

Positive uncertainty: the benefit of the doubt in advertising

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ABSTRACT

Positive uncertainty refers to uncertainty surrounding an anticipated positive outcome. It provides consumers with the opportunity to imagine and speculate on a product's or experience's potentially positive characteristics. Research has shown that when uncertainty is associated with something positive, consumers may prefer uncertainty to certainty. In a between-subjects experimental design with a large US ($n = 446$) and Japanese sample ($n = 453$), the present study demonstrates that positive uncertainty increases consumers' positive feelings when they evaluate a product, particularly for high-involvement products that allow consumers to imagine and speculate about potentially positive product benefits. Unexpectedly, the study findings are consistent across the two different markets, which vary substantially in terms of consumers' level of uncertainty avoidance. Specifically, results show that future-framed advertisements are effective in generating positive uncertainty and that positive uncertainty generates positive attitudes, both in countries scoring high (Japan) and low (USA) on uncertainty avoidance.

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Introduction

In general, consumers prefer certainty to uncertainty and are hesitant to spend money on products or services that provide unknown or uncertain benefits (Urbany, Dickson, and Wilkie 1989; Weinberg 2001). Recent research shows, however, that consumers may show the opposite tendency, preferring uncertain to certain products and services, when the uncertainty is associated with a positive event (Wilson et al. 2005; Lee and Qiu 2009). For example, people have high expectations of movies when trailers leave them uncertain about the movies' specific content and resolution (Wilson et al. 2005). A reason for this may be that uncertainty offers consumers the opportunity to imagine and speculate on a product's or experience's potentially positive characteristics (Dahlén, Thorbjørnsen, and Sjödin 2011).

If positive uncertainty can make products and services more appealing in the eyes of consumers, the implications for advertising would be significant. Previous studies have investigated the effect of positive uncertainty in the context of receiving a gift, evaluating

movie endings, receiving flattering feedback from strangers (Wilson et al. 2005), participating in a lucky draw (Lee and Qiu 2009) and engaging in free-gift promotions (Laran and Tsiros 2013). Although these studies focused on tools that can be useful for companies facing specific challenges, their findings cannot be generalized to other tools in the marketing mix and, therefore, are of limited use to the majority of managerial decisions regarding promotion and marketing. That is, not every marketer can rely on free-gift promotions to market a specific product, and lucky draws have only limited use as a marketing communication tool. Only a few studies have focused on positive uncertainty in advertising. Thorbjørnsen, Dahlén, and Lee (2015) found that the mere information about a forthcoming brand product can lead consumers to focus on desirability over feasibility and shift evaluation of currently available brand products in a positive direction. In another study, they found that future-oriented advertising facilitates consumer curiosity and product interest, which in turn boosts electronic word of mouth (Thorbjørnsen et al. 2015). However, positive uncertainty is likely relevant also in other contexts such as movie sequels and launch of new entertainment services, consumers' first encounters with new digital services, adoption of new social media (making new friends), in gamification of marketing communication and in product and service upgrades. Just imagine the positive uncertainty Tesla owners experience when awaiting a new software upgrade and once again get 'a brand new car.' If the general principle of positive uncertainty can be applied to advertising, this could open new doors for marketing managers.

Despite the challenges facing traditional advertising (Cho and Cheon 2004), advertising is still a highly important part of the marketing mix for most successful brands (Yoo, Donthu, and Lee 2000; Townsend, Cavusgil, and Calantone 2012). Therefore, the first goal of this study is to investigate whether positive uncertainty mediates the effectiveness of advertising. The second goal is to investigate whether the effects of positive uncertainty are contingent on the type of product being advertised. Products can vary greatly in the extent to which consumers are able to elaborate on their positive characteristics and, as such, may differ in the extent to which positive uncertainty contributes to advertising effectiveness (Lee and Qiu 2009). The third goal is to test whether the type of country influences the effects of positive uncertainty. Successful international companies advertise their products all over the world. According to De Mooij (2010), countries can be differentiated by the degree to which they avoid uncertainty. Because Eastern consumers tend to be less tolerant of uncertainty than Western consumers, positive uncertainty in advertising is likely to have different effects in Eastern than Western countries. Specifically, it could be argued that positive uncertainty is more effective in the United States, a country characterized as uncertainty accepting (Hofstede 1980), than in Japan, which is described as one of the most uncertainty avoiding countries in the world (Hofstede 1980).

Positive uncertainty

Consumers' tendency to dislike uncertainty is well documented (Urbany, Dickson, and Wilkie 1989; Weinberg 2001). Noted less often, however, is that this tendency may be caused by the uncertainty associated with the potential for negative outcomes. That is, if consumers are uncertain about the potential drawbacks of a particular product, a negative product attitude may ensue. Recently, research has shown that uncertainty may actually increase and prolong consumers' positive feelings when they evaluate a particular

product or event in a purely positive light. For example, Lee and Qiu (2009) instructed participants to take part in a lucky draw. All participants were told they had won a prize, so that they would experience positive feelings. The authors found that these positive feelings were greater and lasted longer when participants were not sure what the prize was than when they were told exactly what they had won. Such positive feelings can lead to increased purchase behavior (Laran and Tsiros 2013).

