

Make Your Publications Visible.

A Service of



Leibniz-Informationszentrum Wirtschaft Leibniz Information Centre

Hüttl-Maack, Verena; Sedghi, Tara M.; Daume, Jana M.

Article — Published Version

Through rose-tinted glasses: How inducing and resolving curiosity makes consumers less skeptical and improves their product evaluations

Journal of Consumer Psychology

Provided in Cooperation with:

John Wiley & Sons

Suggested Citation: Hüttl-Maack, Verena; Sedghi, Tara M.; Daume, Jana M. (2023): Through rose-tinted glasses: How inducing and resolving curiosity makes consumers less skeptical and improves their product evaluations, Journal of Consumer Psychology, ISSN 1532-7663, Wiley, Hoboken, NJ, Vol. 34, Iss. 1, pp. 92-100, https://doi.org/10.1002/jcpy.1369

This Version is available at: https://hdl.handle.net/10419/288153

Standard-Nutzungsbedingungen:

Die Dokumente auf EconStor dürfen zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden.

Sie dürfen die Dokumente nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, öffentlich zugänglich machen, vertreiben oder anderweitig nutzen.

Sofern die Verfasser die Dokumente unter Open-Content-Lizenzen (insbesondere CC-Lizenzen) zur Verfügung gestellt haben sollten, gelten abweichend von diesen Nutzungsbedingungen die in der dort genannten Lizenz gewährten Nutzungsrechte.

Terms of use:

Documents in EconStor may be saved and copied for your personal and scholarly purposes.

You are not to copy documents for public or commercial purposes, to exhibit the documents publicly, to make them publicly available on the internet, or to distribute or otherwise use the documents in public.

If the documents have been made available under an Open Content Licence (especially Creative Commons Licences), you may exercise further usage rights as specified in the indicated licence.



ND http://creativecommons.org/licenses/by-nc-nd/4.0/



RESEARCH REPORT



Through rose-tinted glasses: How inducing and resolving curiosity makes consumers less skeptical and improves their product evaluations

Verena Hüttl-Maack 👨 | Tara M. Sedghi 👨 | Jana M. Daume 👨

Department of Marketing and Management, University of Hohenheim, Stuttgart, Germany

Correspondence

Verena Hüttl-Maack, Department of Marketing and Management, University of Hohenheim, Fruwirthstrasse 32, 70599 Stuttgart, Germany.

Email: verena.huettl@uni-hohenheim.de

Abstract

Research indicates that in general, curiosity leads to more intense processing of an advertisement, which might result in a more skeptical response toward a persuasive message. However, we propose the opposite and argue that a process of evoking curiosity toward a stimulus in the first step (with the creation of an information gap) and resolving it in the second step creates a positive affective experience. Upon receiving curiosity-resolving information after becoming curious, consumers are less skeptical toward the advertised product, which leads to a more favorable attitude and a higher purchase intention. Based on four studies, we demonstrate curiosity's skepticism-reducing effect, its downstream consequences, and the underlying mechanism of positive affect. We show that this curiosity-stimulating way of information disclosure caused the effect instead of the information itself, which remained constant. The effects occur for integral curiosity, directed at the focal product, and for incidental curiosity, elicited by an unrelated stimulus. These results contribute to understanding consumer responses to curiosity-evoking advertisements, which are widespread, and provide implications for consumer psychologists, practitioners, and policy makers.

KEYWORDS

advertising, consumer skepticism, curiosity, persuasion, positive affect

INTRODUCTION

As the market for consumers' attention "has become so competitive that attention can be regarded as a currency" (Teixeira, 2014, p. 1), evoking consumers' interests and curiosity seems more important than ever before. Examples demonstrating this importance range from messages on smartphones that consumers can either consider or swipe away to YouTube commercials, where they decide how long they want to watch. From a firm's perspective, once the attention has been caught, the primary goal is to convey the actual advertising message.

Regarding the first step of gaining attention, the research results are fairly clear: curiosity-evoking stimuli increase attention (e.g., Isikman et al., 2016; Loewenstein, 1994). Regarding the second step of conveying the message, consumers in a curious state may be more alert and skeptical toward the persuasion attempt due to more intense elaboration as a reaction toward curiosity-triggering stimuli (Marvin & Shohamy, 2016; Menon & Soman, 2002). Ultimately, any increased skepticism might negatively affect a consumer's evaluation of the advertised product (Campbell, 1995).

Parts of these findings were presented at the Association for Consumer Research (ACR) Conference in 2019 in Atlanta and the European Marketing Academy Conference (EMAC) in 2019 in Hamburg, Germany.

Accepted by Thomas Kramer, Editor; Associate Editor, Darren Dahl

This is an open access article under the terms of the Creative Commons Attribution-NonCommercial-NoDerivs License, which permits use and distribution in any medium, provided the original work is properly cited, the use is non-commercial and no modifications or adaptations are made. © 2023 The Authors. Journal of Consumer Psychology published by Wiley Periodicals LLC on behalf of Society for Consumer Psychology.



The present research refutes this assumption and shows the opposite. We theorize that consumers experience a state of positive affect after resolving situationally induced curiosity. This affective state impacts subsequent consumer judgments in such a way that they become less skeptical and consequently form a more positive overall evaluation of what is advertised.

The major goal of this research was to determine the effect of reduced situational skepticism toward the advertised object as a consequence of resolving curiosity. Situational curiosity can be defined as a state of cognitive deprivation arising from a gap between what one knows and what one wants to know (Loewenstein, 1994). Associated with this is the desire for the missing information and, consequently, the resolution of curiosity (Berlyne, 1954; Hsee & Ruan, 2016; Litman, 2005). Situational skepticism is a conditional tendency toward disbelief about advertising claims or arguments (Ford et al., 1990; Kirmani & Zhu, 2007).

