Journal of the Academy of Marketing Science (2020) 48:203–221
https://doi.org/10.1007/s11747-019-00675-5

ORIGINAL EMPIRICAL RESEARCH

The give and take of cause-related marketing: purchasing cause-related products licenses consumer indulgence

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Received: 15 July 2017 / Accepted: 2 July 2019 / Published online: 17 July 2019

Abstract

Cause-related marketing (CM) is the creation of a mutually beneficial relationship between a company and a nonprofit organization, with the dual objectives of boosting profit for the company and promoting the cause of the nonprofit. The present research demonstrates that mere exposure to CM evokes in consumers a desire to be prosocial and reduces the likelihood of self-indulgent choices. However, the act of purchasing CM products may provide consumers with a "warm glow" feeling from being prosocial. This feeling of a warm glow licenses subsequent self-indulgent behaviors, especially when the product with a cause is hedonic (vs. utilitarian) in nature. We further find that when the warm glow feeling is misattributed to something else (e.g., weather), the licensing effect is reduced. By distinguishing between the pre- and post-purchase effects of cause-related products, this research offers practical insights to managers on how to design and execute CM strategies.

Keywords Cause-related marketing · Self-indulgence · Purchase with a cause · Product type · Warm glow · Misattribution effect

Cause-related marketing (CM), whereby a firm donates money to a cause each time a consumer makes a purchase, can be a win-win scenario for the cause and the firm (Varadarajan and Menon 1988) by increasing sales and promoting goodwill. For instance, the year 2019 marks the 27th anniversary of the Breast Cancer Campaign created by the late Evelyn H. Lauder, founder of the Estée Lauder Companies. Since 1992, the iconic pink ribbon has adorned hundreds of products, with the promise that some portion of the sale will be donated to support breast cancer awareness or research. The Pink Ribbon campaign is currently active in more than 70 countries around the world, and has contributed over $70 million to support the cause. In the United States, October is National Breast Cancer Awareness Month, a time when major breast cancer charities across the United States join together to increase awareness of the disease and to raise funds for breast cancer research (*Business Wire* 2017).

This raises the important question of whether and how shoppers respond differently to pink ribbons and other CM campaign signage and materials versus traditional discount promotions. Existing research on CM has focused on one-time purchase decisions, often in situations in which consumers are more or less likely to purchase a product with a cause. Another important question is how purchasing (or not purchasing) CM products might influence subsequent consumption behaviors. The literature on charitable giving suggests that people feel good when they engage in prosocial behaviors. We suggest that this feeling of a warm glow may result in license for subsequent self-indulgence. According to Rosenwald (*Washington Post*, 2010), "we drink Diet Coke—with Quarter Pounders and fries at McDonald's. We go to the gym—and ride the elevator to the second floor. We install tank-less water heaters—then take longer showers. We drive SUVs to see Al Gore's speeches on global warming." Along similar lines, it seems intuitive that CM purchases should

Martin Mende served as Area Editor for this article.

Chun-Tuan Chang and Xing-Yu (Marcos) Chu contributed equally to this work.

Electronic supplementary material The online version of this article (https://doi.org/10.1007/s11747-019-00675-5) contains supplementary material, which is available to authorized users.

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grant consumers permission to do something good for themselves since they have just done something good for others.

Our study's objective is to examine how simply being exposed to CM (versus making a CM purchase) might influence consumers' subsequent decision to engage in indulgent behavior, and to compare the effects of CM and traditional product discounts in this regard. Researchers have linked CM with a "warm glow," i.e., the positive feeling about oneself resulting from the inference that one is a good, unselfish person (Andreoni 1990; Andrews et al. 2014; Habel et al. 2016; Imas 2014; Müller et al. 2014; Winterich and Barone 2011). Since doing good leads to feeling good (Andreoni 1995; Isen 1970), this warm glow reflects not only the positive emotional benefits that result from prosocial behaviors (Andreoni 1990), but also an internal satisfaction that comes from the act of giving (Harbaugh 1998). CM provides consumers with an opportunity to experience this "warm glow" by making a charity-related purchase (Giebelhausen et al. 2017). Research has shown that the cues consumers encounter in different types of choice contexts can activate associated norms that elicit subsequent behaviors that are consistent with those norms (Khan and Dhar 2006; Krishna 2011; Monin and Miller 2001; Wilcox et al. 2009). CM represents mental constructs associated with being helpful and making contributions for the benefit of others (Koschate-Fischer et al. 2012; Robinson et al. 2012). The activation of such mental constructs could therefore increase a consumer's desire to be more helpful and contribute to others. If so, exposure to CM activities might increase the desire to pursue self-rewarding activities first, and then be less self-indulgent in subsequent choices. On the other hand, actually making a CM purchase, rather than simply being exposed to CM, might license people to be self-indulgent thereafter.

We propose that CM activities have an impact on a consumer's subsequent choices, and that this impact varies depending on whether the consumer is merely exposed to CM or actually makes a CM purchase. This research contributes to the CM literature by investigating the influence of CM activities on subsequent choices made by consumers. By comparing how subsequent consumer choices are affected by CM exposure versus an actual cause-related purchase, this research also offers practical insights to managers working on CM strategies. We also investigate product type (hedonic vs. utilitarian) as a potential moderator that amplifies or dampens the self-indulgence licensing effects of CM on subsequent behaviors. We demonstrate that the level of subsequent self-indulgence induced by CM varies depending on whether or not consumers make a purchase. We also test the warm glow as the mechanism underlying the effects of CM purchases. We differentiate this warm glow from other positive feelings consumers may have by showing that subsequent indulgence is moderated when consumers attribute their positive feeling to having performed a good deed (i.e., warm glow) as opposed to some other factor (e.g., the nice weather).

Conceptual background

Exposure to CM vs. exposure to discount

Ample research has shown that exposure to cues activates associated norms and induces subsequent actions that are consistent with those norms. For example, people who are reminded of helplessness become more helpless (Macrae and Johnston 1998), and people who are reminded of thriftiness purchase fewer prestige products (Chartrand et al. 2008). Seeing an anthropomorphized healthy (indulgent) brand increases the subsequent intention to engage in healthy (indulgent) behaviors (Aggarwal and McGill 2012). Exposure to environmentally friendly "green" products activates social responsibility norms and increase subsequent prosocial behaviors (Mazar and Zhong 2010). Similar to exposure to cues in social domains, brand exposure elicits automatic behavioral effects (Fitzsimons et al. 2008). Fitzsimons et al. (2008) found that exposure to a brand can activate a mental construct: participants primed with exposure to Apple logos behaved more creatively than the control group or those exposed to IBM logos.

We posit that exposure to CM is likely to increase a consumer's desire to be more prosocial. Companies frequently juxtapose CM with rebates and discounts in their promotions (Arora and Henderson 2007), and both CM and discounts can be used to induce sales (Winterich and Barone 2011). However, discounts may adversely affect price sensitivity and brand equity (Blattberg and Neslin 1990), causing subsequent harm to the brand image. These boomerang effects have prompted managers to consider CM as an alternative tactic for sales promotions. An important distinction between CM and a discount is that discounts provide rewards that benefit the purchaser, whereas CM triggers rewards that benefit an entity (a social cause or charity) (Arora and Henderson 2007).

To consumers, a price discount provides *economic* benefits. Consumers perceive it as a self-benefitting promotion, since they save money on the purchase. Exposure to discounts can activate concepts associated with self-benefits, and these concepts may stimulate subsequent self-indulgent behaviors. Different from price discounts, CM provides *social* benefits by giving consumers an opportunity to demonstrate their charitable disposition and act in a pro-social manner via their consumption decisions (Giebelhausen et al. 2016, 2017). Since CM is associated with being prosocial and helping others, exposure to CM is expected to activate concepts associated with contributing to others, which will result in a subsequent decrease in the desire to be self-indulgent.

CM purchase vs. discount purchase

The accomplishment of a virtuous goal may evoke potential negative consequences in the same or a different domain. This

sort of phenomenon has been found in such domains as morality (Greene and Low 2014; Sachdeva et al. 2009), health (Finkelstein and Fishbach 2010; Wilcox et al. 2009)), prosocial behavior (Kouchaki and Jami 2018; Meijers et al. 2015), social judgement (Effron et al. 2009; Kouchaki 2011; Monin and Miller 2001), hedonic consumption (Septianto 2017), and luxury consumption (Khan and Dhar 2006) (please refer to Table 1 for the related literature and findings). For example, when people become aware of having engaged in a form of prosocial behavior, this awareness bolsters their prosocial self-concept or "moral credentials," licensing them to construe a potentially undesirable behavior as being appropriate (Khan and Dhar 2006; Mazar and Zhong 2010; Miller and Effron 2010).