One explanation for this phenomenon is that uncertainty amplifies one's experiences, whether they are positive or negative (Bar-Anan, Wilson, and Gilbert 2009). Research has shown that uncertainty increases physiological arousal (Schultz, Dayan, and Montague 1997; Berns et al. 2001), which in turn makes people experience their emotions more intensely (Dibben 2004). Another explanation is that people have a tendency to be overly optimistic about their lives, their futures and the products they consume (Loewenstein, O'Donoghue, and Rabin 2003; Dahlén, Thorbjørnsen, and Sjödin 2011) and, under conditions of uncertainty, may be inclined to imagine predominantly positive things. A more elaborate explanation, however, comes from Kurtz, Wilson, and Gilbert (2007) and Lee and Qiu (2009), who propose that uncertainty remains essentially a negative experience, which consumers are motivated to resolve.

To achieve this, consumers elaborate on the potential consumption outcomes, mentally simulating the different possible consumption experiences. When consumers solely or predominantly elaborate on possible positive outcomes, increased positive feelings result. Indeed, the results of the two studies reveal that positive feelings are particularly durable when the possible outcomes help stimulate the imagination in a positive way. For example, Lee and Qiu (Study 2) show that the effect of positive uncertainty was stronger for sensory-stimulating products (chocolate and aromatherapy candles) than for products featuring functional benefits (cutlery sets and digital clocks). They conclude from these results that the act of mentally simulating possible positive consumption experiences is responsible for the positive uncertainty effect.

Positive uncertainty in advertising: future-framed advertisements

The principle of positive uncertainty should be of interest to advertisers and marketers because it suggests a way to elicit positive evaluations from consumers. One advertising strategy that may trigger positive uncertainty is future-framed advertising. Several scholars have shown the key importance of framing of advertising messages in a variety of contexts, such as gain versus loss frames (Lin and Shen 2012; Chang, Zhang, and Xie 2015), product-oriented versus cause-focused frames (Chang 2012) and positive-comparison versus negative-comparison frames (Baek and King 2015). These scholars have shown that product types that are differently framed in advertisements may affect consumer evaluations of brands. Dahlén, Thorbjørnsen, and Sjödin (2011) argue that contemplating forthcoming products yield more uncertainty than contemplating presently available products. After all, forthcoming products are not yet available, and their advantages and disadvantages cannot be known for sure up-front. According to Dahlén, Thorbjørnsen, and Sjödin (2011), new product pre-announcements (versus product announcements) offer consumers the opportunity to imagine and speculate on a product's potentially positive characteristics and outcomes. Although the authors did not empirically investigate the mediating role of positive uncertainty, their studies revealed that ads for forthcoming products

resulted in more elaboration, more positive evaluations and more product interest than ads for otherwise equivalent current products. Such positive effects of future-framed advertising on consumer responses can also be explained by construal level theory (CLT). Thorbjørnsen, Dahlén, and Lee (2015) found product pre-announcements to induce a high-level construal mind-set, which in turn, led to more positive consumer responses compared to new product announcements. CLT posits that the higher level construal induced by temporal distance leads consumers to focus on desirability over feasibility and make them speculate, dream and think more about the superordinate benefits and gains of the (forthcoming) product. This is in line with a positive uncertainty explanation, which holds that the uncertainty generated by the pre-announcements motivates people to elaborate on the products' potential benefits and positive characteristics. Because advertising displays the product in a positive light, people are especially inclined to imagine the positive characteristics of the product.

In this study, we investigate whether future-framed advertising can increase positive uncertainty and advertising effectiveness. Our hypotheses are as follows:

H1: Future-framed advertising results in more positive uncertainty than present-framed advertising.

H2: Future-framed advertising leads to more positive attitudes toward (1) the ad, (2) the brand and (3) the product than present-framed advertising.

Support for our hypotheses would yield valuable recommendations for marketing and advertising professionals. The question remains, however, whether positive uncertainty is more effective in some, rather than all, contexts. We therefore set out to investigate the moderating influences of product type and country.

Role of product type

The Rossiter–Percy grid (Rossiter, Percy, and Donovan 1991) clarifies the stages that consumers go through during the purchase process. One of the dimensions of the model is high-involvement products versus low-involvement products (e.g. homes vs. facial tissues). High-involvement decisions about products tend to have a strong impact on consumers because, for example, they are relatively expensive. Because the stakes are high in high-involvement decisions, consumers can be especially motivated to resolve uncertainty and to elaborate on the product's potential characteristics. It can therefore be expected that positive uncertainty is especially likely to be effective for high-involvement products. We hypothesize that positive uncertainty will be most effective for purchase decisions characterized as high-involvement (e.g. cars) and least effective for purchase decisions characterized as low-involvement (e.g. mineral water).

H3: Compared with present-framed ads, the positive effects of future-framed ads on attitudes toward the ad, brand and product (H2) are stronger for high-involvement products than for low-involvement products.