Our findings show that reduced levels of skepticism contribute to a more favorable evaluative response. In our studies, we induced curiosity by creating an information gap (first step) and, consequently, resolving it (second step). Interestingly, even though the consumers ultimately received exactly the same information in the second step of this procedure, the fact that it was gradually (instead of immediately) revealed made them less skeptical. We applied both a curiosity-inducing procedure where the information gap concerned the advertised product as the target object of the evaluation (Studies 1 and 3) and a procedure that decoupled the curiosity-evoking stimulus from the attitude object by using an unrelated word puzzle (Studies 2 and 4). The effect occurred for both curiosity-inducing procedures, suggesting an underlying process that is not necessarily object specific and may spill over to another object, as has been described for affective reactions (Gorn et al., 1993; Schwarz, 1990). In Studies 3 and 4, we demonstrated the increase in positive affect as the underlying process.

Prior studies have shown that experiencing and resolving curiosity lead to positive affective reactions (e.g., Hill et al., 2016; Ruan et al., 2018). Our work extends these findings and establishes a link to a reduction of skepticism in an advertising context. It also highlights the universal nature of this effect, occurring not only for the object-specific form of integral curiosity but also for incidental curiosity elicited by an unrelated incident or stimulus. This provides new implications for advertising design and the placement of ads within other media content. Especially for incidental curiosity, its effect on subsequent evaluations has only been described for curiosity-evoking interruptions of ongoing activities (Isikman et al., 2016) or with regard to the consequence of general reward-seeking behavior (Wang & Huang, 2018).

This paper contributes to the research on curiosity by identifying reduced skepticism as a new mediator of the positive effect of resolving situational curiosity on the evaluation of products presented in advertisements. In addition, it attributes the reduction of skepticism to a positive affective experience. It also enriches the research on consumer skepticism toward persuasion attempts. Despite the potentially more thorough processing of information as a consequence of curiosity, the induced positive affect after its resolution shifts the evaluation to a more positive assessment.

THEORETICAL BACKGROUND

As mentioned, situational curiosity is typically triggered by an information gap (Loewenstein, 1994) and associated with a desire to close it (Hsee & Ruan, 2016). It is distinct from chronic curiosity, which represents an innate trait (Kashdan & Silvia, 2009). Situational curiosity can be related to a focal activity (i.e., processing an ad), which is referred to as integral curiosity. It can also be evoked by an event unrelated to a focal task, such as a ringing phone while reading a message, which is termed incidental curiosity (Isikman et al., 2016). Individuals in a state of curiosity strive for its resolution (Menon & Soman, 2002; Van Dijk & Zeelenberg, 2007), even if they expect the outcome to be negative (Hsee & Ruan, 2016).

Importantly, situational curiosity is associated with affective reactions. The exploratory process elicited by curiosity is intrinsically rewarding and can induce positive feelings (Litman, 2005; Sun et al., 2015). While experiencing curiosity is affectively more ambiguous, bearing the potential to elicit both positive and negative feelings (e.g., Berlyne, 1954, 1960; Litman & Jimerson, 2004; Loewenstein, 1994), its resolution creates a positive affective reaction (Hill et al., 2016; Lee & Qiu, 2009; Ruan et al., 2018). Obtaining the desired information elicits a pleasurable feeling, also described as a sense of joyful relief, while the state of cognitive deprivation is satisfied (Hsee & Ruan, 2020); thereby, the curiosity-satisfying information functions as a reward (e.g., Berlyne, 1954; Kang et al., 2009). Taking these considerations together, creating a situation in which curiosity is induced and resolved is likely to result in a net positive affective reaction, given that no severely negative outcomes are expected, such as in an advertising contact (Lee & Qiu, 2009).

Affective states typically exert affect-congruent influences on thinking, memory, and judgments and can also influence information processing strategies (e.g., Bless & Fiedler, 2006; Forgas, 2002). The reported effects range from judgments about other individuals (e.g., Forgas, 1994) to the processing of persuasive communication (e.g., Hullett, 2005). Of specific interest for our research questions is the finding that being in a positive affective state can make people less skeptical and decrease their ability to detect deception

(Forgas & East, 2008). For example, when people make judgments about the veracity of another, negative affect causes a more critical evaluation, while a positive mood leads to more benign judgments and reduced suspicion (Forgas, 1999, 2002). In the context of advergames, positive (vs. negative) affect leads to lower levels of persuasion knowledge under certain conditions (van Reijmersdal et al., 2015).

An informational influence is a prominent explanation of these effects, describing a direct influence on judgments in an affect-consistent way. Affect-cognition theories assume that information associatively linked to the current mood state is selectively primed (Bower, 1981; Forgas, 1995; Forgas & East, 2008). Similarly, the affect-as-information model argues that individuals interpret their current affective states as information about the situation (Schwarz, 1990; Schwarz & Clore, 1983).

Taking these considerations together, we predict that inducing and resolving curiosity during an advertising exposure reduces consumers' skepticism toward an advertising message, resulting in improved product attitudes and higher purchase intentions. We expect this skepticism-reducing effect to be mediated by positive affect. We present four studies that examine our predictions. First, we show the skepticism-reducing effect in a real-life context using advertisements to induce curiosity about a product (Study 1). In Study 2, we demonstrate the more general nature of the effect by inducing curiosity with missing-letter words unrelated to the target product. Study 3 identifies positive affect as the underlying mechanism for the skepticism-reducing effect, while eliciting product-related curiosity. Finally, Study 4 replicates the effects using missing-letter words and shows serial mediation via affect and skepticism on attitude toward the product.