We propose that purchasing CM products is likely to evoke a warm glow—the good feeling about oneself resulting from seeing oneself in a positive light because of one's prosocial actions. Andreoni (1990) suggested that people are motivated to do good deeds (at least in part) because of the emotional benefits they receive. This "impure altruism" that underlies prosocial behavior was later conceptualized as the warm glow—the personal positive feelings derived from "doing good," regardless of the actual impact of one's generosity (Giebelhausen et al. 2017). To the extent that purchasing a CM product can be considered a prosocial act that evokes a "warm glow," this purchase could license subsequent self-indulgent behaviors (e.g., "I deserve to give myself a treat now because I have just done something good for others"). Consumers might then feel free to pursue self-rewarding behaviors. As a result, the boost of the warm glow is likely to license consumers to act more self-indulgently in subsequent choices. On the other hand, no such warm glow will be induced in consumers who purchase products on discount.

Based on the above discussions on exposure and purchase circumstances, we expect that CM will affect subsequent self-indulgence differently (compared with a discount). Thus, we propose an interaction between purchase opportunity (*exposure but no purchase* vs. *actual purchase*) and promotion type (*CM* vs. *discount*) as follows.

H1: When being exposed to a promotional activity, people exposed to CM will show less subsequent self-indulgence than will those exposed to the same product(s) on discount. After making a purchase, people who purchase with CM will show more subsequent self-indulgence than will those who purchase with a discount.

Product type as a moderator of the warm glow effect

Product type (utilitarian vs. hedonic) has been identified as an influential factor in CM (Chang 2008, 2012; Strahilevitz 1999; Strahilevitz and Myers 1998). Utilitarian products (e.g., toilet paper, laundry detergent, textbooks) appeal to a consumer's rational side, and are purchased and used primarily to satisfy practical or functional needs. Thus, they are considered more socially justifiable. The purchase of a utilitarian product is viewed as a "virtuous" choice, the "right" choice, the one consumers "should" make, i.e., a choice that others might consider reasonable (Khan et al. 2005; Strahilevitz and Myers 1998). In contrast, hedonic products (e.g., ice cream, chocolate, movies) are purchased for fun, enjoyment, sensory gratification, and the fulfillment of one's own affective desires. The purchase of a hedonic product is affect-driven because such products arouse emotions (Dhar and Wertenbroch 2000; Hirschman and Holbrook 1982). Hedonic products are often purchased as self-rewards, and can be temptations that are hard to resist. These products represent what consumers want to do, and purchases of such products are often impulsive (Hirschman and Holbrook 1982). Strahilevitz and Myers (1998) showed that CM works better with hedonic products than with utilitarian products. They suggested that the feelings generated by hedonic products complement the feelings generated by contributing to a charity, a concept referred to as affect-based complementarity. Their findings suggest that charity incentives are more effective in promoting hedonic products than in promoting utilitarian products.

We propose that the product type associated with a CM purchase moderates the intensity of the warm glow consumers experience after the purchase. The rational motivation behind purchasing a utilitarian product is more justifiable, and results in the constraint of one's impulses in order to act as one should (Chang and Chen 2017; Strahilevitz and Myers 1998). When the product is utilitarian, some of the warm glow that comes from engaging in CM might be attributed to having made a non-indulgent, prudent choice. Furthermore, the deliberate thinking associated with utilitarian consumption disrupts emotional processes (Wilson et al. 2000). Thus, when the product is utilitarian in nature, consumers might feel they already have a good reason to buy it, and hence are not likely to consider the purchase to be a prosocial act. We expect the warm glow they get with the purchase of a utilitarian product associated with a CM campaign to be less than the warm glow they get from purchasing a CM-associated product that is hedonic.

When consumers purchase a hedonic product associated with a CM campaign, they cannot attribute their positive feelings to having made a non-indulgent choice. Instead, the warm glow is a result of having done something good for others by supporting a cause. Research has shown that hedonic consumption is less justifiable, and that CM helps justify a hedonic choice by reducing the feelings of guilt associated with hedonic consumption (Strahilevitz 1999; Strahilevitz and Myers 1998). The implication is that a CM campaign associated with a hedonic (vs. utilitarian) purchase makes salient the fact that the consumer is helping other people, which helps the consumer justify the CM purchase. Thus, if purchasing CM-associated hedonic (vs. utilitarian) products

Table 1 Previous literature and our contributions

Study	Research context	Behavior first being taken	Subsequent behavior	Underlying mechanism	Methodology	Key findings
Effron et al. (2009)	Racial prejudice	Endorsing Barack Obama	Favoring Whites	/	Lab experiment	Endorsing Barack Obama makes individuals subsequently more likely to favor Whites over Blacks.
Finkelstein and Fishbach (2010)	Food consumption	Imposed healthy eating	Food consumption	/	Lab experiments	Healthy eating increases the strength of the motive to fulfill one's appetite, a stronger hunger feeling and increased food consumption.
Greene and Low (2014)	Moral regulation	Moral priming task	Anonymous transgression behavior	/	Online experiment	People with moral credentials are more likely to behave unethically than are those with moral deficits. However, this licensing effect occurs only for private transgressions and is absent when the behavior is public.
Khan and Dhar (2006)	Luxury consumption	Virtuous act	Luxury option	Self-concept	Lab experiments	The intention to engage in virtuous activities (e.g., volunteering or making a charitable donation) leads individuals to select more indulgent items (e.g., designer jeans) over practical ones (e.g., a vacuum cleaner) in subsequent choice tasks.
Kouchaki and Jami (2018)	Corporate social responsibility message	Prosocial marketing messages	Self-interested and self-indulgent behaviors	Self-concept	Lab and field experiments	Customer-praise messages used in corporate societal marketing messages can increase subsequent self-indulgent behaviors (e.g., designer jeans or premier backpack) or self-interested behaviors (i.e., less money sharing in a dictator game) more than do messages that publicize a company's good deeds or thank consumers for their patronage.
Kouchaki (2011)	Prejudice	Prior non-discriminatory behavior	Subsequent discriminatory behavior	Moral self-concept	Lab experiments	People who first had the opportunity to view an in-group member's non-prejudiced hiring decision are more likely to reject an African American man for a job stereotypically suited for majority members.
Mazar and Zhong (2010)	Green consumption	Green product purchase	Altruistic and ethical violation behavior	/	Lab experiments	Purchasing green products may license less money sharing or more unethical behaviors (i.e., cheating and stealing money).
Meijers et al. (2015)	Donation	Donating to charity	Environmental intentions	/	Field experiment	People who donate to charity subsequently show lower intentions to be environmentally friendly.

Table 1 (continued)

Study	Research context	Behavior first being taken	Subsequent behavior	Underlying mechanism	Methodology	Key findings
Monin and Miller (2001)	Prejudice	Expressing anti-prejudiced attitudes	Prejudiced behavior	/	Lab experiments	Once people perceive themselves as non-sexist or nonracist individuals, they feel free to act in a more stereotypically consistent manner.
Sachdeva et al. (2009)	Morality	Moral priming task	Prosocial behavior	/	Lab experiments	A decrease (increase) in one's moral self-concept leads to increased (decreased) altruistic or prosocial behavior.
Septianto (2017)	Hedonic consumption	Hard work	Hedonic consumption	/	Lab experiments	People who perceive their own hard work are more likely to purchase hedonic products (e.g., chocolate bar) even when they experience a less desirable outcome. This self-licensing effect disappears for people who have an outcome-focused (vs. process-focused) orientation.
Wilcox et al. (2009)	Food consumption	Food choice set	Indulgent food option	Perceived similarity across choice set items	Lab experiment	The mere presence of a healthy food option vicariously fulfills health-related eating goals, drives attention to the least healthy option in the choice set, and provides individuals with the license to indulge in more tempting food options. Such effects are accentuated for those individuals with relatively high self-control.
This study	CM consumption	Purchase with CM (vs. discount or/and no-promotion)	Indulgent behavior	Warm glow	Lab and field experiments	Mere exposure to CM evokes less self-indulgence. Purchasing CM products licenses subsequent indulgent behaviors. While licensing effects are accentuated for CM purchase for hedonic consumption, the licensing effects are reduced when the positive affect is misattributed.

highlights that one is helping others, consumers should experience a more intense warm glow after purchasing hedonic (vs. utilitarian) products with a cause. The unambiguous attribution of the warm glow to having benefited the cause is likely to give consumers the sense that they have earned the license to be self-indulgent in subsequent choices.

H2: A hedonic purchase with CM will lead to more subsequent self-indulgence than will a utilitarian purchase with CM. No such differences will be expected in discount conditions.

Misattribution effect

This study argues that a warm glow offers positive emotional benefits, and is thus different from self-inferences. A person uses self-inferences to form an image of the self based on specific knowledge about behaviors and outcomes (Baldwin 1997). Socially desirable behaviors bolster an individual's prosocial self-concept, allowing the person to construe a potentially undesirable behavior as appropriate (Miller and Effron 2010). This is a justification process that requires cognition. However, other recent research has found that prosocial behaviors do not universally invoke a prosocial self-concept shift (Blanken et al. 2014; Giebelhausen et al. 2017). Giebelhausen et al. (2017) observed that prosocial consumer behavior results in a warm glow rather than a prosocial concept shift when the prosocial behavior involves relatively minor acts such as checkout charity, donating spare change, or reusing the hotel towel. Different from charity giving directly to nonprofits, CM can be considered as a minor prosocial act since it does not require consumers to exert extra effort in their purchase behaviors. When consumers purchase products with a cause, they feel good about doing something good and experience a warm glow through their consumption. When people are exposed to CM but do not make an actual CM purchase, imagining doing a good deed cannot make them believe they are already a good person, but it can induce positive feelings by simulating the act of being good to others.