Role of country

People in Eastern countries generally report more uncertainty avoidance than people in Western countries (De Mooij 2010). The difference between American and Japanese

consumers, for example, has been repeatedly reported. In general, Americans feel less pressured to make a buying decision when exposed to ads with limited information and are more willing to take risks than Japanese consumers (Choi et al. 2003; Vishwanath 2003; Lam et al. 2005). Furthermore, Vishwanath (2003) shows that the Japanese do not participate as much as Americans in auctions because of the lack of information about the auctioned items. In general, research has shown that consumers in countries with greater uncertainty avoidance are less prone to take risks when traveling (Money and Crotts 2003; Lord, Putrevu, and Shi 2008), prefer reliable brands (Erdem, Swait, and Valenzuela 2006), favor less innovative products (Singh 2006) and use e-commerce less frequently (Yoon 2009) than consumers from countries with low-uncertainty avoidance scores.

Because of these differences between Eastern and Western consumers, we hypothesize that positive uncertainty in advertising will be more effective in a Western than an Eastern context. Therefore, we conducted the study in both the United States and Japan to investigate the following hypothesis:

H4: Compared with present-framed ads, the positive effects of future-framed ads on attitudes toward the ad, brand and product (H2) are stronger for consumers from the United States than for consumers from Japan.

Method

We hypothesized that future-framed advertising would result in more positive uncertainty than present-framed advertising (H1). Compared with present-framed ads, future-framed ads would likely result in positive attitudes toward the ad, brand and product because of the increased positive uncertainty associated with such advertisements (H2). We furthermore hypothesized that this effect would be dependent on the type of product being advertised (H3) and the type of country (H4). To test these predictions, we exposed consumers in the United States and Japan in a between-subjects experimental design to advertisements that focused on either future products or currently available products and that advertised either a specific type of car (high-involvement) or a specific type of water (low-involvement). The dependent variables were positive uncertainty and attitudes toward the ad, the brand and the product. Before conducting the main experiment testing the hypotheses, we conducted a pretest with a sample of American and Japanese students to test our self-constructed positive uncertainty scale.

Materials

We used print ads for car brands (high-involvement) and mineral water brands (low-involvement). We manipulated the car and water ads in line with Dahlén, Thorbjørnsen, and Sjodin (2011, 36).

The car ads contained a picture of two men and two women in white laboratory coats facing the camera, but no visual of the car. The ads announced new types of familiar car brands: *Ford* in the United States and *Toyota* in Japan. By advertising new product types, we avoided confounding effects from previous exposure. The copy text for the present-framed car ad read: 'Not your usual car engineers. Not your usual new car. Test drive it *now*'. The future-framed version read: 'Not your usual car engineers. Not your usual new car. Test drive it in *March 2013*'. The ads for mineral water contained a picture of an



Figure 1. Manipulated US versions of the car and mineral water ads.

Note: Clockwise: a future-framed low-involvement product; a present-framed high-involvement product; a future-framed high-involvement product; a future-framed low-involvement product. The dates for the future-framed ads of the United States and Japan differ because the research took place in Japan in December and in the United States in November. Because of copyrights all logos are pixelated. Source: Author

enlarged part of a bottle covered with water drops. The ads featured the familiar brands *Evian* (United States) and *Suntory* (Japan). The copy text for the present-framed mineral water ad read: 'Not your average water. In stores *now*'. The future-framed version read: 'Not your average water. In stores in *March 2013*'. [Figure 1](#) shows the stimuli.

Pretest

We used a student sample from the United States ($n = 43$) and Japan ($n = 45$) to pretest our self-constructed *positive uncertainty scale*. The scale items were constructed based on the dimensions and arguments on positive uncertainty put forth in Wilson et al. (2005) and Lee and Qiu (2009).

Participants were recruited through a commercially available online panel. Participants received an incentive for their participation, which consisted of 'points' that could be collected and exchanged for gifts. The number of points awarded for participation corresponded to €1. As the main goal was to test the validity of our self-constructed positive uncertainty scale, we only used the ad for the car brand.

We measured *positive uncertainty* with seven items on 7-point Likert scales (1 = strongly disagree; 7 = strongly agree): 'It annoys me that it's not exactly clear what product the advertisement is about', 'I like the fact that this advertisement leaves me something to guess about', 'I think it's interesting that this ad doesn't reveal everything at once', 'In this advertisement I miss information that tells me what's so good about this product', 'It looks like a challenge to give this new (advertised) product a try', 'This advertisement is unpleasant because it causes uncertainty' and 'I like that I'm being held in suspense by this

Table 1. Factor loadings, eigenvalues and percentages of total variance for the positive uncertainty scale in the pretest ($N = 88$).