STUDY 1

Study 1 provides the first correlational evidence for the mediating role of reduced skepticism and its effects on product attitudes and purchase intentions within a real-life setting (i.e., a product promotion of a cosmetics company).

Methods

We surveyed a single sample group of 283 customers $(M_{\rm age}=50.39,~{\rm SD}=12.28;~97.9\%$ female) by including an invitation to our online survey in the company's email newsletter. We applied an established curiosity-inducing procedure by first creating an information gap and subsequently resolving it (e.g., Menon & Soman, 2002). In the first step, a teaser ad promoted a gift box containing several cosmetic products. However, the participants could not identify the products exactly because the picture of

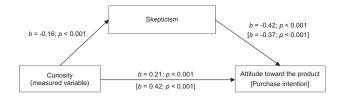


FIGURE 1 Mediation results of Study 1. *Note*: PROCESS (Model 4), bootstrapping (5,000 samples); coefficients in square brackets represent the results on purchase intention.

the bottles and jars contained in the box was intentionally too small to read the details on the labels. These details were revealed in the second step by a follow-up ad that specified the exact contents. After exposure to the first ad, the participants reported their curiosity by their level of agreement with the statement "This advertisement makes me curious" (Hsee & Ruan, 2016; Lee & Qiu, 2009; M=4.62, SD=1.92). After the second ad provided the full information, they indicated their attitude toward the product (two items, "appealing" and "good"; r = 0.53; M = 5.72, SD=1.21), purchase intention (single item; M=5.05, SD=1.84), and skepticism (three items, "deceptive," "not truthful," and "unbelievable," $\alpha = 0.89$; Kirmani & Zhu, 2007; M=1.73, SD=1.14). All scales used in this and the subsequent studies were seven-point scales, unless otherwise indicated. Further details on all study procedures are reported in the Methodological Detail Appendix (MDA).

Results

Mediation models (PROCESS, Hayes, 2018; see Figure 1) showed that higher curiosity led to lower consumer skepticism (b=-0.16, t=-4.82, p<0.001), a more positive attitude (b=0.21, t=6.77, p<0.001), and a higher purchase intention (b=0.42, t=-8.47, p<0.001). Moreover, they found evidence for the expected indirect effect of curiosity via skepticism on attitude (IE=0.07, SE=0.02, CI_{95%}=[0.03, 0.11]) and purchase intention (IE=0.06, SE=0.02, CI_{95%}=[0.02, 0.11]).

Discussion

These results provide preliminary evidence that inducing curiosity reduces consumers' skepticism. Decreased skepticism mediates curiosity's positive effect on the dependent variables.

STUDY 2

Study 2 aimed to test the skepticism-reducing effect and its downstream consequences by experimentally varying the levels of induced curiosity. We used an



established curiosity-inducing procedure (i.e., missingletter words) that allowed verification of whether the effect persists when the elicited curiosity is unrelated to the advertised product.

Methods

The study followed a two-cell between-subjects design (curiosity: low and high). A sample of 230 students $(M_{age} = 24.80, SD = 2.45; 61.7\%$ female) acquired in university classes and via student social networks were surveyed online and randomly assigned to a condition. We again used a stepwise procedure but induced curiosity by displaying missing-letter words (Ruan et al., 2018). In the first step of the high-curiosity condition, participants read, "Which search queries were entered most frequently on Google in 2020? Find out now!" followed by five incomplete missing-letter words (e.g., "_I S_ _Y __U_"). In the low-curiosity condition, the words were presented in full (e.g., "DISNEY PLUS"). In the second step, an ad for a cultured yogurt drink was shown in all conditions. In the high-curiosity condition, the solutions for the missing-letter words were provided on the same survey page. Curiosity was measured after the first step, when the search queries were presented ("the words depicted made me curious"). Attitude toward the product (r=0.84), purchase intention, and skepticism ($\alpha=0.89$) were assessed after presenting the ad using the same measures as in Study 1.

Results

The manipulation of curiosity worked as intended $[M_{\rm low}=3.91,~{\rm SD}=1.55;~M_{\rm high}=5.03,~{\rm SD}=1.73,~F(1,228)=26.76,~p<0.001;~\eta^2=0.11].$ Skepticism was significantly lower in the high-curiosity condition compared to the low-curiosity condition $[M_{\rm low}=4.55,~{\rm SD}=1.36;~M_{\rm high}=4.06,~{\rm SD}=1.62,~F(1,228)=6.17,~p=0.01;~\eta^2=0.03],$ and attitude $[M_{\rm low}=3.91,~{\rm SD}=1.38;~M_{\rm high}=4.36,~{\rm SD}=1.45,~F(1,228)=5.97,~p=0.02;~\eta^2=0.03]$ and purchase intention $[M_{\rm low}=3.28,~{\rm SD}=1.83;~M_{\rm high}=3.95,~{\rm SD}=1.97,~F(1,228)=7.04,~p=0.01;~\eta^2=0.03]$ consistently increased. Mediation models (see Figure 2) revealed an indirect effect of skepticism on attitude (IE = 0.29, SE=0.12,

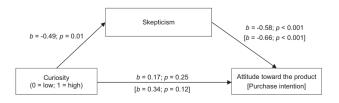


FIGURE 2 Mediation results of Study 2. *Note*: **PROCESS** (Model 4), bootstrapping (5000 samples); coefficients in square brackets represent the results on purchase intention.