Following the "mood-as-information" paradigm, we take a further step to determine when the warm glow effect might disappear in the context of a CM purchase. Schwarz and Clore (1983) observed how misattribution affected people's judgments, noting that subjects who were already experiencing good feelings were affected by the misattributions. In the CM context, we expect people experiencing good feelings to be affected by misattributions. People's feelings might be induced by situational factors (e.g., good weather) that are irrelevant to the CM purchase. If people attribute their positive emotional state to such factors, they should be less likely to attribute the warm glow to their CM purchase. Therefore, we expect that when the misattribution of the positive affect occurs, the likelihood of licensing subsequent self-indulgence will be reduced or even disappear. Formally,

H3: Misattribution will weaken the licensing effect of subsequent self-indulgence caused by CM.

Empirical overview

In sum, we posit that *exposure* to CM products reminds consumers to help others and to be more prosocial, which has the effect of reducing self-indulgence in subsequent choices. By contrast, *purchasing* a CM product increases consumers' perception of themselves as being prosocial, which generates the experience of a warm glow. This warm glow licenses subsequent self-indulgence. Based on this conception, Study 1 is intended to show that participants in a lab study are more likely to choose a self-indulgent option after making online purchases that are associated with a CM promotion (as opposed to a discount promotion). In Study 2, we replicate Study 1 and additionally test for the mediating effects of the warm glow. We include "no promotion" as the control condition to ensure that self-indulgence is licensed by purchasing CM products and not simply suppressed by purchasing discounted products. We also rule out alternative mediators. Study 3 examines the effects of product type, and is performed in a local mall with real shoppers. We further show that merely imagining making a purchase can result in similar effects. We expect CM (vs. the discount) to increase self-indulgence in subsequent choices, especially when the CM is associated with hedonic (vs. utilitarian) purchases. Lastly, Study 4 uses a field setting to investigate how the misattribution of the positive affect reduces the effect of licensing subsequent self-indulgence. The theoretical framework is presented in Fig. 1.

Study 1

In Study 1, we compared two kinds of promotions that marketers commonly use: products on discount versus products associated with a cause (i.e., CM). After viewing the offers or making purchases in the discount store or CM store, as assigned, participants were given a chance to make a real consumption choice. This real choice is managerially relevant because marketers are interested in knowing what products to offer consumers after they have been exposed to or shopped one of these promotions.

We expect that being exposed to a CM (vs. discount) promotion will increase the participants' desire to be virtuous because CM is associated with being unselfish. As a result, in a subsequent choice among different foods, participants will become less self-indulgent and will thus be less likely to choose indulgent food. Research has shown that people see choosing indulgent foods as being non-virtuous (Dhar and Wertenbroch 2000; Nenkov and Scott 2014; Rozin et al. 1996; Wertenbroch 1998). Compared with non-indulgent

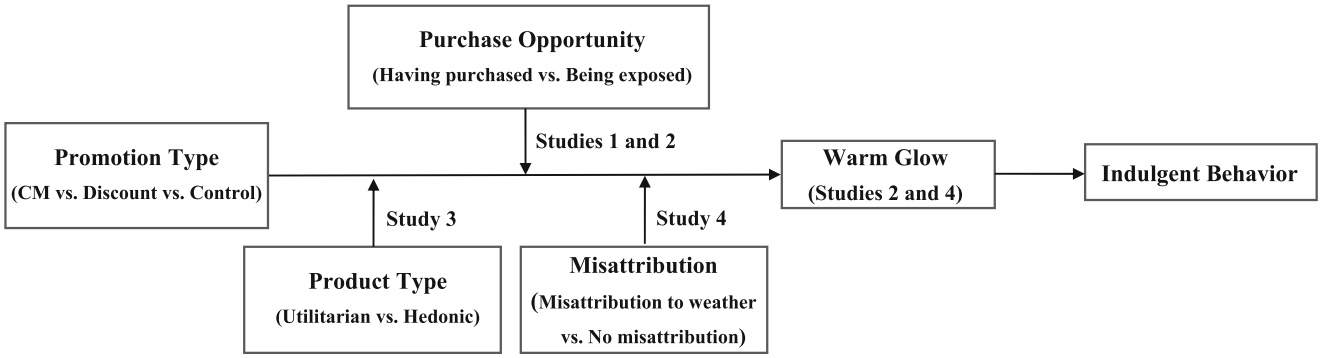


Fig. 1 Theoretical framework

foods, indulgent foods are typically more difficult to justify (e.g., chocolates and cakes) because the pleasure and enjoyment they provide come at the expense of long-term health (Okada 2005; Prelec and Loewenstein 1998). Since indulgent food is closely related to appetite satisfaction, selecting such food is considered a self-indulgent choice.

When consumers actually *purchase* a product associated with a cause (vs. a discount), the purchase of such a product will satisfy the desire to be unselfish and virtuous. Making a CM purchase will give consumers the sense that they have done something virtuous, and they will experience the warm glow associated with being a good person. This warm glow will subsequently license an indulgent food choice.

Method

Design and participants We conducted an experiment with a 2 (promotion type: CM vs. discount) × 2 (purchase opportunity: no vs. yes) between-subjects design. Participants were recruited and invited to a behavioral lab in a university in Taiwan. Participants were directed to an online store offering products that were promoted as either related to a cause or offered at discount prices. They were instructed to either evaluate the products or to make purchases. When they had finished, participants were thanked for completing the study and offered a real choice between two types of cookies as a thank you gift for their participation. The type of cookies actually chosen by participants served as the dependent variable of interest. The sample consisted of 136 adults (67 females) with a mean age of 24.60 (SD = 4.90). Ages ranged from 19 to 48 years.

Procedure and stimuli Participants were recruited via ads posted on a university campus. On arrival at the lab during the non-meal time (2-4 PM), participants were seated in partially enclosed cubicles to prevent them from having contact with each other. They were told they would be making a number of shopping decisions, and were then assigned randomly to one of two fictional shops: one that carried cause-related stationary products, and another that carried discounted stationary products. Both stores carried the same 12 products at the same prices. The products included pen cases, stickers, staplers, and so on. The CM store carried nine CM and three regular products, and the discount store carried nine discounted and three regular products. The promotion magnitudes in the CM and the discount conditions were identical (10%) (see Web Appendix 2).

Participants in the no-purchase condition were asked to consider each product based on its design aesthetics and its description, after which they filled out an evaluation form. Participants in the purchase condition were invited to select products they would like to purchase. They were told they could fill their shopping cart (a maximum of one unit per product) with up to $50 worth of items. They were asked to calculate the total monetary cost of their selections. Participants who were in the CM store were also asked to calculate the amount of money going to the cause, whereas those in the discount store were asked to estimate the amount of money they would save at these promotional prices. This task was designed to reinforce the store manipulation in the purchase condition. To increase involvement with the task, participants were informed that one out of every 20 participants would be randomly chosen to actually receive the products in his/her shopping cart.

After completing the task, participants were instructed that, as thanks for their participation, they could choose a box of cookies as a gift. They were presented with two alternatives: indulgent cookies (yummy cookie) or non-indulgent cookies (healthy cookie). The indulgent-cookie ad described three features: refined grains, sweet cream, and double cheese. The non-indulgent-cookie ad characterized the product as having mixed grains, skim milk, and low levels of sugar and fat (see Web Appendix 3). We conducted a pretest with 40 part-time graduate students (22 females) (M_{age} = 23.15, SD = 4.33) to assess the perceptual differences between these two cookies via a 2-item 7-point scale (i.e., non-indulgent/ indulgent, and healthy/unhealthy) (r = .84, p < .001). The results showed that the yummy cookie was perceived as more indulgent (M = 5.15, SD = 1.41) than was the healthy cookie (M = 2.93, SD = 1.00) ($F(1, 38) = 33.19$, p < .001). We then prepared two types of supermarket cookies with similar packaging

and prices. To avoid the confounding effects of product features and brand-name recognition, the cookies were placed in separate opaque boxes. Without identifying either cookie as relatively healthy or unhealthy, we asked participants to read the respective ads for each of the two cookies before deciding which type of cookies they wanted. The presentation of the cookie ads was counterbalanced. To enhance internal validity, only the pictures of the ingredients and the color of the cookies differed between the ads. The ads were comparable in visual elements, illustration, length of ad copy, and placement of the elements (see Web Appendix 3). At the end of the experiment, each participant was thoroughly debriefed and probed for suspicion. No participants expressed any suspicion that the manipulations and the dependent measure were related. The experiment lasted about 15 min.