Item	Factor loadings	
	Factor 1	Factor 2
PU1: It annoys me that it's not clear exactly what product the advertisement is about.	-.07	.88
PU2: I like the fact that this advertisement leaves me something to guess about.	.95	-.10
PU3: I think it's interesting that this ad doesn't reveal everything at once.	.94	-.13
PU4: In this advertisement I miss information that tells me what's so good about this product.	.06	.72
PU5: It looks like a challenge to give this new (advertised) product a try.	.67	.18
PU6: This advertisement is unpleasant because it causes uncertainty.	.02	.80
PU7: I like that I'm being held in suspense by this advertisement.	.82	.08
Eigenvalue	3.16	1.76
Percentage of total variance	45.09	25.19

advertisement'. We conducted a principal axis factor analyses with Oblimin rotation on these data.

An examination of the Kaiser–Meyer–Olkin measure of sampling adequacy suggested that the sample was factorable ($KMO = 0.717$). The results of the factor analysis showed that there were two factors with an initial eigenvalue higher than one. PU2, PU3, PU5 and PU7 had high factor loadings on the first factor, while PU1, PU4 and PU6 had high factor loadings on the second factor (see Table 1). No items had factor loadings higher than 0.30 on both factors.

Contrary to our expectations, the factor analysis yielded not one but two dimensions. Inspection of the factor loadings revealed that all items coded such that high scores indicated high positive uncertainty loaded on the first dimension, while three items loaded on the second dimension. Because of the multidimensionality of the scale, it was decided to use the four items with high factor loadings on Factor 1 to assess positive uncertainty in the main study. This scale had an acceptable internal consistency, $\alpha = .87$. The three reverse-coded items were dropped in the main study.

Factor 1 reflects items pertaining to pleasure, activation and curiosity (related to positive uncertainty), whereas Factor 2 reflects items pertaining to risk and aversive uncertainty (related to negative uncertainty). In line with Wilson et al. (2005) and Lee and Qiu (2009), we argue that positive and negative uncertainties are theoretically distinct and we thus chose to retain the four items with high factor loadings on Factor 1 to assess positive uncertainty. The four items comprising Factor 1 had an internal consistency of Cronbach's $\alpha = 0.87$. If including all seven items in the positive uncertainty scale, with all items coded such that high scores indicated high positive uncertainty, the internal consistency would drop to $\alpha = 0.56$. In other words, the items reflecting Factor 2 likely represent a different theoretical concept (negative uncertainty), and were therefore dropped in the main study.

Main study: design and participants

The study employed a 2 (future-frame vs. present-frame) \times 2 (product type: high-involvement vs. low-involvement) \times 2 (country: United States vs. Japan) design. In total, 899 participants (United States: $n = 446$; Japan: $n = 453$) were recruited through a commercially available online consumer panel. Participants' ages ranged from 18 to 86 years, with a mean age of 44.7 ($SD = 14.5$). The sample consisted of 52.5% men and 47.5% women. We

randomly assigned the participants in each country to the four experimental conditions. Cell sizes were approximately equal ($n_{\text{future/high-involvement/USA}} = 100$; $n_{\text{present/high-involvement/USA}} = 118$; $n_{\text{future/low-involvement/USA}} = 123$; $n_{\text{present/low-involvement/USA}} = 105$; $n_{\text{future/high-involvement/Japan}} = 106$; $n_{\text{present/high-involvement/Japan}} = 114$; $n_{\text{future/low-involvement/Japan}} = 116$; $n_{\text{present/low-involvement/USA}} = 117$).

No differences existed between the eight groups in terms of gender ($\chi^2(7) = 7.75, p = 0.36$), age ($F(7, 891) = 0.59, p = 0.77$), education ($F(7, 891) = 0.71, p = 0.66$) and income ($F(7, 811) = 0.81, p = 0.58$). The participants received an incentive for their participation, which consisted of 'points' that could be collected and exchanged for gifts. The number of points awarded for participation corresponded to €1.

Procedure

A short questionnaire first assessed age, gender, education and income. The participants were then exposed to the advertisement, which was either future-framed or present-framed and included either a high-involvement product or a low-involvement product. After this, a questionnaire assessed attitudes toward the ad, the brand and product as the main outcome measures of the study. We also measured positive uncertainty as a potential mediator. After taking part in the study, participants were asked whether they could guess the true purpose of the study, but none gave the correct answer.

Measurements

We measured *attitudes toward the ad* with six items (good/bad, pleasant/unpleasant, favorable/unfavorable, convincing/unconvincing, believable/unbelievable and biased/unbiased) on 7-point semantic differential scales (Cronbach's $\alpha = 0.86$) (Dahlén, Thorbjørnsen, and Sjodin 2011). To assess *brand attitude*, participants indicated whether they were *interested* in the brand, *wanted to try* the brand's products, *wanted to buy* the brand's products, thought the brand was of *high quality*, thought the brand was a *good brand* and thought the brand was *better than the average brand*, on 7-point Likert scales (1 = strongly disagree; 7 = strongly agree) ($\alpha = 0.90$) (Dahlén, Thorbjørnsen, and Sjodin 2011). We assessed *product attitude* with the same six items, only directed at the product instead of the brand ($\alpha = 0.90$) (Dahlén, Thorbjørnsen, and Sjodin 2011). To assess *positive uncertainty*, we used the same four-item scale as in the pretest ($\alpha = 0.70$).

