–130.

- Hansen, H., Samuelsen, B. M., & Silseth, P. R. (2008). Customer perceived value in B-t-B service relationships: Investigating the importance of corporate reputation. *Journal of Industrial Marketing Management*, *37*(2), 206–217.
- Hansen, H., Sandvik, K., & Selnes, F. (2003). Direct and indirect effects of commitment to a service employee on the intention to stay. *Journal of Service Research*, 5(4), 356–368.
- Kotler, P., & Keller, K. L. (2009). *Marketing management* (13th ed.). Upper Saddle River, NJ: Pearson Prentice Hall.
- Kumar, N., Hibbard, J. D., & Stern, L. W. (1994). The nature and consequences of marketing channel intermediary commitment. *Marketing Science Institute Working Paper Series*, 94–115.
- Lee, L., Frederick, S., & Ariely, D. (2006). Try it, you'll like it: The influence of expectation, consumption and revelation on preferences for beer. *Psychological Science*, *17*(12), 1054–1058.
- Maute, M. F., & Forrester Jr., W. R. (1991). The effect of attribute qualities on consumer decision making: A causal model of external information search. *Journal of Economic Psychology*, 12, 643–666.
- McClure, S. M., Li, J., Tomlin, D., Cypert, K. S., Montague, L. M., & Montague, P. R. (2004). Neural correlates of behavioral preference for culturally unfamiliar drinks. *Neuron*, *44*, 379–387.
- Mishra, S., Umesh, U. N., & Stem, J. R. D. E. (1993). Antecedents of the attraction effect: An information-processing approach. *Journal of Marketing Research*, 30(3), 331–349.
- Smith, L., & Sørensen, P. N. (2000). Pathological outcomes of observational learning. *Econometrica*, 68(2), 371–398.
- Speed, R. (1998). Choosing between line extensions and second brands: The case of the Australian and New Zealand wine industries. *Journal of Product and Brand Management*, 7(6), 519–536.
- Verlegh, P., & Steenkamp, J. B. E. M. (1999). A review and meta-analysis of country-of-origin research. *Journal of Economic Psychology*, 20, 521–546.

#### **APPENDIX**

Measures of Dependent Variables\*

Taste

How good do you think this chocolate mousse tasted?

<sup>(</sup>r) denotes reversed items.

<sup>\*</sup>Items are listed as used in the first study. The same items were used in study 2, but they were then adapted to the experimental context at hand (canned tuna in satay sauce).

## Product popularity

- 1. This will be a serious challenge to chocolate mousse currently found in (country's) supermarkets
- 2. This will be a popular supplement to the food habits of (country's) consumers
- 3. This product will not be widely accepted in (country's) households (r)
- 4. Only a marginal number of consumers will like this chocolate mousse (r)

## Purchase intentions

- 1. If I were to buy chocolate mousse today, I would probably buy this product
- 2. I will probably try this chocolate mousse in the near future
- 3. Trying this product is not and option for me (r)