Results

Actual indulgent food choice We aimed to test the prediction that people would show different preferences for indulgent food after actually making a CM purchase as opposed to simply being exposed to CM. We conducted a binary logistic regression with food choice as the dependent variable (0 = non-indulgent cookie, 1 = indulgent cookie). We found a significant interaction effect between promotion type and purchase opportunity condition ($\beta = 3.29$, Wald = 17.95, $p < .001$; see Web Appendix 1). In the no-purchase condition, participants were more likely to choose an indulgent cookie after having been merely exposed to the discount store (63.89%) versus the CM store (36.11%) ($\chi^2(1) = 5.56$, $p < .05$). In the purchase condition, however, participants were more likely to choose an indulgent cookie after selecting products for purchase in the CM store (84.21%) than after doing the same in the discount store (38.46%) ($\chi^2(1) = 14.32$, $p < .001$; see Fig. 2). These results suggest that mere exposure to CM (vs. a discount) makes people less self-indulgent. However, when participants actually purchased products with cause, they became more self-indulgent (in comparison to those who purchased products at a discount). Taken together, H1 was thus supported.

Discussion

The results showed that participants made a less self-indulgent choice after being exposed to a CM store than did those exposed to a discount store. This aligns with the possibility that for these participants, exposure to CM invoked the goal of being more virtuous, and their subsequent actions were thus more virtuous. By contrast, participants made more self-indulgent choices after buying products at a CM (vs. discount) store, suggesting that making actual purchases at a CM store might have satisfied the goal of being virtuous and resulted in participants experiencing the warm glow induced by having done something good. This positive feeling of having done something good could license subsequent self-indulgence.

Study 2

This study had three goals. The first goal was to replicate the results of Study 1. The second goal was to add a control condition. We included a no-promotion setting (neither discount nor CM) as a control condition. Third, in this study we aimed to explore the underlying mechanism for the licensing effects.

Method

Design and participants Participants were randomly assigned to one of six conditions in a 3 (promotion type: CM vs. discount vs. no promotion) × 2 (purchase opportunity: no vs. yes) between-subjects design. A choice between indulgent and

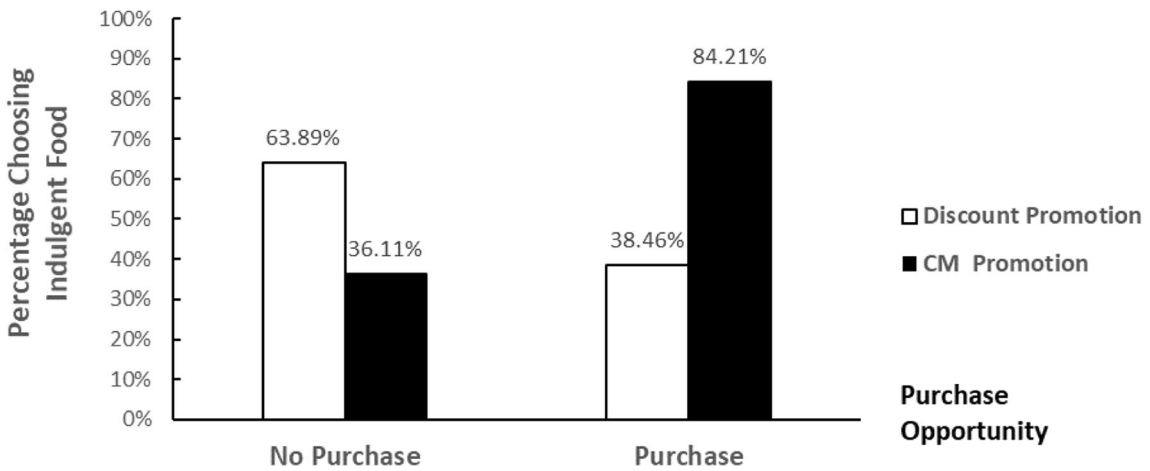


Fig. 2 Actual indulgent food choice as a function of promotion type and purchase opportunity in Study 1

non-indulgent cookies served as the dependent measure. The sample consisted of 638 adults (342 females) from an online pool-*mySurvey* in Taiwan. Ages ranged from 18 to 44 years (M = 22.97, SD = 4.24). We provide NT$100 (US$3.50) convenience store voucher as incentives for participation: one out of every 20 participants received a free voucher.

Procedure and stimuli Upon clicking on a survey link, participants were given instructions that said the study was examining their responses to a stationery shop issuing a new catalog (see Web Appendix 2). They were asked to assume they were making decisions for themselves. Then they completed the same first task used in Study 1. Afterward, participants were told to choose if they could have one of two types of cookies, identical to those in Study 1 (see Web Appendix 3), as a thank you gift for their participation. Without identifying either cookie as representing an indulgent or non-indulgent choice, we asked participants to read ads for each of the two cookies before deciding which type they wanted. The presentation of the cookie ads was counterbalanced.

Since a warm glow could also result from consumers feeling good about themselves as smart shoppers after buying products on discount, we measured that self-impression first via a 7-point scale: "At this time, I feel good about being a smart shopper" (Kim and Labroo 2011). Then, to assess the degree of warm glow (i.e., the positive feeling resulting from being a good, unselfish person who supported a cause), we developed a 4-item, 7-point scale by incorporating previous studies (Andreoni 1990; Arora and Henderson 2007; Monin 2003) as follows: "At this moment, I feel good about being a warm-hearted person," "At this moment, I feel good about being a good person," "At this moment, I feel good about being a caring person," and "At this moment, I feel good about being a helpful person" ($\alpha = .94$).

We further ruled out mediators associated with affect or emotion (Andrade 2005; Labroo and Rucker 2010; Noseworthy et al. 2014) which might lead to prosocial behavior. To rule out general mood as an alternative mechanism causing indulgence, we measured mood using a 4-item, 7-point scale (i.e., sad/happy, bad mood/good mood, irritable/pleased, and depressed/cheerful) (Lee and Sternthal 1999) ($\alpha = .93$). Although both discount and CM can induce a positive mood since consumers feel good about the purchase, the reasons behind these good feelings might be different. Participants' mood states were thus expected to be similar after purchasing at a discount or making a CM purchase. To ensure that the arousal resulting from making purchases on discount did not cause a distraction and reduce indulgence, we measured arousal using a 3-item, 7-point scale (i.e., exciting/calming, frenzied/sluggish, and stimulating/relaxing) (Mehrabian and Russell 1974) ($\alpha = .87$). To ensure that the reduction of guilt from buying products associated with a cause did not account for our effects (i.e., a utilitarian product purchase, in this study), we measured guilt using a 4-item, 7-point scale (i.e., guilty, ashamed, bad, and irresponsible) (Cotte et al. 2005) ($\alpha = .85$). Ego depletion has been used to explain an individual's lack of sufficient self-control to guard against indulgence (Haynes et al. 2016). However, since self-control is not necessarily associated with a CM purchase, ego depletion is not a likely explanation for indulgent behavior subsequent to a CM purchase. To measure the ego depletion of the participants when making their choice, we used a 4-item, 7-point scale (i.e., "How much effort did it take to make the food choice?" "How tired did you feel when making this choice?" "How much self-control did you exert to choose the food?" and "How difficult did you find it to make the choice?") (Vohs et al. 2008) ($\alpha = .91$). Participants were then asked to indicate their current hunger level on a 7-point scale ranging from 1 ("not at all hungry") to 7 ("very hungry"), and to indicate whether they were on a diet (= 1) or not (= 0). Lastly, they responded to demographic questions. The experiment lasted about 15 min.

Results

Indulgent food choice We performed a binary logistic regression with *discount* (yes = 1, no = 0), *cause* (yes = 1, no = 0),

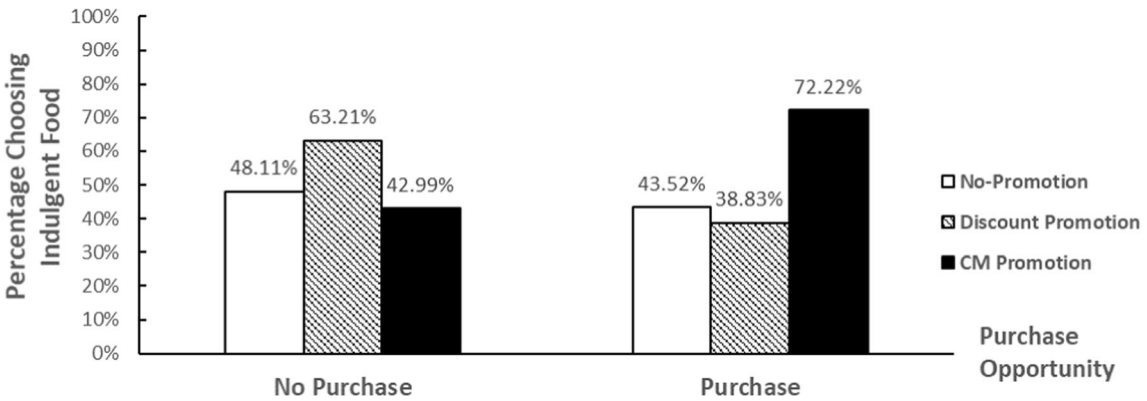
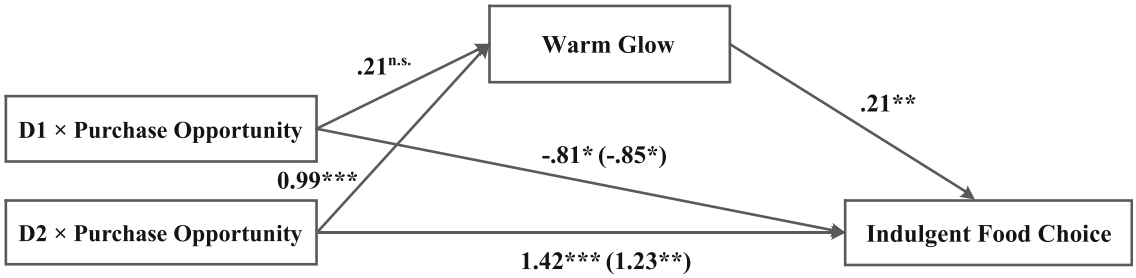


Fig. 3 Intended indulgent food choice as a function of promotion type and purchase opportunity in Study 2



NOTES: *p <.05, **p <.01, ***p <.001, n.s.= not significant. D1 represents discount vs. no-promotion. D2 represents CM vs. no-promotion.