Data analysis

To test the effects on positive uncertainty (H1), we ran an analysis of variance (ANOVA) with future- versus present-framed advertising, type of product and country as between-subject factors. To assess the effects of our independent variables on ad attitude, brand attitude and product attitude (H2–H4), we conducted a multivariate analysis of variance (MANOVA) with these variables as dependent variables and future- versus present-framed advertising, type of product and country as independent variables. In all analyses, all main effects, all two-way interactions and the three-way interactions served as the independent variables. Finally, we performed additional mediation analyses to investigate whether perceived positive uncertainty mediated the effects of future- versus present-framed

advertising and product type on ad attitude, brand attitude and product attitude, using a regression analysis procedure in five steps.

Results

Positive uncertainty

The results of the three-way ANOVA testing H1 showed a greater main effect of future-framed ($M_{\text{future}} = 4.06$) than present-framed ($M_{\text{present}} = 3.86$) advertising on positive uncertainty, $F(1, 891) = 7.12, p < 0.01, \eta_p^2 = .01$, thus corroborating H1. However, this main effect of future-framed advertising was qualified by an interaction between future-versus present-framed advertising and product type, $F(1, 891) = 6.12, p = 0.01, \eta_p^2 = .01$. Simple-effect analyses showed that future-framed advertising resulted in significantly more positive uncertainty than present-framed advertising in the high-involvement product category; $M_{\text{future}} = 4.18, M_{\text{present}} = 3.80; F(1, 459) = 12.08, p = 0.001, \eta_p^2 = .03$, but not in the low-involvement product category; $M_{\text{future}} = 3.93, M_{\text{present}} = 3.91; F(1, 459) = 0.04, p = 0.84, \eta_p^2 = .00$. Country did not moderate the effect of future-framed advertising; $F(1, 891) = 0.37, p = 0.55, \eta_p^2 = .00$, nor was there a significant three-way interaction among future-framed advertising, product type and country, $F(1, 891) = 0.29, p = 0.59, \eta_p^2 = .01$.

Attitude toward the ad, brand and product

To test H2–H4, we performed a MANOVA with future- versus present-framed advertising, country and product type as the independent variables and three types of attitude as the dependent variables. The results showed that future- versus present-framed advertising did not have a significant effect on the three attitudes, $F(3, 886) = 1.18, p = 0.32, \eta_p^2 = .00$. Thus, H2, which predicted that future-framed advertising would result in more positive attitudes than present-framed advertising, was rejected.

For H3, however, the results showed a significant interaction between future- versus present-framed advertising and product type, $F(3, 886) = 4.20, p > 0.01$. Closer inspection of this interaction, which was significant for ad attitude, $F(1, 888) = 18.27, p = 0.001, \eta_p^2 = .01$, and brand attitude; $F(1, 888) = 5.52, p = 0.04, \eta_p^2 = .01$, but not for product attitude; $F(1, 888) = 5.03, p = 0.08, \eta_p^2 = .00$, revealed that future-framed advertising resulted in more positive ad attitudes, but only for high-involvement products; $M_{\text{future}} = 4.64, M_{\text{present}} = 4.31; F(1, 436) = 7.11, p < 0.01, \eta_p^2 = .01$. Hence, H3 received empirical support. In the low-involvement product category, the findings indicated that future-framed advertising resulted in more *negative* ad attitudes than present-framed advertising, though this latter effect failed to reach statistical significance, $M_{\text{future}} = 4.60, M_{\text{present}} = 4.82; F(1, 459) = 3.64, p = 0.06, \eta_p^2 = .01$. For brand attitude, future-framed advertising resulted in significantly more positive brand attitudes than present-framed advertising in the high-involvement product category; $M_{\text{future}} = 4.47, M_{\text{present}} = 4.25; F(1, 436) = 4.29, p = 0.04, \eta_p^2 = .01$, but not in the low-involvement product category; $M_{\text{future}} = 4.48, M_{\text{present}} = 4.56; F(1, 459) = 0.62, p = 0.43, \eta_p^2 = .00$. For product attitude, simple-effect analyses showed that future-framed advertising resulted in significantly more positive product attitudes than present-framed advertising in the high-involvement product category; $M_{\text{future}} = 4.52, M_{\text{present}} =$

4.25; $F(1, 435) = 5.21, p = 0.02, \eta_p^2 = .01$, but not in the low-involvement product category; $M_{\text{future}} = 4.53, M_{\text{present}} = 4.55; F(1, 457) = 0.03, p = 0.88, \eta_p^2 = .00$.

Finally, the results of the MANOVA showed that country did not significantly moderate the effect of future- versus present-framed advertising, $F(3, 886) = 0.68, p = 0.57, \eta_p^2 = .00$. Thus, we found no evidence in support of H4.