 $CI_{95\%}$ =[0.06, 0.52]) and purchase intention (IE=0.32, SE=0.13, $CI_{95\%}$ =[0.06, 0.59]).

Discussion

Study 2 demonstrated the effect of reduced skepticism after exposure to a curiosity-inducing stimulus, which improves attitude and purchase intention toward a subsequently advertised product. The effect holds when the curiosity-evoking object is unrelated to the advertised object. This suggests that the underlying process is not necessarily object specific but can spill over to another object. In the MDA, we report a follow-up study that replicated these findings while separating the presentation of the missing-letter solution and the advertisement. The aim was to rule out potential confounding effects of an attention diversion between the ad and the resolution information.

STUDY 3

The goal of Study 3 was to explore the mechanism behind the effect of curiosity on skepticism, expectedly a positive affective reaction.

Methods

The study followed a two-cell between-subjects design (curiosity: low and high). A sample of 120 respondents $(M_{\rm age} = 24.11, SD = 3.12; 50\%$ female), acquired by a consumer access panel provider in Germany, was surveyed online and randomly assigned to a condition. To induce curiosity in the high-curiosity condition, we applied the stepwise information-disclosing procedure using two consecutive advertisements (see Study 1). The first advertisement showed a brand logo and pictures of potato chip bags. New exotic flavors were advertised but not named. Instead, a word puzzle riddle invited participants to guess the new flavors (e.g., "_a__o" as a hint to the word "mango"). To avoid any perceptual differences caused by the way of information disclosure, we also used a stepwise procedure for the low-curiosity condition; however, the flavors were already displayed in the first step (e.g., "chili & mango"). In the second advertisement, product details, such as ingredients and price, were stated. Importantly, the second advertisement was identical in both conditions.

The measure of curiosity was identical to that of Study 1. Following Ford et al. (1990), we used a more explicit measure of consumer skepticism (two items, e.g., "How skeptical are you about the truth of this information?"; r=0.74). To measure the consumer's affective state, we used a scale that included schematic pictures of five faces (i.e., smileys), which varied from very unhappy to very happy (Shampanier et al., 2007).

Results

Situational curiosity was higher in the high-curiosity condition $[M_{\rm low}=3.85, {\rm SD}=1.77; M_{\rm high}=4.62, {\rm SD}=2.04, F(1, 118)=4.82, p=0.03; \eta^2=0.04]$. A one-way ANOVA showed that the affective state was significantly more positive in the high-curiosity condition compared to the low-curiosity condition $[M_{\rm low}=3.07, {\rm SD}=0.90; M_{\rm high}=3.42, {\rm SD}=0.85, F(1, 118)=4.80, p=0.03; \eta^2=0.04]$. Moreover, curiosity significantly reduced skepticism $[M_{\rm low}=4.20, {\rm SD}=1.58; M_{\rm high}=3.49, {\rm SD}=1.56, F(1, 118)=6.11, p=0.02; \eta^2=0.05]$. A mediation model (see Figure 3) found evidence for the indirect effect of positive affect on skepticism $({\rm IE}=-0.21, {\rm SE}=0.11, {\rm CI}_{95\%}=[-0.43, -0.02])$.

Discussion

By showing that increased positive affect elicited by curiosity leads to a reduction of consumers' skepticism, Study 3 provides process evidence.

STUDY 4

The major goals of Study 4 were to replicate the effects using the curiosity-inducing procedure unrelated to the advertised product (see Study 2) and examine the full process of effects. Moreover, instead of measuring curiosity at the moment it was experienced, we measured it retrospectively after the dependent variables to avoid any artificial highlighting effect (Wang & Huang, 2018).

Methods

A sample of 160 consumers ($M_{\rm age}$ = 38.65, SD = 13.14; 49.4% female) acquired via Prolific were randomly assigned to one of two conditions of a two-cell between-subjects design (curiosity: low and high). In the high-curiosity condition, participants saw five incomplete missing-letter words (most googled terms), for which they received the completed version after a 15-second delay. In the low-curiosity condition, they saw the completed versions at the beginning. On the next page, in both conditions, an identical ad for a healthy frozen pizza was presented. Next, we assessed attitude toward the product ("likable")

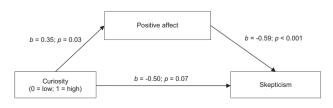


FIGURE 3 Mediation results of Study 3. *Note*: PROCESS (Model 4), bootstrapping (5000 samples).

and "good"; r=0.82), purchase intention (see Studies 1 and 2), and skepticism (see Studies 1 and 2; $\alpha=0.84$). To assess positive affect, we asked respondents to rate how happy and how good they felt at the moment and whether they were having a good time (Ruan et al., 2018; Schwarz & Clore, 1983; $\alpha=0.93$). To check the curiosity manipulation, the next page again depicted the most googled terms used to induce curiosity, either in their missing-letter format (high-curiosity) or in the completed format (low-curiosity). We asked respondents how curious they were when seeing the words at the beginning of the survey using the measure identical to Study 2.