Fig. 4 Mediation analysis showing the effect of purchasing a CM product on indulgent food choice via warm glow in Study 2

purchase opportunity (yes = 1, no = 0), *discount* × *purchase opportunity*, and *cause* × *purchase opportunity* as independent variables, and with food choice as the dependent variable (0 = non-indulgent, 1 = indulgent) (see Web Appendix 1). Initial analysis showed that participants' *hunger level* and *being on a diet or not* did not affect the food choice or interact with the proposed independent variables. The results of the binary logistic regression showed the main effect of discount (β = .62, Wald = 2.20, p < .05; all other *ps* > .10). More importantly, the interaction effects between discount and purchase opportunity (β = −.81, Wald = −2.05, p < .05), and the interaction between cause and purchase opportunity (β = 1.42, Wald = 3.56, p < .001) were significant.

A series of Chi-square tests were further conducted. Participants were more likely to choose indulgent cookies after exposure to the discount store (63.21%) than after exposure to the CM store (42.99%; $\chi^2(1) = 8.74$, p < .01) or in the control condition (48.11%; $\chi^2(1) = 4.89$, p < .05). The results indicated that exposure to CM decreased self-indulgence more than did exposure to discount. However, participants were more likely to choose indulgent cookies after making purchases in the CM store (72.22%) than in the discount store (38.83%; $\chi^2(1) = 23.84$, p < .001) or in the control condition (43.52%; $\chi^2(1) = 18.25$, p < .001) (see Fig. 3). The results were consistent that a purchase with CM increased self-indulgence (vs. a purchase with a discount). The results above supported H1.

Warm glow as the underlying mechanism In the CM condition, participants who purchased products reported a stronger warm glow than did those who did not make such a purchase ($M_{purchase}$ = 5.54, SD = .97 vs. $M_{no\ purchase}$ = 4.55, SD = 1.40; F(1,632) = 39.25, p < .001). We observed no such difference in either the discount condition ($M_{purchase}$ = 5.18, SD = 1.00 vs. $M_{no\ purchase}$ = 4.96, SD = 1.13; F(1, 632) = 1.93, p > .10) or the no-promotion condition ($M_{purchase}$ = 5.05, SD = 1.18 vs. $M_{no\ purchase}$ = 5.05, SD = 1.20; F(1, 632) = .00, p > .10). To test our expectation that the warm glow would mediate the effects of each condition on indulgent food choice, we used Mplus 7.4 software to calculate the direct and indirect effects using a multicategorical predictor. One advantage of Mplus over a macro such as PROCESS (Hayes 2013) is its ability to compare the indirect effects of a mediator at various levels of a multicategorical moderator (Salerno et al. 2014). We created two dummy codes to examine the relative effects of being in a designated group (for CM or discount, we coded 1) in comparison to a reference group (for no-promotion, we coded 0). Bootstrap analysis with 5,000 resamples showed that the warm glow exerted significant indirect effects in the CM condition relative to the no-promotion condition (indirect effect = 0.21; 95% bootstrapped confidence interval, CI: [.06, .41]). These results suggest the mediation effect of warm glow. However, the indirect effect of warm glow was not significant for the discount condition relative to the no-promotion condition (indirect effect = 0.04; 95% bootstrapped confidence interval, CI: [−.04, .17]). Our results are presented in Fig. 4.

Ruling out alternative mechanisms We found no significant interaction effect of promotion type × purchase opportunity on mood, guilt, arousal, ego depletion, or feeling good about being a smart shopper (all p's > .10). Following the same procedure used in the mediation analysis in the previous section, our bootstrap analysis with 5,000 resamples showed that none of the following had any significant indirect effect: smart shopper feeling (indirect effect = −.02; 95% CI: [−.13, .01]), mood (indirect effect = .007; 95% CI: [−.02, .09]), guilt (indirect effect = −.01; 95% CI: [−.10, .02]), arousal (indirect effect = −.003; 95% CI: [−.08, .04]), or ego depletion (indirect effect = .000; 95% CI: [−.04, .04]).[1] Based on these results, we concluded that mood, guilt, arousal, and ego depletion did not underlie the licensing effects we found.

Discussion

This study showed that (a) purchasing a product with a cause (compared to merely being exposed to CM) licensed subsequent self-indulgence among consumers; (b) this licensing effect of self-indulgence was mediated by the warm glow

[1] Results for the alternative mediator analyses are available from the authors upon request.

created by purchasing products associated with a cause (vs. merely being exposed to such products); (c) purchasing a product with a cause (vs. purchasing a discounted product or a non-promoted product) licensed subsequent self-indulgence among consumers; and (d) merely being exposed to a cause-related product (vs. a discounted product or a non-promoted product) did not license subsequent self-indulgence among consumers. Thus, the extent to which self-indulgent choices were made by these consumers depended on whether they had previously made an actual purchase and whether the product purchased had been promoted as benefitting a cause.

Compared with people who were exposed to discount products, those exposed to products with a cause were less likely to choose indulgent food, so long as they had not made a purchase. The opposite results were observed in the purchase conditions. Compared with participants who purchased discount products, those who purchased products with a cause were more likely to choose indulgent food over non-indulgent food. These results suggest that mere exposure to CM tends to reduce subsequent self-indulgent behavior, whereas actually purchasing a product with a cause tends to increase such behavior.

Study 3

Our goal in Study 3 was to further investigate how feeling unselfish or having the sense that one is a good person as a result of engaging in CM affects the subsequent licensing of a self-indulgent choice. In Studies 1 and 2, we found that purchasing utilitarian products (stationery) with a cause in a CM store increased the likelihood that the participant would make a subsequent indulgent choice. What if the CM purchases were of hedonic products? When the CM product purchased is hedonic, we expect a magnification of this licensing effect caused by the warm glow of feeling like a good person. We tested for this possibility in Study 3. Furthermore, we ran Study 3 in a mall with real shoppers to extend the managerial relevance of this finding by observing actual choices of consumers.

Method

Design and participants Our experiment had a 2 (promotion type: CM vs. discount) × 2 (product type: utilitarian vs. hedonic) between-subjects design. The sample consisted of 169 adults (87 females). Ages ranged from 17 to 66 years (M = 30.14, SD = 10.18).

Procedure and stimuli Participants were recruited over a one-week period at a shopping mall in a metropolitan city in Taiwan during non-meal times. The study was conducted only at non-meal times because our dependent variable involved a real food choice, and hunger during mealtimes could have impacted the result. The participants consented to take part in a "marketing research study." The questionnaire was self-administered to eliminate any interview evaluation apprehension. Participants followed the instructions in a booklet, answered the questions in order, and were instructed to take as much time as required. The study took most participants 15 min or less to complete.

Participants were first shown an ad for a shampoo. Half the participants saw a CM ad that described a campaign in which $1 of the sale price would be donated to charity. The remaining participants saw a discount that offered a $1 price reduction. The shampoo was given the fictitious brand name "Roice," and was additionally framed as either hedonic or utilitarian. Participants in the hedonic product condition read descriptions such as "Roice contains multivitamins that give you attractive hair" and "the natural fragrance of the shampoo leaves your hair smelling great." Participants in the utilitarian product condition read that "Roice contains multivitamins that help you maintain clean and healthy hair" and "the natural fragrances used in the shampoo leave your hair strong" (see Web Appendix 4). Participants were asked to imagine they found the shampoo appealing and had decided to buy it. These protocols are in alignment with Mazar and Zhong (2010) who asked participants to imagine their purchase behaviors. After this instruction, participants identified the promotion activity revealed in the ad for the product they had decided to buy (either CM promotion or price discount). This identification task served as the manipulation check for promotion type. Participants were then given brief definitions of hedonic and utilitarian products derived from previous literature (Chang 2008, 2012; Strahilevitz 1999; Strahilevitz and Myers 1998), and were asked to identify the utilitarian/hedonic value of the product they had just seen, based on a 7-point semantic differential scale ranging from *utilitarian* to *hedonic* (1 = utilitarian, 7 = hedonic) (Chang 2008, 2012; Khan and Dhar 2006; Strahilevitz and Myers 1998).