Mediation analyses

First, we performed a linear regression analysis with future- versus present-framed advertising (0 = present; 1 = future), product type (0 = low-involvement; 1 = high-involvement) and the interaction between these two variables as the independent variables and positive uncertainty as the dependent variable. In line with the previous results, the results of the regression analysis revealed that the interaction between future- versus present-framed advertising and product type had a significant effect on positive uncertainty, $B = .36, \beta = .14, t(895) = 2.43, p = .02$ (see Table 2). Second, we also performed this analysis for ad attitude, brand attitude and product attitude. Also in line with the previous results, there was a significant interaction for ad attitude and brand attitude, but not for product attitude.

In a next step, we regressed ad attitude on future- versus present-framed advertising, product type, the interaction between future- versus present-framed advertising and product type, and positive uncertainty. The results showed that positive uncertainty had a significant effect on ad attitude, $B = .51, \beta = 0.44, t(894) = 14.86, p < 0.001$, and that the effect of the interaction between future- versus present-framed advertising and product type was somewhat diminished (see Table 2). In addition, we calculated the indirect effect of future- versus present-framing on ad attitude, mediated by positive uncertainty, for both the high-involvement and the low-involvement product, using Model 8 in Hayes' (2012) PROCESS macro for SPSS. The indirect effect is calculated by multiplying the effect of the independent variable on the mediator (a) with the effect of the mediator on the dependent variable (b). For the high-involvement product, the indirect effect of future- versus present-framing was significant, $b_{\text{high-involvement}} = .19$, bootstrapped 95% confidence interval (CI) [0.09–0.33], suggesting mediation. For the low-involvement product, however, the indirect effect of future- versus present-framing was not significant, $b_{\text{low-involvement}} = .01$, bootstrapped 95% CI [–0.09–0.11]. The difference between these two effects was significant, suggesting moderated mediation, $b_{\text{difference}} = .18$, bootstrapped 95% CI [0.03–0.34].

Next, we repeated these steps with brand attitude as the dependent variable. As can be seen in Table 2, the interaction between future- versus present-framing and product type had a significant effect on brand attitude, but this significant effect disappeared when positive uncertainty was entered in the analysis. In this analysis, positive uncertainty itself

Table 2. Standardized regression weights for the mediation analyses.

	Positive uncertainty	Ad attitude	Brand attitude	Product attitude			
Future versus present	0.01	–0.09	–0.09 [*]	–0.04	–0.04	–0.01	–0.01
Product type	–0.05	–0.20 [*]	–0.18 [*]	–0.14 [*]	–0.11 [*]	–0.12 [*]	–0.09
Future × product	0.14 [*]	0.18 [*]	0.12 [*]	0.11 [*]	0.04	0.10	0.02
Positive uncertainty	–	–	0.44 [*]	–	0.54 [*]	–	0.54 [*]

^{*} $p < 0.05$.

had a significant effect on brand attitude, $B = .55$, $\beta = 0.54$, $t(894) = 19.12$, $p < 0.001$. For the high-involvement product, the indirect effect of future- versus present-framing was significant, $b_{\text{high-involvement}} = .21$, bootstrapped 95% CI [0.10–0.33], suggesting mediation. For the low-involvement product, however, the indirect effect of future- versus present-framing was not significant, $b_{\text{low-involvement}} = .01$, bootstrapped 95% CI [–0.10–0.12]. The difference between these two effects was significant, suggesting moderated mediation, $b_{\text{difference}} = .20$, bootstrapped 95% CI [0.03–0.36].

Finally, we repeated these steps with product attitude as the dependent variable. As can be seen in Table 2, the interaction between future- versus present-framing and product type did not have a significant effect on product attitude. When positive uncertainty was entered into the analysis, it had a significant effect on product attitude, $B = .61$, $\beta = 0.54$, $t(891) = 18.98$, $p < 0.001$. For the high-involvement product, the indirect effect of future- versus present-framing was significant, $b_{\text{high-involvement}} = .23$, bootstrapped 95% CI [0.12–0.37], suggesting mediation. For the low-involvement product, however, the indirect effect of future- versus present-framing was not significant, $b_{\text{low-involvement}} = .01$, bootstrapped 95% CI [–0.11–0.12]. The difference between these two effects was significant, suggesting moderated mediation, $b_{\text{difference}} = .22$, bootstrapped 95% CI [0.05–0.39]. Based on these analyses, it seems that future- versus present-framing affected ad attitude, brand attitude and product attitude, but that these effects were moderated by product type and mediated by positive uncertainty, as shown by the significant differences between the indirect effects in the high-involvement product condition as compared to the low-involvement product condition.

Discussion

Building on consumer behavior literature, this study investigated whether positive uncertainty in future-framed advertisements generates positive attitudes toward these advertisements, the advertised brand and the product. Adding to the external validity of the study, we used a large non-student sample from two countries. Findings showed that regardless of country, future-framed ads yielded more positive uncertainty and more positive attitudes toward the ad, the brand and the product for high-involvement products, but not for low-involvement products.