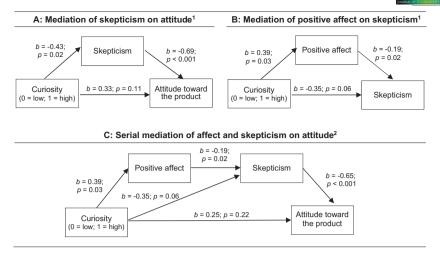
Results

As expected, situational curiosity was higher in the high-curiosity condition $[M_{\rm low}=3.61,~{\rm SD}=1.90;~M_{\rm high}=5.37,~{\rm SD}=1.49,~F(1,~158)=42.71,~p<0.001;~\eta^2=0.21].$ One-way ANOVAs revealed a significantly higher positive affect $[M_{\rm low}=4.99,~{\rm SD}=1.17;~M_{\rm high}=5.38,~{\rm SD}=1.13,~F(1,~158)=4.63,~p=0.03;~\eta^2=0.03]$ and attitude toward the product $[M_{\rm low}=4.56,~{\rm SD}=1.55;~M_{\rm high}=5.19,~{\rm SD}=1.49,~F(1,~158)=6.84,~p=0.01;~\eta^2=0.04]$ in the high-curiosity condition, but significantly lower skepticism $[M_{\rm low}=2.66,~{\rm SD}=1.16;~M_{\rm high}=2.23,~{\rm SD}=1.18,~F(1,~158)=5.36,~p=0.02;~\eta^2=0.03].$ The results for purchase intention were directional but did not differ significantly between the conditions $[M_{\rm low}=3.27,~{\rm SD}=2.06;~M_{\rm high}=3.75,~{\rm SD}=2.07,~F(1,~158)=2.24,~p=0.14;~\eta^2=0.01].$ This may be because the test product was a healthy version of frozen pizza, which, as a niche product, the majority of people seemed not to be convinced of buying.

The mediation results are illustrated in Figure 4. We found evidence for the effect of curiosity on attitude via skepticism (IE=0.30, SE=0.15, $CI_{95\%}$ =[0.0303, 0.6038]). Moreover, positive affect mediates curiosity's effect on skepticism (IE=-0.08, SE=0.05, $CI_{95\%}$ =[-0.2035, -0.0012]). A serial mediation model indicates an accumulated ("total") indirect effect of (IE=0.38, SE=0.15, $CI_{95\%}$ =[0.1020, 0.6845]) with a serial mediation path via affect and skepticism on attitude (IE=0.05, SE=0.04, $CI_{95\%}$ =[0.0010, 0.1347]). It must be noted that the serial mediation with the reversed order of mediators was also significant, albeit with a smaller coefficient (IE=0.02, SE=0.02, $CI_{95\%}$ =[0.0001, 0.0667]).

Discussion

Study 4 further indicates that creating and resolving curiosity produces an overall positive affective experience, decreases skepticism and improves consumer attitudes toward the product. A limitation is that we cannot rule out the reverse order of the mediators statistically, given the applied methodology and the serial mediation results. However, prior research and theoretical reasoning



Mediation results of Study 4. Note: PROCESS macro (1 Model 4, 2 Model 6), bootstrapping (5000 samples).

provide strong support for the proposed order. Studies in which affect was experimentally manipulated found the proposed change in skepticism as a consequence (e.g., Forgas, 2019; Forgas & East, 2008). In addition, it is backed by our theoretical reasoning that an immediate affective reaction toward an advertisement is likely to prevail skepticism as a more cognitive response.

GENERAL DISCUSSION

We identified an additional mediating path that explains the positive effects of creating and resolving situational curiosity on the evaluation of an advertised object. Our findings indicate a reduction in skepticism driven by a positive affective reaction. They refute the assumption that curiosity makes consumers more skeptical, be it due to the more intense elaboration (e.g., Kupor & Tormala, 2015; Menon & Soman, 2002) or the attentiongrabbing nature of curiosity-inducing advertising (Campbell, 1995).

To highlight our contribution, we discuss our findings with regard to the process of experiencing and resolving curiosity in light of prior research. While curious about an advertised product or brand (i.e., unresolved integral curiosity), the consumers' affective experience is likely to be a mix of positive and negative feelings. Whether a positive or negative valence prevails depends on a variety of factors, such as the expectation about the outcome (Hill et al., 2016; Lee & Qiu, 2009), the anticipated time until resolution (Noordewier & Van Dijk, 2017), or the duration of the overall exposure (Elsen et al., 2016). However, when curiosity is resolved, a pleasurable and rewarding experience results for the recipients (Jepma et al., 2012; Ruan et al., 2018), and the mere disclosure of the missing information—independent of its valence—is affectively positive (Hsee & Ruan, 2020). Our results contribute to a better understanding of this experience. In all of our studies, information to resolve curiosity

was provided before the individuals formed their evaluations. Due to the resolution, our respondents reported an increase in happiness and "feeling good." We assume that this affective experience selectively primes the positive aspects of the product, causing a less skeptical judgment and a more positive evaluation. This reasoning is consistent with previous results for interpersonal judgments (Forgas, 1999, 2002; Forgas & East, 2008). We have no indication of a reduction in processing intensity, which has also been reported in the literature as a result of positive affect (e.g., Bless et al., 1990; Worth & Mackie, 1987). Such a reduction is likely to be inhibited as it runs counter to the cognitive exploration tendency induced by curiosity.

In addition, with regard to integral curiosity, our findings extend those of Ruan et al. (2018), who described a hedonic experience. We specify the positive feelings more concretely and demonstrate how they influence evaluative processes that involve cognitive processing, such as consumer skepticism. Our results indicate that only the positive endpoint (i.e., the resolution) of a series of affective states with potentially mixed values determines the value of the affective spillover. Future research could track the affective experience during the entire process of creating and resolving curiosity, for example, by using software that analyzes facial expressions. This would allow a researcher to disentangle the effects of experiencing curiosity in comparison to those of resolving curiosity on skepticism in more detail. In addition, such process tracing methods would be able to rule out reverse causality between positive affect and skepticism empirically, which is a limitation of the present research.