Participates were thanked and told that the researchers had provided complimentary chocolates. Each chocolate was packaged independently (each weighing 5 g, size 35 × 35 × 5 mm). Participants were allowed to take as many as they wanted. The number of chocolates taken served as the dependent measure. Participants were also asked to indicate whether they were on a diet (= 1) or not (= 0). Since being on a diet might influence chocolate-candy consumption, this factor served as a covariate in further analyses. Demographics were assessed last.

Results

Manipulation check on promotion type The promotion type employed in the ad was correctly identified by 96.51% of the participants in the discount condition ($\chi^2(1) = 74.42, p < .001$)

and 96.39% of the participants in the CM condition ($\chi^2(1) = 71.43$, $p < .001$).

Manipulation check on product type We performed a 2 (promotion type: CM vs. discount) × 2 (product type: utilitarian vs. hedonic) Analysis of Variance (ANOVA) on perceived product value. The results yielded only the main effect of product type. Participants in the hedonic-framing condition reported the shampoo as being more hedonic (M = 5.29, SD = 1.60) than did those in the utilitarian-framing condition (M = 3.44, SD = 2.03, F(1, 165) = 42.04, $p < .001$). The results indicated that the manipulation of product type was successful.

Indulgent consumption (amounts of chocolate taken) Initial analysis showed that whether participants were on a diet or not had no effect on their chocolate consumption, and the dieting/not dieting condition did not interact with the proposed independent variables. We used ANOVA to test H2. We found the main effects of promotion type (F(1, 165) = 37.63, $p < .001$) and product type (F(1, 165) = 5.18, $p < .05$). These effects were qualified by a significant interaction between the two constructs (F(1, 165) = 6.80, $p < .01$) (see Web Appendix 1). When purchasing shampoo framed as utilitarian, participants in the CM condition (M = 4.30, SD = 3.64) took more chocolates than did their counterparts in the discount condition (M = 2.55, SD = 2.69, F(1, 165) = 6.50, $p < .05$). When purchasing shampoo framed as hedonic, such differences were larger ($M_{CM} = 6.72$, SD = 3.76 vs. $M_{discount} = 2.38$, SD = 2.69; F(1, 165) = 36.66, $p < .001$; see Fig. 5). In contrast, participants who purchased discounted products took similar quantities of chocolate regardless of product type ($M_{utilitarian} = 2.55$, SD = 2.69; $M_{hedonic} = 2.38$, SD = 2.69) (F(1, 165) = .06, $p > .10$). However, participants took more chocolates after buying hedonic shampoo with CM (M = 6.72, SD = 3.76) than after buying the utilitarian shampoo with CM (M = 4.30, SD = 3.64, F(1, 165) = 11.69, $p < .001$). H2 was thus supported.

Discussion

The results of this experiment thus provide support for the moderating role of product type in increasing subsequent indulgence among consumers who purchase a product with a cause. The results show that compared with a purchase on discount, a purchase supporting a cause increases the pursuit of self-indulgent behaviors (i.e., taking more chocolates), especially when the CM is associated with hedonic products. A post-test with a different sample of 60 adults (37 females) (M = 30.68, SD = 8.60) showed that people in the hedonic-framing condition reported higher ratings in the warm glow feeling (M = 5.98, SD = .91) than did those in the utilitarian-framing condition (M = 5.43, SD = 1.11, F(1, 59) = 4.41, $p < .05$) (using the 4-item, 7-point warm-glow scale in Study 2, $\alpha = .93$). With a hedonic product purchase, consumers are unable to attribute that warm glow (of feeling like a good person) to the nature of the product itself, as they would with a utilitarian product purchase. Thus, if they feel good about being a good person, it must be because they engaged in a good cause.

Study 4

In Study 4, we were interested in determining whether a positive feeling from a situational factor (i.e., good weather) could have a similar impact on subsequent self-indulgent behavior as observed with the warm glow from doing something good for others. To be specific, we examined the effect of misattributing the warm glow to a different factor (i.e., not the CM purchase). Good weather can also trigger positive affect. It is possible to misattribute that good feeling to the fact that the weather is good. However, warm glow is a result of feeling good about oneself for having done something good. Good weather cannot trigger warm glow feeling. We thus expect that this sort of misattribution of positive affect

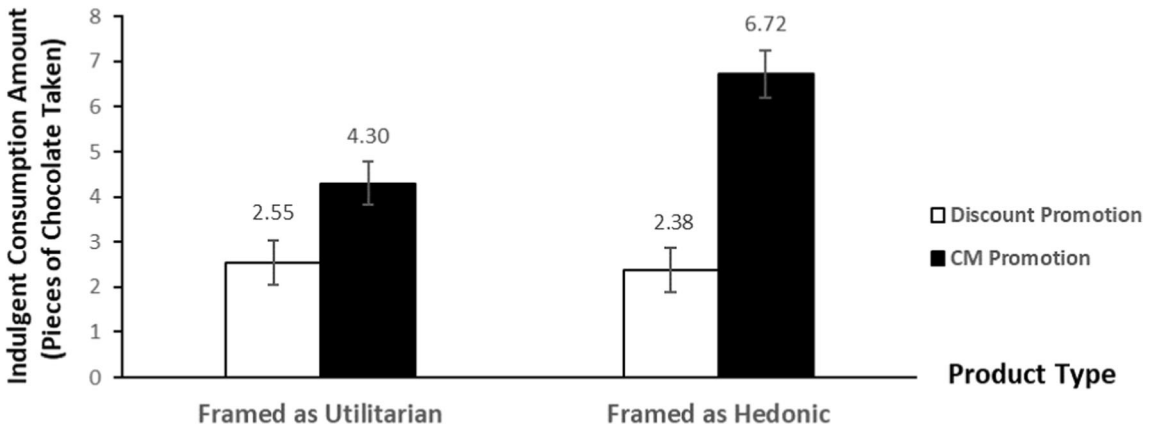


Fig. 5 Indulgent consumption amount as a function of promotion type and product type in Study 3

will not license subsequent indulgence. We also replicate the test of the warm glow as a mediator in a field setting.

Method

Design and participants We conducted a field experiment in collaboration with a local café in Taiwan. Participants were randomly assigned to one of four conditions in a 2 (promotion type: CM vs. no promotion) × 2 (misattribution to weather: no vs. yes) between-subjects design. Our sample consisted of 190 adults (94 females) who purchased one or more items from the café. Ages ranged from 18 to 57 years (M = 23.83, SD = 5.07).

Procedure and stimuli We conducted this experiment from 11:00 a.m.–4:00 p.m. every day for four days. All four days had similar weather conditions with clear skies and temperatures around 80 °F. The café offered a variety of food items including sandwiches, pizza, hamburgers, soup, coffee and drinks. During the daily five-hour slots, researchers changed the posters (CM manipulation) among the four different conditions every hour, with a ten-minute break between changes. The experimental conditions were randomized across the four days the experiment was run. The CM condition used the following descriptions: "Turn a meal into a donation!" "We will donate 10% of the sales price of your order to people in need" and "It's as simple as that!" In the no-promotion condition, the descriptions were "Welcome to our café!" "Thanks for your support of our café" and "We love making things better!" (see Web Appendix 5). To ensure all participants read the poster, the wait staff reminded participants of the poster materials before taking their orders.

The misattribution manipulation was included in the questionnaires. In the misattribution condition, several sentences on good weather and good feeling were presented to participants (Messner and Wänke 2011; Schwarz and Clore 1983) as follows: "It's such a beautiful day today. Everyone looks so happy. Every beautiful day brings good feelings and happiness! People are more generous when the weather is good. Feeling happy and generous today because of the weather?" In the no-misattribution condition, no such the paragraph was provided.

Participants were first given the opportunity to choose one of six vouchers ($6 worth) as a gift for completing the survey: three were indulgent (i.e., a movie ticket, an amusement park ticket, and a karaoke voucher) and the other three were non-indulgent (i.e., a stationary voucher, a gasoline card, and a supermarket voucher). This choice served as the dependent variable. We selected vouchers based on a pretest which we conducted with 60 part-time students (25 female) (M = 19.92, SD = .81) from a university. The results show that the majority of participants identified a movie ticket (93.33%), a karaoke voucher (91.67%), and an amusement park ticket (90.00%) as indulgent choices, while they considered a supermarket voucher (100%), a gasoline card (96.67%), and a stationary voucher (95.00%) as non-indulgent choices (All *ps* < .001).

To make sure the measure of warm glow captured personal positive feelings, we revised the 4-item, 7-point scale used in Study 2 as follows: "Right now, after making my choices, I feel good about being altruistic," "Right now, after making my choices, I feel I am in the right," "Right now, after making my choices, I feel good about myself," "Right now, after making my choices, I feel happy with myself," and "Right now, after making my choices, I feel proud of myself") (Andreoni 1990; Arora and Henderson 2007; Fries 2010; Giebelhausen et al. 2017; Monin 2003; Taute and Mcquitty 2004) ($\alpha = .95$). We also assessed three alternative mediators associated with positive feelings: mood, arousal, and self-image concern. General mood ($\alpha = .95$) and arousal ($\alpha = .91$) were measured with the same scales used in Study 2. Since making a purchase with a cause in a field setting might induce concern about one's self-image, self-image concern was also considered as an alternative mediator and was measured by a 4-item, 7-point scale by White et al. (2014) (i.e., "I want to be viewed positively by others," "I want to look good to others," "I care what others think of me," and "I am self-conscious about the way I look to others") ($\alpha = .91$). Participants then identified that day's specific promotion activity from a list of alternatives (i.e., CM promotion or no promotion). This identification task served as the manipulation check for promotion type. To assess the manipulation check on misattribution, we had participants indicate the extent to which they agreed with a 3-item, 7-point scale ($\alpha = .95$): "The weather is making me feel good today," "The weather is making people feel good today," and "Good weather brings good feelings." Demographics were assessed last.