Thus, we demonstrated that contemplating forthcoming products yields more uncertainty than contemplating presently available products. We found that future-framed ads promoting products that are available in the near future can elicit more positive uncertainty than present-framed ads promoting presently available products. However, the hypothesis that consumers would positively evaluate uncertainty in an advertising context because their experiences with (forthcoming) products are all favorable (Lee and Qiu 2009) did not hold for low-involvement products. These products likely carry fewer opportunities to imagine benefits and thus have limited potential for an evaluative boost of positive uncertainty.

Country did not moderate the effect of future- versus present-framed ads. The differences between Eastern and Western consumers in terms of uncertainty avoidance did not materialize into differences in perceived positive uncertainty or in differences in the effects of positive uncertainty on attitude toward the ad, attitude toward the brand and attitude toward the product, rendering future-framed ads as equally effective. An open

question remains as to whether this is because uncertainty avoidance is less important and relevant when uncertainty is positively (versus negatively) framed, or whether the lack of cross-cultural differences can be related to the specific context of future-framed advertising.

Our study has several limitations. First, in line with previous studies, we assumed that American and Japanese citizens had different levels of uncertainty avoidance. However, we did not actually measure this variable as a personality trait in the study. Second, the operationalization of product type (high-involvement vs. low-involvement) into two products (automotive and water, respectively) does not allow for generalization beyond the products tested in this study. Using other product combinations of the Rossiter–Percy grid (Rossiter, Percy, and Donovan 1991) and different types of products and services would be worthwhile. Third, we did not control for different timing of pre-announcements in the future-frame condition. Further research might try to determine the optimal timing between the pre-announcement and the actual availability of the product. It seems obvious that the time lag (in this study, three months) should not be too long, because consumers might lose interest if a product's availability lies too far in the future. Fourth, we have developed and applied a new scale to measure positive uncertainty. Although we tested the scale in a student sample, future research should further investigate the validity of this new scale and its relationship to related concepts. Finally, although statistically significant, the differences between conditions in the current study were rather small, considering the effect sizes. However, previous studies also have found various positive effects of future-framed advertising (Dahlen, Thorbjornsen, and Sjodin 2011; Thorbjornsen, Dahlén, and Lee 2016), providing further support for our conclusions.

Taking into account these limitations, this study fills a gap in the literature regarding the effects of positive uncertainty in an advertising context. The current study builds on consumer psychology literature to discuss how future-framed advertising may trigger positive uncertainty, generating positive attitudes toward the ad, brand and product. The concept of positive uncertainty in marketing is relatively new (Wilson et al. 2005; Lee and Qiu 2009). The current study shows how positive uncertainty may relate to, and underlie, the previously documented positive effects of product pre-announcements studied through the theoretical lens of CLT (Thorbjornsen, Dahlén, and Lee 2016), optimism bias and affective forecasting (Dahlen, Thorbjornsen, and Sjodin 2011). When CLT posits that increased temporal distance leads consumers to focus on desirability and allows them to speculate and dream about the (forthcoming) product, this is likely closely linked to the concept of positive uncertainty. The current study also discusses how the success of future-oriented advertising depends on the type of product (high- versus low-involving) and countries with greater or lesser uncertainty avoidance.

The concept of positive uncertainty seems robust, as we found that positive uncertainty mediated the effectiveness of future-framed ads. Thus, future-framed ads are effective tools to elicit positive uncertainty.

The study results have important implications for advertising because they show that positive uncertainty is an important mechanism that makes certain products and services more appealing in the eyes of consumers. The effect seems robust even across countries with large variation in uncertainty avoidance. Although future-framed advertising appears to be a fruitful cross-cultural advertising technique, at least for the countries involved in this study, the success of such future-oriented advertising is likely to be contingent on the

type of product. For example, Ford's pre-announcements of forthcoming products are likely to have a stronger and more enduring effect on attitude toward the ad, attitude toward the brand and attitude toward the product than a pre-announcement by a producer of spa sparkling water. Advertisers should take this into account when considering to use a future-framing strategy.

Disclosure statement

No potential conflict of interest was reported by the authors.