Interestingly, the described effect also occurs in the case of incidental curiosity, which is directed toward an unrelated stimulus (e.g., a riddle or, in an advertising context, the media environment). This is intriguing from a theoretical perspective because integral curiosity has been found to negatively affect a positively evaluated focal situation (Isikman et al., 2016). These researchers



argued that the effect was due to a diversion of attention away from the positively experienced situation. However, whereas we describe sequential processes that follow one another, Isikman et al. (2016) focused on situations in which the curiosity-evoking event and the focal experience take place simultaneously, involving some form of interruption or cognitive conflict. Consequently, the timing of creating and resolving curiosity and the embeddedness of this mental process between or within other processes seemed to play a crucial role, which is worth investigating in future research.

Our findings also address a gap in the extant literature by documenting the object-independent positive effect of resolved incidental curiosity. This objectindependence is consistent with general rewardseeking behavior induced by unresolved curiosity (Wang & Huang, 2018; Wiggin et al., 2019) and in line with the literature on affect-as-information inferences (e.g., Goldberg & Gorn, 1987; Pham, 1998). Our results of reduced skepticism also enrich research that considers activating stimuli or processes that reduce consumers' resistance to persuasion. Among them are narrative transportation (Escalas, 2007) and humor (Strick et al., 2012). In addition, our findings could shed light on the processes that explain the consequences of the timing of brand disclosure in advertising (e.g., Edell & Anderson, 1990; Fazio et al., 1992; Williams et al., 2022). When the brand is first unknown and revealed at a late (in comparison to an early) point, what has, for example, been associated with increased sales (Stewart & Koslow, 1989), curiosity, and its resolution might play a role.

Furthermore, we can link our findings to the literature on incongruity resolution (Noseworthy et al., 2014). Following Mandler's (1982) theorizing, it assumes an affectively positive response when people can resolve incongruity. However, the cognitive effort put into resolution seems to play a role. An unanswered question that should be addressed by future research is the role of effort in the curiosity resolution process. In our studies, curiosity was resolved after some time. However, the participants may or may not have put some effort into the resolution, which we did not measure.

For practitioners, our findings provide implications for advertising design and media planning. A procedure of revealing information gradually can be implemented in a variety of contexts, be it online advertising with teaser ads inviting individuals to discover more, or print ads with a QR code that can be scanned. Moreover, media planners can position an ad within more or less curiosity-evoking media content. Finally, our findings provide implications far beyond an advertising context. They may be relevant for political science, showing a way to mitigate skepticism between opposing parties, or for the processing of "fake news," which is often presented in a curiosity-evoking way.

ACKNOWLEDGMENTS

The authors thank the editors, the associate editor, and the three anonymous reviewers for their constructive comments and guidance throughout the review process. Open Access funding enabled and organized by Projekt DEAL.

CONFLICT OF INTEREST STATEMENT

We have no conflicts of interest to disclose.

DATA AVAILABILITY STATEMENT

The data that support the findings of this study are available from the corresponding author upon reasonable request.

ORCID

Verena Hüttl-Maack [™] https://orcid. org/0000-0003-4052-0409

Tara M. Sedghi https://orcid.org/0000-0002-4821-7132

Jana M. Daume https://orcid.
org/0009-0000-5500-9019

REFERENCES

Berlyne, D. E. (1954). A theory of human curiosity. *British Journal of Psychology*, 45(3), 180–191.

Berlyne, D. E. (1960). Conflict, arousal, and curiosity. McGraw-Hill.
Bless, H., Bohner, G., Schwarz, N., & Strack, F. (1990). Mood and persuasion: A cognitive response analysis. Personality and Social Psychology Bulletin, 16(2), 331–345. https://doi.org/10.1177/0146167290162013

Bless, H., & Fiedler, K. (2006). Mood and the regulation of information processing and behavior. In J. P. Forgas (Ed.), *Affect in social thinking and behavior* (pp. 65–84). Psychology Press.

Bower, G. H. (1981). Mood and memory. *American Psychologist*, *36*(2), 129–148. https://doi.org/10.1037/0003-066X.36.2.129

Campbell, M. C. (1995). When attention-getting advertising tactics elicit consumer inferences of manipulative intent: The importance of balancing benefits and investments. *Journal of Consumer Psychology*, 4(3), 225–254. https://doi.org/10.1207/s15327663jcp0403_02

Edell, J. A., & Anderson, H. H. (1990). Affect and attitudes in advertising: The impact of brand name and product category introductory position. In S. J. Agres, J. A. Edell, & T. M. Dubitsky (Eds.), Emotion in advertising: Theoretical and practical explorations (pp. 211–227). Quorum Books.