Results

Manipulation check on promotion type A high percentage of the customers who participated in the research during the four day period correctly identified the specific promotion activity (CM store: 96.94%, $\chi^2(1) = 86.37$ $p < .001$; no promotion store: 97.83%, $\chi 2(1) = 84.17$, $p < .001$). The manipulation of promotion type was successful.

Manipulation check on misattribution We performed a 2 (promotion type: CM vs. no promotion) × 2 (misattribution to weather: no vs. yes) ANOVA on misattribution perception. We found only the main effect of misattribution to weather ($F(1,186) = 27.75$, $p < .001$): participants in the misattribution condition reported higher ratings on the misattribution scale (M = 5.83, SD = .95) than did those in the non-misattribution condition (M = 5.01, SD = 1.19) ($F(1, 188) = 32.00$, $p < .001$). The results indicated that participants' positive feeling were

successfully misattributed to the good weather in the misattribution condition.

Indulgent voucher choice To examine whether consumer indulgent choice behaviors were different for the CM promotion versus no promotion condition when the warm glow feelings were misattributed, we conducted a binary logistic regression with indulgent voucher choice as the dependent variable. The results revealed the main effect of promotion type ($\beta = 1.21$, Wald = 7.64, $p < .01$), but no main effect of misattribution ($\beta = .09$, Wald = .05, $p > .10$) (see Web Appendix 1). More importantly, we found a significant interaction effect between promotion type and misattribution on indulgent voucher choice ($\beta = -1.30$, Wald = 4.71, $p < .05$). To examine the interaction effect, we conducted chi-square tests. The results indicated that after purchasing products promoted with CM in the no misattribution condition, 70.21% of the participants in the CM promotion condition chose indulgent vouchers as a thank you gift, while only 41.30% of the participants in the no promotion condition made the same choice ($\chi^2(1) = 7.88$, $p < .01$). In the misattribution condition, when participants' warm glow feeling was misattributed to weather, their preference for indulgent vouchers over non-indulgent vouchers was similar, regardless of promotion type ($\chi^2(1) = .05$, $p > .10$). The results suggest that when the warm glow feeling is misattributed, the licensing effect is attenuated. H3 was thus supported. Figure 6 presents these results.

Warm glow achievement as mediator A 2 × 2 ANOVA on warm glow revealed a significant interaction between promotion type and misattribution ($F(1, 186) = 4.81$, $p < .05$). In the CM condition, participants who did not misattribute the feeling reported a higher warm glow rating ($M_{\text{no-misattribution}} = 5.68$, SD = .98 vs. $M_{\text{misattribution}} = 5.04$, SD = 1.20; $F(1, 186) = 7.76$, $p < .001$). In the no promotion condition, no such ratings were observed ($M_{\text{no-misattribution}} = 4.79$, SD = 1.09 vs. $M_{\text{misattribution}} = 4.77$, SD = 1.22) ($F(1, 186) = .005$, $p > .10$).

We then conducted mediated moderation analysis (Zhao et al. 2010) to examine whether achieving a warm glow mediated the interaction between promotion type and misattribution. We tested this using a bootstrapping mediation method with 5,000 resamples (Preacher et al. 2007). Specifically, we used PROCESS Model 8 (Hayes 2013), which allows for mediated moderation. The results of this analysis indicated that the warm glow was predicted by the interaction of promotion type and misattribution in the mediator model ($\beta = -.62$, $t = -1.89$, $p = .06$). In the dependent-variable model, the warm glow predicted the voucher choice ($\beta = .40$, $t = 2.69$, $p < .01$), whereas the interaction of promotion type and misattribution was marginally significant ($\beta = -1.11$, $t = -1.80$, $p = .07$). Furthermore, we found a significant indirect effect of promotion type and misattribution interaction through the warm glow (95%, $\beta = -.25$, CI: [−.70, −.03]). Together, these results show that the warm glow mediates the effects of promotion type and misattribution on indulgent voucher choice (see Fig. 7).

Ruling out alternative mechanisms We found no significant interaction effect of promotion type and misattribution on general mood, arousal, or self-image concern (all p's > .10). We followed the same procedure used in the mediation analysis, and the results showed that the indirect effects of mood (indirect effect = −.22; 95% CI: [−.67, .06]), arousal (indirect effect = .09; 95% CI: [−.03, .43]), and self-image concern (indirect effect = −.12; 95% CI: [−.48, .05]) were not significant. Thus, we conclude that neither mood, arousal, nor self-image concern are the mechanisms underlying the licensing effect.

General discussion

Using experimental and field settings, we showed that CM exposure does not have the same effect as an actual CM purchase, and that a CM promotion is different from

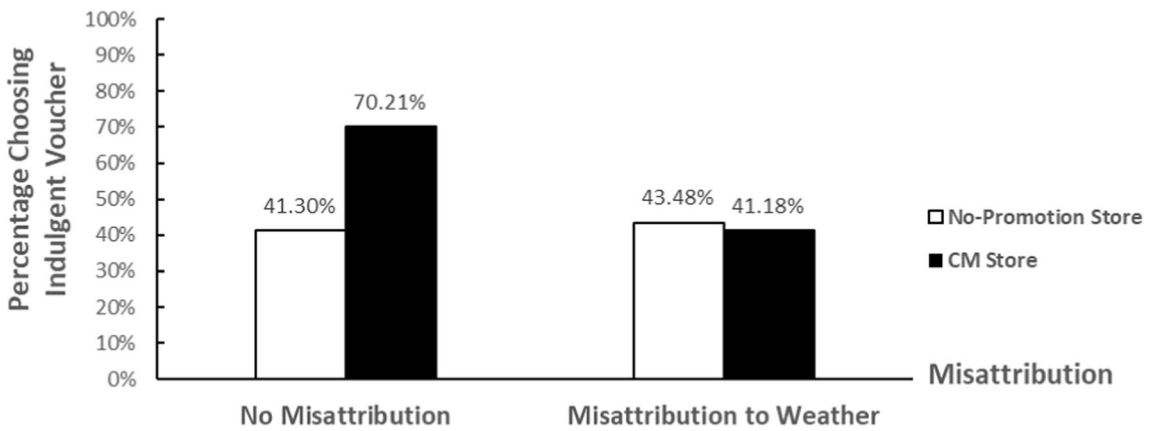
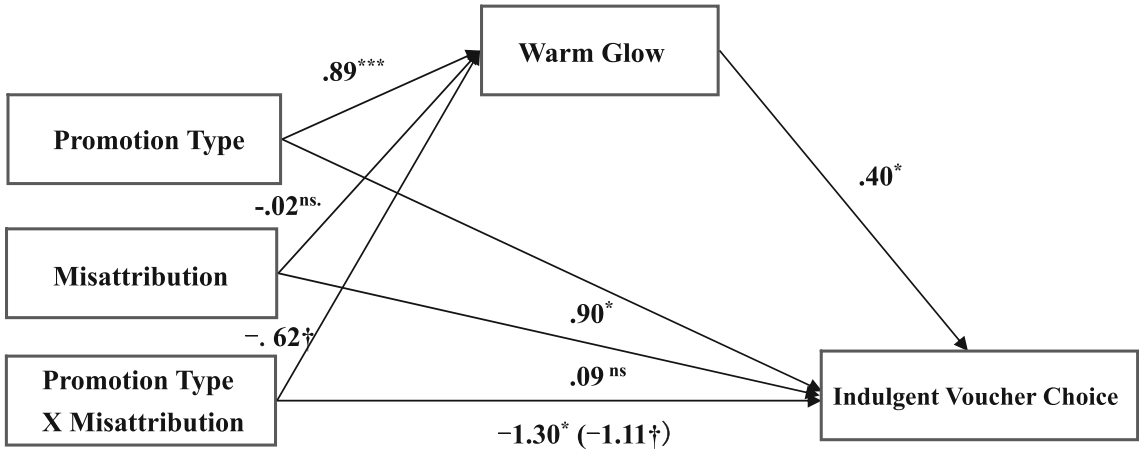


Fig. 6 Indulgent voucher choice as a function of promotion type and misattribution in Study 4



NOTES.- †p <.10,*p <.05, ***p <.001, ns. = not significant.