References

- Baek, T.H., and K.W. King. 2015. When comparative valence frame affects brand extension evaluations: The moderating role of parent-extension fit. *International Journal of Advertising* 34, no. 2: 382–401.
- Bar-Anan, Y., T.D. Wilson, and D.T. Gilbert. 2009. The feeling of uncertainty intensifies affective reactions. *Emotion* 9: 123–7.
- Berns, G.S., S.M. McClure, G. Pagnoni, and P.R. Montague. 2001. Predictability modulates human brain response to reward. *Journal of Neuroscience* 21, no. 8: 2793–98.
- Chang, C.T. 2012. Missing ingredients in cause-related advertising: The right formula of execution style and cause framing. *International Journal of Advertising* 31, no. 2: 231–56.
- Chang, H., L. Zhang, and G.X. Xie. 2015. Message framing in green advertising: The effect of construal level and consumer environmental concern. *International Journal of Advertising* 34, no. 1: 158–76.
- Cho, C.H., and H.J. Cheon. 2004. Why do people avoid advertising on the Internet? *Journal of Advertising* 33, no. 4: 89–97.
- Choi, I., R. Dalal, C. Kim-Prieto, and H. Park. 2003. Culture and judgement of causal relevance. *Journal of Personality and Social Psychology* 84, no. 1: 46–59.
- Dahlén, M., H. Thorbjørnsen, and H. Sjödin. 2011. A taste of "Nextopia". *Journal of Advertising* 40: 33–44.
- De Mooij, M. 2010. The Hofstede model. *International Journal of Advertising* 29, no. 1: 85–110.
- Dibben, N. 2004. The role of peripheral feedback in emotional experience with music. *Music Perception* 22: 79–116.
- Erdem, T., J. Swait, and A. Valenzuela. 2006. Brands as signals: A cross-country validation study. *Journal of Marketing* 70, no. 1: 34–49.
- Hayes, A.F. 2012. PROCESS: A versatile computational tool for observed variable mediation, moderation, and conditional process modeling [White paper]. <http://www.afhayes.com/public/process2012.pdf>
- Hofstede, G. 1980. *Culture's consequences: International differences in work-related values*. Beverly Hills, CA: Sage.
- Kurtz, J.L., T.D. Wilson, and D.T. Gilbert. 2007. Quantity versus uncertainty: When winning one prize is better than winning two. *Journal of Experimental Social Psychology* 43: 979–85.
- Lam, K.C., R. Buehler, C. McFarland, M. Ross, and I. Cheung. 2005. Cultural differences in affective forecasting: The role of focalism. *Personality and Social Psychology Bulletin* 31, no. 9: 1296–309.
- Laran, J., and M. Tsiros. 2013. An investigation of the effectiveness of uncertainty in marketing promotions involving free gifts. *Journal of Marketing* 77, no. 2: 112–23.
- Lee, Y.H., and C. Qiu. 2009. When uncertainty brings pleasure: The role of prospect imageability and mental imagery. *Journal of Consumer Research* 36: 624–35.
- Lin, H.F., and F. Shen. 2012. Regulatory focus and attribute framing: Evidence of compatibility effects in advertising. *International Journal of Advertising* 31, no. 1: 169–88.
- Loewenstein, G., T. O'Donoghue, and M. Rabin. 2003. Projection bias in predicting future utility. *Quarterly Journal of Economics* 118, no. 4: 1209–48.

- Lord, K.R., S. Putrevu, and Y.Z. Shi. 2008. Cultural influences on cross-border vacationing. *Journal of Business Research* 61: 183–90.
- Money, R.B., and J.C. Crotts. 2003. The effect of uncertainty avoidance on information search, planning, and purchases of international travel vacations. *Tourism Management* 24: 191–202.
- Rossiter, J.R., L. Percy, and R.J. Donovan. 1991. A better advertising planning grid. *Journal of Advertising Research* 31: 11–21.
- Schultz, W., P. Dayan, and P.R. Montague. 1997. A neural substrate of prediction and reward. *Science* 275, no. 5306: 1593–99.
- Singh, S. 2006. Cultural differences in, and influences on, consumers' propensity to adopt innovations. *International Marketing Review* 23: 173–91.
- Thorbjørnsen, H., M. Dahlén, and Y.H. Lee. 2015. The effect of new product preannouncements on the evaluation of other brand products. *Journal of Product Innovation Management* 33, no. 3: 342–55.
- Thorbjørnsen, H., P.E. Ketelaar, J. Van't Riet, and M. Dahlén. 2015. How do teaser advertisements boost Word of Mouth about new products? *Journal of Advertising Research* 55, no. 1: 73–80.
- Townsend, J.D., S.T. Cavusgil, and R.J. Calantone. 2012. Building market-based assets in a globally competitive market: A longitudinal study of automotive brands. *Advances in International Marketing Issues* 23: 3–37.
- Urbany, J.E., P.R. Dickson, and W.L. Wilkie. 1989. Buyer uncertainty and information search. *Journal of Consumer Research* 16 (September): 208–15.
- Vishwanath, A. 2003. Comparing online information effects: A cross-cultural comparison of online information and uncertainty avoidance. *Communication Research* 30: 579–600.
- Weinberg, B.D. 2001. Research in exploring the online consumer experience. In *Advances in consumer research*, ed. S. Broniarczyk and K. Nakamoto, 227–232, Vol. 28. Valdosta, GA: Association for Consumer Research.
- Wilson, T.D., D.B. Centerbar, D.A. Kermer, and D.T. Gilbert. 2005. The pleasures of uncertainty: Prolonging positive moods in ways people do not anticipate. *Journal of Personality and Social Psychology* 88: 5–21.
- Yoo, B., N. Donthu, and S. Lee. 2000. An examination of selected marketing mix elements and brand equity. *Journal of the Academy of Marketing Science* 28, no. 2: 195–211.
- Yoon, C. 2009. The effects of national culture values on consumer acceptance of e-commerce: Online shoppers in China. *Information & Management* 46: 294–301.