Elsen, M., Pieters, R., & Wedel, M. (2016). Thin slice impressions: How advertising evaluation depends on exposure duration. *Journal of Marketing Research*, 53(4), 563–579. https://doi.org/10.1509/jmr.13.0398

Escalas, J. E. (2007). Self-referencing and persuasion: Narrative transportation versus analytical elaboration. *Journal of Consumer Research*, 33(4), 421–429. https://doi.org/10.1086/510216

Fazio, R. H., Herr, P. M., & Powell, M. C. (1992). On the development and strength of category–brand associations in memory: The case of mystery ads. *Journal of Consumer Psychology*, 1(1), 1–13. https://doi.org/10.1016/S1057-7408(08)80042-3

Ford, G. T., Smith, D. B., & Swasy, J. L. (1990). Consumer skepticism of advertising claims: Testing hypotheses from economics of information. *Journal of Consumer Research*, 16(4), 433–441. https:// doi.org/10.1086/209228

Forgas, J. P. (1994). Sad and guilty? Affective influences on the explanation of conflict in close relationships. *Journal of Personality*



- and Social Psychology, 66(1), 56-68. https://doi.org/10.1037/002 2-3514.66.1.56
- Forgas, J. P. (1995). Mood and judgment: The affect infusion model (AIM). *Psychological Bulletin*, 117(1), 39–66. https://doi.org/10.1037/0033-2909.117.1.39
- Forgas, J. P. (1999). On feeling good and being rude: Affective influences on language use and request formulations. *Journal of Personality and Social Psychology*, 76(6), 928–939. https://doi.org/10.1037/0022-3514.76.6.928
- Forgas, J. P. (2002). Feeling and doing: Affective influences on interpersonal behavior. *Psychological Inquiry*, *13*(1), 1–28. https://doi.org/10.1207/S15327965PLI1301_01
- Forgas, J. P. (2019). Happy believers and sad skeptics? Affective influences on gullibility. *Current Directions in Psychological Science*, 28(3), 306–313. https://doi.org/10.1177/0963721419 834543
- Forgas, J. P., & East, R. (2008). On being happy and gullible: Mood effects on skepticism and the detection of deception. *Journal of Experimental Social Psychology*, 44(5), 1362–1367. https://doi. org/10.1016/j.jesp.2008.04.010
- Goldberg, M. E., & Gorn, G. J. (1987). Happy and sad TV programs: How they affect reactions to commercials. *Journal of Consumer Research*, 14(3), 387–403. https://doi.org/10.1086/209122
- Gorn, G. J., Goldberg, M. E., & Basu, K. (1993). Mood, awareness, and product evaluation. *Journal of Consumer Psychology*, 2(3), 237–256. https://doi.org/10.1016/S1057-7408(08)80016-2
- Hayes, A. F. (2018). Introduction to mediation, moderation, and conditional process analysis: A regression-based approach (2nd ed.). The Guilford Press.
- Hill, K. M., Fombelle, P. W., & Sirianni, N. J. (2016). Shopping under the influence of curiosity: How retailers use mystery to drive purchase motivation. *Journal of Business Research*, 69(3), 1028–1034. https://doi.org/10.1016/j.jbusres.2015.08.015
- Hsee, C. K., & Ruan, B. (2016). The Pandora effect: The power and peril of curiosity. *Psychological Science*, 27(5), 659–666. https://doi.org/10.1177/0956797616631733
- Hsee, C. K., & Ruan, B. (2020). Curiosity and its implications for consumer behavior. In D. Iacobucci (Ed.), Continuing to broaden the marketing concept (pp. 223–239). Emerald Publishing Limited.
- Hullett, C. R. (2005). The impact of mood on persuasion: A metaanalysis. Communication Research, 32(4), 423–442. https://doi. org/10.1177/0093650205277317
- Isikman, E., MacInnis, D. J., Ülkümen, G., & Cavanaugh, L. A. (2016). The effects of curiosity-evoking events on activity enjoyment. *Journal of Experimental Psychology: Applied*, 22(3), 319–330. https://doi.org/10.1037/xap0000089
- Jepma, M., Verdonschot, R. G., Van Steenbergen, H., Rombouts, S. A., & Nieuwenhuis, S. (2012). Neural mechanisms underlying the induction and relief of perceptual curiosity. *Frontiers* in *Behavioral Neuroscience*, 6(5), 1–9. https://doi.org/10.3389/ fnbeh.2012.00005
- Kang, M. J., Hsu, M., Krajbich, I. M., Loewenstein, G., McClure, S. M., Wang, J. T., & Camerer, C. F. (2009). The wick in the candle of learning: Epistemic curiosity activates reward circuitry and enhances memory. *Psychological Science*, 20(8), 963–973. https://doi.org/10.1111/j.1467-9280.2009.02402.x
- Kashdan, T. B., & Silvia, P. J. (2009). Curiosity and interest: The benefits of thriving on novelty and challenge. In S. J. Lopez & C. R. Snyder (Eds.), *The Oxford handbook of positive psychology* (2nd ed., pp. 367–374). Oxford University Press.
- Kirmani, A., & Zhu, R. (2007). Vigilant against manipulation: The effect of regulatory focus on the use of persuasion knowledge. *Journal of Marketing Research*, 44(4), 688–701. https://doi.org/10.1509/jmkr.44.4.688
- Kupor, D. M., & Tormala, Z. (2015). Persuasion, interrupted: The effect of momentary interruptions on message processing and persuasion. *Journal of Consumer Research*, 42(2), 300–315. https://doi.org/10.1093/jcr/ucv018