Fig. 7 Mediated moderation analysis showing the effect of promotion type and misattribution on indulgent voucher choice via warm glow in Study 4

a discount promotion in its influence on subsequent consumer choices. Study 1 shows that compared with exposure to a discount, exposure to CM diminishes the likelihood of subsequent self-indulgence. These results are relevant to priming effect: stimulus priming activates a goal and encourages people to pursue means to achieve that goal (e.g., Chartrand et al. 2008; Macrae and Johnston 1998). On the other hand, making a purchase with a cause (vs. a purchase with a discount) can lead to self-indulgence. The results are similar to the licensing effects found in various domains (e.g., Khan and Dhar 2006; Mazar and Zhong 2010; Miller and Effron 2010). In Study 2, our finding of the mediating role of the warm glow echoes CM researchers' suggestions that consumer information processing in CM is mostly affect-based (Chang and Chen 2017), and that CM is different from other pro-social behaviors which require more effort to accomplish (Giebelhausen et al. 2017). In Study 3, we further show that the licensing effect is stronger when CM is associated with a hedonic (as opposed to utilitarian) purchase. Since hedonic products are associated with affect, this particular affect (warm glow) can be further attributed to the self when people engage in CM with hedonic products. The good feeling about being a good person for supporting a good cause is likely to be uniquely attributed to the CM purchase rather than to buying a prudent, non-indulgent product. Misattribution reduces the likelihood of subsequently licensing self-indulgence. In Study 4, we found when the affect is attributed to something else (i.e., good weather), the self-indulgence licensing effect disappears. The results echo previous researchers' findings that people frequently misattribute their state of mind to an incorrect source, which can have spillover effects on decisions (Hirshliefer and Shumway 2003; Schwarz and Clore 1983). We also found the differences between these two types of good feelings.

Theoretical implications

The insights from this research make important contributions to theory. First, our findings contribute to the literature on sales promotions. CM provides an altruistic incentive to consumers, and is often framed in the language of social responsibility and "oughts" (Robin and Reidenbach 1987). For the company, the reduction in profits is the same, whether the amount is donated to the cause or given to the consumer as a discount. Nonetheless, this study shows that there are differences in how consumers perceive and respond to a charity incentive versus an equivalent price discount. We also show how these two promotion strategies have different effects on subsequent consumer behavior.

Second, we contribute to the CM literature. Previous CM studies have focused on the effectiveness of CM campaigns (i.e., how to maximize consumers' positive responses to a product with a cause), and have not delved further into consumer behavior subsequent to the purchase of the promoted product. People do not make decisions in a vacuum, and future decisions are embedded in previous acts (Mazar and Zhong 2010). We actually show when and why an actual purchase of a product with a cause (vs. mere exposure to CM) increases (reduces) subsequent self-indulgence.

Third, this research adds to the licensing-effects literature by proposing a previously unexplored determinant of licensing effects—purchasing a product with a cause—and demonstrating that the licensing effect can be enhanced by the purchase of a hedonic product with a cause. Previous research (e.g., Kahn & Dhar, 2006) has shown that virtuous altruistic acts (e.g., community service or green behaviors) may be

different from buying a product with a cause, which is not purely altruistic (as in the current research). Our results support the suggestion of Giebelhausen et al. (2017) that CM is a relatively minor pro-social act. This warm glow, i.e., the positive feeling associated with the CM purchase, is found to be the mechanism underlying the licensing of subsequent self-indulgence. Misattributing the warm glow feeing to something else (e.g., the weather) reduces the tendency toward subsequent self-indulgence.

Fourth, this research adds to the literature on self-rewards in marketing contexts (Khan and Dhar 2006), by showing the different effects of CM (vs. price discount) resulting from an increase in the consumer's self-reward focus after purchasing a product with a cause. Indulgent consumption has caught the attention of researchers, and recent studies have suggested that priming effects exist in indulgent consumption contexts (e.g., Nenkov and Scott 2014). CM can either decrease or increase indulgent consumption, depending on whether the consumer was merely exposed to CM or made an actual purchase, respectively.

Managerial implications

This research has important managerial implications for marketers, nonprofits, and policymakers. Given the prevalent use of CM, our findings provide guidance to help marketers compare the effects of CM with those of a traditional promotion strategy (i.e., discount) when promoting indulgent versus non-indulgent (prudent) consumption. For example, marketers may want to promote indulgent consumption (e.g., purchasing branded or high-end products, ordering ice cream or eating chocolate). Providing consumers with an opportunity to purchase a low-priced item with a cause at the start of a shopping trip might increase the likelihood that subsequent consumption choices during the same shopping trip will be more indulgent. To induce customers to make more prudent, non-indulgent consumption choices as they shop, retailers might choose to inform their customers of a forthcoming CM campaign (to prime CM without giving the opportunity to make a purchase) or present an image of the sponsored cause, regardless of whether the store is currently promoting any campaign.

Giving consumers alternative stimuli to which they might misattribute the warm glow from making a CM purchase is another way to reduce the likelihood of subsequent indulgent choices. Exposing consumers to suggestions that "there are other reasons why you feel good right now" can aid in this misattribution. Such suggestions could take the form of posters or video displays showing people being happy for reasons other than purchasing a CM product.

Food marketers, food courts, and restaurants can also benefit from our findings. Although a product can ostensibly be classified as being either indulgent or non-indulgent by nature (e.g., chocolate chip cookies vs. a granola bar) (Laran and Janiszewski 2009), marketers can position the same product as indulgent (tasty but not healthy) or non-indulgent (healthy but not tasty) through message framing. For example, Mars promoted its Balisto product as a "healthy chocolate bar" by referring to it as "chocolate with healthy, natural ingredients." The new positioning served the primary goal of enjoyment but, more importantly, supplemented that goal by touting the product's healthy aspects. Skyrocketing sales made Balisto the market leader in the chocolate bar segment. Our research suggests that sales promotions of foods that are perceived as indulgent can be successful when their promotion is followed by a CM activity. A strategic alliance between food and a different industry could increase the consumer's preference for indulgent food following the purchase of a product with a cause.

For marketers and policymakers who follow this research stream, CM can seem paradoxical. Researchers have warned that the popularity of CM can result in over-commercialization (Ross et al. 1992). Along with other concerned parties, makers of public policy can raise consumers' awareness of the subtle dangers of this side effect of a cause-related purchase. To reduce the subsequent self-indulgence induced by a CM purchase, marketers can use other approaches to increase people's positive feelings (e.g., thinking about good weather). The resulting misattribution can effectively eliminate the dark side of CM. The glories of CM should not be overemphasized, and proper attention must be given to the possible detrimental effects of this marketing strategy.

Directions for future research

We believe our work provides consumer researchers with ample possibilities for future investigations. A natural extension is to learn more about the warm glow effects. In this research, this warm glow is defined as a positive feeling that results from inferring that one is an unselfish, good person. We developed the scales for warm glow and tested them in Studies 2 and 4. Other affective states (i.e., arousal and mood) were distinct from the warm glow and were ruled out as the potential underlying mechanism. Future research may continue to investigate how the warm glow is different from other affective states (e.g., pride and pleasure). Future studies could develop measurement scales for warm glow in order to determine how it should be measured more precisely.

The other extension is to explore more cause-related factors. Cause proximity (local vs. global) (Nan and Heo 2007), cause familiarity (Macaulay 1975), and cause importance (Berger et al. 1999) could be considered as potential moderators. Our research shows that a licensing effect can impact consumers' subsequent purchase decisions. It will be important to consider how long the licensing effect lasts and whether the duration differs depending on the type of cause. We found

that the licensing effect impacts choices that consumers make immediately after purchasing a CM-promoted product, and we expect the effect to decay over time if there is no opportunity to be self-indulgent. However, online and even offline environments offer plenty of opportunities for consumers to indulge themselves immediately, so this effect might be pervasive. It is also possible that consumers who fail to indulge themselves immediately could still self-indulge later if they are reminded of previous unselfish actions. These possibilities await future research.

We considered only low donation magnitudes in the current research. Future studies might compare the impacts of different levels of donation magnitude (Arora and Henderson 2007; Chang 2008; Müller et al. 2014; Strahilevitz 1999). Consumers might experience more of that warm glow as the donation magnitude increases (Müller et al. 2014). We suggest that it would also be interesting to determine whether the effects of donation magnitude are nonlinear (e.g., an inverted U-shaped effect), because such effects have been examined over a wide range and in small increments (Müller et al. 2014).

Another interesting avenue for future research is to see if the purchase of a product with a cause might subsequently induce unethical or immoral behavior. Mazar and Zhong (2010) observed that people are more likely to cheat and steal after purchasing green products than after purchasing normal products. CM can be associated with moral identity (He et al. 2016), and consumers might not regulate their behavior or might give less consideration to the moral implications of their behavior immediately after experiencing an emotional boost from doing a good deed. Since people often attach a higher altruistic value to CM (Nan and Heo 2007; Varadarajan and Menon 1988), might they also exhibit drug and alcohol abuse, high-risk activities, rowdy behavior or animal abuse after purchasing a product with a cause? We leave these important questions for future studies.

Acknowledgements The authors thank the editor, associate editor(s), and three anonymous reviewers for their insightful and constructive input and guidance. Special thanks go to Aparna Labroo and Angela Lee for their helpful comments and suggestions on earlier versions of this manuscript. Research funding from the Ministry of Science and Technology of Taiwan was granted to the first author (MOST103-2628-H-110-001-).

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