- Lee, Y. H., & Qiu, C. (2009). When uncertainty brings pleasure: The role of prospect imageability and mental imagery. *Journal of Consumer Research*, 36(4), 624–633. https://doi.org/10.1086/599766
- Litman, J. A. (2005). Curiosity and the pleasures of learning: Wanting and liking new information. *Cognition and Emotion*, *19*(6), 793–814. https://doi.org/10.1080/02699930541000101
- Litman, J. A., & Jimerson, T. L. (2004). The measurement of curiosity as a feeling of deprivation. *Journal of Personality Assessment*, 82(2), 147–157. https://doi.org/10.1207/s15327752j pa8202_3
- Loewenstein, G. (1994). The psychology of curiosity: A review and reinterpretation. *Psychological Bulletin*, *116*(1), 75–98. https://doi.org/10.1037/0033-2909.116.1.75
- Mandler, G. (1982). The structure of value: Accounting for taste. In M. S. Clark & S. T. Fiske (Eds.), *Affect and cognition* (pp. 3–36). Lawrence Erlbaum Associates.
- Marvin, C. B., & Shohamy, D. (2016). Curiosity and reward: Valence predicts choice and information prediction errors enhance learning. *Journal of Experimental Psychology: General*, 145(3), 266–272. https://doi.org/10.1037/xge0000140
- Menon, S., & Soman, D. (2002). Managing the power of curiosity for effective web advertising strategies. *Journal of Advertising*, *31*(3), 1–14. https://doi.org/10.1080/00913367.2002.10673672
- Noordewier, M. K., & van Dijk, E. (2017). Curiosity and time: From not knowing to almost knowing. *Cognition and Emotion*, *31*(3), 411–421. https://doi.org/10.1080/02699931.2015.1122577
- Noseworthy, T. J., Di Muro, F., & Murray, K. B. (2014). The role of arousal in congruity-based product evaluation. *Journal of Consumer Research*, 41(4), 1108–1126. https://doi.org/10.1086/678301
- Pham, M. T. (1998). Representativeness, relevance, and the use of feelings in decision making. *Journal of Consumer Research*, 25(2), 144–159. https://doi.org/10.1086/209532
- Ruan, B., Hsee, C. K., & Lu, Z. Y. (2018). The teasing effect: An underappreciated benefit of creating and resolving an uncertainty. *Journal of Marketing Research*, 55(4), 556–570. https://doi.org/10.1509/jmr.15.0346
- Schwarz, N. (1990). Feelings as information: Informational and motivational functions of affective states. In E. T. Higgins & R. M. Sorrentino (Eds.), Handbook of motivation and cognition: Foundations of social behavior (Vol. 2, pp. 527–561). Guilford Press.
- Schwarz, N., & Clore, G. L. (1983). Mood, misattribution, and judgments of well-being: Informative and directive functions of affective states. *Journal of Personality and Social Psychology*, 45(3), 513–523. https://doi.org/10.1037/0022-3514.45.3.513
- Shampanier, K., Mazar, N., & Ariely, D. (2007). Zero as a special price: The true value of free products. *Marketing Science*, 26(6), 742–757. https://doi.org/10.1287/mksc.1060.0254
- Stewart, D. W., & Koslow, S. (1989). Executional factors and advertising effectiveness: A replication. *Journal of Advertising*, 18(3), 21–32. https://doi.org/10.1080/00913367.1989.10673158
- Strick, M., Holland, R. W., van Baaren, R. B., & van Knippenberg, A. (2012). Those who laugh are defenseless: How humor breaks resistance to influence. *Journal of Experimental Psychology: Applied*, 18(2), 213–223. https://doi.org/10.1037/a0028534
- Sun, Y., Hou, Y., & Wyer, R. S., Jr. (2015). Decoding the opening process. *Journal of Consumer Psychology*, 25(4), 642–649. https://doi.org/10.1016/j.jcps.2015.01.007
- Teixeira, T. S. (2014). The rising cost of consumer attention: Why you should care, and what you can do about it (Harvard Business School working paper No. 14-055). Harvard Business School. https://www.hbs.edu/ris/Publication%20Files/14-055_2ef21e7e-7529-4864-b0f0-c64e4169e17f.pdf
- Van Dijk, E., & Zeelenberg, M. (2007). When curiosity killed regret: Avoiding or seeking the unknown in decision-making under uncertainty. *Journal of Experimental Social Psychology*, 43(4), 656– 662. https://doi.org/10.1016/j.jesp.2006.06.004



- van Reijmersdal, E. A., Lammers, N., Rozendaal, E., & Buijzen, M. (2015). Disclosing the persuasive nature of advergames: Moderation effects of mood on brand responses via persuasion knowledge. *International Journal of Advertising*, 34(1), 70–84. https://doi.org/10.1080/02650487.2014.993795
- Wang, C., & Huang, Y. (2018). "I want to know the answer! Give me fish 'n' chips!": The impact of curiosity on indulgent choice. *Journal of Consumer Research*, 44(5), 1052–1067. https://doi.org/10.1093/jcr/ucx086
- Wiggin, K. L., Reimann, M., & Jain, S. P. (2019). Curiosity tempts indulgence. *Journal of Consumer Research*, 45(6), 1194–1212. https://doi.org/10.1093/jcr/ucy055
- Williams, J., Hartnett, N., & Trinh, G. (2022). Finding creative drivers of advertising effectiveness with modern data analysis. *International Journal of Market Research*, 1–25. https://doi.org/10.1177/14707853221134258
- Worth, L. T., & Mackie, D. M. (1987). Cognitive mediation of positive affect in persuasion. *Social Cognition*, 5(1), 76–94. https://doi.org/10.1521/soco.1987.5.1.76

SUPPORTING INFORMATION

Additional supporting information can be found online in the Supporting Information section at the end of this article.

How to cite this article: Hüttl-Maack, V., Sedghi, T. M., & Daume, J. M. (2024). Through rose-tinted glasses: How inducing and resolving curiosity makes consumers less skeptical and improves their product evaluations. *Journal of Consumer Psychology*, 34, 92–100. https://doi.org/10.1002/jcpy.1369